Attachment I: 2025 HealthChoice Annual Evaluation (CY 2019-2023)

The Hilltop Institute
UMBC

report

Evaluation of the Maryland Medicaid HealthChoice Program: CY 2019 to CY 2023

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List of Abbreviations

ABD	Aged, Blind, and Disabled
ACA	Affordable Care Act
ACCU	administrative care coordination unit
ACG	Adjusted Clinical Groups
ACIS	Assistance in Community Integration Services
ACS	American Community Survey
AHRQ	U.S. Agency for Healthcare Research and Quality, HHS
AMR	asthma medication ratio
AOD	alcohol and other drug
ART	antiretroviral therapy
ASAM	American Society of Addiction Medicine
ASO	administrative services organization
BHA	Behavioral Health Administration
BMI	body mass index
CD4	A test of the quantity of immune system cells used to diagnose and monitor HIV disease
CDC	Centers for Disease Control and Prevention
CHIP	Children's Health Insurance Program
CI	confidence interval
CLR	Childhood Lead Registry
CMMI	Center for Medicare and Medicaid Innovation
CMS	Centers for Medicare & Medicaid Services
COMAR	Code of Maryland Regulations
COPD	chronic obstructive pulmonary disease
CPS	Coverage of the Total Population
CPT	Current Procedural Terminology
CRISP	Chesapeake Regional Information System for Our Patients
CY	calendar year
DPP	Diabetes Prevention Program
ED	emergency department

EID	Employed Individuals with Disabilities
EPSDT	Early and Periodic Screening, Diagnosis, and Treatment
EQRO	external quality review organization
ET3	Emergency Triage, Treat, and Transport
EVS	Maryland's electronic verification system
F&C	Families and Children
FFCRA	Families First Coronavirus Response Act
FFS	fee-for-service
FOBT	fecal occult blood test
FPL	federal poverty level
FQHC	federally qualified health center
FUA	Follow-Up after Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence
FUM	Follow-Up after Emergency Department Visit for Mental Illness
FY	fiscal year
HbA1c	hemoglobin A1c screening
HCBS	home and community-based services
HEDIS®	Healthcare Effectiveness Data and Information Set®
HFA	Healthy Families America
HHS	U.S. Department of Health and Human Services
HPV	human papillomavirus
HR	hazard ratio
HSCRC	Health Services Cost Review Commission
HSI	Health Services Initiatives
HVS	Home Visiting Services
ICD	International Classification of Diseases
ICS	Increased Community Services
IEP	individualized education plan
IFSP	individualized family service plan
IMA	immunizations for adolescents
IMD	institution for mental disease

IUD/IUS	intrauterine device or system
JHU	Johns Hopkins University
LAA	local access area
LE	lead entity
LEPAC	Lead Exposure and Prevention Advisory Committee
LOS	length of stay
LTSS	long-term services and supports
MAGI	modified adjusted gross income
MARR	Maryland Average Reportable Rate
MAT	medication-assisted treatment
MCH	Maternal and Child Health
MCHP	Maryland Children's Health Program
MCO	managed care organization
MDE	Maryland Department of the Environment
MFR	Managing for Results
MHBE	Maryland Health Benefit Exchange
MHD	mental health disorder
MMIS2	Maryland Medicaid Management Information System
MOE	Medicaid maintenance of eligibility
MPC	Maryland Physicians Care
MRR	medical record review
MY	measurement year
NCI	National Cancer Institute
NCQA	National Committee for Quality Assurance
NPI	National Provider Identifier
NYU	New York University
OPA	Office of Population Affairs
OR	odds ratio
OUD	opioid use disorder
Pap	Papanicolaou test for cervical cancer
PCP	primary care provider

PE	participating entity
PH	permanent housing (PH)
PHE	public health emergency
PHIP	Population Health Incentive Program
PHQ-9	Patient Health Questionnaire-9
PMPM	per member per month
PPC	prenatal and postpartum care measure
PQI	Prevention Quality Indicator
PrEP	pre-exposure prophylaxis
REM	Rare and Expensive Case Management
RRH	rapid re-housing (RRH).
SAMHSA	Substance Abuse and Mental Health Services Administration
SBIRT	Screening, Brief Intervention, and Referral to Treatment
SED	serious emotional disturbance
SIHIS	Statewide Integrated Health Improvement Strategy
SMI	serious mental illness
SPA	state plan amendment
SSI	Supplemental Security Income
SUD	substance use disorder
TANF	Temporary Assistance for Needy Families
Tdap	tetanus, diphtheria, and pertussis
VBP	Value-Based Purchasing

Executive Summary

In 1997, Maryland implemented HealthChoice—a statewide mandatory Medicaid and Children's Health Insurance Program (CHIP) managed care program—under authority of a waiver through §1115 of the Social Security Act. The provisions of the Affordable Care Act (ACA) that went into effect in 2014 marked another milestone by extending quality coverage to many more Marylanders with low income. Over 25 years after its launch, HealthChoice covers close to 90% of the state's Medicaid and Maryland Children's Health Program (MCHP) populations.[1]

Since the inception of HealthChoice, the Maryland Department of Health (the Department) has requested and received seven §1115 waiver renewals. The Hilltop Institute, on behalf of the Department, evaluates the program annually; this evaluation covers the period of calendar year (CY) 2019 through CY 2023.

The goal of the HealthChoice §1115 demonstration is to improve the health status of Marylanders with low income. The following broader goals covered in this evaluation are:

- Improving access to health care for the Medicaid population, including special populations
- Improving the quality of health services delivered
- Providing patient-focused, comprehensive, and coordinated care through the provision of a single medical home
- Emphasizing health promotion and disease prevention
- Expanding coverage to additional low-income Marylanders with resources generated through managed care efficiencies

HealthChoice is a mature managed care program that covered one in four Marylanders during CY 2023. The HealthChoice program moves eligible fee-for service (FFS) enrollees into the managed care system while providing the same comprehensive benefits. Participants choose one of the nine participating Managed Care Organizations (MCOs), along with a primary care provider (PCP) from their MCO's network, to oversee their medical care. This evaluation shows that HealthChoice's managed care oversight has made progress toward achievement of the program's stated goals.

During the evaluation period—from CY 2019 to CY 2023—HealthChoice has demonstrated mixed results in providing targeted preventive screenings and ensuring that participants receive care at

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

the appropriate level. Recent successes include a decrease in the rate of children aged 0 to 6 years with an elevated blood lead level and a decline in asthma-related emergency department (ED) visits. In CY 2023, 61.4% of children received dental services, which is greater than the national mean as reported in the Healthcare Effectiveness Data and Information Set® (HEDIS®).[2] However, colorectal, breast, and cervical cancer screening rates decreased, which corresponds with a decrease in national rates (Oakes et al., 2023). Among individuals with HIV/AIDS, ambulatory care rates and ED use decreased during the evaluation period. Viral load testing, cluster of differentiation 4 (CD4) testing, and antiretroviral therapy (ART) rates also decreased. The percentage of HealthChoice participants aged 18 to 64 years with at least one inpatient hospital admission declined by 2.3 percentage points during the evaluation period.

The COVID-19 public health emergency (PHE), which began in March 2020, had a significant impact on the HealthChoice program from CY 2020 to CY 2023. Enrollment in the Medicaid program increased notably as a result of the PHE, which expired May 11, 2023 (CMS, 2023). Rates of service utilization and screenings decreased for many measures in CY 2020, and while many have seen subsequent increases through CY 2023, few rates have returned to pre-COVID levels. Maryland will continue to monitor the effects of the COVID-19 PHE on the HealthChoice program.

The state implemented programs aimed at improving access, reducing costs, and improving quality—such as the Residential Treatment for Individuals with Substance Use Disorder (SUD) program and the Evidence-Based Home Visiting Services (HVS) pilot program—which began in July 2017. In March 2019, the Department received approval to extend coverage for the Residential Treatment for Individuals with a primary SUD and a secondary mental health disorder (MHD) to American Society of Addiction Medicine (ASAM) level 4.0. in addition, access to the National Diabetes Prevention Program (National DPP) lifestyle change program was expanded to all eligible HealthChoice participants as of September 1, 2019.

The Department received approval from the Centers for Medicare & Medicaid Services (CMS) for the §1115 waiver renewal in 2021 to expand critical programs and add programs. These included the expansion of SUD residential and inpatient treatment services to remove caps on lengths of stay for SUD in an institution for mental disease (IMD), expansion of IMD services for beneficiaries with serious mental illness (SMI), and modification of the Assistance in Community Integration Services (ACIS) pilot program. In addition, the MOM program (formerly the Maternal Opioid Misuse model) became effective July 1, 2021. The Family Planning program and HVS program were not included in the waiver renewal as they were added to the State Plan.

Program improvements are necessary to ensure that the growing number of Maryland Medicaid participants have access to quality care. The Department is committed to working with CMS and other stakeholders to identify and address changes necessary to meet this goal. Some areas targeted for improvement include ED utilization for conditions that could have been treated in the primary care setting, engagement in diabetes prevention, and prenatal and postpartum care;

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

reduced racial and ethnic disparities; and increased rates of follow-up care after ED visits for MHD and SUD.

In 2019, the Department collaborated with the Center for Medicare and Medicaid Innovation (CMMI) to establish domains of health care quality and delivery through Maryland's Statewide Integrated Health Improvement Strategy (SIHIS) under the Total Cost of Care (TCOC) Model (Maryland Department of Health, 2020a). The SIHIS framework focuses on stakeholder collaboration and investing in improving health, addressing disparities, and reducing health care costs. SIHIS targets improvements in three domains: 1) hospital quality, 2) care transformation across the health care system, and 3) total population health.

Priority areas for the third domain include diabetes, opioid use, and maternal and child health (Maryland Department of Health, 2020a). The SIHIS 2021 goals have been successful in reducing the mean body mass index (BMI) for adults, reducing avoidable inpatient admissions and readmissions, reducing the severe maternal morbidity rate, and improving overdose mortality (Maryland Department of Health, 2023b). The state is focused on improving care coordination for participants with chronic conditions, which was the only 2021 goal that was not met. The Department is developing an annual monitoring plan for the evaluation of the Maternal and Child Health (MCH) Population Health Improvement Fund, which is funded by the Maryland Health Services Cost Review Commission (HSCRC) (Maryland Department of Health, 2023b).

On January 1, 2026, Maryland will be transitioning from the TCOC Model to the States Advancing All-Payer Health Equity Approaches and Development (AHEAD) Model.[3] As originally signed, the AHEAD Model:

- Creates a framework for partnership between the state and CMMI
- Ensures CMMI's commitment to Maryland's all-payer hospital rates
- Maintains the State's authority to set policy to manage hospital global budgets, the Maryland Primary Care Program (MDPCP), and health equity policies

There was a substantial change to the quality of the race and ethnicity information beginning with the implementation of the ACA in 2024. Because of a new approach to selecting race and ethnicity on the Medicaid eligibility application, the number of individuals reporting their race or ethnicity decreased, while the proportion represented as "Other" or missing race/ethnicity information continued to increase. In 2023, the Department completed a process of enhancing the Medicaid race and ethnicity data in the Maryland Medicaid Management Information System (MMIS2) using external data sets from the Maryland Health Benefit Exchange (MHBE) and Chesapeake Regional Information System for Our Patients (CRISP), Maryland's health information exchange. The goal of this process was to improve the race and ethnicity data for monitoring health equity and disparities among Medicaid participants. Results showed that the enhanced race and ethnicity data are close to the benchmark of the Medicaid participants in the

[3] https://hscrc.maryland.gov/Pages/ahead-model.aspx

American Community Survey (ACS).[4] The analyses in this year's evaluation of the HealthChoice program use the enhanced race and ethnicity data.

Coverage and Access

A major goal of the HealthChoice program is to expand coverage to residents with low income and to improve access to health care services for the Medicaid population. HealthChoice has largely succeeded in this area. Overall, program enrollment increased 24.3% over the evaluation period: from 1,202,718 participants in CY 2019 to 1,494,801 participants in CY 2023.[5] Continuous enrollment increased by 15.3 percentage points from CY 2019 to CY 2022, followed by a 7.7 percentage point decrease from CY 2022 to CY 2023, in part due to COVID-19 PHE policy responses propelling enrollment in health insurance. Under the Families First Coronavirus Response Act (FFCRA), states had to meet certain Medicaid maintenance of eligibility (MOE) requirements, which included continuous coverage for participants enrolled in Medicaid as of March 2020 (Dolan et al., 2020). These MOE requirements contributed to an increased Medicaid enrollment in CY 2020 through CY 2022. The continuous eligibility requirement ended on March 31, 2023.[6]

While enrollment increased dramatically from CY 2020 to CY 2023, in part due to the PHE, all MCOs experienced a decrease in overall service utilization and screenings beginning in CY 2020. Nonetheless, trends in service utilization through CY 2019 indicate increased health literacy, in alignment with the overall goals of the HealthChoice demonstration program. HealthChoice facilitates access to care by requiring each MCO to have a provider network capacity of one PCP for every 200 participants. The results of a network adequacy analysis counting the number of PCP offices included in provider networks in each jurisdiction in Maryland showed that all jurisdictions achieved at minimum a 200:1 ratio of participants to PCPs in CY 2023.

Care for Special Populations

HealthChoice continues to seek ways to improve access to health services for vulnerable populations and improve the quality of care they receive. These vulnerable populations include children in foster care, Rare and Expensive Case Management (REM) participants, and racial and ethnic minorities. The Department also monitors demographic characteristics and service utilization among the ACA Medicaid expansion population.

Service utilization, including ambulatory care, ED visits, and inpatient admission, for children in foster care[7] decreased over the evaluation period. In CY 2023, they had a 2.5 percentage point lower rate of ambulatory care service utilization, and a 3.5 percentage point higher rate of ED visits compared to other children in HealthChoice. The REM program, which serves individuals

[4] American Community Survey Data: https://www.census.gov/programs-surveys/acs/data.html
[5] These totals reflect participants enrolled as of December 31 of each respective year, thus providing a snapshot of typical program enrollment on a given day.
[6] H.R. 2617, 117th Cong. (2022) (enacted).
[7] Data include individuals in subsidized adoption and guardianship populations.

with multiple and severe health care needs, experienced a decrease of 5.2 percentage points in the proportion of enrollees with dental visits during the evaluation period, with the largest decrease (15.9 percentage points) from CY 2019 to CY 2020. The percentage of REM participants who had an ambulatory care visit remained largely stable, while outpatient ED visits and inpatient admissions declined during the evaluation period.

As for racial and ethnic disparities in access to care, children in the Other races/ethnicities category had the lowest rate of ambulatory care visits in CY 2019 and in CY 2023 while Hispanic children had the highest rate for both years. In CY 2019 and CY 2023, Black participants had the highest ED utilization rates, while Asian participants had the lowest.

Enrollment in the ACA Medicaid expansion population increased by 31.5% during the evaluation period. As of December 2023, 515,121 HealthChoice participants were enrolled under the ACA expansion coverage group. Expansion participants had a lower rate of ambulatory care visits than any other coverage group in the Medicaid population from CY 2019 to CY 2023. The ED visit rates for ACA participants with 12 months of enrollment decreased from 33.5% in CY 2019 to 24.6% in CY 2023. Additional changes occurred in service utilization patterns during the evaluation period, including a decrease in the overall proportion of ACA expansion participants who received services for an SUD or co-occurring MHD and SUD conditions.

Quality of Care

Improving the quality of services delivered to HealthChoice participants is a core aim of the program. This report includes measures that both directly and indirectly indicate the quality of healthcare. Additionally, HealthChoice has two programs focused on measuring and improving quality of care: the Population Health Incentive Program (PHIP)—formerly Value-Based Purchasing (VBP) program—and the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) Annual Review.

PHIP, which began in CY 2022, provides MCOs with incentive payments according to their scores on specific measures of health care quality outcomes. MCOs that meet or exceed a performance threshold receive incentive payments. The Department may adjust PHIP measures to align with CMS's national Medicaid standards and address population health needs. Overall, PHIP supports quality improvement across the HealthChoice population by basing the incentive levels on average plan performance.

The EPSDT Annual Review assesses MCO performance in delivering services to children under the age of 21. EPSDT services are a national requirement for Medicaid, and the EPSDT Annual Review measures whether all HealthChoice MCOs achieve minimum levels of performance in delivering EPSDT services. The most recent review shows that the MCOs meet or exceed standards for all five components.

Medical Home

Another goal of the HealthChoice program is to provide patient-focused, comprehensive, and coordinated care by providing each member with a single "medical home" through a PCP. 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 or letting an ailment exacerbate to the extent that it could warrant an inpatient hospital admission. One method to assess this goal is to measure whether participants can identify and effectively navigate a medical home by avoiding an ED or inpatient admission. During the evaluation period, the rate of potentially avoidable ED visits—an indicator of performance in this area—decreased from 41.4% in CY 2019 to 39.1% in CY 2023. The percentage of HealthChoice adults with Prevention Quality Indicators (PQIs) – measures developed by the Agency for Healthcare Research and Quality (AHRQ) to identify potentially avoidable hospital admissions through improved outpatient care – decreased from 0.7% in calendar year 2019 to 0.5% in calendar year 2023.

The state is working with CMS to monitor several hospital quality measures, including PQI admissions across Medicaid, Medicare, and commercial payers under Maryland's All-Payer Model Agreement—and subsequent Total Cost of Care Model. The model places global budget limits on 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.

Health Promotion and Disease Prevention

The HealthChoice program prioritizes health promotion and disease prevention by providing access to immunizations and other wellness services, such as regular prenatal care. The HEDIS® compares HealthChoice against nationally recognized performance standards for preventive care utilization and management of chronic disease conditions (MetaStar, Inc., 2024). Since the COVID-19 PHE affected utilization and screening rates from CY 2020 through CY 2023, HealthChoice HEDIS® scores were similarly affected.

Some HealthChoice indicators showed improvement while others remained fairly stable or declined over the evaluation period. Breast cancer screening rates decreased 7.5 percentage points over the evaluation period, with the largest decrease of 5.4 percentage points between CY 2019 and CY 2020. However, breast cancer screening rates remained above the national Medicaid average for the entire evaluation period, contributing to better preventive care utilization for women. Rates for childhood immunizations decreased over the evaluation period but were higher than national Medicaid averages every year except for CY 2020. Blood lead screening rates for children aged 12 to 35 months decreased over the evaluation period.

Although the percentage of women in HealthChoice who received a cervical cancer screening declined from 63.8% in CY 2019 to 57.6% in CY 2023, the rate was above the national HEDIS® mean for all evaluation years except CY 2020. Declines in cervical precancers are associated with

widespread vaccinations for human papillomavirus (HPV) (McClung et al., 2019). The proportion of adolescents who received an immunization combination including the HPV vaccine decreased from 45.5% in 2019 to 39.9% in CY 2023, but Maryland performed above the national HEDIS® mean during the evaluation period. Colorectal screening rates declined slightly during the evaluation period.

The state's priorities in preventative care also include the need for improving oral health care and prenatal care. The number of dental visits in child participants decreased between CY 2019 and CY 2023; however, child participants had higher percentages of dental visits among all service types—diagnostic, preventative, and restorative—when compared to adult participants in CY 2023. The percentage of pregnant women who received prenatal services in a timely manner decreased slightly by 0.3 percentage points from CY 2019 to CY 2023. HealthChoice outperformed the national HEDIS® mean for timely prenatal services in all years except CY 2020.

The HealthChoice program also prioritizes management of chronic conditions such as asthma, diabetes, HIV/AIDS, and behavioral health diagnoses. During the evaluation period, ambulatory care, ED, and inpatient utilization for participants with an asthma diagnosis decreased by 0.9, 3.2, and 1.1 percentage points, respectively. The rate of ED visits with a primary diagnosis of asthma increased by 0.4 percentage points during the evaluation period while inpatient admissions with asthma as the primary diagnosis remained largely stable. The percentage of participants with diabetes who received an eye exam increased slightly by 0.9 percentage points between CY 2019 and CY 2023. HealthChoice was above the HEDIS® average for controlling HbA1c from CY 2019 through CY 2023. During the evaluation period, inpatient, ED, and ambulatory care utilization decreased by 3.3, 6.4, and 0.6 percentage points, respectively, among HealthChoice participants with diabetes. Although receiving an HbA1c screening only was associated with an increased likelihood of experiencing a diabetes-related ED visit, receipt of either an HbA1c test or eye exam the previous year mitigated the likelihood of having a diabetes-related ED visit the following year.

Among participants with HIV/AIDS, ambulatory care service utilization decreased by 4.1 percentage points during the evaluation period. Additionally, the utilization rate for ART decreased by 2.9 percentage points, while viral load and CD4 cell count testing rates decreased by 3.7 and 4.8 percentage points, respectively. However, ED utilization by this population decreased by 9.8 percentage points during the evaluation period.

The percentage of participants with a behavioral health diagnosis, including MHD-only, SUD-only, dual diagnosis of MHD and SUD, decreased slightly from CY 2019 to CY 2023, with MHD-only diagnosis being the most common throughout this period. Utilization of ambulatory care services remained stable during the evaluation period among HealthChoice participants with a behavioral health diagnosis, while inpatient and ED utilization decreased by 2.0 and 6.2 percentage points, respectively.

Demonstration Programs

The HealthChoice program uses the §1115 waiver demonstration authority to test emerging practices through innovation and pilot programs. As part of its waiver renewal in 2016, the Department received CMS approval for new innovative programs including: Residential Treatment for Individuals with SUD; HVS and ACIS community health pilots; Increased Community Services (ICS); and Diabetes Prevention Program (DPP).

With CMS approval, Maryland Medicaid participants aged 21 years and older with SUDs were able to receive residential treatment services—up to two (2) 30-day stays—in IMDs based on American Society of Addiction Medicine (ASAM) residential levels 3.7-WM, 3.7, 3.5, and 3.3. On January 1, 2019, the Department phased in coverage of ASAM level 3.1. Effective January 1, 2021, the cap on length of stay was removed and the criteria is to meet statewide average length of stay (ALOS) of 30 days or less. Given the current opioid epidemic, this allows the state to expand access across the care continuum and deliver critical care to individuals with SUD.

Hilltop analyzed measures related to IMD cost of care, medication-assisted treatment (MAT) utilization, and initiation and engagement in treatment for alcohol and other drug (AOD) dependence. Cost of care per member per month (PMPM) for HealthChoice participants who received IMD treatment for an SUD increased by 33.9% between CY 2019 and CY 2023. Participants aged 40-64 had the highest PMPM cost. Overall, the MAT utilization rate among IMD participants decreased 9.2 percentage points between CY 2019 and CY 2023. A logistic regression analyzing the impact of IMD care on the probability of initiation and engagement for AOD treatment indicates that IMD treatment is associated with an increased likelihood of participants initiating treatment; however, it decreases the likelihood of engaging in ongoing treatment.

The ACIS pilot program provides both housing case management and tenancy-based case management services to individuals with two or more chronic health conditions or frequent ED visits and who are at risk of institutionalization and/or homelessness. During the evaluation period, approximately 73.4% of ACIS participants were homeless at the time of their enrollment in the program, and approximately 77% of participants obtained stable housing during their ACIS enrollment. Health service utilization was analyzed for participants from CY 2019 to CY 2023. The percentage of participants with at least one ambulatory care visit decreased by 1.8 percentage points, and the percentage of participants with at least one ED visit decreased by 0.9 percentage points.

The National DPP lifestyle change program was authorized for HealthChoice members beginning September 1, 2019. By participating in HealthChoice DPP, HealthChoice participants who are considered at risk for developing type 2 diabetes and meet the eligibility criteria engage with certified DPP providers to learn how to reduce their risk of developing type 2 diabetes through lifestyle changes to improve their overall health. In partnership with the Department and HealthChoice MCOs, Hilltop developed an algorithm that MCOs can use to search their electronic medical records and identify members who meet eligibility criteria for HealthChoice

DPP. This algorithm was provided to the MCOs and implemented in the spring of 2021 after extensive testing.

Hilltop uses Medicaid claims and encounter data to provide the Department with periodic service utilization reports that track current and cumulative DPP enrollment. From its implementation in September 2019 through December 31, 2023, there have been 2,558 DPP encounters. Regression analyses indicate that DPP participants are significantly less likely to develop diabetes with no association found between DPP participation and total number of ED visits or inpatient admissions.

The Department also renewed the Increased Community Services (ICS) program. The ICS program allows certain adults with physical disabilities to remain in the community as an alternative to institutional care. During the evaluation period, 12.0% of ICS-eligible long-stay nursing facility residents transitioned to a community setting under the ICS program.

The HealthChoice 2016 waiver allowed the Department to provide a limited benefit package of family planning services to eligible women. The program covered medical services related to family planning, including 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. Effective July 1, 2018, the Department expanded eligibility under its Family Planning program to lift the age limit and open coverage to include men. The number of participants in the Family Planning program for any period of enrollment decreased by 24.0% during the evaluation period, and the number of participants continuously enrolled dramatically increased by 38.7% from CY 2019 to CY 2022 followed by a significant decrease by 64.0% from CY 2022 to CY 2023, most likely due to continuous Medicaid eligibility required under MOE requirements.

In 2021, the Department received approval for the §1115 waiver renewal for the period of January 1, 2022, through December 31, 2026, to focus on maintaining high-quality, cost-effective services and pilot programs initiated in the last waiver renewal period. The Family Planning program was not renewed during the 2021 waiver period as it was incorporated into the State Plan. Key demonstrations components include the following:

- Expansion of IMD services for adults with SMI
- Expansion of SUD Residential and Inpatient Treatment Services
- MOM program
- Modification to ACIS pilot program
- Diabetes Prevention Program (DPP)

Evaluation of the Maryland Medicaid HealthChoice Program: CY 2019 to CY 2023

Section I. Introduction

In 1997, Maryland implemented HealthChoice—a statewide mandatory Medicaid and Children's Health Insurance Program (CHIP) managed care program—as a waiver of standard federal Medicaid rules under authority of §1115 of the Social Security Act. The Centers for Medicare & Medicaid Services (CMS) approved subsequent waiver renewals in 2002, 2005, 2007, 2010, 2013, 2016, and 2021. The Maryland Department of Health (the Department) provides oversight and continually monitors HealthChoice performance on a variety of measures across the demonstration's goals, culminating in an annual evaluation.

This report—the 2025 evaluation—includes data from calendar year (CY) 2019 through CY 2023. The following sections provide a brief overview of the HealthChoice program and recent program updates before addressing these goals:

- Improve access to health care for the Medicaid population, including special populations
- Improve the quality of health services delivered
- Provide patient-focused, comprehensive, and coordinated care through the provision of a single medical home
- Emphasize health promotion and disease prevention
- Expand coverage to additional low-income Marylanders with resources generated through managed care efficiencies

This report is a collaborative effort between the Department and The Hilltop Institute at UMBC.

It is important to note that the COVID-19 public health emergency (PHE) in 2020 had a significant impact on the HealthChoice program, resulting in increased enrollment and decreased utilization of services. Because the Families First Coronavirus Response Act (FFCRA) required continuous Medicaid eligibility during the PHE, starting in March 2020, there was a pause in eligibility reviews that led to a large increase in Medicaid enrollment through 2023. Rates of service utilization and screenings decreased in CY 2020 during the COVID-19 PHE, and while many have seen subsequent increases during CY 2021 to CY 2023, few rates have returned to pre-COVID levels. Maryland will continue to monitor the effects of the COVID-19 PHE on the HealthChoice program.

Furthermore, the quality of the race and ethnicity information available changed dramatically with the implementation of the ACA in 2014. A new approach to selecting race and ethnicity on the Medicaid eligibility application reduced the number of individuals reporting their race or ethnicity and increased the proportion represented as "Other." In 2023, the Department completed a process of enhancing the Medicaid race and ethnicity data in the MMIS2 using external data sets from the Maryland Health Benefit Exchange (MHBE) and Chesapeake Regional Information System for Our Patients (CRISP), Maryland's health information exchange, with the

goal of improving the race and ethnicity data for monitoring health equity and disparities among Medicaid participants. Results showed that the enhanced data are close to the benchmark of the Medicaid participants in the American Community Survey (ACS).[8] The analyses in this year's evaluation of the HealthChoice program use the enhanced race and ethnicity data.

Overview of the HealthChoice Program

As of the end of CY 2023, close to 90% 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 assigned to one automatically. 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
- Adults under the age of 65 with income up to 138% of the federal poverty level (FPL)
- Women with income up to 264% of the FPL who are pregnant or less-than-60-days postpartum
- Individuals receiving Supplemental Security Income (SSI) who are under age 65 and ineligible for Medicare

Not all Maryland Medicaid participants are eligible for the HealthChoice managed care program. Groups that are ineligible for enrollment in the managed care program include the following:

- Medicare beneficiaries
- Individuals aged 65 years and older[9]
- Individuals in a "spend-down" eligibility group who are only eligible for Medicaid for a limited 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 disease (IMD) for more than 30 days
- Residents of an intermediate care facility for individuals with intellectual disabilities
- Individuals enrolled in the Model Waiver or the Employed Individuals with Disabilities (EID) program

[8] American Community Survey Data, available at https://www.census.gov/programs-surveys/acs/data.html.
[9] Individuals aged 65 and older can be enrolled in a HealthChoice MCO if covered as a parent or caretaker.

There are additional populations covered under the HealthChoice waiver who do not enroll in HealthChoice MCOs, including individuals in the Family Planning and the Rare and Expensive Case Management (REM) programs. The Family Planning program was a limited-benefit program under the waiver and is now part of the state plan amendment (SPA). The REM program allows HealthChoice-eligible individuals with certain rare and expensive diagnoses to receive care on a fee-for-service (FFS) basis. Family Planning is discussed in Section VII, while REM is discussed in more detail in Section III of this report.

HealthChoice participants receive the same comprehensive benefits as those available to Maryland Medicaid participants through the FFS system. MCOs were responsible for coverage of most medical services during 2023, including the following:

- 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 under 21
- Prescription drugs, except for behavioral health drugs
- Durable medical equipment and disposable medical supplies
- Home health care
- Vision services, including corrective lens and hearing aids for children under 21[10]
- Dialysis
- The first 90 days of long-term care services

The following services are not covered by the MCOs and instead are covered by the Medicaid FFS system:

- Specialty mental health care and substance use disorder (SUD) treatment services[11]
- 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 (IEP) or individualized family service plan (IFSP)
- Therapy services (occupational, physical, and speech) for children
- Personal assistance services offered under the Community First Choice program

[10] Although not required by regulation, some MCOs provide adults with limited vision, hearing, and dental benefits.
[11] 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.

- Viral load testing services, genotypic, phenotypic, or other HIV/AIDS drug resistance testing for the treatment of HIV/AIDS
- Behavioral health drugs
- Services covered under 1915(c) home and community-based services (HCBS) waivers[12]

Program Updates

The Department implemented the following programmatic changes to HealthChoice that influenced the evaluation period:

- In 2013, the Department implemented a §2703 Chronic Health Home program, serving adults diagnosed with a serious and persistent mental illness, children diagnosed with a serious emotional disturbance (SED), 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 December 2023, MDH had approved 263 Chronic Health Home site applications. The Health Home sites include 192 psychiatric rehabilitation programs, 24 mobile treatment providers, and 47 opioid treatment programs. In December 2023, there were 11,115 participants in the Chronic Health Home program, including 645 children/youth under age 18; 9,518 participants aged 18 to 64; and 952 participants aged 65 and over.
- Under the ACA, Maryland expanded coverage through the Medicaid program to two new populations:
    - Individuals with income up to 138% of the FPL. Over the course of the expansion's first year (CY 2014), 283,716 adults received Medicaid coverage through this expansion. As of December 2023, there were 515,121 individuals enrolled in the ACA expansion.
    - Former foster care children up to the age of 26 years.
- From the inception of the HealthChoice program in 1997, mental health services were carved out of the benefit package, while services for individuals with SUDs were provided by the MCOs. The Department combined mental health and SUD services in an integrated carve-out on January 1, 2015. Under the carve-out, an administrative services organization (ASO) administers and reimburses all specialty mental health and SUD services for Medicaid participants on an FFS basis, under the oversight of the Medicaid program and the Behavioral Health Administration (BHA).

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

The Department included several initiatives for innovative programs that were approved for the CY 2019 to CY 2023 waiver period. See Section VII for additional information on the following initiatives:

- Residential Treatment for Individuals with SUDs aged 21 through 64 years in IMDs
- Two community health pilot programs
    - Evidence-Based Home Visiting Services (HVS)
    - Assistance in Community Integration Services (ACIS)
- National Diabetes Prevention Program (DPP)
- Increased Community Services (ICS)
- Family Planning program

The Department submitted a §1115 waiver renewal application in July 2021 and received approval in December 2021 for the period of January 1, 2022, through December 31, 2026. The Family Planning program and HVS program were not renewed because they were added to the State Plan. However, several initiatives were added, expanded, or modified, including the following:

- Addition of the MOM program
- Expansion of IMD services for adults to include primary diagnoses of serious mental illness (SMI)
- Expansion of SUD Residential and Inpatient Treatment Services to remove caps on lengths of stays for SUD treatment in an IMD and aim for a statewide average length of stay (LOS) of 30 days or less
- Modification to the ACIS pilot program to increase the statewide capacity to 900 spaces

The Department, in collaboration with the Center for Medicare and Medicaid Innovation (CMMI), established Maryland's Statewide Integrated Health Improvement Strategy (SIHIS)[13] (Maryland Department of Health, 2020a). To develop the SIHIS proposal, workgroups led by the Department, the Opioid Operational Command Center,[14] and the Health Services Cost Review Commission (HSCRC) collaborated to gather stakeholder input to establish goals, measures, milestones, and targets for SIHIS.

SIHIS is structured to drive improvements in three domains: hospital quality, care transformation across the health care system, and total population health. Reducing avoidable admissions and readmissions is a top priority under hospital quality. Diabetes, opioid use, and maternal and child health were selected as priority areas under the third domain, with the identified goals of improving care coordination for patients with chronic conditions, improving adult body mass

[13] https://hscrc.maryland.gov/Pages/Statewide-Integrated-Health-Improvement-Strategy-.aspx
[14] In 2023, known as the Office of Overdose Response.

index (BMI), improving overdose mortality rates, reducing severe maternal morbidity rates, and decreasing asthma-related emergency department (ED) visits rates for ages 2 to 17. CMMI approved Maryland's proposal in 2021, which includes a detailed plan to achieve "progress milestones and population health outcome targets across all three domains by the end of 2026" (Maryland Department of Health, 2020b, p. 1). The SIHIS 2021 goals and milestones were important building blocks necessary to progress toward the 2023 and 2026 targets. The SIHIS 2021 goals have been successful in reducing the mean BMI for adults, reducing avoidable admissions and readmissions, reducing the severe maternal morbidity rate, and improving overdose mortality (Maryland Department of Health, 2023b). The state is focused on improving care coordination for participants with chronic conditions, which was the only 2021 milestone that was not met.

On January 1, 2026, Maryland will be transitioning from SIHIS to the States Advancing All-Payer Health Equity Approaches and Development (AHEAD) Model.[15]

As a result of the collaboration with CMMI, the Department developed an annual monitoring plan for the evaluation of Maryland Health Services Cost Review Commission (HSCRC)-funded Maternal and Child Health (MCH) Population Health Improvement Fund for July 1, 2021, to June 30, 2025. The plan comprises impact measures that align with SIHIS and include the following programs:

- HVS pilot expansion for high-risk pregnant individuals and children under the age of three
- Reimbursement for doula services for pregnant and postpartum women
- MOM program expansion for pregnant individuals with opioid use disorder (OUD)
- CenteringPregnancy, a clinic-based group prenatal care model
- HealthySteps, a clinic-based pediatric primary care model and family case management framework

This will also support expansion of the state's existing community-based asthma programs and Eliminating Disparities in Maternal Health Initiative.

[15] https://hscrc.maryland.gov/Pages/ahead-model.aspx

Section II. Methodology

Due to the varying populations, timeframes, and targets among the measures in this evaluation, Hilltop used different methodologies to evaluate the HealthChoice outcomes being measured. For measuring trends in enrollment and service utilization among demographic and clinical subgroups, Hilltop used Medicaid program data for CY 2019 to CY 2023 from MMIS2 to identify enrollees, their services utilization, and treatment. These measures are expressed either as five-year trends or as comparisons between the first and the last year of the evaluation period (i.e., CY 2019 and CY 2023). Additionally, some analyses distinguish between all ACA Medicaid expansion participants and those enrolled for 12 continuous months. ACA Medicaid expansion participants with 12 continuous months of enrollment provide an MCO with more time and opportunities to intervene in their health care than participants with any period of enrollment.

Hilltop also used data from *LTSSMaryland*—the state's integrated long-term services and supports (LTSS) tracking system—to identify enrollees in the REM program for analyses of this subpopulation's demographics and service utilization.

For standardized definitions of particular clinical, pharmaceutical, and health utilization measures, Hilltop used the Healthcare Effectiveness Data and Information Set (HEDIS®)[16] proprietary software from Cognizant, a National Committee for Quality Assurance (NCQA)-certified software vendor, to define and classify according to standard NCQA measures. Hilltop also uses the MetaStar Executive Summary (2024) to report HEDIS® measures for preventive care and monitoring chronic diseases.

Hilltop developed programming to create person- and visit-level summaries of two HEDIS® measures: Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence (FUA) and Follow-Up after Emergency Department Visit for Mental Illness (FUM). Hilltop also developed programming to create person-level data sets utilizing diagnoses and service definitions from the HEDIS® Asthma Medication Ratio (AMR) measure and the diabetes retinal and hemoglobin A1c screening from the Comprehensive Diabetes Care (CDC) measure.

Hilltop analyzed trends in health services utilization pre- and post-program implementation, pre- and post-program enrollment, and pre- and post-treatment. Hilltop also conducted analyses to compare the differences in trends in health services utilization between program participants and non-participants. Finally, some analyses examined the monthly count of service utilization per participant in a given program.

Regression Analysis

To evaluate the effects of HealthChoice service delivery on outcomes such as hospitalizations or ED visits, a trend analysis would not be sufficient. Numerous factors besides health care treatment—such as age, sex, race, geographic location, and pre-existing health conditions—affect outcomes. To separate these other factors when estimating whether adherence to HEDIS®

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

guidelines is associated with improved outcome measures, Hilltop used a set of statistical techniques known as multivariate regression analysis. The multivariate regression techniques used included logistic and linear regression models.

Logistic regressions are used to analyze relationships when the dependent (outcome) variable has discrete outcomes. The variables that are being measured for their associations with the outcome variable are called independent variables. Independent variables can themselves be discrete (such as race, sex, or region), ordinal (such as rankings from best to worst), interval (such as amounts of a service), or ratio-level (such as a percentage). The coefficients of independent variables produced by logistic regressions are thereafter translated into odds ratios (ORs), which represent the odds that an outcome will occur (given a particular category/level of one of these variables changing) compared to the odds of the outcome occurring in the absence of those categories/levels. For example, in a group of people whose outcome variable is an ED visit, if the OR for females is 0.90, then females have 10% lower odds (or are 10% less likely) to incur an ED visit in this sample when compared to males.

While constructing these regression analyses, Hilltop created programming to identify Medicaid participants who met HEDIS® measure population definitions and their relationship with the following outcomes of interest:

- Relationship between asthma patients with a positive AMR and ED utilization—as well as inpatient admissions—compared to those without a positive AMR
- Initiation and Engagement of Alcohol and Other Drug Dependence Treatment
- Receipt of diabetes eye screenings and inpatient admission and ED visit for diabetes
- Among prediabetic adults, relationships between participation in the DPP and diabetes incidence, inpatient admissions, and ED utilization

Methodological Limitations

Regression analyses and other measures used in this evaluation do not establish whether the independent variables measured cause the outcome variable. Multivariate regression models estimate the associations between the independent variables and the outcome variables under the assumptions that certain key conditions are met, such as the absence of selection bias[17] or the use of inappropriate comparison groups. If remain unaddressed, estimation of causal relationship between the treatment conditions (i.e., the main independent variable of interest) and outcome variables without random assignment of the main treatment condition is prone to be statistically biased.[18] Nonetheless, the strength of the association between independent and outcome variables can be measured by the estimated confidence intervals around the

[17] Selection bias occurs when the study sample does not reflect the population of interest. Therefore, any risks/benefits/outcome observed in the analysis does not accurately represent how that risks/benefits/outcome would occur in the target population, affecting the generalizability of the study's results.

[18] Statistical biases due to unmet conditions like sample selection or omitted variables leading to endogeneity issues are addressed using methods like instrumental variable (IV) approaches, and propensity score matching (PSM).

parameter or estimates. A narrower confidence interval indicates that the estimated parameter is more likely to be close to the center of that confidence interval than in the case of a broader confidence interval. In January 2020, the behavioral health ASO for Maryland Medicaid changed from Beacon Health Options to Optum, and technical problems with the transition impacted the submission of behavioral health data for analysis during the evaluation period. Additionally, the effects of the COVID-19 PHE, which began in March 2020, had a large impact on the HealthChoice program from CY 2020 to CY 2023 and posed methodological challenges for the evaluation.

Section III. Improve Access to Care for the Medicaid Population

Section §1115 programs such as HealthChoice depend on MCOs improving access to care for participants. This section measures Maryland's progress toward improving access to care by examining enrollment, network adequacy, and utilization. This section also measures the HealthChoice programs that improve access to care for special populations—including children in foster care and individuals in the REM population—and addresses racial and ethnic disparities in health care and service utilization.

Enrollment

HealthChoice Enrollment

One way to measure the population served by HealthChoice 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 enrolled at a particular point in time (e.g., enrollment as of December 31). Program enrollment on a given day is smaller than the number of enrollees served over the course of a year as individuals move in and out of Medicaid eligibility. 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.[19] Occasionally, measures will specify that they include persons enrolled at any time during the year.

Table 1 displays demographic characteristics of the HealthChoice population for those with any period of enrollment during the evaluation period (CY 2019 through CY 2023). Table 1 utilized the improved race and ethnicity data. The total number of participants increased by 20.9% during this time. Most of the demographic characteristics stayed consistent over the evaluation period—except for a slight increase in the proportion of enrollees aged 21 to 39 and the proportion of enrollees who reported their race/ethnicity as Hispanic. The percentage of participants who reported their race/ethnicity as "Hispanic" increased by 2.4 percentage points from CY 2019 to CY 2023. The only other racial groups that grew from CY 2019 to CY 2023 were Asian and "Other," with increases of 0.4 and 0.3 percentage points, respectively.

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

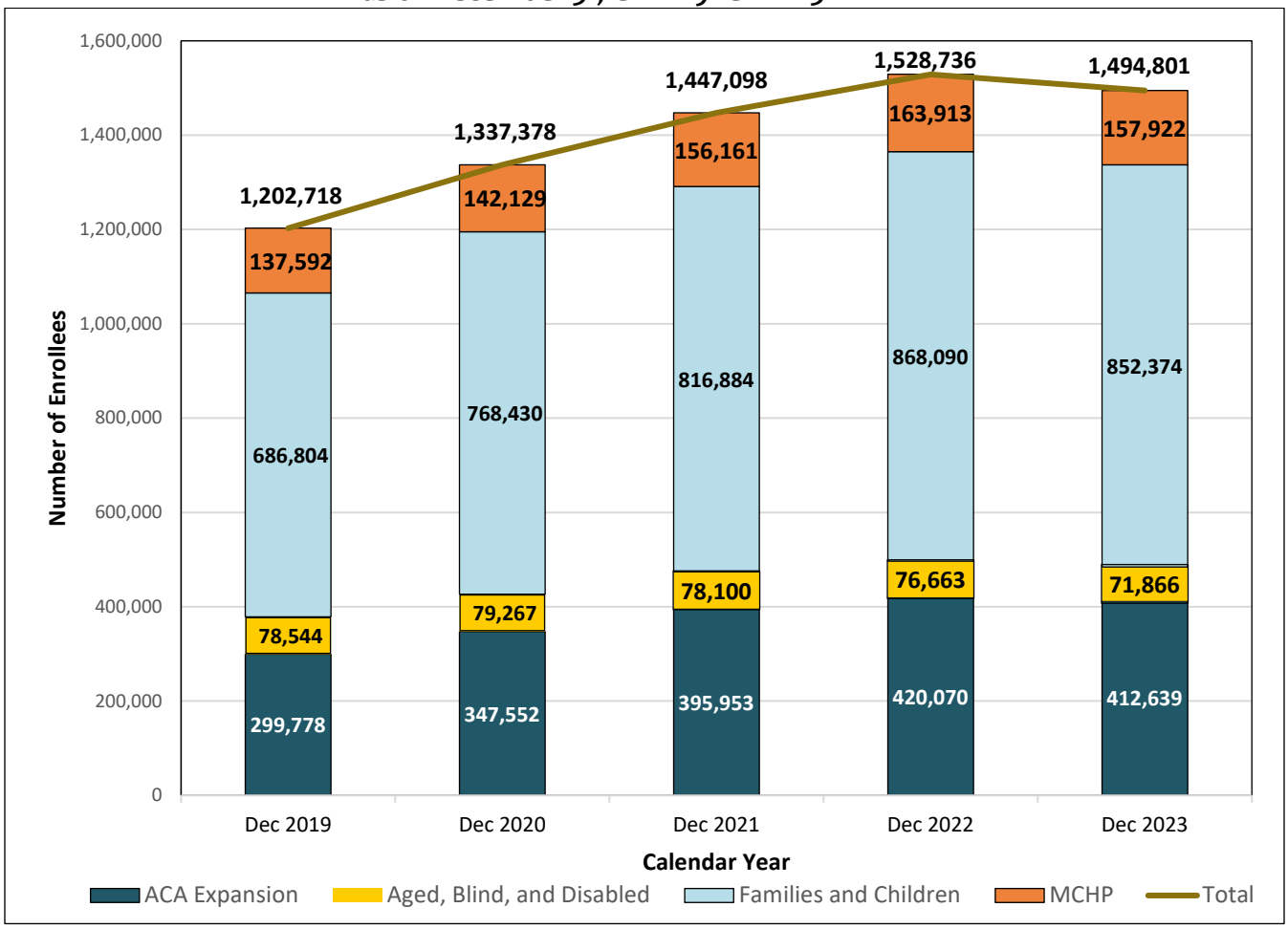
Table 1. HealthChoice Population (Any Period of Enrollment) by Demographics, CY 2019 and CY 2023

Demographic Characteristic	CY 2019		CY 2023	
	# of Participants	% of Total	# of Participants	% of Total
Sex				
Female	738,567	53.6%	893,613	53.7%
Male	638,760	46.4%	771,619	46.3%
Total	**1,377,327**	**100%**	**1,665,232**	**100%**
Age Group (Years)				
0–<1	35,874	2.6%	34,538	2.1%
1–2	77,215	5.6%	77,620	4.7%
3–5	113,351	8.2%	120,233	7.2%
6–9	145,481	10.6%	160,708	9.7%
10–14	180,507	13.1%	195,818	11.8%
15–18	118,241	8.6%	153,677	9.2%
19–20	51,575	3.7%	66,329	4.0%
21–39	377,091	27.4%	501,110	30.1%
40–64	277,992	20.2%	355,199	21.3%
Total	**1,377,327**	**100%**	**1,665,232**	**100%**
Race/Ethnicity				
Asian	70,133	5.1%	91,311	5.5%
Black	609,788	44.3%	720,319	43.3%
White	376,786	27.4%	421,980	25.3%
Hispanic	222,974	16.2%	310,032	18.6%
Native American	13,107	1.0%	15,284	0.9%
Other*	84,539	6.1%	106,306	6.4%
Total	**1,377,327**	**100%**	**1,665,232**	**100%**
Region**				
Baltimore City	236,532	17.2%	261,994	15.7%
Baltimore Suburban	415,966	30.2%	506,396	30.4%
Eastern Shore	127,241	9.2%	148,454	8.9%
Southern Maryland	70,937	5.2%	84,988	5.1%
Washington Suburban	409,288	29.7%	523,393	31.4%
Western Maryland	116,041	8.4%	138,818	8.3%
Out of State	1,322	0.1%	1,189	0.1%
Total	**1,377,327**	**100%**	**1,665,232**	**100%**

*"Other" race/ethnicity category includes Pacific Islanders, Alaskan Natives, Two or More Races, Prefer Not to Say, and Unknown.
**Regions are defined as the following: Baltimore City (only), Baltimore Metro (Anne Arundel, Baltimore, Carroll, Harford, and Howard Counties), Eastern Shore (Caroline, Cecil, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico, and Worcester Counties), Southern Maryland (Calvert, Charles, and St. Mary's Counties), Washington Metro (Montgomery and Prince George's Counties), and Western Maryland (Allegany, Frederick, Garrett, and Washington Counties). Refer to Figure A1.

Figure 1 displays HealthChoice enrollment by coverage category from CY 2019 through CY 2023. There were code changes for the Families and Children coverage category. For a detailed list of the inclusion criteria for each coverage category, see Appendix. Since CY 2019, the overall HealthChoice population enrollment has grown by 24.3%. Enrollment grew by 27.1% from CY 2019 to CY 2022, before decreasing by 2.2% in CY 2023.

Figure 1. HealthChoice Enrollment by Coverage Category as of December 31, CY 2019–CY 2023*



*Enrollment counts in Figure 1 include participants aged 0-64 years who are enrolled in a HealthChoice MCO.

Enrollment Growth

As of December 2023, national enrollment in Medicaid and CHIP was 85.6 million, down from 92.6 million in December 2022 (Kaiser Family Foundation, n.d.b). In fiscal year (FY) 2024, overall enrollment declined by 7.5%, and is expected to continue to decrease by 4.4% in FY 2025, with the trend due in part to the end of the continuous enrollment requirement of FFCRA (Williams et al., 2024). In 2013, before the ACA expansion, more than 10% of Maryland residents were uninsured. The growth in Medicaid enrollment contributed to a decline in Maryland's uninsured rate, which overall remained constant throughout the evaluation period, at around 6.0% (Kaiser Family Foundation, n.d.a, Kaiser Family Foundation, n.d.b).[20]

Table 2 shows the percentage of Maryland's population enrolled in HealthChoice between CY 2019 and CY 2023. The number of HealthChoice participants with any period of enrollment fluctuated throughout the evaluation period but increased overall. The percentage of Maryland's population who were HealthChoice participants also increased by 4.1 percentage points. The number of HealthChoice enrollees and the percentage of Maryland's population who were enrolled as of December 31 increased each year from CY 2019 to CY 2022, with a slight decrease in CY 2023.

Table 2. HealthChoice Enrollment as a Percentage of the Maryland Population, CY 2019–CY 2023

	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
Maryland Population*	6,045,680	6,165,129	6,174,610	6,163,981	6,180,253
Individuals Enrolled in HealthChoice for Any Period of Time during the Year					
HealthChoice Population	1,377,493	1,392,876	1,487,449	1,574,181	1,665,232
% of Population in HealthChoice	22.8%	22.6%	24.1%	25.5%	26.9%
Individuals Enrolled in HealthChoice as of December 31					
HealthChoice Population	1,202,718	1,337,378	1,447,098	1,528,736	1,494,801
% of Population in HealthChoice	19.9%	21.7%	23.4%	24.8%	24.2%

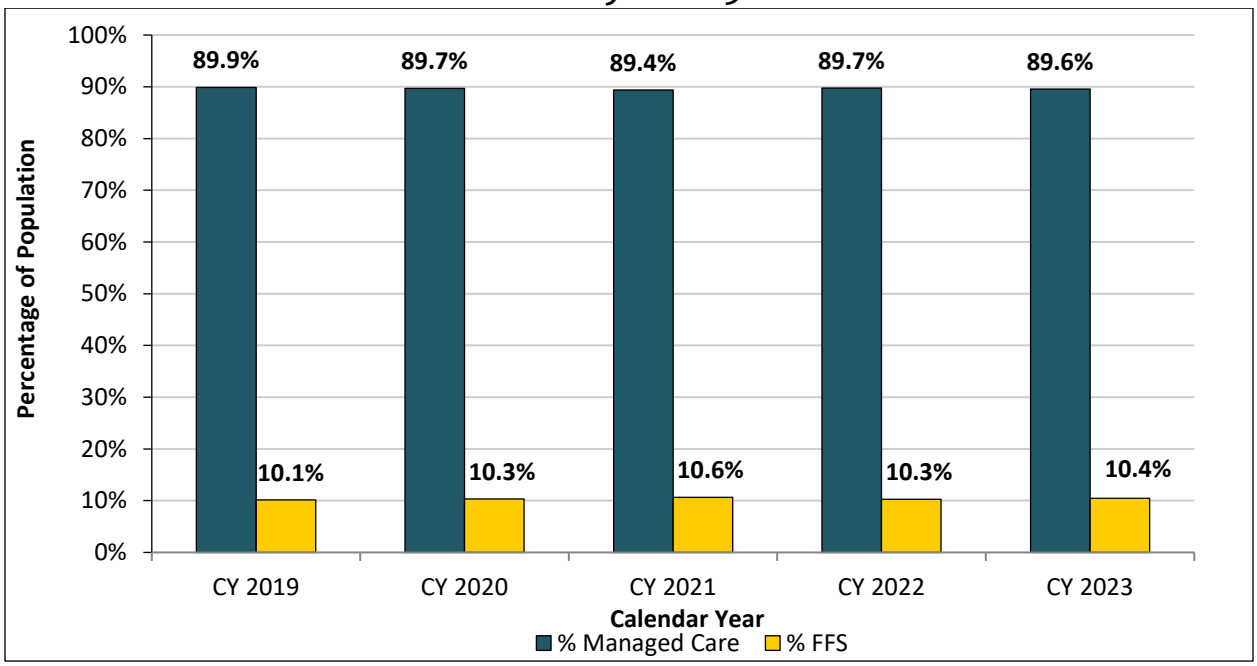
* Data source: U.S. Census Bureau, Population Division. *Annual estimates of the resident population: April 1, 2010, to July 1, 2023*. https://www.census.gov/quickfacts/fact/table/MD,US/PST045218

Managed Care Enrollment

Since its inception, HealthChoice has been expected to enroll a high percentage of Medicaid participants into managed care. Figure 2 compares Medicaid managed care and FFS enrollment. Between CY 2019 and CY 2023, managed care enrollment remained consistently above 89.0%, with the highest rate of 89.9% in CY 2019, and the lowest rate of 89.4% in CY 2021.

[20] The limited data available for CY 2020 suggest that there was a decline in the uninsured rate to 4.3%. The 2020 data are based on the Coverage of the Total Population (CPS) instead of the American Community Survey (ACS) and cannot be compared to CY 2019 and CY 2021 data.

Figure 2. Percentage of Medicaid[21] Participants in Managed Care Compared to FFS, CY 2019–CY 2023



Continuous Enrollment

The Department began monitoring HealthChoice participants to ensure that they did not have a gap or interruption in Medicaid coverage as a result of a change in the system for eligibility redetermination in CY 2015. The Department initiated automated renewals of coverage based on data indicating no substantial changes in participants' financial position to reduce the amount of time Medicaid-eligible individuals were without Medicaid coverage and improve the health and financial status of beneficiaries. Since FFCRA's continuous enrollment requirement affected enrollment from CY 2020 through CY 2022, it is difficult to evaluate the extent to which the auto-enrollment policy affected continuous enrollment or reduced gaps in coverage over the evaluation period. Continuous enrollment for children became effective September 2023. [22]

Table 3 shows the proportion of HealthChoice participants with twelve months of continuous Medicaid enrollment by age group. The percentage of participants with continuous enrollment increased steadily for all age groups over the evaluation period, with overall continuous enrollment among participants of any age rising from 77.4% in CY 2019 to 85% in CY 2023, with a high of 92.7% in CY 2022. Adults aged 19 to 39 years continued to have lower rates of continuous enrollment than other age groups throughout the evaluation period.

[21] "Medicaid" is representative of both Medicaid and MCHP.

[22] Due to the PHE, participants were continually enrolled and a regression analysis for this study was not completed. https://health.maryland.gov/mmcp/Documents/Public%20Notice/Public%20Notice%20Continuous%20Eligibility%20SPA_Updated.pdf

Table 3. Percentage of HealthChoice Participants with Continuous Medicaid Enrollment, by Age Group, CY 2019–CY 2023

Age Group (Years)	Calendar Year				
	2019	2020	2021	2022	2023
1–2	75.0%	85.8%	92.8%	93.7%	88.9%
3–9	81.9%	91.0%	93.8%	94.2%	90.1%
10–18	82.3%	91.1%	94.5%	94.9%	90.4%
19–39	71.9%	82.2%	89.0%	90.9%	80.1%
40–64	77.3%	83.3%	89.5%	91.6%	82.5%
Total	**77.4%**	**86.3%**	**91.4%**	**92.7%**	**85.0%**

Table 4 displays the number and percentage of HealthChoice participants with a gap in Medicaid enrollment of one or more days from CY 2019 through CY 2023, as well as whether the gap lasted longer than 180 days (i.e., over 6 months).[23] Participants who reapply within 180 days are enrolled into their previous MCO. Participants who reapply after 181 days or more are automatically assigned to an MCO. The percentage of HealthChoice participants with at least one gap in coverage decreased from 4.2% in CY 2019, to 0.3% in CY 2022, but rose to 1.7% in CY 2023. Among participants with a gap in coverage in CY 2023, 76.4% had a gap of 180 days or less, and 23.6% had a gap of 181 days or more.

The decrease in the percentage of enrollees with at least one gap in coverage from 4.7% in CY 2019 to a low of 0.3% in CY 2021 and CY 2022 is likely the result of the FFCRA's continuous enrollment requirements. The subsequent increase to 1.7% in CY 2023 is likely attributable to the resumption of Medicaid redeterminations following the end of the COVID-19 PHE. However, the proportion of enrollees with a gap longer than 6 months in CY 2023 is lower compared to previous years.

Table 4. Number of HealthChoice Participants with a Gap in Medicaid Coverage, by Length of Gap, CY 2019–CY 2023

Calendar Year	Total	At Least One Gap in Medicaid Coverage		Length of Coverage Gap			
				180 Days or Less		181 Days or More	
		#	%	#	%	#	%
2019	1,377,257	64,802	4.7%	47,004	72.5%	17,798	27.5%
2020	1,392,625	16,568	1.2%	11,192	67.6%	5,376	32.4%
2021	1,486,991	4,127	0.3%	2,806	68.0%	1,321	32.0%
2022	1,573,811	5,279	0.3%	3,462	65.6%	1,817	34.4%
2023	1,665,232	27,641	1.7%	21,109	76.4%	6,532	23.6%

Table 5 shows the number of participants in the ACA expansion coverage groups who had a coverage gap during the evaluation period and the lengths of participants' respective coverage

[23] Due to coding error, all years in the measurement period have been updated. Table is not comparable to previous versions.

gaps.[24] Participants in the ACA expansion coverage groups followed a similar trend to the overall population. Over the evaluation period, participants with at least one gap in Medicaid coverage declined from 4.2% in CY 2019 to 1.6% in CY 2023. Excluding CY 2020 to CY 2022, which were affected by the COVID-19 PHE, the percentage of participants in the ACA expansion coverage groups with at least one gap in Medicaid coverage decreased from CY 2019 to CY 2023, and there were 7,511 fewer re-enrollments. From CY 2021 to CY 2022, there was a slight increase in the number of participants in the ACA expansion coverage groups with at least one gap. The respective proportions of gaps that lasted 180 days or less and 181 days or more fluctuated throughout the evaluation period.

Table 5. Number of ACA Expansion HealthChoice Participants with a Gap in Medicaid Coverage, by Length of Gap, CY 2019–CY 2023

Calendar Year	Total	At Least One Gap in Medicaid Coverage		Length of Coverage Gap			
				180 Days or Less		181 Days or More	
		#	%	#	%	#	%
2019	360,998	15,329	4.2%	9,333	60.9%	5,996	39.1%
2020	368,226	4,269	1.2%	2,733	64.0%	1,536	36.0%
2021	412,273	1,403	0.3%	1,021	72.8%	382	27.2%
2022	438,430	1,548	0.4%	1,017	65.7%	531	34.3%
2023	475,133	7,818	1.6%	5,855	74.9%	1,963	25.1%

In addition to encouraging continuity of coverage, the Department sought to improve connection to services for new HealthChoice participants. Table 6 shows the mean number of days until first service for new HealthChoice participants. Between CY 2019 and CY 2023, the mean duration decreased for medical services, pharmacy services, and overall, for any service. There was an increase in the mean duration for all service categories in CY 2020, likely due to the impact of the COVID-19 PHE on the availability of medical services.

Table 6. Mean Duration in Days until First Service for New HealthChoice Participants, CY 2019–CY 2023

Service	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
Any	57.5	72.7	48.5	47.9	44.3
Medical	60.8	77.5	53.9	52.6	48.0
Pharmacy	101.3	113.7	98.3	97.9	93.6

Network Adequacy

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.

[24] Due to coding error, all years in the measurement period have been updated. Table is not comparable to previous versions.

PCP Network Adequacy

The HealthChoice program requires every participant to have a PCP, and each MCO must have an adequate network of PCPs to serve its enrolled population. Under HealthChoice regulations, MCOs must have a ratio of 1 PCP to every 200 participants within each of the up to 40 local access areas (LAAs) in the state for their network to be considered adequate.[25] The Department assesses network adequacy periodically throughout the year and works with the MCOs to resolve capacity issues. In the case of any deficiencies in network adequacy, the Department discontinues new enrollment for that MCO in the affected region until it increases provider contracts to an adequate level.

Table 7 shows PCP network adequacy as of December 2023. The network adequacy analysis counted the number of PCP offices included in provider networks in each county in Maryland. In CY 2023, all jurisdictions were able to achieve a 200:1 ratio of participants to PCPs.

Table 7. PCP Capacity, by County, December 2023[26]

County	Number of PCP Offices	Capacity at 200:1	Total Dec 2023 Enrollment	Excess Capacity
				Difference 200:1 Ratio
Allegany	184	36,800	20,510	16,290
Anne Arundel	1,067	213,400	106,608	106,792
Baltimore City	2,332	466,400	241,839	224,561
Baltimore County	1,908	381,600	221,519	160,081
Calvert	156	31,200	15,217	15,983
Caroline	118	23,600	12,178	11,422
Carroll	300	60,000	24,528	35,472
Cecil	171	34,200	27,775	6,425
Charles	265	53,000	37,622	15,378
Dorchester	88	17,600	12,413	5,187
Frederick	403	80,600	47,478	33,122
Garrett	97	19,400	7,789	11,611
Harford	440	88,000	49,976	38,024
Howard	579	115,800	50,495	65,305
Kent	38	7,600	4,511	3,089
Montgomery	1,704	340,800	200,844	139,956
Prince George's	1,367	273,400	266,257	7,143
Queen Anne's	123	24,600	8,553	16,047

[25] COMAR 10.67.05.05B(8).

[26] Providers were identified by their license numbers. If a license number was unavailable, then the provider's national provider identifier (NPI) was used. If a provider had more than one office location in a county, only one office was counted. If a provider had multiple office locations among different counties, one office was counted in each county. PCPs in Washington, DC were not included in the analysis. Although the regulations apply to each MCO individually, this analysis aggregated data from all nine MCOs.

County	Number of PCP Offices	Capacity at 200:1	Total Dec 2023 Enrollment	Excess Capacity
				Difference 200:1 Ratio
Somerset	64	12,800	8,785	4,015
St. Mary's	212	42,400	23,140	19,260
Talbot	214	42,800	8,219	34,581
Washington	303	60,600	46,834	13,766
Wicomico	257	51,400	37,544	13,856
Worcester	142	28,400	13,222	15,178
Total (in MD)	**12,532**	**2,506,400**	**1,493,856**	**1,012,544**
Other*	555			
Washington, DC	1,377			

* Other includes out of state.

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 it 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.[27] These medical specialties include eight core specialties—cardiology, otolaryngology, gastroenterology, neurology, ophthalmology, orthopedics, surgery, and urology—and six major specialties—allergy and immunology, dermatology, endocrinology, infectious disease, nephrology, and pulmonology. Additionally, for each of the ten 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.

Utilization

With the continued increase in HealthChoice enrollment, it is important to maintain access to care. This section of the report examines service utilization related to ambulatory care, ED visits, and inpatient admissions. Unless otherwise stated, all measures in this section are calculated for HealthChoice participants with any period of enrollment in the program during the calendar year.

Ambulatory Care Visits

The Department monitors ambulatory care utilization as a measure of access to care. When properly accessing care, HealthChoice participants should receive care in an ambulatory care setting rather than use the ED for a non-emergent condition or allow a condition to exacerbate to the extent that it requires an inpatient admission. For this analysis, an ambulatory care visit is

[27] COMAR 10.67.05.05-1.

defined as contact with a doctor, nurse practitioner, or physician assistant in a clinic, physician's office, or hospital outpatient department by an individual enrolled in HealthChoice at any time during the measurement year.

Figure 3 shows the percentage of HealthChoice participants with an ambulatory care visit during the calendar year by age group. Between CY 2019 and CY 2023, children under the age of three had the highest ambulatory care visit rates, while participants aged 19 to 39 years had the lowest rates. While rates decreased for all age groups in CY 2020, they increased in CY 2021 for every age group above age one, with gains ranging from 1.2 percentage points for children aged one to two years to 5.8 percentage points for children aged 10 to 18 years. From CY 2021 to CY 2023, rates for all age groups decreased except for participants under the age of one.

Figure 3. Percentage of the HealthChoice Population Who Had an Ambulatory Care Visit, by Age Group, CY 2019–CY 2023

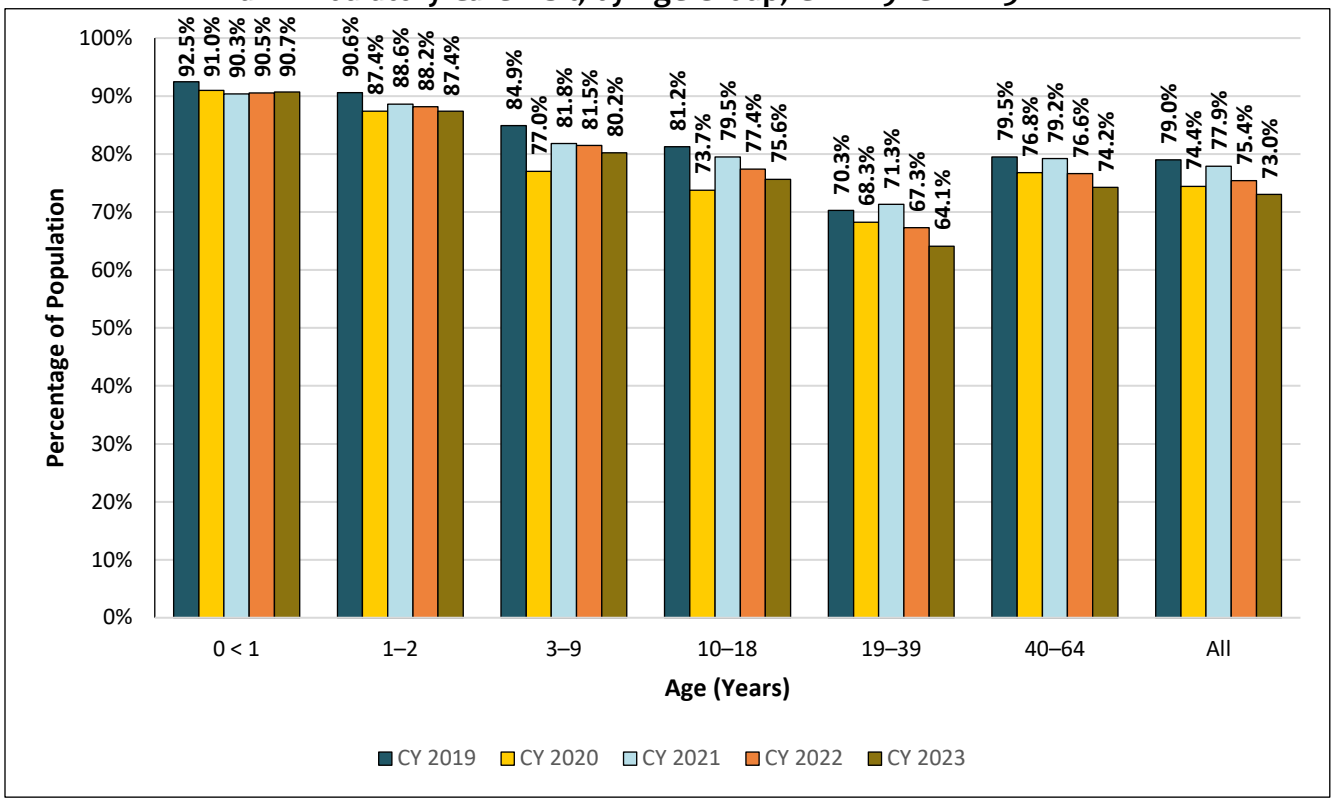


Figure 4 presents ambulatory care use by coverage category. ACA expansion participants accessed ambulatory care services at lower rates than participants in other coverage categories, with their rate decreasing by 5.8 percentage points during the evaluation period. ACA expansion participants constitute more than 25% of the HealthChoice population (Figure 1), so their low utilization of ambulatory care affects the trend for the entire population. All coverage groups experienced declines in ambulatory care visit rates between CY 2019 and CY 2020 but saw increases ranging from 2.3 to 4.1 percentage points between CY 2020 and CY 2021, followed by decreases from CY 2021 to CY 2023. All coverage categories experienced overall decreases ranging from 3.5 to 6.1 percentage points over the evaluation period.

Figure 4. Percentage of the HealthChoice Population Who Had an Ambulatory Care Visit, by Coverage Category, CY 2019–CY 2023

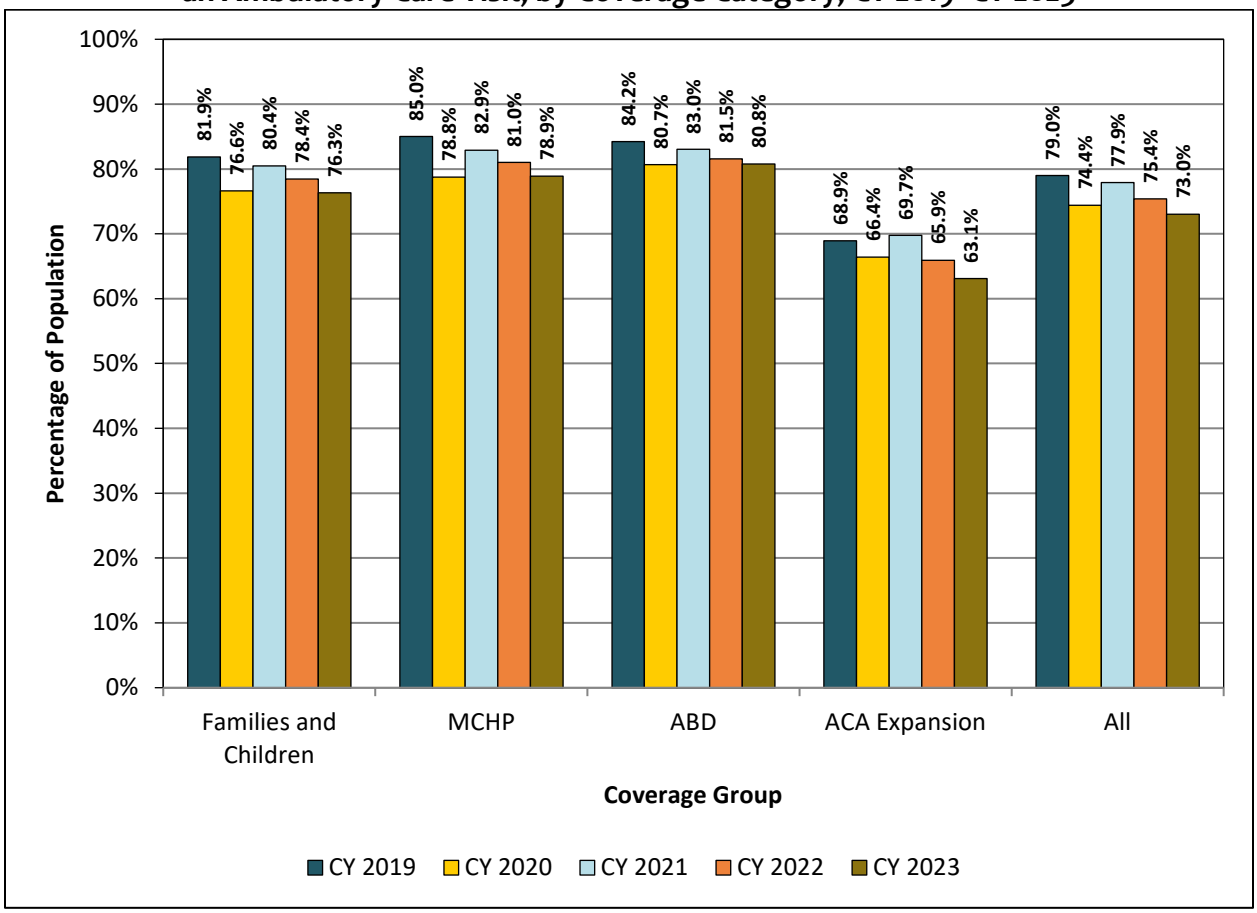
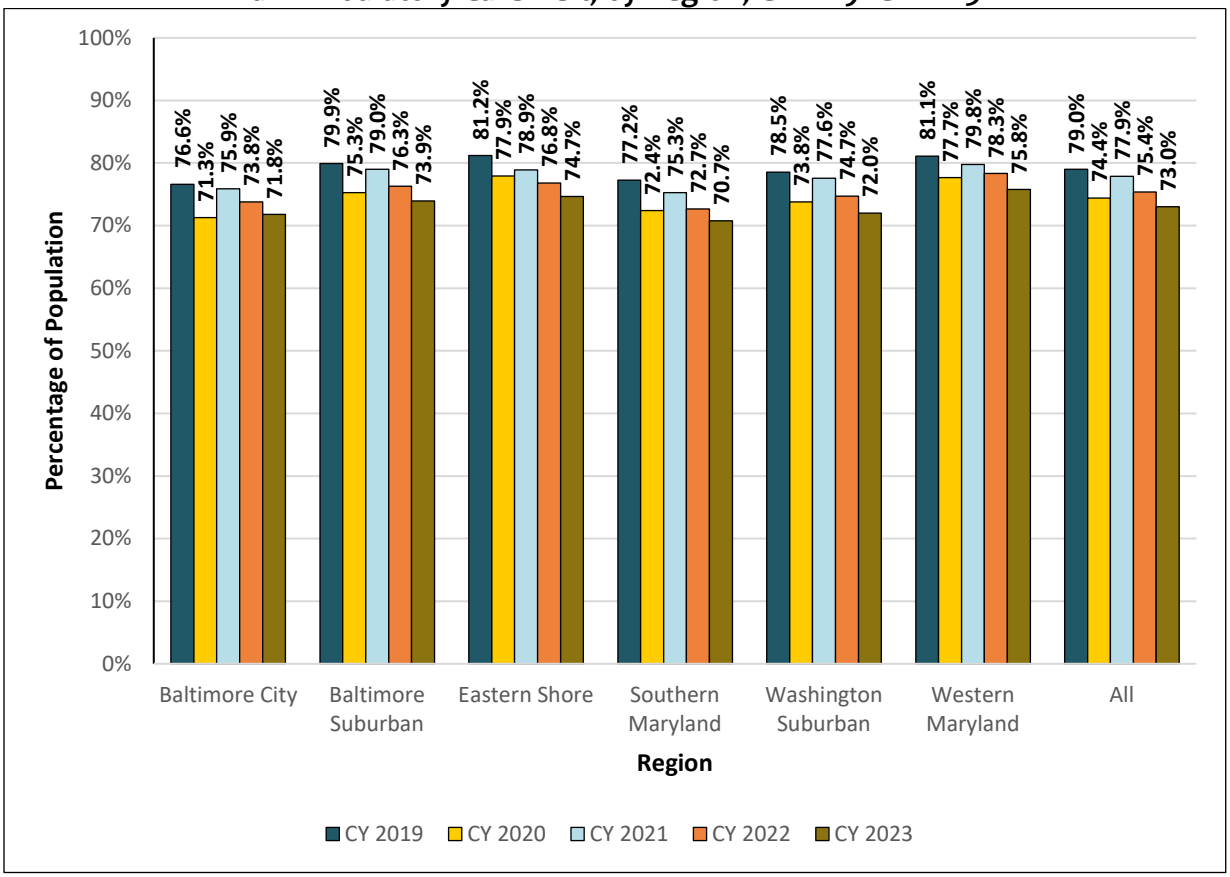


Figure 5 presents the percentage of the HealthChoice population with an ambulatory care visit by region between CY 2019 and CY 2023. Ambulatory care utilization fluctuated across all regions from CY 2019 to CY 2023: rates dropped between 3.3 and 5.3 percentage points between CY 2019 and CY 2020 before increasing in CY 2021 and then decreasing in CY 2022 and CY 2023. In CY 2023, residents of Western Maryland had the highest rate of ambulatory care use, followed by the Eastern Shore region.

Figure 5. Percentage of the HealthChoice Population Who Had an Ambulatory Care Visit, by Region, CY 2019–CY 2023



ED Utilization

As noted earlier, one of the goals of the HealthChoice program is to treat more conditions in an ambulatory care setting, with the promotion of ambulatory and preventative care through managed care systems, thus decreasing the need for emergency services in the ED. 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. Unless otherwise noted, ED utilization measures in this report exclude ED visits that resulted in an inpatient hospital admission.

Figure 6 presents the percentage of HealthChoice participants with an outpatient ED visit by age group. The percentage with an ED visit declined between CY 2019 and CY 2023, despite a slight increase in CY 2021.

Each age group saw an overall decline in ED visits between CY 2019 and CY 2023; the largest declines were observed in the age groups of 19 to 39 years and 40 to 64 years, which experienced decreases of 8.8 and 6.4 percentage points, respectively, over the evaluation period.

Figure 6. Percentage of the HealthChoice Population Who Had an Outpatient ED Visit, by Age Group, CY 2019–CY 2023

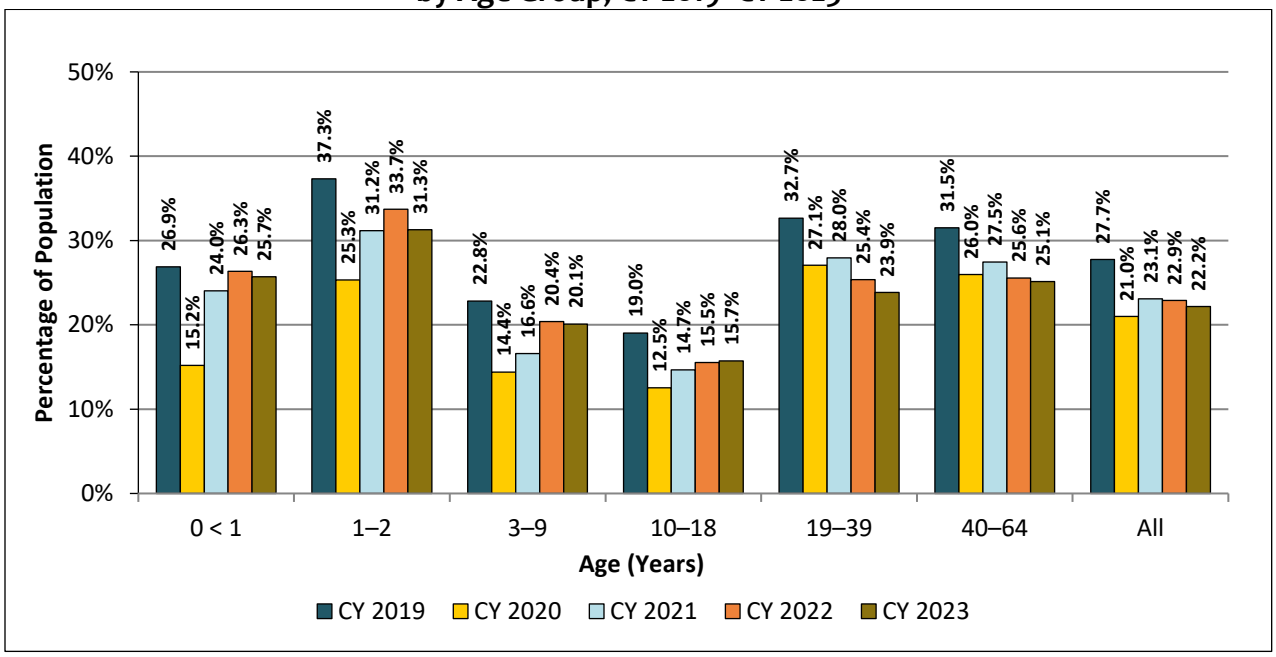


Figure 7 shows ED use by coverage category. Overall, the outpatient ED visit rate among all HealthChoice participants declined from CY 2019 to CY 2023. Among the coverage categories, aged, blind, and disabled (ABD) enrollees were the most likely to utilize ED services, although they still experienced a decrease from 39.5% in CY 2019 to 32.8% in CY 2023.

Figure 7. Percentage of the HealthChoice Population Who Had an Outpatient ED Visit, by Coverage Category, CY 2019–CY 2023

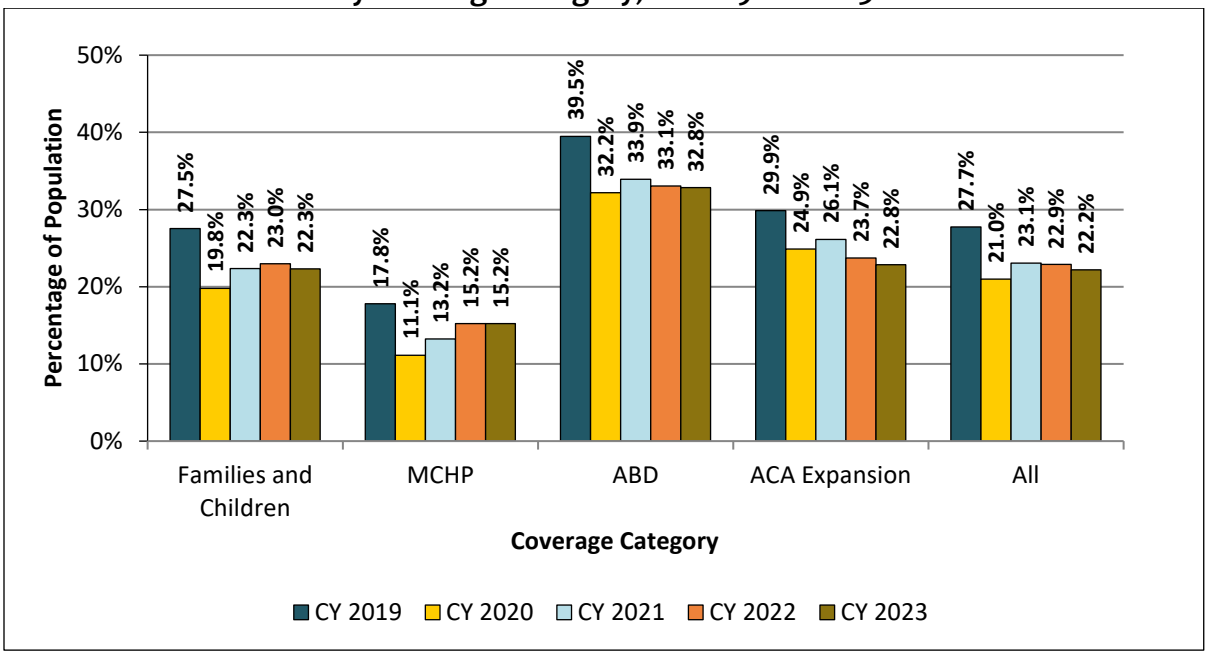


Figure 8 shows the percentage of HealthChoice participants with an ED visit by region between CY 2019 and CY 2023. Participants living in Baltimore City used ED services at the highest rates throughout the evaluation period; however, their rates fell by 7.5 percentage points from CY 2019 to CY 2023. In other regions, rates also declined, ranging from a reduction of 4.2 percentage points in the Washington Suburban area to 7.1 percentage points in the Eastern Shore.

Figure 8. Percentage of the HealthChoice Population Who Had an Outpatient ED Visit, by Region, CY 2019–CY 2023

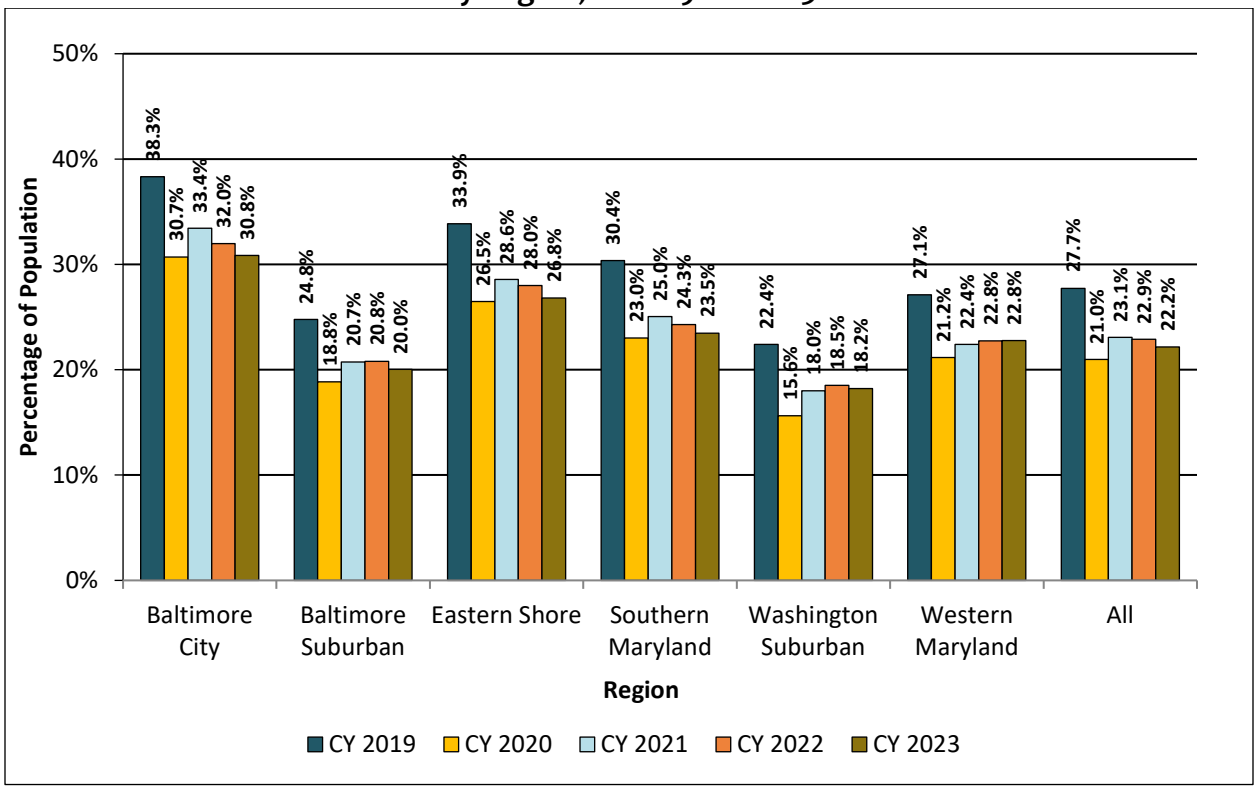


Table 8 presents the number and percentage of HealthChoice participants aged 0 to 64 years with an outpatient ED visit, by age group, during CY 2019 and CY 2023. The percentage of participants with an ED visit decreased across all age groups from CY 2019 to CY 2023, with the largest decline of 8.8 percentage points in the 19-39 years age group. The overall average number of ED visits per user (meaning the average number of ED visits among participants that had at least one ED visit) among all age groups declined by 0.2 during the evaluation period.

Table 8. Percentage of HealthChoice Participants Who Had an Outpatient ED Visit and Average Number of Visits per User, by Age Group, CY 2019 and CY 2023

Age (Years)	Outpatient ED Visits							
	CY 2019				CY 2023			
	# of Participants	# with Visit	% with Visit	Average # Visits by User	# of Participants	# with Visit	% with Visit	Average # Visits by User
0 < 1	35,878	9,645	26.9%	1.7	34,538	8,879	25.7%	1.6
1–2	77,218	28,820	37.3%	1.8	77,620	24,294	31.3%	1.7
3–9	258,838	59,084	22.8%	1.5	280,941	56,432	20.1%	1.5
10–18	298,753	56,885	19.0%	1.6	349,495	54,921	15.7%	1.5
19–39	428,679	140,000	32.7%	2.2	567,439	135,364	23.9%	2.0
40–64	277,998	87,594	31.5%	2.3	355,199	89,295	25.1%	2.1
All	**1,377,364**	**382,028**	**27.7%**	**2.0**	**1,665,232**	**369,185**	**22.2%**	**1.8**

ED Visits with Inpatient Admission

Table 9 shows the number and percentage of HealthChoice participants who had an ED visit that resulted in an inpatient admission by demographic characteristics in CY 2019 and CY 2023. The overall percentage of participants with an ED visit that resulted in an inpatient admission decreased from CY 2019 to CY 2023. That decrease is reflected in the rate for each age group, region, and coverage category, as well as for all MCOs.

In CY 2023, Baltimore City had the highest percentage (4.3%) of participants with an ED visit that resulted in an inpatient hospitalization. Among coverage groups, those in the ABD coverage group had the highest percentage (9.6%) of ED visits that resulted in an inpatient admission.

Table 9. Percentage of the HealthChoice Population Who Had an ED Visit that Resulted in an Inpatient Admission, by Demographic and Coverage Category, CY 2019 and CY 2023

Demographic and Coverage Characteristics	CY 2019			CY 2023		
	Total Participants	# ED Visit with Inpatient Admission	% ED Visit with Inpatient Admission	Total Participants	# ED Visit with Inpatient Admission	% ED Visit with Inpatient Admission
Age Group (Years)						
0 < 1	35,878	1,371	3.8%	34,538	1,088	3.2%
1–2	77,218	1,697	2.2%	77,620	1,382	1.8%
3–9	258,838	1,881	0.7%	280,941	2,021	0.7%
10–18	298,753	2,716	0.9%	349,495	2,839	0.8%
19–39	428,679	19,580	4.6%	567,439	19,773	3.5%
40–64	277,998	21,928	7.9%	355,199	20,596	5.8%
Total	**1,377,364**	**49,173**	**3.6%**	**1,665,232**	**47,699**	**2.9%**
Region*						
Baltimore City	237,736	13,205	5.6%	261,994	11,376	4.3%
Baltimore Suburban	413,760	14,427	3.5%	506,396	15,031	3.0%
Eastern Shore	127,023	4,150	3.3%	148,454	4,106	2.8%
Southern Maryland	70,487	2,950	4.2%	84,988	2,536	3.0%
Washington Suburban	412,039	10,400	2.5%	523,393	10,892	2.1%
Western Maryland	115,113	3,962	3.4%	138,818	3,717	2.7%
Out of State	1,206	79	6.6%	1,189	41	3.4%
Total	**1,377,364**	**49,173**	**3.6%**	**1,665,232**	**47,699**	**2.9%**
Managed Care Organization †**						
Aetna	36,214	1,430	3.9%	71,430	2,002	2.8%
CareFirst Community Health Plan	55,944	2,390	4.3%	107,820	3,686	3.4%

Demographic and Coverage Characteristics	CY 2019			CY 2023		
	Total Participants	# ED Visit with Inpatient Admission	% ED Visit with Inpatient Admission	Total Participants	# ED Visit with Inpatient Admission	% ED Visit with Inpatient Admission
Jai Medical Systems	30,406	1,960	6.4%	32,419	1,591	4.9%
Kaiser	83,720	1,870	2.2%	136,356	2,752	2.0%
Maryland Physicians Care	242,910	9,811	4.0%	270,645	8,605	3.2%
MedStar	105,898	4,451	4.2%	117,284	3,947	3.4%
Priority Partners	341,517	12,268	3.6%	386,286	11,233	2.9%
UnitedHealthcare	167,530	5,714	3.4%	188,556	5,384	2.9%
Wellpoint* **	313,225	9,279	3.0%	354,436	8,499	2.4%
Total	**1,377,364**	**49,173**	**3.6%**	**1,665,232**	**47,699**	**2.9%**
Medicaid Coverage Category**						
Families and Children	764,962	17,249	2.3%	928,415	19,259	2.1%
MCHP	163,947	1,156	0.7%	184,572	1,181	0.6%
ABD	87,472	10,464	12.0%	77,112	7,371	9.6%
ACA Expansion	360,983	20,304	5.6%	475,133	19,888	4.2%
Total	**1,377,364**	**49,173**	**3.6%**	**1,665,232**	**47,699**	**2.9%**

*Regions are defined as the following: Baltimore City (only), Baltimore Metro (Anne Arundel, Baltimore, Carroll, Harford, and Howard Counties), Eastern Shore (Caroline, Cecil, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico, and Worcester Counties), Southern Maryland (Calvert, Charles, and St. Mary's Counties), Washington Metro (Montgomery and Prince George's Counties), and Western Maryland (Allegany, Frederick, Garrett, and Washington Counties). Refer to Figure A1.
**Participants were assigned to their last recorded MCO and Medicaid coverage category of the calendar year.
†MCO data are shown for total enrollment and not adjusted for enrollees' risk distribution.
***On January 1, 2023, Amerigroup Community Care in Maryland became Wellpoint Maryland.

Inpatient Admissions

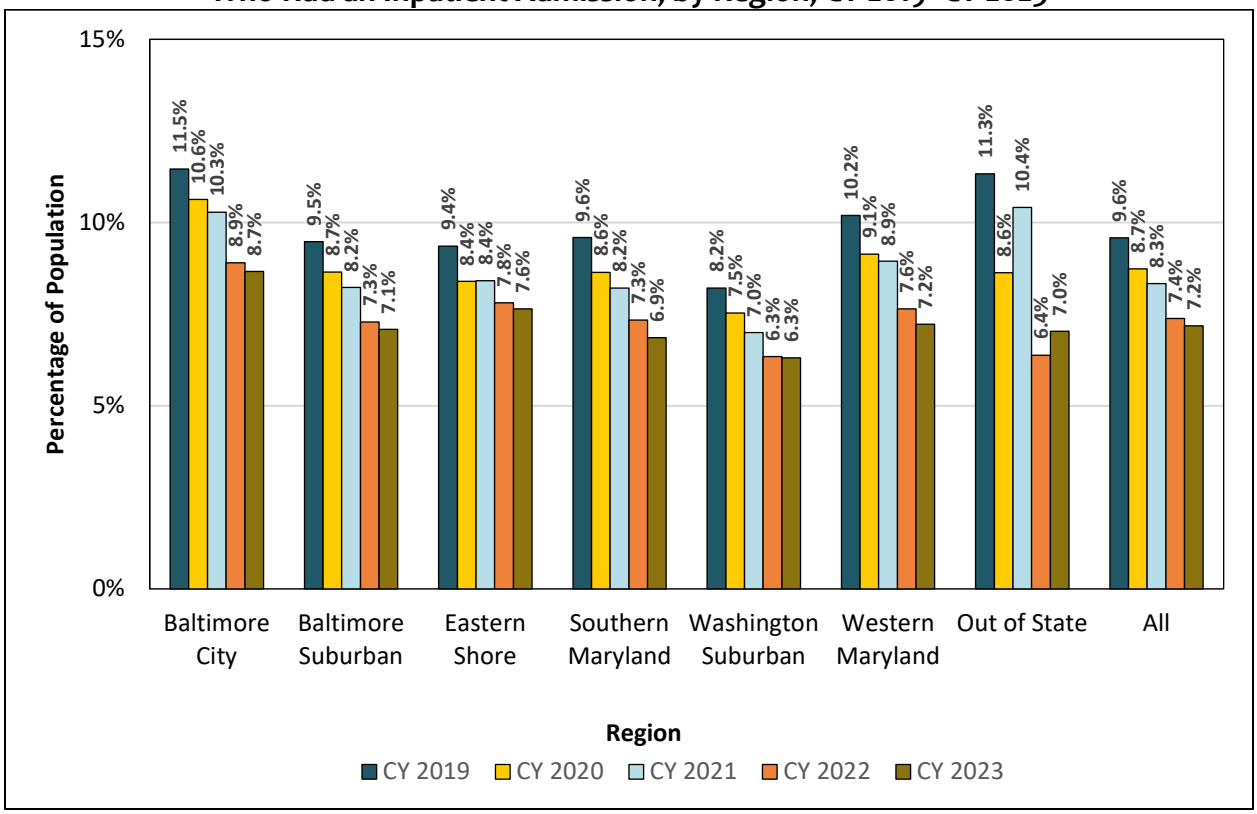
One measure for assessing inpatient utilization is to calculate the percentage of participants aged 18 to 64 years with any period of HealthChoice enrollment who had an inpatient admission during the calendar year. Another measure for assessing inpatient utilization is to calculate the average number of inpatient hospital days. Table 10 presents HealthChoice participants with at least one inpatient hospital admission, by age group, and the average number of days per participant. Participants aged 18 to 40 years had both a lower rate of inpatient admissions and fewer average days compared to participants aged 41 to 64 years. Both age groups decreased in inpatient admissions and average days during the evaluation period.

Table 10. Percentage of HealthChoice Participants Aged 18–64 Years Who Had an Inpatient Admission and Average Inpatient Days, by Age Group, CY 2019 and CY 2023

Age Group	All Inpatient Admissions							
	CY 2019				CY 2023			
	Total Participants	# with Inpatient Admission	% with Inpatient Admission	Average Inpatient Days per Participant	Total Participants	# with Inpatient Admission	% with Inpatient Admission	Average Inpatient Days per Participant
18–40	471,271	43,483	9.2%	0.6	622,508	44,045	7.1%	0.5
41–64	263,736	26,380	10.0%	1.2	335,303	24,680	7.4%	1.0
Total	**735,007**	**69,863**	**9.5%**	**0.9**	**957,811**	**68,725**	**7.2%**	**0.6**

Figure 9 displays the percentages of HealthChoice participants aged 18 to 64 years with an inpatient admission by region. Between CY 2019 and CY 2023, inpatient admission rates decreased overall across all regions. The greatest decline (3.0 percentage points) was observed in Western Maryland. The Washington Suburban region had the lowest admission rate during the evaluation period, with 6.3% in CY 2023 (falling from 8.2% in CY 2019), followed by the Southern Maryland region, with 6.9% in CY 2023. Baltimore City is the only region where admission rates remained above 10.0% throughout the evaluation period until CY 2022, when they dropped to 8.9%.

Figure 9. Percentage of HealthChoice Participants Aged 18–64 Years Who Had an Inpatient Admission, by Region, CY 2019–CY 2023



Care for Special Populations

Another goal of the HealthChoice program is to improve the quality of health services and access to care for special populations. This section of the report assesses services provided to children in foster care, the REM program, access to care stratified by race and ethnicity, and the demographics and health care utilization of the ACA expansion population. Unless otherwise stated, all measures in this section are calculated for HealthChoice participants with any period of enrollment during the calendar year.

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.[28] 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 11 displays HealthChoice children in foster care by age group for CY 2019 and CY 2023. Across the evaluation period, children aged 10 to 21 years made up the largest proportion of HealthChoice children in foster care (66.2% in CY 2019 and 67.0% in CY 2023).

Table 11. Percentage of HealthChoice Children in Foster Care, by Age Group, CY 2019 and CY 2023

Age Group (Years)	CY 2019		CY 2023	
	Number of Participants in Foster Care	Percentage of Total	Number of Participants in Foster Care	Percentage of Total
0 to <1	206	1.4%	140	1.0%
1–2	846	5.7%	637	4.6%
3–5	1,552	10.5%	1,482	10.6%
6–9	2,415	16.3%	2,337	16.7%
10–14	3,687	24.8%	3,388	24.2%
15–18	3,645	24.6%	3,527	25.2%
19–21	2,496	16.8%	2,462	17.6%
Total	**14,847**	**100%**	**13,973**	**100%**

Table 12 shows the percentage of HealthChoice children in foster care by service received and age group. In CY 2019, the rates of outpatient ED visits were highest among adults aged 19 to 21 years, followed by children aged one to two years and children under age one. In CY 2023, the rates of outpatient ED visits were highest among children under one year. Inpatient admission rates declined for all age groups, across the measurement period, except for children aged three to five years, which remained static, and adults aged 19 to 21 years, which rose 0.5 percentage points.

[28] Data includes individuals in subsidized adoption and guardianship populations.

Table 12. Percentage of HealthChoice Children in Foster Care, by Service and Age Group, CY 2019 and CY 2023

Age Group (Years)	CY 2019			CY 2023		
	Total Participants	Number with Service	Percentage with Service	Total Participants	Number with Service	Percentage with Service
Ambulatory Care Visit						
0 to <1	206	196	95.1%	140	128	91.4%
1–2	846	775	91.6%	637	588	92.3%
3–5	1,552	1,332	85.8%	1,482	1,167	78.7%
6–9	2,415	1,975	81.8%	2,337	1,804	77.2%
10–14	3,687	2,947	79.9%	3,388	2,605	76.9%
15–18	3,645	2,876	78.9%	3,527	2,628	74.5%
19–21	2,496	1,643	65.8%	2,462	1,566	63.6%
Total	**14,847**	**11,744**	**79.1%**	**13,973**	**10,486**	**75.0%**
Outpatient ED Visit						
0 to <1	206	71	34.5%	140	57	40.7%
1–2	846	302	35.7%	637	204	32.0%
3–5	1,552	375	24.2%	1,482	311	21.0%
6–9	2,415	408	16.9%	2,337	375	16.0%
10–14	3,687	752	20.4%	3,388	599	17.7%
15–18	3,645	1,102	30.2%	3,527	947	26.9%
19–21	2,496	894	35.8%	2,462	716	29.1%
Total	**14,847**	**3,904**	**26.3%**	**13,973**	**3,209**	**23.0%**
Inpatient Admission						
0 to <1†	206	176	85.4%	140	119	85.0%
1–2	846	61	7.2%	637	32	5.0%
3–5	1,552	28	1.8%	1,482	26	1.8%
6–9	2,415	78	3.2%	2,337	47	2.0%
10–14	3,687	234	6.3%	3,388	175	5.2%
15–18	3,645	344	9.4%	3,527	289	8.2%
19–21	2,496	204	8.2%	2,462	213	8.7%
Total	**14,847**	**1,125**	**7.6%**	**13,973**	**901**	**6.4%**
No Medicaid Service						
0 to <1	206	*	*	140	*	*
1–2	846	*	*	637	*	*
3–5	1,552	131	8.4%	1,482	183	12.3%
6–9	2,415	223	9.2%	2,337	271	11.6%
10–14	3,687	437	11.9%	3,388	408	12.0%
15–18	3,645	416	11.4%	3,527	494	14.0%
19–21	2,496	551	22.1%	2,462	555	22.5%
Total	**14,847**	**1,806**	**12.2%**	**13,973**	**1,945**	**13.9%**

*Cell values of 10 or less have been suppressed.

†Includes admissions tied to infant's (0 to <1) birth.

Table 13 compares the service utilization of HealthChoice children in foster care to those not in foster care. Overall, the percentage of foster children who did not receive a service was higher than non-foster care children in CY 2019 and CY 2023. A higher percentage of children in foster care had an outpatient ED visit compared to non-foster care children, and a higher percentage had an inpatient admission. A higher percentage of non-foster care children had an ambulatory care visit compared to foster care children.

Table 13. Percentage of HealthChoice Foster Care Children vs. Non-Foster Care Children, by Service, CY 2019 and CY 2023

Foster Care Status	CY 2019			CY 2023		
	Total Participants	Number with Service	Percentage with Service	Total Participants	Number with Service	Percentage with Service
Ambulatory Care Visit						
Foster	14,847	11,744	79.1%	13,973	10,486	75.0%
Non-Foster	729,993	605,286	82.9%	826,269	640,538	77.5%
Outpatient ED Visit						
Foster	14,847	4,011	27.0%	13,973	3,209	23.0%
Non-Foster	729,993	171,809	23.5%	826,269	161,323	19.5%
Inpatient Admission†						
Foster	14,847	1,125	7.6%	13,973	901	6.4%
Non-Foster	729,993	44,979	6.2%	826,269	42,828	5.2%
No Medicaid Service						
Foster	14,784	1,806	12.2%	13,973	1,945	13.9%
Non-Foster	729,993	64,789	8.9%	826,269	104,254	12.6%

†Includes admissions tied to infant's (0 to <1) birth.

Table 14 compares the dental utilization rate in CY 2023 for foster care children aged 4 to 20 years to the rate for non-foster care children enrolled in HealthChoice. Overall, children in foster care had a slightly higher dental visit rate (60.0%) than other HealthChoice children (58.7%). The largest differences between the two populations were observed in the youngest two (4 to 5 years and 6 to 9 years) and oldest (19 to 20 years) age groups. The dental visit rate was 64.8% for children in foster care aged 4 to 5 years, 4.0 percentage points higher than for other HealthChoice children in the same age group. The rate for those aged 6 to 9 years, and those 19 to 20 years were 3.9 and 4.6 percentage points higher, respectively, for children in foster care than for non-foster children.

Table 14. Percentage of HealthChoice Foster Care Children Aged 4–20 Years vs. Non-Foster Care Children with a Dental Visit, by Age Group, CY 2023

Age Group (Years)	CY 2023 HealthChoice Foster Care Status					
	Foster Care			Non-Foster Care		
	Total Participants	Number with Dental Visit	Percentage with Dental Visit	Total Participants	Number with Dental Visit	Percentage with Dental Visit
4–5	1,044	676	64.8%	79,045	48,084	60.8%
6–9	2,337	1,641	70.2%	158,371	105,022	66.3%
10–14	3,388	2,226	65.7%	192,430	120,412	62.6%
15–18	3,527	1,944	55.1%	150,150	81,324	54.2%
19–20	1,702	707	41.5%	64,627	23,848	36.9%
Total	**11,998**	**7,194**	**60.0%**	**644,623**	**378,690**	**58.7%**

Table 15 shows the rates of MHDs, SUDs, and co-occurring MHD and SUD conditions among foster care and non-foster care HealthChoice participants in CY 2019 and CY 2023. The percentages of participants with an MHD-only, SUD-only, or co-occurring MHD and SUD diagnosis were higher among foster care participants than non-foster care HealthChoice participants and were considerably higher among foster care children for MHD-only. In CY 2019, the percentages of foster care and non-foster care participants with an SUD-only diagnosis were the same. The percentage of participants with an MHD-only diagnosis decreased across the evaluation period for both foster care statuses, while SUD-only remained stable for foster care participants, and saw a slight decrease for non-foster care participants.

Table 15. Behavioral Health Diagnosis of HealthChoice Foster Care Children vs. Non-Foster Care Children Aged 0–21 Years, CY 2019 and CY 2023

Foster Care Status	CY 2019			CY 2023		
	Total Participants	Number with Diagnosis	Percentage of Total	Total Participants	Number with Diagnosis	Percentage of Total
MHD-Only						
Foster	14,847	5,799	39.1%	13,973	5,347	38.3%
Non-Foster	729,993	83,275	11.4%	826,269	89,908	10.9%
SUD-Only						
Foster	14,847	65	0.4%	13,973	52	0.4%
Non-Foster	729,993	2,827	0.4%	826,269	1,477	0.2%
Dual Diagnosis (MHD and SUD)						
Foster	14,847	224	1.5%	13,973	242	1.7%
Non-Foster	729,993	1,831	0.3%	826,269	2,077	0.3%
No Behavioral Health Diagnosis						
Foster	14,847	8,759	59.0%	13,973	8,332	59.6%
Non-Foster	729,993	642,060	88.0%	826,269	732,807	88.7%

Rare and Expensive Case Management (REM) Program

The REM program provides case management services to Medicaid participants who have a rare and expensive medical condition from a specified list and require sub-specialty care. The program serves people with specialized medical needs. 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. Hilltop used data from *LTSSMaryland*—the state's integrated LTSS tracking system—to identify REM enrollees for these analyses.

REM Enrollment

Table 16 presents REM enrollment by age group, sex, and foster care status for CY 2019 and CY 2023. In both years, most REM participants were males and aged 18 years or younger. Within the REM population, there was a lower percentage of female participants than in the general HealthChoice population. The majority of REM participants were not in foster care.

Table 16. REM Enrollment by Age Group, Sex, and Foster Care Status, CY 2019 and CY 2023

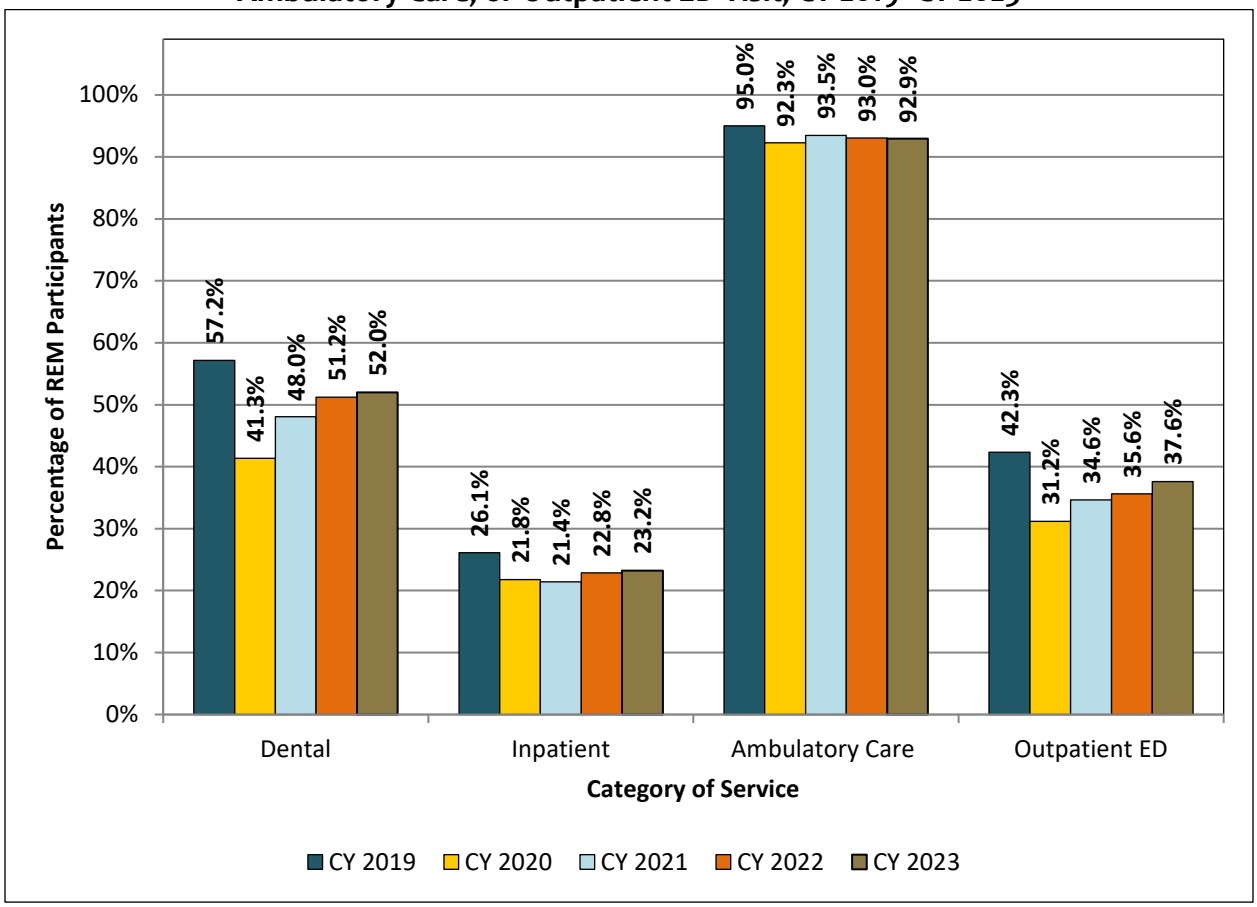
	CY 2019		CY 2023	
Demographic Characteristic	**Number of Enrollees**	**Percentage of Total**	**Number of Enrollees**	**Percentage of Total**
Age Group (Years)				
0–18	3,025	64.8%	3,140	62.9%
19 and over	1,644	35.2%	1,850	37.1%
Total	**4,669**	**100%**	**4,990**	**100%**
Sex				
Female	1,994	42.7%	2,135	42.8%
Male	2,675	57.3%	2,855	57.2%
Total	**4,669**	**100%**	**4,990**	**100%**
Foster Care				
Foster Care	341	7.3%	323	6.5%
Non-Foster Care	4,328	92.7%	4,667	93.5%
Total	**4,669**	**100%**	**4,990**	**100%**

REM Service Utilization

Figure 10 shows the percentage of REM participants who received at least one dental, inpatient, ambulatory care, or outpatient ED visit between CY 2019 and CY 2023. The dental, inpatient, and ambulatory care visit measures serve as indicators of access to care. The percentage of

participants with a dental visit decreased during the evaluation period, from 57.2% in CY 2019 to 52.0% in CY 2023, although it increased from CY 2021 to CY 2023 after a major drop to 41.3% in CY 2020. The percentage of REM participants who had an inpatient visit declined by 2.9 percentage points between CY 2019 and CY 2023, while ambulatory care utilization decreased by 2.1 percentage points. Outpatient ED visits decreased by 4.7 percentage points over the entire evaluation period. Due to the nature of qualifying conditions for the REM program, nearly 100% of REM participants received at least one service a year during the evaluation period.[29]

Figure 10. Percentage of REM Participants with a Dental, Inpatient, Ambulatory Care, or Outpatient ED Visit, CY 2019–CY 2023



[29] Data not shown.

Table 17 shows the behavioral health diagnosis rates among REM participants at the beginning and end of the evaluation period. The rates for MHD-only diagnoses increased slightly by 1.3 percentage points, while the rate of SUD-only diagnoses decreased by 2.8 percentage points. The percentage of REM participants without a behavioral health diagnosis increased by 1.8 percentage points. The results in Table 19 may show a steep decline in the number of participants with an SUD but should be interpreted with caution, since the 2019 and 2023 definitions of SUD differ in many respects. SUD diagnosis definitions have been refined over time, so the results are not comparable across years.

Table 17. Number and Percentage of REM Participants by Behavioral Health Diagnoses, CY 2019 and CY 2023

CY 2019			CY 2023		
Number of Participants	**Total Participants**	**Percentage of Total**	**Number of Participants**	**Total Participants**	**Percentage of Total**
MHD-Only					
907	4,669	19.4%	1,034	4,990	20.7%
SUD-Only					
153	4,669	3.3%	26	4,990	0.5%
Dual Diagnosis (MHD + SUD)					
40	4,669	0.9%	29	4,990	0.6%
No Behavioral Health Diagnosis					
3,569	4,669	76.4%	3,901	4,990	78.2%

Racial and Ethnic Disparities

Racial and ethnic disparities in health care are nationally recognized challenges. The Department is committed to reducing disparities 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 measures of service utilization.

The data presented in this section were especially impacted by the decline in the quality of race and ethnicity information available due to changes to the approach for selecting race and ethnicity on the Medicaid eligibility application in 2014. Beginning in 2023, Hilltop was able to combine several data sources to enhance the quality of race and ethnicity information available for analysis. The following tables use the enhanced race and ethnicity information to present a more precise assessment of enrollment trends and service utilization disparities for CY 2019 through CY 2023.

Enrollment

Table 18 displays HealthChoice enrollment by race and ethnicity. The percentages of enrolled participants identifying as White and Black decreased between CY 2019 and CY 2023. The percentages of participants who are Hispanic, Asian, and "Other" increased by 2.4, 0.4, and 0.3 percentage points, respectively.

Table 18. HealthChoice Enrollment by Race/Ethnicity, CY 2019 and CY 2023

Race/Ethnicity	CY 2019		CY 2023	
	# of Participants	% of Total	# of Participants	% of Total
Asian	70,133	5.1%	91,311	5.5%
Black	609,788	44.3%	720,319	43.3%
White	376,786	27.4%	421,980	25.3%
Hispanic	222,974	16.2%	310,032	18.6%
Native American	13,107	1.0%	15,284	0.9%
Other	84,539	6.1%	106,306	6.4%
Total	**1,377,327**	**100.0%**	**1,665,232**	**100.0%**

Note: "Other" race/ethnicity category includes Pacific Islanders, Alaskan Natives, Two or More Races, Prefer Not to Say, and Unknown.

Ambulatory Care Visits

Figure 11 shows the percentage of children aged 0 through 18 years with at least one ambulatory visit in CY 2019 and CY 2023, by race and ethnicity. The overall rate of ambulatory care visits fell from 84.4% in CY 2019 to 79.3% in CY 2023. All racial and ethnic groups experienced a decrease throughout the evaluation period. In CY 2019, the disparity between the racial/ethnic group with the highest rate of ambulatory care visits (Hispanic) and the lowest rate ("Other") was 9.9 percentage points. In CY 2023, "Other" participants were also the racial/ethnic group with the lowest percentage of ambulatory care visits, at 10.6 percentage points lower than the racial/ethnic group with the highest percentage (Hispanic).

Figure 11. Percentage of HealthChoice Participants Aged 0–18 Years with an Ambulatory Care Visit, by Race/Ethnicity, CY 2019 and CY 2023

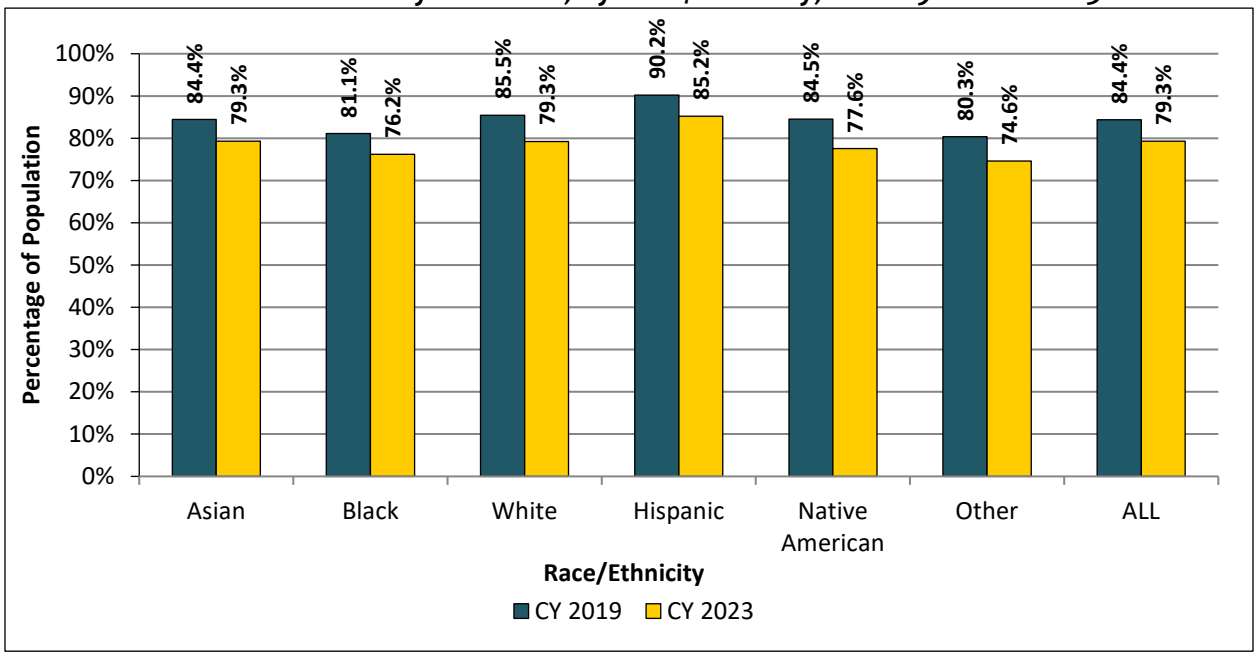
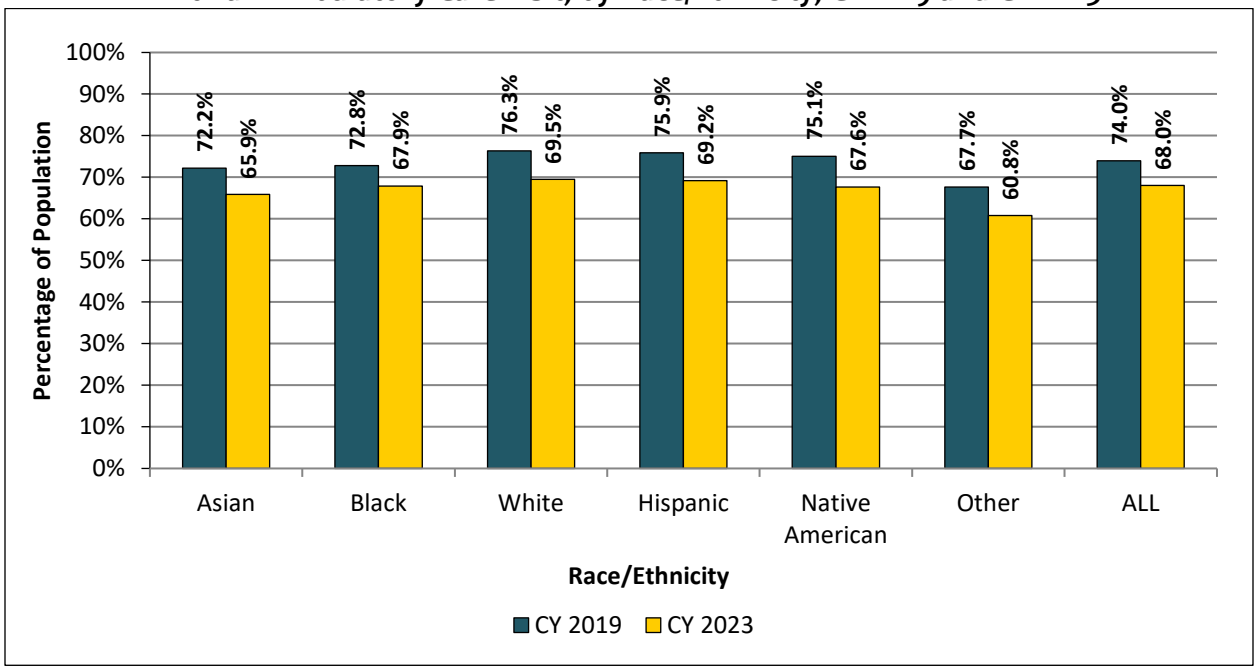


Figure 12 shows the percentage of adults aged 19 to 64 years with at least one ambulatory care visit in CY 2019 and CY 2023, by race and ethnicity. In CY 2019, 74.0% of all adult HealthChoice participants received an ambulatory care visit. This rate decreased to 68.0% in CY 2022. All racial/ethnic groups' rates decreased over the evaluation period.

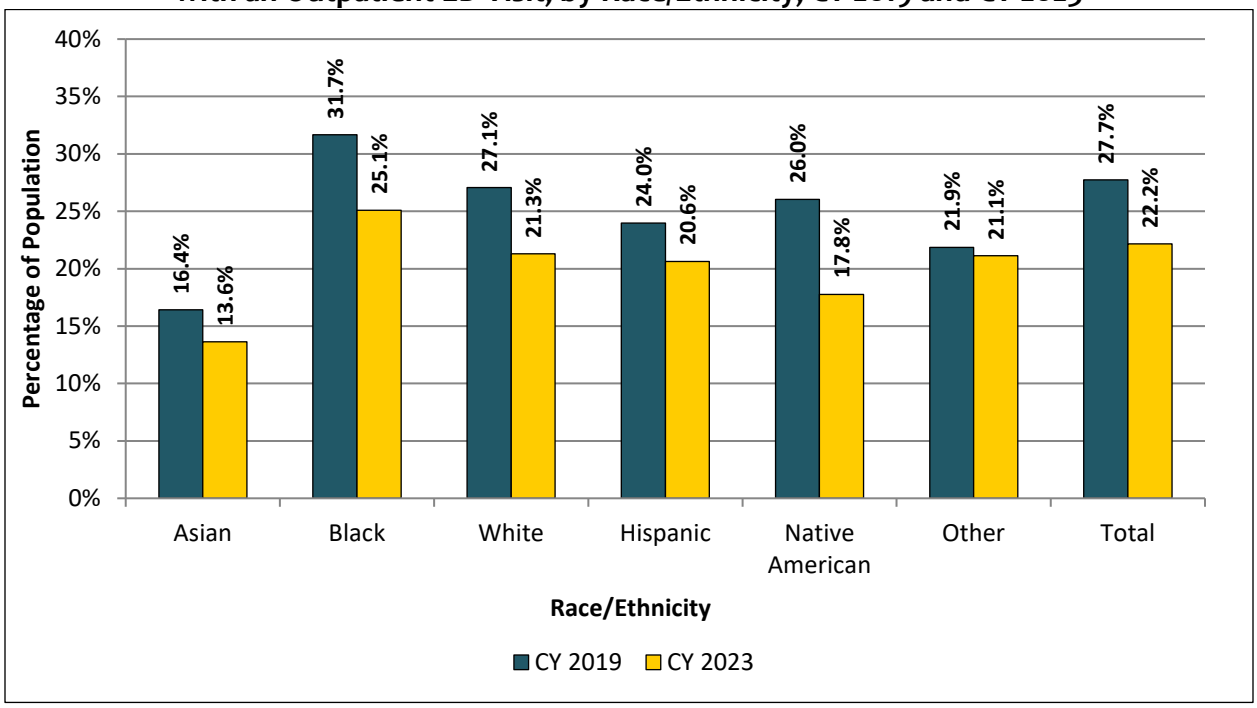
Figure 12. Percentage of HealthChoice Participants Aged 19–64 Years with an Ambulatory Care Visit, by Race/Ethnicity, CY 2019 and CY 2023



Outpatient ED Visits

Figure 13 displays the percentage of HealthChoice participants aged 0 to 64 years with at least one outpatient ED visit by race and ethnicity in CY 2019 and CY 2023. During the evaluation period, each racial and ethnic group experienced a drop in their rate of accessing ED services. Black participants had the highest ED visit rate in both years, while Asian participants had the lowest rate.

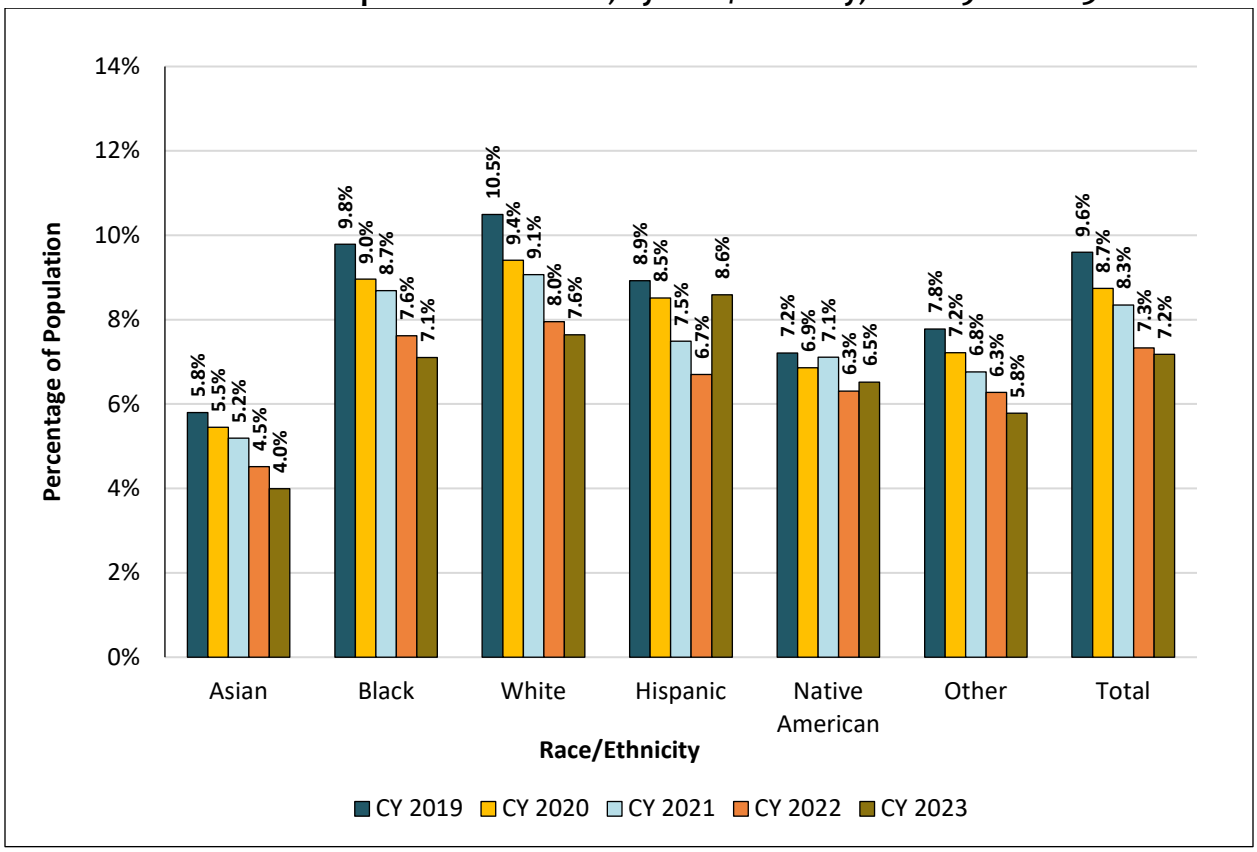
Figure 13. Percentage of HealthChoice Participants Aged 0–64 Years with an Outpatient ED Visit, by Race/Ethnicity, CY 2019 and CY 2023



Inpatient Admissions

Figure 14 presents the percentage of HealthChoice participants aged 18 to 64 years with an inpatient admission between CY 2019 and CY 2023, by race and ethnicity. Each group's rate declined overall between CY 2019 and CY 2023. Asian participants had the lowest rate of inpatient admissions throughout the evaluation period, while White participants had the highest rate throughout.

Figure 14. Percentage of HealthChoice Participants Aged 18–64 Years Who Had an Inpatient Admission, by Race/Ethnicity, CY 2019–CY 2023



ACA Medicaid Expansion Population

This section of the report examines the demographic characteristics and health care utilization of the ACA Medicaid expansion population between CY 2019 and CY 2023. These demographic and service utilization measures are for participants with any period of enrollment in one of the ACA Medicaid expansion coverage groups. Many of these participants were gaining Medicaid coverage for the first time and had limited health care utilization literacy or struggled with homelessness, resulting in reduced access to care until they became more familiar with accessing care through Medicaid.

ACA Medicaid Expansion Population Demographics

In CY 2019, the Maryland Medicaid program enrolled 391,824 adults (with any period of enrollment) through the ACA Medicaid expansion.[30] By CY 2023, the number of participants (members) who received coverage for at least one month in an ACA expansion coverage group increased to 515,121.

[30] Race and ethnicity values were calculated using the enhanced race/ethnicity variable implemented in 2023 and updated for the entire measurement period. Thus, race and ethnicity totals will not match previous HealthChoice Evaluation results.

Table 19 displays demographic characteristics of the expansion population (with any period of enrollment) during the evaluation period. Participants aged 19 to 34 years composed the largest portion of the ACA expansion population. Black participants were the largest racial/ethnic group, and the Baltimore Suburban region had the largest percentage of participants. The proportion of expansion participants with 12 member months rose by 11.8 percentage points between CY 2019 and CY 2023.

Table 19. ACA Medicaid Expansion Population Aged 19–64 Years, by Demographics and Any Enrollment Period, CY 2019–CY 2023

Demographic Characteristic	CY 2019		CY 2020		CY 2021		CY 2022		CY 2023	
	# of Participants	% of Total	# of Participants	% of Total	# of Participants	% of Total	# of Participants	% of Total	# of Participants	% of Total
Race/Ethnicity										
Asian	22,011	5.6%	24,213	6.1%	27,964	6.4%	30,403	6.5%	31,413	6.1%
Black	176,815	45.1%	178,886	45.0%	198,710	45.3%	212,873	45.3%	236,587	45.9%
White	139,629	35.6%	137,192	34.5%	146,742	33.4%	153,818	32.8%	166,509	32.3%
Hispanic	29,380	7.5%	31,503	7.9%	36,489	8.3%	40,808	8.7%	47,339	9.2%
Native American	3,841	1.0%	4,082	1.0%	4,689	1.1%	5,204	1.1%	5,495	1.1%
Other	20,148	5.1%	21,302	5.4%	24,316	5.5%	26,450	5.6%	27,778	5.4%
Total	**391,824**	**100%**	**397,178**	**100%**	**438,910**	**100%**	**469,556**	**100%**	**515,121**	**100%**
Sex										
Female	182,275	46.5%	182,806	46.0%	200,738	45.7%	213,291	45.4%	234,730	45.6%
Male	209,549	53.5%	214,372	54.0%	238,172	54.3%	256,265	54.6%	280,391	54.4%
Total	**391,824**	**100%**	**397,178**	**100%**	**438,910**	**100%**	**469,556**	**100%**	**515,121**	**100%**
Region										
Baltimore City	77,858	19.9%	77,657	19.6%	83,726	19.1%	88,233	18.8%	94,127	18.3%
Baltimore Suburban	117,356	30.0%	119,032	30.0%	131,648	30.0%	140,923	30.0%	155,226	30.1%
Eastern Shore	36,989	9.4%	36,005	9.1%	39,052	8.9%	41,564	8.9%	45,697	8.9%
Southern MD	20,936	5.3%	21,132	5.3%	23,150	5.3%	24,668	5.3%	26,870	5.2%
Washington Suburban	105,310	26.9%	110,567	27.8%	125,390	28.6%	135,664	28.9%	150,087	29.1%
Western MD	32,624	8.3%	32,107	8.1%	35,214	8.0%	37,687	8.0%	42,169	8.2%
Out of State	751	0.2%	678	0.2%	730	0.2%	817	0.2%	945	0.2%
Total	**391,824**	**100%**	**397,178**	**100%**	**438,910**	**100%**	**469,556**	**100%**	**515,121**	**100%**
***Age Group* (Years)**										
19–34	184,463	47.1%	183,860	46.3%	203,635	46.4%	215,289	45.8%	236,651	45.9%
35–49	93,936	24.0%	96,903	24.4%	108,054	24.6%	118,895	25.3%	134,544	26.1%
50–64	113,425	28.9%	116,415	29.3%	127,221	29.0%	135,372	28.8%	143,926	27.9%
Total	**391,824**	**100%**	**397,178**	**100%**	**438,910**	**100%**	**469,556**	**100%**	**515,121**	**100%**
Member Months										
1	11,477	2.9%	15,012	3.8%	6,676	1.5%	6,178	1.3%	6,698	1.3%
2	11,106	2.8%	11,821	3.0%	5,786	1.3%	5,301	1.1%	6,189	1.2%
3	10,239	2.6%	7,027	1.8%	5,213	1.2%	4,476	1.0%	5,175	1.0%
4	9,689	2.5%	6,514	1.6%	5,050	1.2%	4,748	1.0%	5,128	1.0%
5	10,269	2.6%	6,741	1.7%	6,065	1.4%	4,749	1.0%	9,502	1.8%
6	9,702	2.5%	6,847	1.7%	5,278	1.2%	4,107	0.9%	10,230	2.0%
7	10,499	2.7%	6,805	1.7%	5,476	1.2%	4,382	0.9%	12,776	2.5%
8	11,634	3.0%	6,442	1.6%	5,629	1.3%	4,439	0.9%	9,667	1.9%
9	11,689	3.0%	8,528	2.1%	6,026	1.4%	4,386	0.9%	8,405	1.6%
10	12,972	3.3%	8,377	2.1%	6,784	1.5%	4,865	1.0%	7,694	1.5%
11	15,009	3.8%	6,778	1.7%	5,880	1.3%	5,503	1.2%	21,205	4.1%
12	267,539	68.3%	306,286	77.1%	375,047	85.4%	416,422	88.7%	412,452	80.1%
Total	**391,824**	**100%**	**397,178**	**100%**	**438,910**	**100%**	**469,556**	**100%**	**515,121**	**100%**

Note: "Other" race/ethnicity category includes Pacific Islanders, Alaskan Natives, Two or More Races, Prefer Not to Say, and Unknown.

* Race and ethnicity values were calculated using the enhanced race/ethnicity variable implemented in 2023 and updated for the entire measurement period. Thus, race and ethnicity totals will not match previous HealthChoice Evaluation results.

Table 20 displays demographic characteristics of the expansion population with a full 12 months of enrollment during the evaluation period. The racial and regional distribution of this population is similar to the distribution of the expansion population with any period of enrollment. Participants aged 19 to 34 years composed the largest portion of the ACA expansion population with 12 months of enrollment. Black participants were the largest racial/ethnic group, and the Baltimore Suburban region had the largest portion of participants.

Table 20. ACA Medicaid Expansion Population Demographics for Participants Aged 19–64 Years, 12 Months of Enrollment, CY 2019–CY 2023

Demographic Characteristic	CY 2019		CY 2020		CY 2021		CY 2022		CY 2023	
	# of Participants	% of Total	# of Participants	% of Total	# of Participants	% of Total	# of Participants	% of Total	# of Participants	% of Total
Race/Ethnicity										
Asian	15,005	5.6%	17,455	5.7%	23,255	6.2%	26,647	6.4%	25,259	6.1%
Black	122,441	45.8%	140,925	46.0%	172,373	46.0%	192,197	46.2%	194,419	47.1%
White	95,876	35.8%	106,439	34.8%	124,352	33.2%	133,797	32.1%	129,815	31.5%
Hispanic	19,109	7.1%	23,086	7.5%	30,875	8.2%	36,001	8.6%	36,223	8.8%
Native American	2,762	1.0%	3,201	1.0%	4,053	1.1%	4,614	1.1%	4,560	1.1%
Other	12,346	4.6%	15,180	5.0%	20,139	5.4%	23,166	5.6%	22,176	5.4%
Total	**267,539**	**100%**	**306,286**	**100%**	**375,047**	**100%**	**416,422**	**100%**	**412,452**	**100%**
Sex										
Female	124,486	46.5%	140,442	45.9%	171,757	45.8%	188,325	45.2%	184,029	44.6%
Male	143,053	53.5%	165,844	54.1%	203,290	54.2%	228,097	54.8%	228,423	55.4%
Total	**267,539**	**100%**	**306,286**	**100%**	**375,047**	**100%**	**416,422**	**100%**	**412,452**	**100%**
Region										
Baltimore City	55,975	20.9%	63,122	20.6%	73,800	19.7%	80,455	19.3%	79,949	19.4%
Baltimore Suburban	80,243	30.0%	91,709	29.9%	112,187	29.9%	124,455	29.9%	123,631	30.0%
Eastern Shore	25,595	9.6%	28,859	9.4%	33,869	9.0%	37,079	8.9%	36,756	8.9%
Southern Maryland	14,641	5.5%	16,540	5.4%	19,966	5.3%	21,895	5.3%	21,697	5.3%
Washington Suburban	68,903	25.8%	80,572	26.3%	104,752	27.9%	119,018	28.6%	117,019	28.4%
Western Maryland	21,721	8.1%	24,968	8.2%	29,874	8.0%	32,872	7.9%	32,688	7.9%
Out of State	461	0.2%	516	0.2%	599	0.2%	648	0.2%	712	0.2%
Total	**267,539**	**100%**	**306,286**	**100%**	**375,047**	**100%**	**416,422**	**100%**	**412,452**	**100%**
Age Group (Years)										
19–34	120,902	45.2%	139,830	45.7%	173,127	46.2%	189,748	45.6%	188,584	45.7%
35–49	65,415	24.5%	75,783	24.7%	92,915	24.8%	106,426	25.6%	109,778	26.6%
50–64	81,222	30.4%	90,673	29.6%	109,005	29.1%	120,248	28.9%	114,090	27.7%
Total	**267,539**	**100%**	**306,286**	**100%**	**375,047**	**100%**	**416,422**	**100%**	**412,452**	**100%**

* Race and ethnicity values were calculated using the enhanced race/ethnicity variable implemented in 2023 and updated for the entire measurement period. Thus, race and ethnicity totals will not match previous HealthChoice Evaluation results.

ACA Medicaid Expansion Population Service Utilization

This section discusses the health care utilization of participants who received coverage through the ACA Medicaid expansion. Table 21 displays the number and percentage of participants with an ambulatory visit, outpatient ED visit, or inpatient admission in CY 2019 through CY 2023 with any period of enrollment as well as 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 than participants with any period of enrollment. Key findings from Table 23 include the following:

- In CY 2019, 68.2% of ACA Medicaid expansion participants with any period of enrollment had an ambulatory care visit; this rate increased to 68.6% in CY 2021 and then decreased to 62.4% by CY 2023. Visit rates also decreased from 75.7% to 64.6% over the evaluation period for expansion participants enrolled for the entire year.
- In CY 2019, 30.0% of ACA Medicaid expansion participants with any period of enrollment had an outpatient ED visit. This rate experienced sharp declines in CY 2020 and CY 2022, with an overall decline of 7.1 percentage points during the evaluation period. The rates for participants with 12 months of enrollment decreased from 33.5% in CY 2019 to 24.6% in CY 2023.
- Overall, 8.2% of ACA Medicaid expansion participants with any period of enrollment had an inpatient admission in CY 2019, decreasing to 6.1% in CY 2023. Participants who were enrolled for the entire year also experienced a decrease in inpatient admissions from 8.5% in CY 2019 to 6.2% in CY 2023. The inpatient admission rate for those with 12 months of enrollment was lower in both CY 2021 and CY 2022. In CY 2023, 6.2% of participants enrolled for 12 months had an inpatient admission compared to 6.1% of participants with any enrollment.
- While enrollment increased for ACA Medicaid expansion participants from CY 2022 to CY 2023, utilization decreased for ambulatory visits, outpatient ED visits, and inpatient admissions for both participants enrolled for 12 months and those with any enrollment. The only exception was utilization of outpatient ED visits and inpatient admission for participants enrolled for 12 months, which each increased 0.1 percentage points from CY 2022 to CY 2023.

Table 21. Service Utilization of ACA Medicaid Expansion Population Aged 19–64 Years, by Enrollment Period, CY 2019–CY 2023

Enrollment Period	CY 2019			CY 2020			CY 2021			CY 2022			CY 2023		
	# of Users	# of Participants	% of Total	# of Users	# of Participants	% of Total	# of Users	# of Participants	% of Total	# of Users	# of Participants	% of Total	# of Users	# of Participants	% of Total
Ambulatory Care Visits															
Any	267,294	391,784	68.2%	258,789	396,876	65.2%	300,615	438,293	68.6%	305,241	469,556	65.0%	321,376	515,121	62.4%
12 Months	202,589	267,587	75.7%	215,701	306,207	70.4%	268,048	374,868	71.5%	279,778	416,422	67.2%	266,643	412,452	64.6%
Outpatient ED Visits															
Any	117,383	391,784	30.0%	98,697	396,876	24.9%	114,587	438,293	26.1%	111,625	469,556	23.8%	117,922	515,121	22.9%
12 Months	89,555	267,587	33.5%	82,473	306,207	26.9%	101,526	374,868	27.1%	102,154	416,422	24.5%	101,313	412,452	24.6%
Inpatient Admissions															
Any	31,941	391,784	8.2%	28,419	396,876	7.2%	32,050	438,293	7.3%	30,021	469,556	6.4%	31,275	515,121	6.1%
12 Months	22,876	267,587	8.5%	21,931	306,207	7.2%	26,144	374,868	7.0%	25,573	416,422	6.1%	25,421	412,452	6.2%

Note: The number of users is the number of participants that had at least one visit.

ACA Medicaid Expansion Population with Mental Health and Substance Use Disorders

This section of the evaluation presents the rates of behavioral health diagnoses among ACA expansion participants. Table 22 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 2019 through CY 2023.

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 compared to participants with any period of enrollment. However, the difference narrowed across the evaluation period for all participant groups. The percentage of participants with any period of enrollment and an MHD increased by 0.7 percentage points overall. The percentage of participants with any period of enrollment and an SUD decreased from 6.3% in CY 2019 to 4.2% in CY 2023. The percentage of participants with any period of enrollment and a dual diagnosis of MHD and SUD decreased 0.5 percentage points throughout the evaluation period.

Table 22. Behavioral Health Diagnosis of ACA Medicaid Expansion Population Aged 19–64 Years, by Enrollment Period, CY 2019–CY 2023

Enrollment Period	CY 2019			CY 2020			CY 2021			CY 2022			CY 2023		
	# of Participants	Total Participants	% of Total	# of Participants	Total Participants	% of Total	# of Participants	Total Participants	% of Total	# of Participants	Total Participants	% of Total	# of Participants	Total Participants	% of Total
MHD-Only															
Any Period	45,658	391,815	11.7%	45,062	397,346	11.3%	51,980	439,258	11.8%	56,847	470,342	12.1%	63,901	515,121	12.4%
12 Months	34,626	267,536	12.9%	37,814	306,375	12.3%	46,112	375,276	12.3%	51,616	416,449	12.4%	53,282	412,452	12.9%
SUD-Only															
Any Period	24,542	391,815	6.3%	23,236	397,346	5.8%	23,558	439,258	5.4%	22,683	470,342	4.8%	21,829	515,121	4.2%
12 Months	18,605	267,536	7.0%	19,697	306,375	6.4%	20,930	375,276	5.6%	20,746	416,449	5.0%	18,900	412,452	4.6%
Dual Diagnosis (MHD and SUD)															
Any Period	21,737	391,815	5.5%	20,297	397,346	5.1%	21,178	439,258	4.8%	22,252	470,342	4.7%	25,587	515,121	5.0%
12 Months	17,747	267,536	6.6%	17,938	306,375	5.9%	19,222	375,276	5.1%	20,559	416,449	4.9%	22,830	412,452	5.5%
No Behavioral Health Diagnosis															
Any Period	299,878	391,815	76.5%	308,751	397,346	77.7%	342,542	439,258	78.0%	368,560	470,342	78.4%	403,804	515,121	78.4%
12 Months	196,558	267,536	73.5%	230,926	306,375	75.4%	289,012	375,276	77.0%	323,528	416,449	77.7%	317,440	412,452	77.0%

Section III Conclusion

During CY 2023, HealthChoice maintained access to primary care for its members, with all Maryland counties having sufficient PCPs to outperform the benchmark ratio of 200 patients per provider practice. The percentage of Medicaid participants enrolled in managed care remained consistently above 89.0% from CY 2019 to CY 2023, with continuous enrollment increasing significantly in CY 2020 and CY 2021 and then slightly in CY 2022, followed by a decrease in CY 2023. This increase is a result of the PHE and the continuous enrollment provision of FFCRA. Across a wide variety of measures, HealthChoice utilization trends were largely consistent with program goals in CY 2019. However, the COVID-19 PHE in CY 2020 negatively impacted utilization trends. The percentage of HealthChoice participants who received ambulatory care decreased over the evaluation period, with the largest decrease of 4.6 percentage points between CY 2019 and CY 2020, followed by an increase of 3.5 percentage points in CY 2021, a subsequent decrease of 2.5 percentage points in CY 2022, and then a decrease of 2.4 percentage points in CY 2023. Outpatient ED visits and inpatient admissions generally declined over the evaluation period.

HealthChoice prioritizes the delivery of and access to quality health services to special populations—such as children in foster care and REM program participants—as well as reducing racial and ethnic disparities. Utilization of services among these special populations was largely consistent with utilization trends of the overall HealthChoice population. Over the evaluation period, the percentage of children in foster care who received an ambulatory service decreased, and utilization of the ED and inpatient admissions for this population also decreased. However, outpatient ED visits and inpatient admissions were higher for children in foster care than for children not in foster care in CY 2023. The percentage of REM participants with a dental visit, ambulatory care visit, ED visit, or inpatient admission decreased during the evaluation period; however, ED and dental visits increased from CY 2020 to CY 2023.

Section IV. Quality of Care

Population Health Incentive Program

The Center for Health Care Strategies helped the Department develop a Value-Based Purchasing (VBP) initiative for HealthChoice beginning in 1999. The VBP initiative has since been renamed the Population Health Incentive Program (PHIP). PHIP pays incentives to MCOs that demonstrate high-quality care, increased access, and administrative efficiency by using standardized measures of performance on population health goals.

PHIP measures may change according to the Department's priorities and analysis of changing population health needs. The measures selected are intended to improve outcomes for HealthChoice participants—including children, children with special needs, pregnant women, adults with disabilities, and adults with chronic conditions—while being measurable with available data and comparable to national performance measures for benchmarking. PHIP strives for consistency with CMS's national performance measures for Medicaid and should reflect areas in which it is possible for MCOs to effect change. Measures included in the CY 2023 PHIP (see Table 23) were adapted from NCQA's HEDIS®.[31] These measures were chosen using encounter data and data supplied by the HealthChoice MCOs and subsequently validated by the Department's external quality review organization (EQRO) and HEDIS® auditor. Changes in the components of PHIP may result in changes in plan performance with respect to that measure. Therefore, decisions to make changes to the list of PHIP measures are taken with due consideration by the Department. Moreover, the measures are applied to MCOs without adjustments for differing risks in the population each serves. This has the effect of assuming that each MCO's PHIP performance is not affected by differences among an MCO's enrollees.

Table 23. PHIP Measures and Statewide Percentages, CY 2023

Population Health Incentive Program Measure	Statewide Percentage
Ambulatory Care Visits for SSI Adults	79.0%
Ambulatory Care Visits for SSI Children	78.2%
Asthma Medication Ratio	69.9%
Continued Opioid Use (COU): >=31 days covered	3.1%
Hemoglobin A1c Control for Patients with Diabetes (HBD): Poor HbA1c Control (>9%)	31.9%
Lead Screening in Children (LSC)	74.7%
Prenatal and Postpartum Care (PPC-CH): Timeliness of Prenatal Care	87.9%
Prenatal and Postpartum Care (PPC-AD): Postpartum Care	84.2%

In early 2021, PHIP moved to an incentive-only model for CY 2022. The overall goal remained the same: allocate financial incentives annually to HealthChoice MCOs that demonstrate high-quality care based on standardized measures of performance.

[31] Some of the HEDIS® measures have changed and are different than what was reported in the 2022 HealthChoice Evaluation.

Hilltop developed and proposed an incentive payment structure based on current performance and historical improvement on both standardized performance measures (i.e., HEDIS®) and locally developed (i.e., homegrown) quality measures. Measure selection was informed to align with Maryland's new SIHIS. Hilltop then proposed to allocate available funds through two rounds of incentive payments:

- In Round 1, payments to plans are made from the allocated incentive funding based on performance during the measurement year and improvement from the previous year.
- In Round 2, unallocated funds from Round 1 are redistributed among high-performing MCOs as additional incentives, up to a limit of 1% of the MCO's measurement year capitation as total payment from Round 1 and Round 2.

This methodology was refined in conjunction with the Department and MCOs, and the new payment structure went into effect during the CY 2022 performance year.

Three performance measures were selected to further evaluate PHIP during the evaluation period: 1) Comprehensive Diabetes Care - Poor HbA1c Control (>9.0%), 2) Ambulatory Care Visits for SSI Adults, and 3) Ambulatory Care Visits for SSI Children.

Due to the COVID-19 PHE, there are challenges in evaluating the effects of PHIP on the chosen measures. The Comprehensive Diabetes Care - HbA1c Control measure was removed for PHIP in CY 2023. The measure now evaluates the percentage of participants with Comprehensive Diabetes Care with poor HbA1c Control (>9.0%). The percentage of enrollees with Comprehensive Diabetes Care with Poor HbA1c Control (>9.0%) increased from CY 2019 to CY 2020 in the pre-COVID period (see Table 24). Overall performance improved by CY 2023, with a small uptick in CY 2022. By CY 2023, the Maryland Average Reportable Rate (MARR) for participants with poor Hb1Ac control fell to 31.9%, a 2.9 percentage point decrease from CY 2019. Performance among MCOs varied, ranging from a decrease of 7.3 percentage points (Priority Partners) to an increase of 4.6 percentage points (Jai Medical Systems) over the evaluation period.

Table 24. Percentage of HealthChoice Participants with Comprehensive Diabetes Care (CDC) Poor HbA1c Control (>9.0%), by MCO, CY 2019–CY 2023

MCO	2019	2020	2021	2022	2023
Aetna	38.7%	45.3%	35.5%	38.0%	34.2%
CareFirst Community Health Plan	33.6%	38.9%	38.7%	38.0%	29.0%
Jai Medical Systems	27.3%	35.7%	28.4%	29.2%	31.9%
Kaiser	26.0%	31.7%	29.2%	30.7%	29.1%
Maryland Physicians Care	36.0%	43.6%	32.4%	32.9%	29.2%
MedStar	33.0%	34.2%	34.6%	30.7%	31.4%
Priority Partners	42.6%	51.1%	35.3%	32.4%	35.3%
UnitedHealthcare	37.5%	41.9%	39.7%	36.3%	34.6%
Wellpoint*	38.2%	37.2%	37.5%	37.2%	32.6%
MARR	**34.8%**	**39.9%**	**34.6%**	**33.9%**	**31.9%**

*formerly Amerigroup Community Care

MCOs differed in their performance on the measures of ambulatory care for SSI adults and children. Over the evaluation period, MCOs ranged from a decrease of 14.3 percentage points (CareFirst) to a decrease of 1.7 percentage points (Aetna) in the percentage of SSI adults with an ambulatory visit. The percentage of SSI children with an ambulatory visit ranged from a decrease of 19.5 percentage points (CareFirst) to an increase of 7.2 percentage points (Aetna) over the evaluation period. Jai was the highest performing MCO on the adult measure and remained consistent over the evaluation period. For the child measure, Jai was the highest performing MCO from CY 2019 to CY 2021, and Priority Partners was the highest performing MCO for CY 2022 and CY 2023.

Table 25. Percentage of Ambulatory Care Visits for SSI Adults, by MCO, CY 2019–CY 2023

MCO	2019	2020	2021	2022	2023
Aetna	58.2%	57.0%	59.8%	58.6%	56.5%
CareFirst Community Health Plan	87.7%	76.4%	76.1%	72.6%	73.4%
Jai Medical Systems	90.6%	89.7%	90.1%	87.1%	85.1%
Kaiser	75.5%	69.0%	71.9%	70.9%	69.3%
Maryland Physicians Care	84.7%	83.1%	83.6%	82.6%	82.3%
MedStar	83.5%	80.0%	80.2%	79.6%	79.0%
Priority Partners	86.1%	82.3%	83.6%	82.0%	81.1%
UnitedHealthcare	79.4%	76.8%	78.6%	76.2%	75.7%
Wellpoint*	82.2%	77.2%	80.1%	77.9%	78.1%
All	**83.9%**	**80.3%**	**81.5%**	**79.7%**	**79.0%**

*formerly Amerigroup Community Care

Table 26. Percentage of Ambulatory Care Visits for SSI Children, by MCO, CY 2019–CY 2023

MCO	2019	2020	2021	2022	2023
Aetna	40.7%	37.8%	45.8%	47.0%	47.9%
CareFirst Community Health Plan	88.5%	66.3%	64.3%	70.5%	69.0%
Jai Medical Systems	90.9%	89.8%	89.1%	81.3%	78.8%
Kaiser	79.5%	66.4%	76.0%	71.0%	69.7%
Maryland Physicians Care	84.4%	78.6%	82.7%	81.9%	80.1%
MedStar	78.9%	74.0%	76.4%	75.3%	71.2%
Priority Partners	85.5%	77.1%	84.7%	82.6%	82.2%
UnitedHealthcare	80.2%	70.0%	78.5%	75.2%	75.8%
Wellpoint*	84.2%	74.8%	82.3%	78.8%	79.0%
All	**83.7%**	**75.0%**	**81.2%**	**79.0%**	**78.2%**

*formerly Amerigroup Community Care

EPSDT (Healthy Kids) Review

Federal regulations require EPSDT services for all Medicaid participants under the age of 21 years.[32] The purpose of EPSDT is to ensure that children receive age-appropriate physical

[32] 42 CFR § 440.345.

examinations, developmental assessments, and mental health screenings periodically to identify any deviations from expected growth and development.

Maryland's EPSDT program, Healthy Kids, aims to support access to and increase the availability of quality health care. The Healthy Kids Program includes nurse consultants who 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 age-appropriate encounter forms, risk assessment forms, and questionnaires with their provider networks to assist with documenting preventive services according to the Maryland Schedule of Preventive Health Care.

The annual EPSDT Healthy Kids medical record review (MRR) assesses whether EPSDT services are provided to HealthChoice participants in a timely manner. The review is conducted on HealthChoice provider compliance with five EPSDT components: 1) health and developmental history, 2) comprehensive physical exam, 3) laboratory tests/at-risk screenings, 4) immunizations, and 5) health education/anticipatory guidance.

Table 27 demonstrates the change in provider compliance scores for components of the EPSDT/ Healthy Kids Review during the evaluation period. Between CY 2019 and CY 2023, provider compliance increased for all EPSDT components. The HealthChoice aggregate total score increased overall from CY 2019 to CY 2023, with a decrease occurring from CY 2022 to CY 2023 (Qlarant, 2025). The Department achieved the minimum compliance score of 80% for all components for CY 2019 and maintained it through CY 2020, except for two components that were baseline results because of the change in the MRR process stemming from the COVID-19 PHE. Only one component in CY 2020—Laboratory Tests/At-Risk Screenings—remained below the minimum compliance score. In CY 2021 through CY 2023, all components achieved the minimum compliance score. MCOs use the Healthy Kids review results to develop education efforts to inform participants and providers about EPSDT services.

Table 27. HealthChoice MCO Aggregate Composite Scores for Components of the EPSDT/Healthy Kids Review, CY 2019–CY 2023

EPSDT Component	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
Health and Developmental History	88%	94%	94%	96%	93%
Comprehensive Physical Exam	93%	96%	96%	98%	97%
Laboratory Tests/At-Risk Screenings	66%*	77%	81%	85%	80%
Immunizations	71%*	86%	88%	95%	92%
Health Education/Anticipatory Guidance	92%	94%	94%	97%	96%
HealthChoice Aggregate Total	**83%**	**91%**	**92%**	**95%**	**93%**

*CY 2019 results for these components are baseline because of the change in the MRR process due to the COVID-19 PHE. Underlined scores are below the 80% minimum compliance requirement.

Section IV Conclusion

Although many of the HealthChoice performance measures in this report demonstrate quality of health care already delivered, two HealthChoice programs focus more directly on improving specific quality of care measures.

First, PHIP incentivizes MCOs to maintain and improve performance by awarding additional payments according to their scores on measures of clinical outcomes and care delivery defined in advance. The overall performance of the nine MCOs sets the standards by which each MCO is evaluated. Those MCOs that exceed a performance threshold receive incentive payments, while MCOs with less-than-standard performance receive no additional payments. An evaluation of the Comprehensive Diabetes Care - HbA1c Control measure shows that the MARR decreased by 2.9 percentage points between CY 2019 and CY 2023. Although MCOs may vary with respect to which measures earn incentive payments, PHIP supports overall quality improvement across HealthChoice.

Second, the EPSDT annual review assesses plan performance on services to children under the age of 21. Because EPSDT services are a national requirement for Medicaid, the EPSDT review measures whether all HealthChoice plans achieve minimum levels of performance in delivering these services to eligible children. Results from the most recent review show that the MCOs have met or exceeded standards across the board in CY 2021, CY 2022, and CY 2023 and have recovered from CY 2019 and CY 2020, wherein the MCOs failed to attain the minimum compliance requirement for at least one measure each year. In CY 2019, compliance requirements were not met for two measures: Laboratory Tests/At-Risk Screenings and Immunizations. In CY 2020, one measure—Laboratory Tests/At-Risk Screenings—remained below the minimum compliance requirement. However, these results should be interpreted with caution as only desktop reviews were conducted during those two years due to the COVID-19 PHE. In CY 2023, the MCOs met or exceeded the minimum compliance score for all components.

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Section V. Provide Patient-Focused Comprehensive and Coordinated Care through Provision of a Medical Home

The HealthChoice program's medical home provision offers patient-focused, comprehensive, coordinated care for its participants by matching each member to a single "medical home" through a PCP. A medical home encourages HealthChoice participants to use care settings appropriate to their needs and decrease potentially inappropriate or avoidable utilization of health services. To this end, HealthChoice participants are asked to select an MCO and PCP to oversee their medical care, and those who do not select an MCO or PCP are assigned to one.

This section of the report assesses how adequately HealthChoice provides participants with a medical home and educates them as to their use. The measures analyze appropriate service utilization and participants' ability to connect with their medical homes. Participants should be able to understand the resources available to them and 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.

Medical Home Utilization

In December 2015, the Department began collecting information from MCOs on HealthChoice participants' PCP assignments, as well as information on the PCPs within a group practice. This information helps the Department track whether participants visited their assigned PCPs or whether they used other providers to oversee their medical care and provide a medical home.

Table 28 presents the number of participants who had at least one visit with their assigned PCP, their assigned PCP's group practice or partner PCP, or any PCP in the MCO's network from CY 2019 to CY 2023. This section presents these measures by MCO for HealthChoice participants with 12 months of enrollment in an MCO. Participants enrolled for 12 continuous months provide an MCO with enough time to intervene in their health care.

During the evaluation period, all MCOs experienced declines in a) the proportion of their HealthChoice participants with at least one visit to their assigned PCP, b) the proportion with at least one visit to any PCP within the MCO network and c) the proportion of their HealthChoice participants with at least one visit to their assigned PCP, group practice, or partner PCP during the evaluation period.[33]

[33] Excluding Aetna—which only began providing acceptable files in 2021—and Jai—because the percentage of participants with a visit to their assigned PCP could not be reported in CY 2019 due to the use of the billing NPI, which limits ability to capture a participant's assigned PCP.

Table 28. Percentage of HealthChoice Participants (12 Months of Enrollment) with a PCP Visit, by MCO,* CY 2019–CY 2023

MCO	# of Participants* (12 Months of Enrollment)	% of Participants with a Visit with their Assigned PCP	% of Participants with a Visit with Assigned PCP, Group Practice, or Partner PCPs	% of Participants with a Visit with any PCP in MCO's Network
CY 2019**				
Aetna***	10,390	0.8%	1.3%	3.7%
CareFirst Community Health Plan	32,525	28.8%	48.3%	80.0%
Jai Medical Systems******	21,526	4.2%	67.0%	83.5%
Kaiser	46,398	66.4%	73.1%	83.9%
Maryland Physicians Care	167,215	38.5%	60.6%	86.1%
MedStar	68,438	33.3%	62.3%	84.4%
Priority Partners	234,752	57.9%	60.8%	89.3%
UnitedHealthcare	112,874	43.2%	57.4%	86.2%
Wellpoint	217,490	48.7%	73.4%	89.1%
Total	**911,608**	**45.9%**	**63.1%**	**86.2%**
CY 2020**				
Aetna***	24,965	0.4%	0.6%	1.8%
CareFirst Community Health Plan	40,015	29.2%	43.7%	69.0%
Jai Medical Systems	23,967	29.5%	59.6%	77.0%
Kaiser	63,507	56.1%	76.2%	78.3%
Maryland Physicians Care	194,487	35.0%	53.8%	75.2%
MedStar	81,112	29.9%	49.2%	75.5%
Priority Partners	276,317	35.2%	38.1%	74.8%
UnitedHealthcare	130,721	33.1%	47.7%	68.7%
Wellpoint	255,847	46.2%	65.2%	78.1%
Total	**1,090,938**	**37.2%**	**51.3%**	**73.3%**
CY 2021******				
Aetna	40,702	24.5%	35.4%	65.4%
CareFirst Community Health Plan	50,357	28.4%	42.6%	71.7%
Jai Medical Systems	27,073	29.7%	59.1%	78.7%
Kaiser	90,820	59.1%	79.1%	82.6%
Maryland Physicians Care	220,022	33.8%	53.6%	79.5%
MedStar	95,106	28.9%	48.7%	79.3%
Priority Partners	314,309	40.4%	43.2%	81.5%
UnitedHealthcare	151,311	27.6%	41.9%	77.5%
Wellpoint	293,591	46.0%	65.5%	82.3%
Total	**1,283,291**	**38.3%**	**52.9%**	**78.7%**
CY 2022				
Aetna	48,052	26.0%	38.4%	64.5%
CareFirst Community Health Plan	65,871	26.7%	39.7%	69.7%
Jai Medical Systems	27,713	31.7%	59.3%	75.8%
Kaiser	105,096	53.8%	74.6%	78.5%

MCO	# of Participants* (12 Months of Enrollment)	% of Participants with a Visit with their Assigned PCP	% of Participants with a Visit with Assigned PCP, Group Practice, or Partner PCPs	% of Participants with a Visit with any PCP in MCO's Network
Maryland Physicians Care	232,962	33.6%	52.3%	76.7%
MedStar	101,147	27.7%	46.2%	75.9%
Priority Partners	331,354	39.9%	42.0%	79.4%
UnitedHealthcare	159,553	34.0%	48.3%	75.3%
Wellpoint	309,780	43.6%	61.9%	79.8%
Total	**1,381,528**	**37.9%**	**51.8%**	**77.2%**
CY 2023				
Aetna	47,748	23.8%	35.1%	61.6%
CareFirst Community Health Plan	72,232	28.6%	42.7%	68.5%
Jai Medical Systems	26,349	29.7%	56.7%	72.8%
Kaiser	100,625	50.8%	72.0%	75.8%
Maryland Physicians Care	219,295	32.4%	51.1%	75.5%
MedStar	94,275	21.0%	38.8%	73.5%
Priority Partners	310,857	34.9%	60.7%	78.3%
UnitedHealthcare	149,181	33.4%	48.6%	74.8%
Wellpoint	290,229	42.7%	61.1%	79.1%
Total	**1,310,791**	**35.4%**	**55.1%**	**75.8%**

*The number of participants in a HealthChoice MCO only includes participants who were listed in the data files provided by the MCO and in the MCO enrollment files according to MMIS2 data.
**The methodology was updated in 2021 to account for changes in the rendering vs. billing provider fields in MMIS2, so the CY 2019 to CY 2020 numbers have changed significantly in some cases.
***Please read Aetna's results with caution: this MCO only began providing acceptable files in 2021.
****The percentage of participants with a visit to their assigned PCP is not reported for Jai because the use of the billing NPI limits the ability to capture a participant's assigned PCP.
*****CY 2021, % of Participants with a Visit with any PCP in MCO's Network data has been revised to correct an error in reporting.

Table 29 shows the proportion of participants who received at least one ambulatory care visit by MCO in CY 2019 and CY 2023. The total number of participants enrolled in HealthChoice grew by 20.9% between CY 2019 and CY 2023, while the proportion receiving an ambulatory care visit decreased by 6.0 percentage points. There was variation in this measure among MCOs. For CY 2019, in four of the nine MCOs, over 75% of the participants had an ambulatory care visit. For CY 2023, in *two* of the nine MCOs, over 75% of the participants had an ambulatory care visit.

Table 29. Number and Percentage of HealthChoice Participants Aged 0–64 Years Who Had an Ambulatory Care Visit, by MCO, CY 2019 and CY 2023

MCO*	CY 2019			CY 2023		
	Total Participants	# with Ambulatory Care Visit	% with Ambulatory Care Visit	Total Participants	# with Ambulatory Care Visit	% with Ambulatory Care Visit
Aetna	36,226	21,799	60.2%	71,430	41,890	58.6%
CareFirst	55,948	38,707	69.2%	107,820	70,026	64.9%
JAI	30,412	22,691	74.6%	32,419	21,968	67.8%

MCO*	CY 2019			CY 2023		
	Total Participants	# with Ambulatory Care Visit	% with Ambulatory Care Visit	Total Participants	# with Ambulatory Care Visit	% with Ambulatory Care Visit
Kaiser	83,727	62,520	74.7%	136,356	94,720	69.5%
MPC	242,928	192,084	79.1%	270,645	200,674	74.1%
MedStar	105,911	79,292	74.9%	117,284	81,664	69.6%
Priority Partners	341,545	281,112	82.3%	386,286	294,251	76.2%
United	167,542	131,320	78.4%	188,556	136,552	72.4%
Wellpoint	313,254	258,502	82.5%	354,436	274,496	77.4%
ALL MCOs	**1,377,493**	**1,088,027**	**79.0%**	**1,665,232**	**1,216,241**	**73.0%**

*It is important to note that the data contained here have not been risk-adjusted, so they do not account for variances in risk profiles across MCOs.

Table 30 displays the outpatient ED utilization of HealthChoice participants aged 0 to 64 years by MCO during CY 2019 and CY 2023. During the evaluation period, all MCOs experienced a decrease in the percentage of their participants with an ED visit; Jai and CareFirst experienced the largest decreases in ED use: by 8.6 and 7.5 percentage points, respectively. In CY 2019, at least 30% of participants in three of the nine MCOs utilized ED services. By CY 2023, no MCOs had an ED utilization rate above 30%.

Table 30. Percentage of HealthChoice Participants Aged 0–64 Years Who Had an Outpatient ED Visit, by MCO, CY 2019 and CY 2023

MCO*	CY 2019			CY 2023		
	Total Participants	# with ED Visit	% with ED Visit	Total Participants	# with ED Visit	% with ED Visit
Aetna	36,226	8,505	23.5%	71,430	14,603	20.4%
CareFirst	55,948	15,762	28.2%	107,820	22,286	20.7%
JAI	30,412	10,910	35.9%	32,419	8,844	27.3%
Kaiser	83,727	11,616	13.9%	136,356	16,294	11.9%
MPC	242,928	75,361	31.0%	270,645	67,726	25.0%
MedStar	105,911	30,714	29.0%	117,284	25,714	21.9%
Priority Partners	341,545	103,013	30.2%	386,286	94,696	24.5%
United	167,542	45,860	27.4%	188,556	41,693	22.1%
Wellpoint	313,254	80,324	25.6%	354,436	77,329	21.8%
Total	**1,377,493**	**382,065**	**27.7%**	**1,665,232**	**369,185**	**22.2%**

*It is important to note that the data contained here have not been risk-adjusted, so they do not account for variances in risk profiles across MCOs.

Appropriateness of ED Care

A fundamental goal of managed care programs like HealthChoice is the delivery of the appropriate care at the appropriate time in the appropriate setting. One widely used methodology to evaluate progress toward appropriate ED utilization is based on classifications developed by researchers at the New York University (NYU) Center for Health and Public Service

Research (Billings et al., 2000). The original algorithm was created with ICD-9 codes as of 2001 and was not revised to incorporate new ICD-9 and ICD-10 codes that were added each year. Because this resulted in an increase in the percentage of unclassified ED visits over time, researchers revised the algorithm to account for updated ICD-9 and ICD-10 codes released in 2001 through 2014 (Johnston et al., 2017). Hilltop has not yet applied this update for classifying ED visits because the update for ICD-10 was still in the beta version and not classified by NYU. 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 accessible and 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.

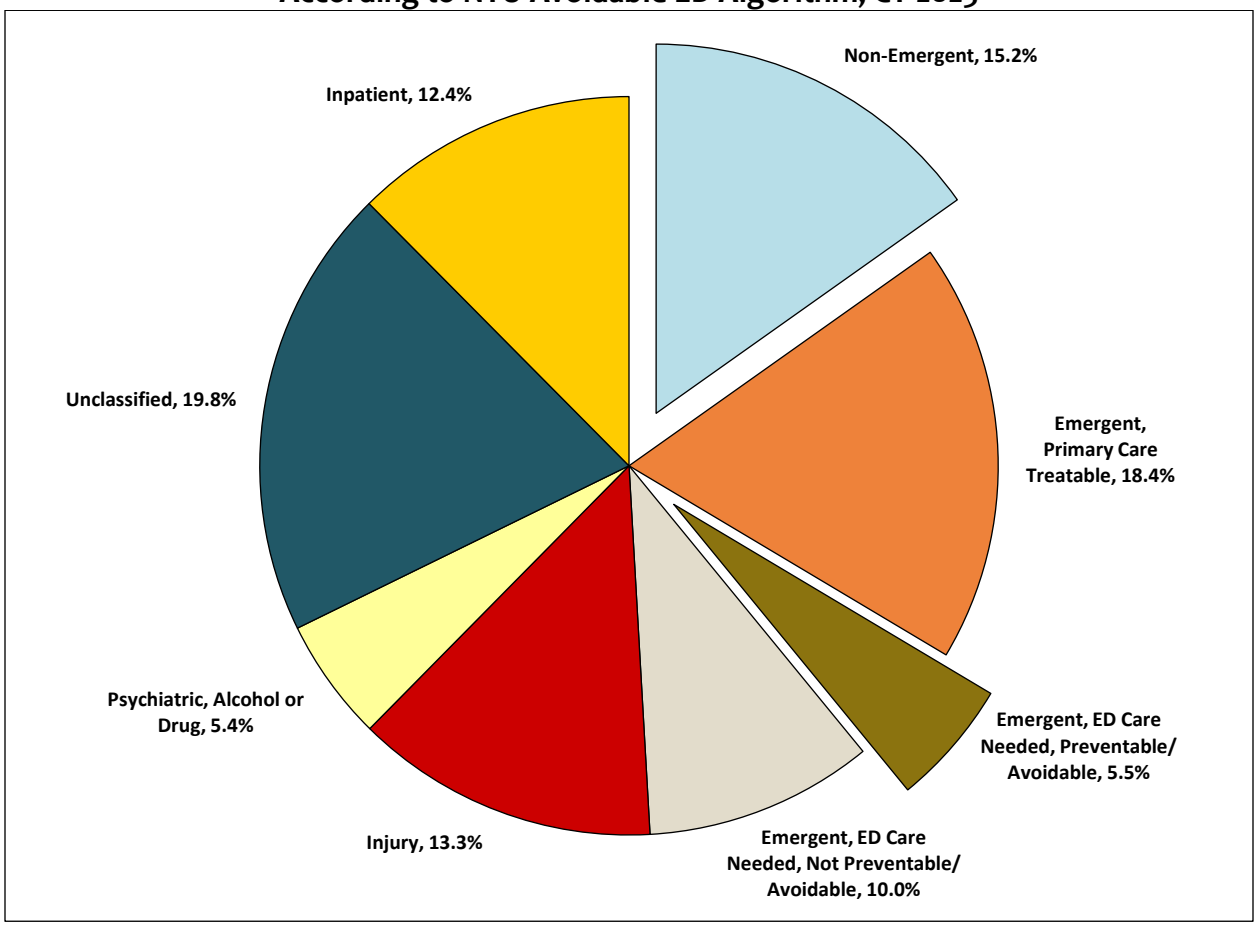
ED visits that fall into the first three categories above may indicate problems with access to primary care, including access during non-traditional work hours. Figure 15 presents the distribution of all CY 2023 ED visits by NYU classification for individuals with any period of HealthChoice enrollment. In CY 2023, 39.1% of all ED visits were for potentially avoidable (preventable) conditions, meaning that the ED visit may 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 combined accounted for 23.3% of all ED visits in CY 2023.

Adults aged 40 through 64 years had more ED visits related to category 4 (emergent, ED care needed, not preventable/avoidable) than any other age group; children aged 10 through 14 years had the largest proportion of category 5 (injury) ED visits than other age groups.[34] The inpatient category in Figure 15, which is not a part of the NYU classification, represents ED visits

[34] Data not shown.

that resulted in a hospital admission. Participants with disabilities had a much higher rate of ED visits that led to an inpatient admission than participants in the families, children, and pregnant women (F&C) and MCHP coverage groups.[35]

Figure 15. ED Visits by HealthChoice Participants Classified According to NYU Avoidable ED Algorithm, CY 2023



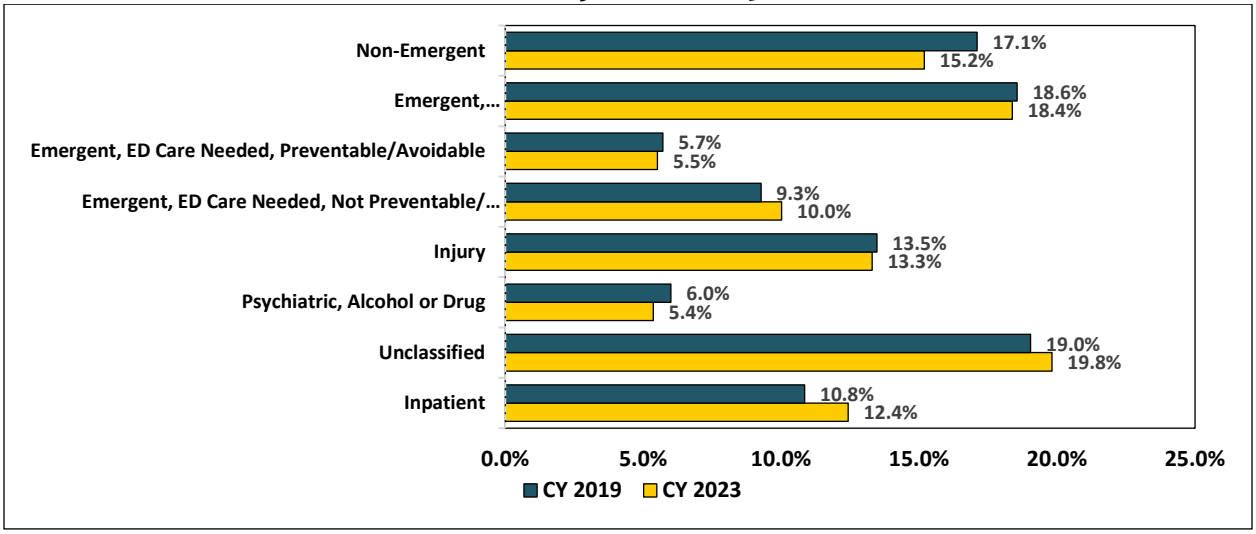
Note: ED visits that result in inpatient stays are not a part of the NYU algorithm and have been added here in their own category. The two categories with ED visits for potentially avoidable/preventable conditions are pulled out in the figure.

Figure 16 compares the ED visit classifications for CY 2019 with the classifications for CY 2023. Potentially avoidable ED visits decreased during the evaluation period: from 41.4% of all ED visits in CY 2019 to 39.1% in CY 2023. The number of unclassified ED visits only increased by 0.8 percentage points between CY 2019 and CY 2023[36]. The Department continues to monitor ED use with the goal of reducing potentially avoidable ED visits. ED visits for psychiatric-, alcohol-, or drug-related reasons decreased from 6.0% in CY 2019 to 5.4% in CY 2023.

[35] Data not shown.

[36] The number of unclassified ED visits increased due to additional new diagnosis codes.

Figure 16. Classification of ED Visits, by HealthChoice Participants, CY 2019 and CY 2023



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. According to an Agency for Healthcare Research and Quality (AHRQ) report, one in ten hospital admissions nationwide were avoidable (McDermott & Jiang, 2020). High numbers of avoidable admissions may indicate problems with access to primary and urgent care services or deficiencies in outpatient management, follow-up, and readmission status. The Department monitors potentially avoidable admissions using AHRQ's Prevention Quality Indicators (PQIs) methodology, which aligns with the health quality goals under Maryland's SIHIS. PQIs are a set of measures obtained from hospital discharge records for specific primary diagnoses to identify quality of care for ambulatory conditions based on the conditions listed in each measure. PQIs are for conditions for which ambulatory care can potentially prevent the need for hospitalization. The measures presented are as follows:[37]

PQI #1: Diabetes Short-Term Complications

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 #11: Bacterial Pneumonia

[37] The measure estimation logic has been updated using AHRQ PQI Version 2021. A full description of the methodological revisions is available here: https://qualityindicators.ahrq.gov/Modules/Log_Coding_Updates_PQI_v2021.aspx.

PQI #12: Urinary Tract Infection

PQI #14: Uncontrolled Diabetes

PQI #15: Asthma in Younger Adults

PQI #16: Lower-Extremity Amputation in Patients with Diabetes

PQI #90:[38] Prevention Quality Overall Composite

PQI #91:[39] Prevention Quality Acute Composite

PQI #92:[40] Prevention Quality Chronic Composite

PQI #93:[41] Prevention Quality Diabetes Composite

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

- Aged 18 to 64 years as of December 31 of the calendar year
    - 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 the participant for a PQI designation

Table 31 presents the number of potentially avoidable inpatient admissions per 100,000 HealthChoice participants aged 18 to 64 years during the evaluation period. COPD or asthma in older adults (PQI #5) was responsible for the highest number of potentially avoidable admissions for CY 2019 through CY 2023. The number of potentially avoidable admissions for lower-extremity amputation in patients with diabetes (PQI #16) was the smallest for CY 2019 through CY 2020. From CY 2021 to CY 2023, uncontrolled diabetes admissions (PQI #14) were the smallest.

Table 31. Number of Potentially Avoidable Admissions per 100,000 HealthChoice Participants Aged 18–64 Years (Any Period of Enrollment), CY 2019–CY 2023[42]

Any PQI #	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
1: Diabetes Short-Term Complications Admissions	208	198	175	161	149
3: Diabetes Long-Term Complications Admissions	150	123	120	113	127
5: COPD or Asthma in Older Adults Admissions (Ages 40-64)	646	395	346	343	310
7: Hypertension Admissions	76	62	57	67	58
8: Congestive Heart Failure Admissions	243	196	183	190	183

[38] PQI #90 includes PQI #s 1, 3, 5, 7, 8, 10, 11, 12, 14, 15, and 16.
[39] PQI #91 includes PQI #s 11 and 12.
[40] PQI #92 includes PQI #s 1, 3, 5, 7, 8, 14, 15, and 16.
[41] PQI #93 includes PQI #s 1, 3, 14, and 16.
[42] This measure presents the number of potentially avoidable admissions per 100,000 participants. The methodology for calculating inpatient admission rates only counts inpatient stays paid for by an MCO.

Any PQI #	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
11: Bacterial Pneumonia Admissions	122	92	61	57	62
12: Urinary Tract Infection Admissions	73	45	43	31	39
14: Uncontrolled Diabetes Admissions	41	36	31	24	27
15: Asthma in Younger Adults Admissions (Ages 18-39)	82	50	42	34	43
16: Lower-Extremity Amputation in Patients with Diabetes	34	34	33	33	29
90: Prevention Quality Overall Composite*	**1,224**	**949**	**843**	**812**	**802**
91: Prevention Quality Acute Composite*	**195**	**137**	**104**	**89**	**101**
92: Prevention Quality Chronic Composite	**1028**	**812**	**739**	**723**	**701**
93: Prevention Quality Diabetes Composite	**414**	**372**	**342**	**315**	**318**

Note: The rates for PQI #5: Chronic Obstructive Pulmonary Disease (COPD) and Asthma in Older Adults and PQI #15: Asthma in Younger Adults have been corrected for CY 2019 to CY 2021.

Table 32 presents the number and percentage of adults who had at least one inpatient admission and the proportion of PQI admissions during the evaluation period. Overall, the percentage of HealthChoice adults with at least one PQI decreased from 0.7% in calendar year 2019 to 0.5% in calendar year 2023. The percentage of participants with at least one inpatient admission decreased from 7.8% in CY 2019 to 5.9% in CY 2023. Among HealthChoice adults with an inpatient admission, the percentage of participants with a PQI-designated admission decreased from 8.8% in CY 2019 to 8.0 in CY 2023.

Table 32. Potentially Avoidable Admission Rates, Participants Aged 18–64 Years (Any Period of Enrollment), with ≥1 Inpatient Admission, CY 2019–CY 2023*

Calendar Year	# of Participants in HealthChoice (A)	# of Participants with ≥1 MCO Admissions (B)	% of Participants with ≥1 MCO Admission C=(B/A)*100	# of Participants with MCO Admission and Any PQI (D)	% of MCO Participants with Any PQI E=(D/A)*100	% of Participants With ≥1 MCO Admission that had a PQI F=(D/B)*100
2019	734,868	57,585	7.8%	5,075	0.7%	8.8%
2020	755,780	55,072	7.3%	4,220	0.6%	7.7%
2021	826,876	58,682	7.1%	4,301	0.5%	7.3%
2022	889,212	55,223	6.2%	4,338	0.5%	7.9%
2023	957,811	56,823	5.9%	4,522	0.5%	8.0%

*This measure includes only MCO inpatient admissions.

† All five years of the evaluation have been updated to account for a calculation error in the last column.

Section V Conclusion

Over the course of the evaluation period, the percentage of HealthChoice participants who saw their assigned PCPs[43] or their assigned PCP's group practice or partner PCP decreased for all MCOs. When the medical home was defined to include any PCPs within their MCO network, all

[43] Excluding Aetna—which only began providing acceptable files in 2021—and Jai—because the percentage of participants with a visit to their assigned PCP could not be reported in CY 2019 due to the use of the billing NPI, which limits ability to capture a participant's assigned PCP.

the MCOs except for Aetna saw that over 70% of their participants had a visit every year from CY 2019 to CY 2021 but not for CY 2020, CY 2022, and CY 2023.

Avoidable ED use declined between CY 2019 and CY 2023, and the proportion of inpatient admissions with any PQI also decreased slightly over the evaluation period. The Department will continue to provide oversight and monitor this trend to ensure that PQI results are consistent with the continuing use of medical homes to provide preventive care.

Section VI. Emphasize Health Promotion and Disease Prevention

Another goal of the HealthChoice program is to improve the quality of health services delivered through the provision of preventive services and chronic care management. This section assesses the demonstration's performance across quality measures—many measures are nationally recognized, such as HEDIS®—in the areas of preventive health and the management of chronic disease, including behavioral health (MHD and SUD). Preventative care and chronic care management services are also assessed based on their relationship with adverse outcomes. For example, preventive and chronic disease care measures—prenatal and postpartum care, asthma-related and depression-related ED visits, use of Screening, Brief Intervention, and Referral to Treatment (SBIRT) services, diabetes screenings and care—align with Maryland's SIHIS.

Because of the NCQA restrictions, national HEDIS® means cannot be published. Therefore, in the tables below, 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 status and well-child visit rates. Table 33 presents the immunization and well-child measures for the HealthChoice population (MetaStar, Inc., 2024). HealthChoice performed above the national HEDIS® mean for childhood immunizations and well-care visits for children and adolescents (aged 3 to 21 years) from CY 2021 to CY 2023. HealthChoice performed above the national HEDIS® mean for well-child visits (in the first 15 months of life) in CY 2021 and CY 2022 but not in CY 2023. Childhood Immunization Combination 3 and well-care visits for adolescents are part of PHIP.

Table 33. HEDIS® Immunizations and Well-Child Visits: Percentage of HealthChoice Children Compared with the National HEDIS® Mean, CY 2019–CY 2023

HEDIS® Measure	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
Childhood Immunization Status: Combination 3					
HealthChoice	75.4%	70.2%	68.4%	68.9%	68.8%
National HEDIS® Mean*	+	-	+	+	+
Well-Child Visits: 15 Months of Life* **					
HealthChoice		61.1%	54.8%	57.5%	58.4%
National HEDIS® Mean*			+	+	-

HEDIS® Measure	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
Child and Adolescent Well-Care Visits (WCV), 3-11 years**					
HealthChoice		57.4%	64.3%	61.5%	62.9%
National HEDIS® Mean*			+	+	+
Child and Adolescent Well-Care Visits (WCV), 12-17 years**					
HealthChoice		53.7%	57.4%	54.1%	55.4%
National HEDIS® Mean*			+	+	+
Child and Adolescent Well-Care Visits (WCV), 18-21 years**					
HealthChoice		38.0%	38.5%	35.4%	36.1%
National HEDIS® Mean*			+	+	+
Child and Adolescent Well-Care Visits (WCV), Total 3-21 years**					
HealthChoice		53.1%	57.7%	54.6%	56.2%
National HEDIS® Mean*			+	+	+

*Because of the NCQA restrictions, national HEDIS® means cannot be published. Therefore, a "+" sign indicates that Maryland's rate is above the national HEDIS® mean and a "-" sign indicates that Maryland's rate is below the national mean.
** National HEDIS® means were unavailable in measurement year (MY) 2020. Due to significant changes made to the well-child visits measure in MY 2020, NCQA determined a trending break, so the data for CY 2019 are not available.

Immunizations for Adolescents (IMA)

The Department uses the HEDIS® measure to report the immunizations for adolescents (IMA). The IMA is for adolescents who have had one dose of meningococcal vaccine; had one tetanus, diphtheria toxoids and acellular pertussis (Tdap) vaccine; and completed the human papillomavirus (HPV) vaccine series by their 13th birthday (MetaStar Inc., 2024). The CDC recommends that everyone aged 11 to 12 receive at least one dose of the meningococcal vaccine (CDC, 2024d) and one dose of the Tdap vaccine (CDC, 2024f). The CDC (2021c) also now recommends that 11- to 12-year-olds receive two doses of the HPV vaccine—rather than three doses—to protect against cancers caused by HPV. HPV is a common virus that spreads by sexual contact and can cause cervical cancer in women and penile cancer in men. HPV can also cause anal cancer, throat cancer, and genital warts in both men and women (CDC, 2022a).

Table 34 presents the percentage of HealthChoice adolescents who received the IMA compared to the national HEDIS® mean for CY 2019 through CY 2023. The measure calculates rates for two combinations: Combination 1 (both meningococcal and Tdap vaccines) and Combination 2 (meningococcal, Tdap, and HPV vaccines). There was an overall decrease of 5.6 percentage points from CY 2019 to CY 2023, with a slight increase in CY 2022 for Combination 2. Maryland performed above the national HEDIS® mean for Combination 1 and Combination 2 for the entire measurement period.

Table 34. Percentage of HealthChoice Participants Aged 13 Years Who Had Immunizations for Adolescents, Compared with the National HEDIS® Mean, CY 2019–CY 2023

IMA	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
Immunizations for Adolescents (IMA), Combo 1					
HealthChoice	87.7%	82.9%	81.2%	84.6%	83.6%
National HEDIS® Mean*	+	+	+	+	+
Immunizations for Adolescents (IMA), Combo 2					
HealthChoice	45.5%	42.7%	41.6%	41.9%	39.9%
National HEDIS® Mean*	+	+	+	+	+

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 reduce childhood lead poisoning includes ensuring that young children receive appropriate lead risk screening and blood lead testing. The Department's 2017 Joint Chairmen's Report describes its efforts through several initiatives (Maryland Department of Health, 2017).

As part of the EPSDT benefit, Medicaid requires that all children receive a blood lead test at 12 and 24 months of age. The Department measures the blood lead testing rates for children aged 12 to 23 months and 24 to 35 months who are enrolled continuously in the same MCO for at least 90 days. A child's lead test must have occurred during the calendar year or the year prior.

To ensure that the children with elevated blood lead levels receive appropriate follow-up, including case management services and home environmental lead testing, the Department provides each MCO with monthly reports on children who received blood lead tests and those found to have elevated blood lead levels. In 2012, the 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, and the reference level of five micrograms per deciliter is currently used. However, the CDC updated the reference level to 3.5 micrograms per deciliter following a unanimous vote in May 2021 by the Lead Exposure and Prevention Advisory Committee in favor of recommending the new threshold. In January 2022, the Department, in addition to complying with the EPSDT mandate for blood lead testing, also included blood lead testing (screening) measures in several of its quality assurance activities, including the MFR and PHIP programs (Maryland Department of Health, n.d.a; Maryland Department of Health, 2025).[44]

In CY 2019, over 50,000 children in HealthChoice aged 0 to 6 years received a lead test as reported to the Maryland Department of the Environment (MDE) Childhood Lead Registry (CLR); however, fewer children were tested in the following years. Over 36,000 children received lead tests in CY 2022, but data feeds from the MDE were interrupted in CY 2023, meaning only partial CLR results are available for that year. Table 35 presents the number of children with lead tests in CY 2019 and CY 2023, as well as the number and percentage of those children who had an elevated blood lead level, defined as greater than or equal to five micrograms per deciliter. The percentage of children aged 0 to 6 years with an elevated blood lead level decreased from 2.1% in CY 2019 to 1.8% in CY 2023.[45]

[44] The lead testing measures count lead tests reported through Medicaid administrative data and the CLR, which is maintained by the MDE.

[45] Due to issues with MDE CLR data access, we have only partial blood lead testing data for CY 2023. The number of children with elevated lead levels is undercounted for 2023.

Table 35. HealthChoice Children Aged 0–6 Years with an Elevated Blood Lead Level, CY 2019 and CY 2023

Calendar Year	Number of Children with a Lead Test	Children with an Elevated Blood Lead Level (≥5µg/dL)	
		#	%
2019	54,341	1,123	2.1%
2023	20,622	363	1.8%

Table 36 presents the percentage of children aged 12 to 23 months and 24 to 35 months who received at least one lead test during the calendar year or the prior year. The rate of lead testing for the 12 to 23 months age group fluctuated throughout the evaluation period but decreased by 1.1 percentage points overall. The rate for children aged 24 to 35 months decreased from CY 2019 through CY 2022 before increasing slightly in CY 2023 for an overall decrease of 5.1 percentage points.

Table 36. 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 2019–CY 2023

Age Group (Months)	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
12–23	62.4%	58.6%	59.1%	60.4%	61.3%
24–35	81.5%	80.3%	76.4%	76.0%	76.4%

There are currently two CHIP Health Service Initiative (HSI) SPAs implemented in Maryland to complement lead testing efforts (MACPAC, 2019). Maryland uses HSI funding to 1) support the state's poison control centers, and 2) operate programs that identify and remove lead hazards in the homes of low-income children and that provide HVS for children with moderate to severe asthma or elevated blood lead levels.

Breast Cancer Screening

Breast cancer is the most prevalent type of cancer among women of all ages (CDC, 2024b). In 2022, Maryland's breast cancer incidence rate was 144.6 cases per 100,000 women, compared to the 132.9 cases per 100,000 women nationally (CDC, 2024b). When detected early, breast cancer is easier to treat, and women have a greater chance of survival (CDC, 2024h). Mammograms are the most effective technique for early detection of breast cancer.

In 2019, NCQA began incorporating Electronic Clinical Data Systems (ECDS) into the breast cancer screening HEDIS® measure to assess its capabilities alongside traditional administrative reporting. ECDS reporting standards allow for patient-centered, quality-focused measures. After assessing ECDS as a method of breast cancer screening reporting, NCQA observed little to no difference from traditional rates (NCQA, 2021). As a result, the traditional breast cancer screening (BCS) measure was retired for CY 2023. Beginning in MY 2025, NCQA will follow the guidelines of the U.S. Preventive Services Task Force and assess breast cancer screening starting at age 40 instead of 50 (U.S. Preventive Services Task Force, 2024).

Table 37 shows the results of the traditional BCS measure, from CY 2019 to its retirement at the end of CY 2022. From CY 2019 to CY 2022, there was a 7.5 percentage point decrease in the percentage of female HealthChoice participants aged 50 to 64 years who received a mammogram for breast cancer screening (MetaStar, Inc., 2024). However, Maryland performed above the national HEDIS® mean throughout the evaluation period.[46]

Table 37. Percentage of Women in HealthChoice Aged 50–64 Years Who Had a Mammogram for Breast Cancer Screening, Compared with the National HEDIS® Mean, CY 2019–CY 2022

	CY 2019	CY 2020	CY 2021	CY 2022
Maryland Percentage	70.6%	65.2%	63.8%	63.1%
National HEDIS® Mean*	+	+	+	+

Note: Because of the 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.
*The national HEDIS® mean is based on an assessment of women aged 50 to 74 years.

Table 38 shows the percentage of female HealthChoice participants who received a mammogram for breast cancer screening (BCS-E) using the ECDS in CY 2023 (MetaStar, Inc., 2024). The percentage of female HealthChoice participants aged 50 to 64 who received a mammogram for breast cancer screening was 59.2%. Maryland performed above the national HEDIS® mean for CY 2023.

Table 38. Percentage of Women in HealthChoice Aged 50–64 Years Who Had a Mammogram for Breast Cancer Screening, Compared with the National HEDIS® Mean, CY 2023

	CY 2023
Maryland Percentage	59.2%
National HEDIS® Mean*	+

Note: Because of the 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.

Cervical Cancer Screening

Cervical cancer is preventable and treatable. The CDC recommends cervical cancer screenings for women starting at age 21 (2024e). According to the National Cancer Institute (NCI) (2024), women aged 21 to 29 years should be screened with a Papanicolaou (Pap) test every three years. Women aged 30 to 65 years can then be screened every five years with Pap and HPV co-testing, or every three years with a Pap test alone. Women with certain risk factors may need to have more frequent screening or continue screening beyond age 65 years.

Table 39 presents the percentage of women aged 21 to 64 years in HealthChoice who received a cervical cancer screening in CY 2019 through CY 2023. There was an overall decrease of 6.2

[46] CY 2023 could not be included for comparison, as it utilized ECDS.

percentage points during the measurement period, with a slight increase in CY 2021 and CY 2022 (MetaStar, Inc., 2024). HealthChoice performed above the national HEDIS® mean in all evaluation years except CY 2020.

Table 39. Percentage of Women in HealthChoice Aged 21–64 Years Who Had a Cervical Cancer Screening, Compared with the National HEDIS® Mean, CY 2019–CY 2023

	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
Maryland Percentage	63.8%	57.9%	58.1%	59.4%	57.6%
National HEDIS® Mean*	+	-	+	+	+

Note: Because of the 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.

Colorectal Cancer Screening

According to the CDC's U.S. Cancer Statistics Working Group (2024b), colorectal cancer is one of the most common cancers in both men and women. In the U.S., colorectal cancer is the fourth most diagnosed cancer as of 2022, as well as the fourth-leading cause of cancer mortality as of 2023 (CDC, 2024b). Maryland's rank in overall cancer mortality has been steadily improving compared to other states and the District of Columbia (Maryland Department of Health, 2020; CDC, 2022e). Colorectal cancer deaths can be prevented through screening tests, which find precancerous polyps that can be removed before they become cancerous (CDC, 2024g). The expansion of Medicaid coverage to childless adults and additional parents and caretakers under the ACA removed a major access barrier for age-eligible adults with low income to be screened for colorectal cancer.

Table 40 shows the percentage of HealthChoice participants who received at least one of three appropriate colorectal cancer screenings—fecal occult blood test (FOBT), flexible sigmoidoscopy, or colonoscopy—during the study period.[47] The colorectal cancer screening rate decreased by 0.8 percentage points between CY 2019 and CY 2023.

Table 40. Percentage of HealthChoice Participants Aged 50–64 Years Who Had a Colorectal Cancer Screening, CY 2019–CY 2023

	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
Percentage of HealthChoice Participants	41.5%	39.3%	39.1%	39.4%	40.7%

[47] HEDIS® defines an appropriate screening as follows: an FOBT during the measurement year, a flexible sigmoidoscopy during the measurement year or the prior four years, a colonoscopy during the measurement year or the prior nine years, a CT colonography during the measurement year or the prior four years, and a FIT-DNA test during the measurement year or the prior two years. Only participants who met the HEDIS® eligibility requirements were included in the population for this measure. These participants were enrolled continuously in Medicaid during the calendar year and the preceding calendar year. Participants must have 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. 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.

Dental Services

Maryland continues to improve its dental program by confronting barriers to providing comprehensive oral health services to Medicaid participants. The Department prepared data for its 2024 Annual Oral Health Legislative Report, which includes Medicaid dental care and access measures from CY 2019 through CY 2023 (Maryland Department of Health, 2024).[48] The Medicaid program delivered oral health services to 613,561 children and adults (aged 0 to 64) during CY 2023—up from 506,830 in CY 2022. In CY 2023, 61.4% of children enrolled in Medicaid for at least 320 days received dental services, which is greater than the national HEDIS® mean.

Table 41 shows the percentage of children who were enrolled in Medicaid for any period and who had at least one dental visit by age group in CY 2019 through CY 2023. The percentage of children aged 0 to 20 years enrolled in Medicaid for any period who had at least one dental visit decreased by 11.0 percentage points from CY 2019 to CY 2020 and then increased from CY 2020 through CY 2023 by 7.8 percentage points. The total number of participants with a dental visit decreased by 3.2 percentage points during the evaluation period.

Table 41. Percentage of Children Aged 0–20 Years Enrolled in Medicaid* for Any Period Who Had at Least One Dental Visit, by Age Group, CY 2019–CY 2023

Age Group (Years)	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
0–3	32.0%	24.3%	28.8%	29.5%	30.9%
4–5	66.6%	52.2%	60.3%	61.6%	60.9%
6–9	70.7%	56.7%	64.2%	66.2%	66.4%
10–14	67.0%	54.0%	61.0%	61.9%	62.6%
15–18	57.3%	48.0%	53.7%	53.9%	54.2%
19–20	38.9%	33.1%	37.8%	37.1%	37.0%
Total	**56.7%**	**45.7%**	**52.1%**	**53.0%**	**53.5%**

* The percentages reported for CY 2023 may be different than what is reported in the Dental JCR due to the timing of the data run.

Table 42 shows the number and percentage of children and adult HealthChoice participants who had any dental visit (service) by age group in CY 2023. Among children aged 0 to 20 years, those aged 6 to 9 years had the highest percentage of any dental visit at 66.4%. In adult participants aged 21 to 64 years, the percentage of any dental service remained constant at 19.7%. Children had a higher percentage of any dental service (53.5%) when compared to adults (19.7%).

Table 42. Number and Percentage of HealthChoice Participants Who Had Any Dental Visits, by Age Group, CY 2023

Age Group (Years)	Total Number of Enrollees	Number with Any Service	Percentage with Any Service
0–3	152,302	47,022	30.9%
4–5	80,089	48,760	60.9%
6–9	160,708	106,663	66.4%

[48] Maryland Medicaid expanded dental coverage to adults on January 1, 2023. https://health.maryland.gov/mmcp/Pages/Maryland-Healthy-Smiles-Dental-Program-for-Providers.aspx

Age Group (Years)	Total Number of Enrollees	Number with Any Service	Percentage with Any Service
10–14	195,818	122,638	62.6%
15–18	153,677	83,268	54.2%
19–20	66,329	24,555	37.0%
Children Total	**808,923**	**432,906**	**53.5%**
21–39	501,110	98,929	19.7%
40–64	355,199	70,141	19.7%
Adult Total	**856,309**	**169,070**	**19.7%**
Summative Total	**1,665,232**	**601,976**	**36.1%**

Table 43 shows the number and percentage of HealthChoice participants who had dental visits by age group and service type in CY 2023. Dental visits with a diagnostic service made up the largest proportion of dental visits for both children and adult participants at 52.1% and 19.3%, respectively. Dental visits with a preventive service made up the second largest proportion of dental visits for both children and adults, followed by dental services with a restorative service. Among children aged 0 to 20 years, those aged 6 to 9 years had the highest percentage of dental visits for any service type. Among adult participants, there was a slight difference in the percentage of dental visits across service type between participants aged 21 to 39 years and participants aged 20 to 64 years.

Table 43. Number and Percentage of HealthChoice Participants Who Had Dental Visits, by Age Group and Type of Service, CY 2023

Age Group (Years)	Total # of Enrollees	# with Diagnostic Service	% with Diagnostic Service	# with Preventative Service	% with Preventative Service	# with Restorative Service	% with Restorative Service
0–3	152,302	46,731	30.7%	43,451	28.5%	2,331	1.5%
4–5	80,089	48,250	60.2%	45,628	57.0%	11,245	14.0%
6–9	160,708	104,870	65.3%	99,893	62.2%	36,726	22.9%
10–14	195,818	119,458	61.0%	114,000	58.2%	34,990	17.9%
15–18	153,677	79,132	51.5%	73,858	48.1%	27,321	17.8%
19–20	66,329	23,248	35.0%	20,660	31.1%	8,104	12.2%
Children Total	**808,923**	**421,689**	**52.1%**	**397,490**	**49.1%**	**120,717**	**14.9%**
21–39	501,110	96,580	19.3%	64,749	12.9%	39,773	7.9%
40 –64	355,199	68,827	19.4%	40,722	11.5%	27,482	7.7%
Adult Total	**856,309**	**165,407**	**19.3%**	**105,471**	**12.3%**	**67,255**	**7.9%**
Summative Total	**1,665,232**	**587,096**	**35.3%**	**502,961**	**30.2%**	**187,972**	**11.3%**

Maternal Health and Reproductive Health

The Department and the HealthChoice MCOs engage pregnant women in care through individualized outreach, community events, and prenatal case management, which aligns with the population health goals under Maryland's SIHIS. Pregnant HealthChoice participants are

qualified as a Special Needs Population under Code of Maryland Regulations (COMAR) 10.67.04.08. This requires that they receive timely access to care as well as informational materials, dental benefits, and other resources. 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 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

Early prenatal care is linked to better overall health outcomes for both the mother and child. Table 44 shows the percentage of deliveries for which the mother received a prenatal care visit in the first trimester or within 42 days of HealthChoice enrollment for CY 2019 through CY 2023 (MetaStar, Inc., 2024). HealthChoice outperformed the national HEDIS® mean in every year except for CY 2020.

Table 44. HEDIS® Timeliness of Prenatal Care, HealthChoice Compared with the National HEDIS® Mean, CY 2019–CY 2023

	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
Percentage of deliveries in which the mother received a prenatal care visit in the 1st trimester or within 42 days of HealthChoice enrollment	88.2%	87.0%	88.9%	87.9%	87.9%
National HEDIS® Mean**	+	-	+	+	+

**Because of the 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.

Contraceptive Care

Contraception is a highly effective clinical preventive service that can help women fulfill their personal health goals, including preventing teen and unintended pregnancies, as well as achieving healthy spacing of births. The U.S. Department of Health and Human Services (HHS) Office of Population Affairs (OPA) has developed contraceptive care measures that assess the provision of contraception to women aged 15 to 44 years (OPA, n.d.a).

Table 45 presents the percentage of women at risk of unintended pregnancy that are provided the following methods of contraception (OPA, n.d.b):

1. Most effective contraception: female sterilization, hormonal implants, or intrauterine devices or systems (IUD/IUS)
2. Moderately effective contraception: oral pills, injectables, patch, or ring

The table includes women enrolled in HealthChoice aged 15 to 44 as of the end of the calendar year who had no more than one gap in Medicaid enrollment of up to 45 days during the year. The percentage of women enrolled in HealthChoice with at least one type of contraception classified as most effective decreased from 4.7% in CY 2019 to 3.0% in CY 2023. The percentage

of women enrolled in HealthChoice with at least one moderately effective type of contraception decreased from 22.1% in CY 2019 to 16.5% in CY 2023.

Table 45. Contraceptive Care Rates, Women Enrolled in HealthChoice Aged 15–44 Years, CY 2019–CY 2023*

	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
Percentage receiving most effective contraception	4.7%	3.8%	3.5%	3.1%	3.0%
Percentage receiving moderately effective contraception	22.1%	20.7%	19.4%	17.5%	16.5%
Number of HealthChoice women at risk of unintended pregnancy	271,321	309,772	359,074	392,591	379,700

*The codes defining the most or moderately effective contraceptive care were updated by the HHS Office of Population Affairs, changing the data for CY 2019 to CY 2021 from the 2023 HealthChoice Evaluation. Please note that, as of FY 2022, the diaphragm is no longer considered a moderately effective contraception.

Care for Chronic Diseases

The HealthChoice program focuses on improving the quality of health services delivered through chronic care management. This section of the evaluation assesses the demonstration's performance across quality measures—many nationally recognized, such as HEDIS®—in the areas of medication management for people with asthma, diabetes screenings, HIV/AIDS, and behavioral health (MHD and SUD).

Service Utilization and Medication Management for People with Asthma

Asthma is a common chronic disease that affected close to 25 million Americans in 2021, including 4.7 million children under the age of 18 and over 10.1 million aged 35 to 64 years (CDC, 2022d).[49] In 2021, 451,158 adults aged 18 years and older (9.4%) in Maryland had asthma (CDC, 2022d). Moreover, an estimated 139,499 children aged under 18 years (10.7%) in Maryland had asthma in 2021 (CDC, 2023).

The Department monitors service utilization for HealthChoice participants with asthma and uses HEDIS® to report their medication management. The diagnosis of asthma was defined based on MY 2022 HEDIS® clinical criteria for AMR. If asthma medications are used correctly, asthma-related hospitalizations, ED visits, and missed school and workdays decrease (CDC, 2009).

Asthma has one of the largest racial and ethnic health disparities in terms of ED visit rates and is responsible for more ED visits than other major chronic diseases, including hypertension and diabetes (Maryland Department of Health, 2023b). As part of Maryland's initiatives, including SIHIS and the CHIP HSI SPA, the Department has made reducing the number of childhood asthma-related ED visits a priority. Through these initiatives, the Department provides asthma prevention and an environmental home visiting program for HealthChoice participants to

[49] The asthma prevalence data comes from the national and state surveillance systems administered by the CDC.

identify environmental triggers and provide interventions to reduce asthma severity (Maryland Department of Health, 2023b).

Although asthma is often thought of as predominantly a condition that affects children, the proportion of individuals with asthma who are older increased as a result of the ACA expansion; specifically, persons aged 40 to 64 years now represent the largest share of HealthChoice participants with asthma. See Table 46 for the percentage of HealthChoice participants with an asthma diagnosis[50] and their distribution by race/ethnicity, sex, region, and age group.

Table 46. Demographic Characteristics of HealthChoice Participants with an Asthma Diagnosis, CY 2019–CY 2023

Demographic Characteristic	Calendar Year				
	2019	2020	2021	2022	2023
Race/Ethnicity					
Asian	2.8%	2.9%	2.9%	3.2%	3.3%
Black	49.6%	49.7%	50.9%	50.4%	50.2%
White	31.5%	31.0%	30.9%	30.2%	29.0%
Hispanic	10.5%	10.9%	9.8%	10.5%	11.5%
Native American	1.1%	1.1%	1.1%	1.1%	1.2%
Other	4.4%	4.4%	4.5%	4.7%	4.8%
Sex					
Female	58.1%	60.5%	60.5%	60.5%	60.5%
Male	41.9%	39.5%	39.5%	39.5%	39.5%
Region					
Baltimore City	24.9%	25.0%	26.0%	25.8%	23.3%
Baltimore Suburban	29.4%	29.3%	29.6%	30.0%	30.3%
Eastern Shore	10.3%	9.8%	10.1%	9.9%	9.4%
Southern Maryland	4.9%	4.7%	4.6%	4.5%	4.9%
Washington Suburban	21.6%	22.1%	20.6%	20.4%	22.9%
Western Maryland	8.8%	9.0%	9.1%	9.3%	9.1%
Out of State	0.1%	0.1%	0.1%	0.1%	0.0%
Age Group (Years)					
5–9	16.0%	12.3%	10.8%	12.7%	13.5%
10–14	15.7%	13.6%	12.5%	12.0%	12.0%
15–18	7.1%	7.1%	7.3%	7.4%	7.2%
19–20	2.2%	2.3%	2.3%	2.3%	2.4%
21–39	18.9%	21.3%	22.4%	21.8%	22.4%
40–64	40.1%	43.3%	44.7%	43.8%	42.4%
Total Number of Participants	**54,767**	**51,474**	**47,329**	**42,429**	**38,244**

* Race and ethnicity values were calculated using the enhanced race/ethnicity variable implemented in 2023 and updated for the entire measurement period. Thus, race and ethnicity totals will not match previous HealthChoice Evaluation results.

[50] The methodology for identifying participants with asthma was revised due to the HEDIS® measure Medication Management for People with Asthma (MMA) being retired and instead using AMR. Diagnosis codes and medication lists were revised.

Table 47 presents the number and percentage of HealthChoice participants with an asthma diagnosis who had an ambulatory care visit. The proportion of participants with an ambulatory care visit decreased by 0.9 percentage points between CY 2019 and CY 2023.

Table 47. Number and Percentage of HealthChoice Participants with an Asthma Diagnosis Who Had an Ambulatory Care Visit, CY 2019–CY 2023

Calendar Year	Total Number of Participants	At Least One Ambulatory Care Visit	
		Number	Percentage of Total
2019	55,106	53,892	97.8%
2020	51,902	50,027	96.4%
2021	47,755	46,416	97.2%
2022	42,429	41,269	97.3%
2023	38,244	37,070	96.9%

Table 48 presents the percentage of HealthChoice participants with asthma who had at least one outpatient ED visit for any diagnosis and at least one ED visit with asthma as the primary diagnosis. Overall, the ED visit rate for participants with asthma decreased from 46.7% to 43.5% during the evaluation period. Asthma-related ED visit rates declined from 10.4% in CY 2019 to 9.3% in CY 2022 before increasing to 10.8% in CY 2023.

Table 48. HealthChoice Participants Who Had an Outpatient ED Visit, by Asthma-Related Diagnosis, CY 2019–CY 2023

Calendar Year	Total Number of Participants	At Least One ED Visit		At Least One ED Visit with Asthma Primary Diagnosis	
		Number of Participants	Percentage of Total Participants	Number of Participants	Percentage of Total
2019	55,106	25,726	46.7%	5,736	10.4%
2020	51,902	19,633	37.8%	3,627	7.0%
2021	47,755	19,627	41.1%	3,682	7.7%
2022	42,429	18,133	42.7%	3,942	9.3%
2023	38,244	16,630	43.5%	4,144	10.8%

Table 49 shows the number and percentage of HealthChoice participants with asthma who had at least one inpatient admission, as well as participants with asthma who had at least one inpatient admission with asthma as the primary diagnosis. The percentage of participants with asthma who had an inpatient admission decreased from 13.0% to 11.9% during the evaluation period. The percentage of participants with asthma who had an inpatient admission with asthma as the primary diagnosis decreased from 1.6% in CY 2019 to 0.9% in CY 2020 but gradually increased back to 1.6% in CY 2023.

Table 49. HealthChoice Participants Who Had an Inpatient Admission, by Asthma-Related Diagnosis, CY 2019–CY 2023

Calendar Year	Total Number of Participants	At Least One Inpatient Admission		At Least One Inpatient Admission with Asthma Primary Diagnosis	
		Number	Percentage of Total	Number of Participants	Percentage of Total
2019	55,106	7,167	13.0%	876	1.6%
2020	51,902	5,704	11.0%	469	0.9%
2021	47,755	5,742	12.0%	546	1.1%
2022	42,429	4,800	11.3%	522	1.2%
2023	38,244	4,536	11.9%	624	1.6%

Asthma Medication Ratio (AMR) for People with Asthma

Table 50 presents the results for AMR: specifically, a logistic regression using HEDIS® standard measures[51] that examines ED utilization among HealthChoice asthma patients between the ages of 5 and 64 years with a positive AMR versus those without a positive AMR from CY 2019 to CY 2023.[52] Controller medications are medications that reduce the inflammation in the lungs, and preventing asthma symptoms (NIH, 2022). A positive AMR is defined as a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year.

Overall, HealthChoice participants aged 5 to 64 years who had an AMR of at least 0.50 during the calendar year were less likely to experience an ED visit with a primary diagnosis of asthma that same calendar year compared to participants who had an AMR below 0.50. Similarly, participants who had an AMR of at least 0.50 the prior year (i.e., AMR lagged) were less likely to experience an ED visit with a primary diagnosis of asthma the following calendar year compared to participants who had an AMR below 0.50 the prior year. The regression controlled for demographic characteristics (race/ethnicity, age, and gender), comorbidity levels, participant region, and the number of inpatient admissions the previous year. The population only includes participants with persistent asthma, defined as those who had asthma encounters in the measurement year or the year prior. It is important to note that AMR is a measure of medication load of the entire year, while an asthma-related ED visit can occur at any point during the measurement year.

Participants who had a positive AMR had 42.5% lower odds of having an ED visit with a primary diagnosis of asthma than those who did not (OR 0.575, $p<0.001$). Similarly, participants who had a positive AMR the previous year had 20.1% lower odds of experiencing an ED visit with a primary diagnosis of asthma during the current measurement year (OR 0.799, $p<0.001$). Increased inpatient admissions the previous year, regardless of associated diagnosis, increased the odds of having an asthma-related ED visit. Each additional inpatient stay increased a participant's odds of an asthma-related ED visit by 19.9% (OR 1.199, $p<0.001$). Young

[51] This measure was calculated using the HEDIS® proprietary software from Cognizant.
[52] CY 2018 data is included as a look back period.

participants had higher odds of ED use; with each additional year of age, participants were 4.1% less likely to have an ED visit (OR 0.959 $p<0.001$). Enrollees in the Families & Children coverage category and the ACA expansion coverage category had increased odds of an asthma-related ED visit compared to the ABD coverage category (OR 1.422, $p<0.001$; OR 1.975, $p<0.001$).

Residents in all regions, except for out of state, were less likely to have an ED visit than Baltimore City residents, with the Washington Suburban area having the lowest odds (OR 0.538 $p<0.001$). Asian, Hispanic, Black, and Other participants were more likely to have an ED visit compared to White participants; further, Black participants were more than two times as likely (OR 2.775, $p<0.001$). All comorbidity groups[53] were between three and four times more likely to have an ED visit with a primary diagnosis of asthma than participants with low comorbidity ($p<0.001$).

Model 2 includes an interaction term that estimates the impact of having a current AMR greater than 0.50 and an AMR greater than 0.50 in the previous calendar year (i.e., AMR x AMR lagged) on the probability of experiencing an ED visit in the current measurement year. According to the logistic regression, having a positive AMR in both the current and previous calendar year reduced the probability of experiencing an ED visit by an additional 42.9% (OR 0.571, $p< 0.001$).

To establish direction of the relationship and that the main independent variable is effectuating the dependent variable, the independent variable must occur prior to the dependent variable (i.e., have temporal precedence). Without temporal precedence, there is a risk that the relationship is reversed in that the dependent variable is driving or causing the relationship. Therefore, it is arguable there are ambiguous temporal precedence issues surrounding an enrollee's current AMR status and their ED utilization because AMR is assessed over the entire year whereas an asthma-related ED visit is a point-in-time measurement. However, the direction and strength of the odds ratio of the AMR and lagged AMR variables supports a conclusion that, for most participants, achieving a positive AMR is not caused by experiencing an asthma-related ED visit.

Table 50. Associations between Asthma Medication Ratio and ED Visits with a Primary Asthma Diagnosis, HealthChoice Participants Aged 5–64 Years, CY 2019–CY 2023

Variables	ED Visit with Asthma as a Primary Diagnosis					
	Model 1			Model 2		
	OR	95 % CI		OR	95 % CI	
Asthma Med Ratio (AMR)	0.575***	0.54	0.62	0.803***	0.73	0.88
AMR Lagged	0.799 ***	0.74	0.86			
AMR X AMR_lag				0.571***	0.52	0.63
Age	0.959***	0.96	0.96	0.960***	0.96	0.96
Female	1.072	0.994	1.16	1.071	0.99	1.16
Coverage Category						
Families & Children	1.422***	1.25	1.62	1.412***	1.24	1.61

[53] A person's comorbidity level is estimated based on the Johns Hopkins Adjusted Clinical Groups (ACG) methodology. For this analysis, Hilltop assigned individuals to one of four comorbidity categories (Low, Moderate, High, Very High) based on their claims records in the measurement years (2019 to 2023).

Variables	ED Visit with Asthma as a Primary Diagnosis					
	Model 1			Model 2		
	OR	95 % CI		OR	95 % CI	
MCHP	1.015	0.86	1.20	1.012	0.86	1.20
ACA	1.975***	1.72	2.27	1.971***	1.71	2.27
Region†						
Baltimore Suburban	0.624***	0.57	0.68	0.627***	0.57	0.69
Eastern Shore	0.606***	0.52	0.70	0.612***	0.53	0.71
Southern Maryland	0.596***	0.49	0.72	0.602***	0.50	0.73
Washington Suburban	0.538***	0.48	0.60	0.539***	0.48	0.60
Western Maryland	0.595***	0.50	0.71	0.598***	0.50	0.71
Out of State	1.611	0.46	5.60	1.668	0.49	5.72
Race/Ethnicity†						
Asian	1.786***	1.38	2.31	1.776***	1.38	2.29
Black	2.775***	2.47	3.11	2.737***	2.44	3.07
Hispanic	1.718***	1.46	2.02	1.693***	1.44	1.99
Native American	1.363	0.96	1.93	1.353	0.96	1.91
Other	1.714***	1.41	2.08	1.711***	1.41	2.08
Comorbidity Score†						
Moderate Comorbidity	3.660***	3.21	4.17	3.662***	3.22	4.17
High Comorbidity	4.815***	4.19	5.54	4.823***	4.19	5.55
Very-High Comorbidity	4.736***	4.00	5.61	4.736***	4.00	5.61
Inpatient Stays Count _lag	1.199***	1.13	1.27	1.199***	1.13	1.27
Year†						
2021	1.136**	1.05	1.23	1.166***	1.08	1.26
2022	1.351***	1.25	1.46	1.379***	1.28	1.49
2023	1.587***	1.47	1.72	1.621***	1.50	1.76
Constant	0.048	0.04	0.06	0.044	0.04	0.06

*** p<.001, **p<.01, *01, *p<.05

†, Reference Groups: Aged, Blind, and Disabled (ABD), Baltimore City, White, Low, 2019

Table 51 examines the relationship between HealthChoice participants aged 5 to 64 years with a positive medication ratio and asthma-related inpatient stays compared to those without a positive AMR.

There was no association between a positive AMR and the odds of experiencing an asthma-related inpatient admission. Participants with a positive AMR the previous year were 36.3% less likely to have an asthma-related inpatient stay in the current measurement year (OR 0.637 p<0.001). Each additional ED visit the prior year was associated with a 3.4% increase in the likelihood of incurring an asthma-related inpatient stay (p<0.01). Participants in all regions were less likely to have an inpatient admission compared to participants in Baltimore City, with participants in Eastern Shore having the lowest odds (OR 0.379, p<0.001). Black participants, Hispanic participants and those categorized as "Other" were more likely to incur an inpatient admission compared to White participants, with Black participants being over two times are likely to have an asthma-related inpatient admission (OR 2.689, p<0.001). Higher comorbidities were associated with higher odds of inpatient admission; participants with a very high

comorbidity score had over 55 times higher odds of incurring an inpatient admission (OR 55.585, $p<0.001$).

Model 2 added an interaction term that estimates the impact of having an AMR greater than 0.50 in the previous and current calendar years on the probability of incurring an inpatient stay in the present. Unlike in the first regression without the interaction term, a positive AMR was associated with a 35.5% increase in the probability of having an inpatient stay the same year (OR 1.355, $p<0.05$). However, having a positive AMR the previous year and in the current year reduced the probability of having an inpatient stay by an additional 62.3% (OR 0.377, $p< 0.001$). Taken together, holding other factors constant, the probability would decrease 26.8% if an individual had a positive AMR the previous year and in the current year.

Similar to the ED visit logistic regression, there are ambiguous temporal precedence issues. However, the diverging odds ratios of the positive AMR versus the lagged AMR support the conclusion that an inpatient stay could initiate the need to increase the amount of asthma controller medications prescribed. Further, having a positive AMR the previous year lowers the odds of an inpatient stay the following year, indicating that high asthma controller medication load has lasting positive effects.

Table 51. Associations between Asthma Medication Ratio and Inpatient Admissions with a Primary Asthma Diagnosis, HealthChoice Participants Aged 5–64 Years, CY 2019–CY 2023

Variables	Inpatient Stay with Asthma as a Primary Diagnosis					
	Model 1			Model 2		
	OR	95 % CI		OR	95 % CI	
Asthma Med Ratio (AMR)	0.807	0.62	1.05	1.355*	1.03	1.78
AMR Lagged	0.637**	0.49	0.83			
AMR X AMR_lag				0.377***	0.28	0.50
Age	0.945***	0.94	0.95	0.946***	0.94	0.96
Female	1.065	0.86	1.33	1.066	0.85	1.33
Coverage Category						
Families & Children	1.298	0.93	1.80	1.271	0.92	1.77
MCHP	0.913	0.58	1.43	0.905	0.58	1.42
ACA	1.062	0.69	1.62	1.052	0.69	1.61
Region†						
Baltimore Suburban	0.669**	0.51	0.89	0.676**	0.51	0.90
Eastern Shore	0.379***	0.23	0.63	0.389***	0.23	0.65
Southern Maryland	0.491*	0.26	0.91	0.500*	0.27	0.93
Washington Suburban	0.644**	0.47	0.88	0.648**	0.47	0.89
Western Maryland	0.400**	0.22	0.73	0.405**	0.22	0.74
Race/Ethnicity†						
Asian	1.511	0.67	3.41	1.495	0.66	3.37
Black	2.689***	1.84	3.93	2.613***	1.79	3.82
Hispanic	1.955**	1.20	3.19	1.906*	1.17	3.12
Native American	1.511	0.33	6.85	1.501	0.33	6.83
Other	2.084*	1.14	3.80	2.073*	1.14	3.78

Variables	Inpatient Stay with Asthma as a Primary Diagnosis					
	Model 1			Model 2		
	OR	95 % CI		OR	95 % CI	
Comorbidity Score†						
Moderate Comorbidity	10.838***	4.44	26.43	10.817***	4.43	26.40
High Comorbidity	30.371***	12.47	73.99	30.458***	12.49	74.26
Very-High Comorbidity	55.585***	22.27	138.75	55.458***	22.20	138.54
ED Visits _lagged	1.034**	1.01	1.06	1.035**	1.01	1.06
Year†						
2021	1.333*	1.01	1.76	1.406*	1.06	1.86
2022	1.052	0.78	1.42	1.093	0.81	1.47
2023	1.589**	1.20	2.10	1.657***	1.25	2.19
_cons	0.001	0.00	0.00	0.001	0.00	0.00

*** $p<.001$, ** $p<.01$, * $p<.05$

Reference Groups: Aged, Blind, and Disabled (ABD), Baltimore City, White, Low, 2019

Comprehensive Diabetes Care

The Department combines health care utilization and quality measures to evaluate HealthChoice's performance in diabetes management. This section of the report analyzes demographic characteristics of HealthChoice participants with diabetes, as well as measures of their outpatient ED visits, inpatient admissions, and ambulatory care service utilization. HEDIS® clinical criteria for the Comprehensive Diabetes Care measure identified participants with diabetes. In addition, this section investigates whether the completion of recommended diabetes screenings affects ED service use.

Table 52 shows HealthChoice participants with a diabetes diagnosis according to the numbers and percentages within categories of race/ethnicity, sex, region, and age group. Black participants with diabetes exceeded the proportion of White participants with diabetes by more than 20 percentage points throughout the evaluation period. The proportion of White HealthChoice participants with diabetes decreased by 2.4 percentage points during the evaluation period, while the proportion of Black participants decreased by 1 percentage point. The proportion among the "Other" race category increased from 3.6% in CY 2019 to 3.8% in CY 2023. The proportion of male HealthChoice participants with diabetes decreased from 43.8% in CY 2019 to 43.2% in CY 2023. The distribution of participants with diabetes between age groups stayed relatively consistent throughout the evaluation period.

Table 52. Demographic Characteristics of HealthChoice Participants with Diabetes, CY 2019–CY 2023

Demographic Characteristic	Calendar Year				
	2019	2020	2021	2022	2023
Race/Ethnicity					
Asian	6.2%	6.5%	6.7%	7.0%	6.9%
Black	51.8%	51.6%	51.5%	51.2%	50.8%
White	29.5%	28.8%	27.9%	27.4%	27.1%
Hispanic	8.1%	8.7%	9.2%	9.7%	10.5%

Demographic Characteristic	Calendar Year				
	2019	2020	2021	2022	2023
Native American	0.8%	0.8%	0.9%	0.9%	0.8%
Other	3.6%	3.7%	3.8%	3.9%	3.8%
Sex					
Female	56.2%	55.8%	56.0%	56.4%	56.9%
Male	43.8%	44.2%	44.0%	43.6%	43.2%
Region					
Baltimore City	22.6%	22.0%	21.4%	20.6%	19.8%
Baltimore Suburban	28.0%	28.1%	28.1%	28.3%	28.6%
Eastern Shore	9.8%	9.6%	9.3%	9.2%	9.3%
Southern Maryland	5.3%	5.3%	5.4%	5.5%	5.5%
Washington Suburban	26.2%	26.9%	27.8%	28.2%	28.6%
Western Maryland	8.0%	7.9%	8.0%	8.2%	8.2%
Out of State	0.2%	0.1%	0.1%	0.1%	0.1%
Age Group (Years)					
18-40	22.3%	22.3%	22.9%	23.4%	23.7%
41-64	77.7%	77.7%	77.1%	76.6%	76.4%
Total Number of Participants	**58,810**	**59,456**	**64,920**	**70,131**	**73,790**

* Race and ethnicity values were calculated using the enhanced race/ethnicity variable implemented in 2023 and updated for the entire measurement period. Thus, race and ethnicity totals will not match previous HealthChoice Evaluation results.

**"Other" race/ethnicity category includes Pacific Islanders, Alaskan Natives, Two or More Races, Prefer Not to Say, and Unknown.

Table 53 presents the number and percentage of HealthChoice participants with diabetes who had an ambulatory care visit. The rate decreased from 94.9% in CY 2019 to 94.3% in CY 2023.

Table 53. Number and Percentage of HealthChoice Participants with Diabetes Who Had an Ambulatory Care Visit, CY 2019–CY 2023

Calendar Year	Total Number of Participants	At Least One Ambulatory Care Visit	
		Number	Percentage of Total
2019	58,767	55,787	94.9%
2020	59,423	55,891	94.1%
2021	64,857	61,915	95.5%
2022	70,131	66,376	94.6%
2023	73,790	69,600	94.3%

Table 54 presents the number and percentage of HealthChoice participants with diabetes who had an outpatient ED visit. The percentage of participants with diabetes who had an ED visit decreased from 44.0% in CY 2019 to 37.6% in CY 2023.

Table 54. Number and Percentage of HealthChoice Participants with Diabetes Who Had an Outpatient ED Visit, CY 2019–CY 2023

Calendar Year	Total Number of Participants	At Least One ED Visit	
		Number	Percentage of Total
2019	58,767	25,846	44.0%
2020	59,423	22,370	37.6%
2021	64,857	25,602	39.5%
2022	70,131	26,435	37.7%
2023	73,790	27,751	37.6%

Table 55 presents the number and percentage of HealthChoice participants with diabetes who had at least one inpatient admission. This measure decreased during the evaluation period—from 20.3% in CY 2019 to 17.0% in CY 2023—indicating the potential success of the HealthChoice program in proactively targeting diabetes management.

Table 55. Number and Percentage of HealthChoice Participants with Diabetes Who Had an Inpatient Admission, CY 2019–CY 2023

Calendar Year	Total Number of Participants	At Least One Inpatient Admission	
		Number	Percentage of Total
2019	58,767	11,956	20.3%
2020	59,423	11,519	19.4%
2021	64,857	12,772	19.7%
2022	70,131	11,957	17.0%
2023	73,790	12,522	17.0%

The CDC recommends that people with diabetes monitor blood glucose levels, look out for damaged nerve tissue in the eyes that may threaten sight, and check their blood pressure regularly in order to control their diabetes (CDC, 2024a). Table 56 presents the annual HealthChoice performance on these measures for CY 2019 through CY 2023 (MetaStar, 2024). HEDIS® analyses use medical chart reviews, whereas the diabetes analyses presented in the rest of this section rely on administrative data (MCO encounter and FFS claims). HealthChoice performed above the national HEDIS® average on HbA1c testing in CY 2019 but fell below the average in CY 2020 before surpassing it again in CY 2021. This measure was retired in CY 2022. HealthChoice also fell below the HEDIS® average on eye (retinal) exams from CY 2019 through CY 2023. For controlling HbA1c, HealthChoice was above the HEDIS® average for the entire measurement period. For controlling blood pressure, HealthChoice was above the HEDIS® average in CY 2022 only.

Table 56. Percentage of HealthChoice Members Aged 18–64 Years with Diabetes Who Received Comprehensive Diabetes Care, Compared with the National HEDIS® Average, CY 2019–CY 2023

HEDIS® Measure	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
Eye (Retinal) Exam					
HealthChoice	54.7%	51.7%	50.3%	53.1%	55.6%
National HEDIS® Average	-	-	-	-	-
HbA1c Test*					
HealthChoice	88.3%	82.9%	87.1%		
National HEDIS® Average	+	-	+		
HbA1c Control					
HealthChoice	55.6%	51.0%	56.3%	57.3%	59.0%
National HEDIS® Average	+	+	+	+	+
Blood Pressure Control**					
HealthChoice		55.9%	57.5%	63.6%	66.7%
National HEDIS® Average		-	-	+	-

Note: Because of the 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.
*This measure was retired in CY 2022.
**National HEDIS® means were unavailable in MY 2019. Due to significant changes made to measure in MY 2020, NCQA determined a trending break, so the data for CY 2019 are not available.

Under the HealthChoice demonstration waiver, the Department received approval to expand coverage of the National DPP Lifestyle Change program to all eligible HealthChoice participants as of September 1, 2019. See Section VII for more information on the DPP and an analysis of its impact.

Diabetes Screenings and Utilization

Table 57 presents the logistic regression results for estimating the odds of a HealthChoice participant with diabetes who received an eye (retinal) exam or a hemoglobin A1c (HbA1c) test —using HEDIS® standard screening measures—of having a diabetes-related ED visit that year or the following year, as compared with the odds of a participant who did not have a screening having a diabetes-related ED visit. In addition to the screening conditions, the regression controlled for demographic characteristics (race/ethnicity and sex), comorbidity levels,[54] and region of residence (Model 1). Model 2 also controlled for whether the enrollee had an ED visit with a primary diagnosis of diabetes the previous year.

In Model 1, participants who received an HbA1c test had 24.0% increased odds of experiencing a diabetes-related ED visit compared to those who did not receive a test (p<0.001). However,

[54] A person's comorbidity level is estimated based on the Johns Hopkins ACG methodology. For this analysis, Hilltop assigned individuals to one of five comorbidity categories (Low, Moderate, High, Very High, Other) based on their claim records in the measurement years (2019 to 2023).

receiving either an HbA1c test or an eye exam the previous year reduced the likelihood of having a diabetes-related ED visit the next year by 20.4% and 11.1%, respectively (p<0.001). Older participants had lower odds of having an ED visit compared to younger participants (p<0.001), and female participants were 26.1% less likely to experience a diabetes-related ED visit compared to males (p<0.001). The likelihood that those in the MCHP and ACA coverage categories would have a diabetes-related ED visit did not differ in a statistically significant way from participants in the ABD coverage category. However, participants in the Families & Children coverage groups were 11.7% less likely than those in the ABD group to experience an ED visit with a primary diagnosis of diabetes (p<0.01).

Residents of the Baltimore Suburban (p<0.001), Washington Suburban (p<0.001), and Western Maryland (p<0.01) regions all had between 16.9% and 29.9% lower odds of experiencing a diabetes-related ED visit compared to Baltimore City residents. Asian participants were 37.8% less likely to incur a diabetes-related ED visit compared to White participants (p<0.001). However, Black participants were 39.3% more likely to experience a diabetes-related ED visit (p<0.001). All participants with moderate to very high comorbidity scores were more likely to incur a diabetes-related ED visit compared to those with a low comorbidity score (p<0.001); in particular, participants scoring very high were over 39 times more likely to have an ED visit compared to participants scoring low (OR= 39.121, p<0.001).

Model 2 added a lagged dependent variable that captured whether the participant had a diabetes-related ED visit the previous year. It also added an interaction term that reflects whether the participant had an eye exam and an HbA1c test in the same year. With the addition of these variables to the analysis, receiving an eye test's impact on the odds of experiencing a diabetes-related ED visit reached statistical significance (OR= 0.868, p<0.05). Enrollees who incurred a diabetes-related ED visit the previous year were over 5 times more likely to experience one the following year (OR=5.889, p<0.001). Receiving both an eye exam and an HbA1c test in the same year had no statistically significant impact on the odds of having a diabetes-related ED visit.

These results suggest that receiving an HbA1c test does not prevent ED visits for those with existing diabetes health issues. However, the direction and strength of the odds ratio on the lagged HbA1c test and eye exam variables suggest that previous screenings may protect participants from diabetes-related ED visits the following year.

Table 57. Associations between Diabetes Screenings and ED Visits with a Primary Diagnosis of Diabetes, HealthChoice Participants Aged 5–64 Years, CY 2019–CY 2023

Effect	ED Visit with Diabetes as a Primary Diagnosis					
	Model 1			Model 2		
	OR	95% CI		OR	95% CI	
Screenings						
HbA1c Test	1.240***	1.17	1.31	1.244***	1.16	1.33
Eye exam	0.973	0.93	1.02	0.868*	0.76	0.99
HbA1c Test and Eye exam				1.146	0.99	1.32
HbA1c Test (1 year Lag)	0.796***	0.75	0.84	0.735***	0.70	0.78

Effect	ED Visit with Diabetes as a Primary Diagnosis					
	Model 1			Model 2		
	OR	95% CI		OR	95% CI	
Eye exam (1 year Lag)	0.889***	0.85	0.93	0.875***	0.84	0.92
ED Visit with Diabetes PDX (1 year Lag)				5.889***	5.55	6.25
Age	0.949***	0.95	0.95	0.958***	0.96	0.96
Female†	0.739***	0.70	0.78	0.782***	0.75	0.82
Last Coverage Category†						
Families & Children	0.883**	0.82	0.95	0.908**	0.85	0.97
MCHP	0.855	0.71	1.03	0.867	0.72	1.05
ACA	1.001	0.94	1.06	0.999	0.95	1.05
Region†						
Baltimore Suburban	0.804***	0.75	0.86	0.841***	0.79	0.89
Eastern Shore	0.994	0.91	1.09	0.984	0.91	1.07
Southern Maryland	1.074	0.96	1.20	1.089	0.99	1.20
Washington Suburban	0.701***	0.65	0.75	0.742***	0.69	0.79
Western Maryland	0.831**	0.75	0.92	0.866**	0.79	0.95
Out of State	0.868	0.47	1.61	0.888	0.50	1.57
Race/Ethnicity†						
Asian	0.622***	0.53	0.73	0.653***	0.56	0.76
Black	1.393***	1.31	1.48	1.347***	1.27	1.42
Hispanic	1.013	0.91	1.13	1.036	0.94	1.14
Native American	0.968	0.71	1.32	0.961	0.73	1.27
Other	0.981	0.85	1.13	0.986	0.87	1.12
Comorbidity Score†						
Moderate	4.966***	3.63	6.80	5.518***	4.01	7.59
High	14.943***	10.92	20.46	15.675***	11.41	21.54
Very High	39.121***	28.58	53.55	36.425***	26.52	50.02
Year†						
2021	0.921**	0.87	0.97	0.961	0.90	1.02
2022	0.849***	0.80	0.90	0.884***	0.83	0.94
2023	0.852***	0.81	0.90	0.909**	0.86	0.96
Constant	0.047	0.03	0.07	0.023	0.02	0.03

*** $p<.001$, ** $p<.01$, * $p<.05$

†, Reference Groups: Aged, Blind, and Disabled Baltimore City, White, Low, 2020

Table 58 presents the results of a logistic regression that examined the odds of a HealthChoice participant with diabetes who received an eye exam or HbA1c test having a diabetes-related inpatient admission the current year and the following year, as compared with a participant who did not receive a screening. Similar to the diabetes ED visit analysis, the regression controlled for demographic characteristics (race/ethnicity and sex), comorbidity levels,[55] and region of

[55] A person's comorbidity level is estimated based on the Johns Hopkins ACG methodology. For this analysis, Hilltop assigned individuals to one of five comorbidity categories (Low, Moderate, High, Very High, Other) based on their claim's records in the measurement years (2019 to 2023).

residence (Model 1). Model 2 also controlled for whether the enrollee had an inpatient stay with a primary diagnosis of diabetes the previous year.

In Model 1, participants who received an HbA1c test were 24.3% less likely to have a diabetes-related inpatient stay that year compared to those who did not receive an HbA1c test (p<0.001). Having an eye exam also reduced the odds of an inpatient admission for diabetes by 10.6% (p<0.001). Receiving an HbA1c test the previous year reduced the likelihood of experiencing a diabetes-related inpatient stay the following year by 13.2% (p<0.001). Furthermore, receiving an eye exam the previous year reduced the likelihood of experiencing a diabetes-related inpatient stay the following year (OR= 0.937, p<0.05). Older participants were less likely to experience a diabetes inpatient stay, as were female participants (p<0.001). The coverage category Families and Children had a decreased likelihood of incurring an inpatient stay with a diabetes primary diagnosis by 10.2% compared to those in the ABD coverage category (p<0.05).

Residents in Baltimore Suburban, Eastern Shore, and Western Maryland had lower odds of experiencing a diabetes-related inpatient stay compared to the reference group of Baltimore City residents. Eastern Shore residents were 36.2% (p<0.001) less likely to have one than Baltimore City residents, the most significant odds reduction for any region. Asian and Hispanic participants were less likely to incur a diabetes-related inpatient stay, with Asian participants having 42.7% lower odds compared to White participants, and Hispanic enrollees having 33.1% lower odds (p<0.001). Compared to participants with a low comorbidity score, participants with a moderate to very high comorbidity score were roughly between 3 and 300 times more likely to experience a diabetes-related inpatient stay (p<0.001).

As in the ED visit analysis, Model 2 added a lagged dependent variable that captured whether the enrollee had a diabetes-related inpatient stay the previous year and an interaction variable that shows whether they had an HbA1c test and an eye exam in the same year. In Model 2, there was no statistically significant interactive impact of receiving both an eye exam and an HbA1c test. Enrollees who incurred a diabetes-related inpatient stay the previous year were over 9 times more likely to experience one the following year (OR=9.366, p<0.001). In Model 2, the odds ratio for the HbA1c test and eye exam stayed consistent with the Model 1 results, as did the odds ratio for the lagged screenings.

Unlike the diabetes ED visit analysis, receiving an HbA1c test is associated with reduced odds of existing diabetes health issues leading to an inpatient hospital admission. Furthermore, the direction and strength of the odds ratio on the lagged HbA1c test and eye exam variables indicate that this protection may carry over to the following year.

Table 58. Associations between Diabetes Screenings and Inpatient Admissions with a Primary Diagnosis of Diabetes, HealthChoice Participants Aged 5–64 Years, CY 2019–CY 2023

Effect	Inpatient Admission with Diabetes as a Primary Diagnosis					
	Model 1			Model 2		
	OR	95% CI		OR	95% CI	
Screenings						
HbA1c Test	0.757***	0.71	0.81	0.758***	0.70	0.82
Eye exam	0.894***	0.84	0.95	0.825*	0.71	0.96
HbA1c Test and Eye exam				1.065	0.90	1.25
HbA1c Test (1 year Lag)	0.868***	0.81	0.93	0.895**	0.83	0.96
Eye exam (1 year Lag)	0.937*	0.88	0.99	0.927*	0.87	0.99
Inpt Admit with Diabetes PDX (1 year Lag)				9.366***	8.68	10.10
Age	0.939***	0.94	0.94	0.950***	0.95	0.95
Female†	0.694***	0.65	0.74	0.755***	0.71	0.80
Last Coverage Category†						
Families & Children	0.898*	0.82	0.98	0.968	0.89	1.05
MCHP	0.889	0.66	1.20	0.876	0.65	1.18
ACA	0.979	0.91	1.06	1.002	0.94	1.07
Region†						
Baltimore Suburban	0.843***	0.77	0.92	0.883**	0.81	0.96
Eastern Shore	0.638***	0.56	0.73	0.691***	0.62	0.77
Southern Maryland	0.921	0.79	1.08	0.948	0.83	1.09
Washington Suburban	0.923	0.84	1.01	0.954	0.88	1.04
Western Maryland	0.732***	0.64	0.84	0.795***	0.70	0.90
Out of State	1.107	0.58	2.12	1.164	0.63	2.16
Race/Ethnicity†						
Asian	0.573***	0.45	0.72	0.668***	0.54	0.83
Black	1.026	0.95	1.11	1.040	0.97	1.12
Hispanic	0.669***	0.58	0.78	0.754***	0.66	0.87
Native American	1.082	0.73	1.61	1.121	0.80	1.57
Other	0.901	0.75	1.09	0.967	0.82	1.14
Comorbidity Score†						
Moderate	3.168**	1.41	7.14	3.825**	1.69	8.63
High	45.961***	20.57	102.70	54.199***	24.23	121.25
Very High	307.937***	137.85	687.89	317.588***	142.06	709.98
Year†						
2021	0.925*	0.86	0.99	0.984	0.91	1.07
2022	0.881***	0.82	0.94	0.943	0.87	1.02
2023	0.859***	0.80	0.92	0.930	0.86	1.00
Constant	0.015	0.01	0.03	0.005	0.00	0.01

*** $p<.001$, ** $p<.01$, * $p<.05$

†, Reference Groups: Aged, Blind, and Disabled, Baltimore City, White, Low, 2020

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, cluster of differentiation 4 (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. Antiretroviral Therapy (ART) is a combination of HIV medications used to reduce the viral load of HIV. ART is recommended for everyone with HIV and should begin as soon as possible after diagnosis (CDC, 2022c). Early initiation of ART lowers the risk of an individual with HIV of developing AIDS and other complications and lowers the risk of transmitting HIV to other individuals (Lundgren et al., 2015).

Table 59 presents the percentage of participants with HIV/AIDS by age group and race/ethnicity for CY 2019 and CY 2023. In both years, the majority of participants with HIV/AIDS were aged 40-64 years, and the majority were Black (making up 79.8% of participants with HIV/AIDS in CY 2023), followed by White participants. The total number of participants with HIV/AIDS increased over the evaluation period.

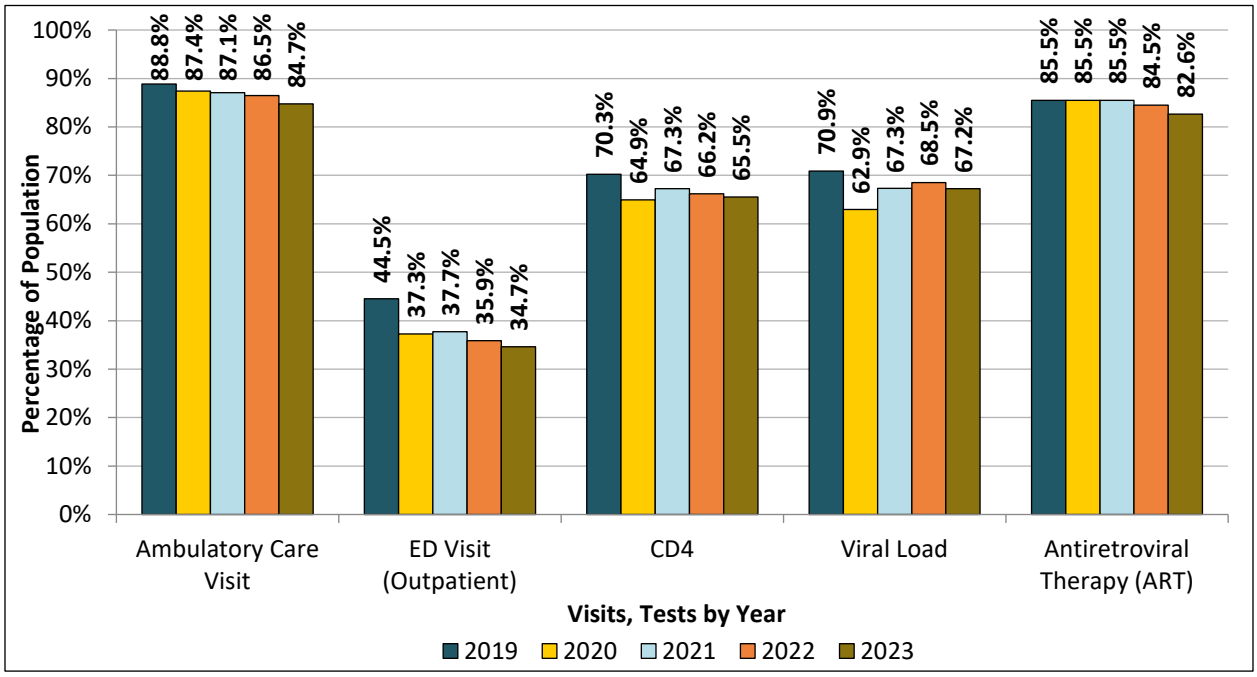
Table 59. Distribution of HealthChoice Participants with HIV/AIDS, by Age Group and Race/Ethnicity, CY 2019 and CY 2023

Demographic Characteristic	CY 2019		CY 2023	
	Number of Participants	Percentage of Total	Number of Participants	Percentage of Total
Age Group (Years)				
0–18	140	1.6%	107	1.2%
19–39	3,343	38.4%	4,034	39.2%
40–64	5,219	60.0%	6,010	59.6%
Total	**8,702**	**100%**	**10,151**	**100%**
Race/Ethnicity				
Asian	120	1.4%	219	2.2%
Black	7,114	81.8%	8,105	79.8%
White	942	10.8%	1,063	10.5%
Hispanic	241	2.8%	384	3.8%
Native American	63	0.7%	80	0.8%
Other*	222	2.6%	300	3.0%
Total	**8,702**	**100%**	**10,151**	**100.0%**

Note: The counts of HealthChoice enrollees with HIV/AIDS for CY 2019 to CY 2022 were updated to include all enrollees receiving capitation payments for HIV/AIDS. Previously, childless adults with HIV/AIDS were erroneously excluded from the analysis. Thus, data may not match previous HealthChoice Evaluation results.
*"Other" race/ethnicity category includes Pacific Islanders, Alaskan Natives, Two or More Races, Prefer Not to Say, and Unknown.

Figure 17 shows service utilization by HealthChoice participants with HIV/AIDS during the study period. The percentage of participants with HIV/AIDS who utilized all service types decreased over the evaluation period. The most significant decrease in service utilization was outpatient ED visits, which decreased from 44.5% in CY 2019 to 34.7% in CY 2023. ART saw the smallest decrease in service utilization, with a drop of 2.9 percentage points over the evaluation period.

Figure 17. Percentage of HealthChoice Participants with HIV/AIDS Who Had an Ambulatory Care Visit, Outpatient ED Visit, CD4 Testing, Viral Load Testing, or Antiretroviral Therapy, CY 2019–CY 2023



Note: The counts of HealthChoice enrollees with HIV/AIDS for CY 2019 to CY 2022 were updated to include all enrollees receiving capitation payments for HIV/AIDS. Previously, childless adults with HIV/AIDS were erroneously excluded from the analysis. Thus, data may not match previous HealthChoice Evaluation results.

According to the CDC's annual HIV Surveillance Report (2021b), for people aged 13 and older, there was a national HIV incidence rate of 13.2 per 100,000 people in 2019. In Maryland, the incidence rate of HIV diagnoses for 2019 was 18.0 per 100,000 people, a decrease from the previous year's rate of 19.6 (CDC, 2021b). The CDC (2022b) estimates that nearly 40% of new HIV infections are transmitted by people who have undiagnosed HIV. Thus, 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 60 shows HIV screenings for HealthChoice participants aged 15[56] to 64 years from CY 2019 through CY 2023. The number and percentage of participants who received a screening fluctuated throughout the evaluation period. While the number of participants with a screening increased by 14,187 between CY 2019 and CY 2023, the percentage with a screening decreased by 2.9 percentage points overall.

Table 60. HIV Screening in the HealthChoice Population for Participants Aged 15–64 Years, CY 2019–CY 2023

HealthChoice Participants	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
Total Number	824,976	847,412	927,415	999,256	1,076,315
Number Received HIV Screening	148,213	127,875	148,052	151,185	162,400
Percentage Received HIV Screening	18.0%	15.1%	16.0%	15.1%	15.1%

* The definition of HIV screening was modified in 2022 to include additional procedure codes.

For people who are not HIV positive but are at risk of contracting the infection, pre-exposure prophylaxis (PrEP)—a daily medication—can help prevent HIV (CDC, 2019). Table 61 presents the number and percentage of HealthChoice participants who received PrEP from CY 2019 to CY 2023. The number of participants who received PrEP dropped significantly between CY 2019 and CY 2021, with less than 0.1% of participants receiving PrEP in CY 2021. While the number of participants who received PrEP increased in CY 2022 and CY 2023.

Table 61. HealthChoice Participants, Aged 0–64, Who Received HIV PrEP, CY 2019–CY 2023

HealthChoice Participants	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
Total Number	1,377,493	1,392,876	1,487,449	1,574,181	1,665,232
Number Received PrEP	1,958	990	478	1,574	1,848
Percentage Received PrEP	0.1%	0.1%	0.0%	0.1%	0.1%

* The definition of PrEP was modified in 2022 to include additional National Drug Codes.

Behavioral Health

The Department contracts with an ASO to administer specialty MHD and SUD services, collectively called behavioral health services. Although the managed care benefit package excludes these services, MCOs are mandated to ensure that their enrollees receive all needed health services, including those that are carved out. In taking a whole-person view, this section includes behavioral health services paid on an FFS basis by the ASO but provided to individuals enrolled in the HealthChoice program.

Behavioral Health Demographics and Service Utilization

Table 62 presents the number and percentage of HealthChoice participants by behavioral health diagnosis group. These groups include MHD-only, SUD-only, dual diagnosis of MHD and SUD, and

[56] HIV tests are recommended starting at age 15 for Maryland Medicaid recipients: https://health.maryland.gov/mmcp/epsdt/Documents/Maryland%20EPSDT%20Schedule-01-01-22%20HealthRiskAssessment.pdf

no behavioral health diagnoses.[57] The percentage of HealthChoice participants without a behavioral health diagnosis increased from 81.9% in CY 2019 to 83.0% in CY 2023. After those with no behavioral health diagnosis, MHD-only diagnoses were the most common throughout the evaluation period.

Table 62. Number and Percentage of HealthChoice Participants with a Behavioral Health Diagnosis, by Diagnosis, CY 2019–CY 2023

Diagnosis	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
MHD-Only	176,929 (12.8%)	172,655 (12.4%)	183,468 (12.3%)	196,664 (12.5%)	209,509 (12.6%)
SUD-Only	36,934 (2.7%)	35,197 (2.5%)	35,275 (2.4%)	33,865 (2.2%)	32,679 (2.0%)
Dual Diagnosis (MHD + SUD)	35,604 (2.6%)	33,128 (2.4%)	34,277 (2.3%)	35,891 (2.3%)	40,470 (2.4%)
No Behavioral Health Diagnosis	1,127,790 (81.9%)	1,151,645 (82.7%)	1,233,971 (83.0%)	1,307,391 (83.1%)	1,382,574 (83.0%)
Total	**1,377,257**	**1,392,625**	**1,486,991**	**1,573,811**	**1,665,232**

The Department monitors the extent to which participants with a behavioral health diagnosis had access to ambulatory care services. In CY 2023, 91.3% of participants with a behavioral health condition visited a health care provider for an ambulatory care visit (Table 63).

From CY 2019 through CY 2023, the ambulatory care visit rate among participants with an MHD-only diagnosis decreased slightly from 92.8% to 92.2%, as did the rate among participants with an SUD-only diagnosis. Participants with a dual diagnosis of MHD and SUD were consistently more likely to receive an ambulatory care visit than participants in the other diagnosis groups across the evaluation period.

Table 63. HealthChoice Participants with a Behavioral Health Condition Who Had an Ambulatory Care Visit, by Behavioral Health Diagnosis, CY 2019–CY 2023

Calendar Year	Total Number of Participants	At Least One Ambulatory Care Visit	
		Number of Participants	Percentage of Total Participants
MHD-Only			
2019	176,929	164,252	92.8%
2020	172,655	156,252	90.5%
2021	183,468	170,664	93.0%
2022	196,664	182,097	92.6%
2023	209,509	193,069	92.2%
SUD-Only			
2019	36,934	29,948	81.1%
2020	35,197	28,008	79.6%
2021	35,275	29,020	82.3%

[57] Due to changes in how behavioral health diagnoses are defined, all five years of data have been updated. Results in this section may differ from previous iterations of the HealthChoice Evaluation.

Calendar Year	Total Number of Participants	At Least One Ambulatory Care Visit	
		Number of Participants	Percentage of Total Participants
2022	33,865	27,783	82.0%
2023	32,679	26,426	80.9%
Dual Diagnosis (MHD + SUD)			
2019	35,604	33,664	94.6%
2020	33,128	31,257	94.4%
2021	34,277	32,729	95.5%
2022	35,891	34,443	96.0%
2023	40,470	38,528	95.2%
Total			
2019	249,467	227,864	91.3%
2020	240,980	215,517	89.4%
2021	253,020	232,413	91.9%
2022	266,420	244,323	91.7%
2023	282,658	258,023	91.3%

Table 64 shows the number and percentage of HealthChoice participants with a behavioral health diagnosis who had at least one outpatient ED visit.[58] ED utilization rates fell for all diagnosis groups between CY 2019 and CY 2023. In each year, participants with co-occurring diagnoses had a higher rate of ED utilization than participants with an MHD-only or SUD-only diagnosis.

Table 64. HealthChoice Participants with a Behavioral Health Condition Who Had at Least One Outpatient ED Visit, by Behavioral Health Diagnosis, CY 2019–CY 2023

Calendar Year	Total Number of Participants	At Least One ED Visit	
		Number of Participants	Percentage of Total Participants
MHD-Only			
2019	176,929	69,486	39.3%
2020	172,655	54,201	31.4%
2021	183,468	62,204	33.9%
2022	196,664	66,514	33.8%
2023	209,509	70,188	33.5%
SUD-Only			
2019	36,934	16,902	45.8%
2020	35,197	14,387	40.9%
2021	35,275	15,036	42.6%
2022	33,865	13,338	39.4%
2023	32,679	12,760	39.0%
Dual Diagnosis (MHD + SUD)			
2019	35,604	22,631	63.6%
2020	33,128	19,159	57.8%
2021	34,277	20,458	59.7%

[58] This measure excludes ED visits that resulted in an inpatient hospital admission.

Calendar Year	Total Number of Participants	At Least One ED Visit	
		Number of Participants	Percentage of Total Participants
2022	35,891	20,183	56.2%
2023	40,470	23,054	57.0%
Total			
2019	249,467	109,019	43.7%
2020	240,980	87,747	36.4%
2021	253,020	97,698	38.6%
2022	266,420	100,035	37.5%
2023	282,658	106,002	37.5%

Table 65 displays the number and percentage of HealthChoice participants with a behavioral health diagnosis who had at least one inpatient admission. Overall, the percentage of participants with a behavioral health diagnosis who had an inpatient admission declined from 13.6% in CY 2019 to 11.6% in CY 2023. Each of the behavioral health diagnosis groups experienced the same downward trend during this period. In each year of the evaluation period, participants with co-occurring diagnoses had a higher rate of inpatient admissions than participants with an MHD-only or SUD-only diagnosis.

Table 65. HealthChoice Participants with a Behavioral Health Condition Who Had an Inpatient Admission, by Behavioral Health Diagnosis, CY 2019–CY 2023

Calendar Year	Total Number of Participants	At Least One Inpatient Visit	
		Number of Participants	Percentage of Total Participants
MHD-Only			
2019	176,929	19,606	11.1%
2020	172,655	17,351	10.0%
2021	183,468	18,443	10.1%
2022	196,664	19,171	9.7%
2023	209,509	19,825	9.5%
SUD-Only			
2019	36,934	4,667	12.6%
2020	35,197	4,418	12.6%
2021	35,275	4,511	12.8%
2022	33,865	3,775	11.1%
2023	32,679	3,482	10.7%
Dual Diagnosis (MHD + SUD)			
2019	35,604	9,676	27.2%
2020	33,128	8,440	25.5%
2021	34,277	8,555	25.0%
2022	35,891	8,307	23.1%
2023	40,470	9,474	23.4%
Total			
2019	249,467	33,949	13.6%
2020	240,980	30,209	12.5%

Calendar Year	Total Number of Participants	At Least One Inpatient Visit	
		Number of Participants	Percentage of Total Participants
2021	253,020	31,509	12.5%
2022	266,420	31,253	11.7%
2023	282,658	32,781	11.6%

Table 66 shows the rates of MHD-only, SUD-only, and co-occurring MHD and SUD diagnoses among HealthChoice participants by race and ethnicity during CY 2019 and CY 2023. Throughout the evaluation period, White participants had the highest rates of MHD-only, SUD-only, and co-occurring diagnoses. Native American participants experienced each type of diagnosis at the second highest rate and Black participants at the third highest. Native Americans had the largest increase (1.8 percentage points) in MHD-only diagnoses from CY 2019 to CY 2023. Asian participants were the most likely to have no behavioral health diagnosis, followed by Hispanics.

Table 66. Distribution of HealthChoice Participants Aged 0-64 Years, by Race/Ethnicity and Behavioral Health Conditions, CY 2019 and CY 2023

Race/Ethnicity	CY 2019		CY 2023	
	Number of Participants	Percentage of Total Race/Ethnicity	Number of Participants	Percentage of Total Race/Ethnicity
MHD-Only				
Black	82,805	13.5%	99,638	13.8%
White	62,630	16.5%	67,644	16.0%
Hispanic	16,930	7.6%	22,184	7.2%
Asian	3,265	4.8%	5,347	5.9%
Native American	1,707	13.9%	2,397	15.7%
Other	9,592	11.5%	12,299	11.6%
Total	**176,929**	**12.8%**	**209,509**	**12.6%**
SUD-Only				
Black	12,966	2.1%	11,160	1.5%
White	21,161	5.6%	18,022	4.3%
Hispanic	993	0.4%	1,471	0.5%
Asian	340	0.5%	406	0.4%
Native American	301	2.5%	330	2.2%
Other	1,173	1.4%	1,290	1.2%
Total	**36,934**	**2.7%**	**32,679**	**2.0%**
Dual Diagnosis (MHD + SUD)				
Black	13,925	2.3%	16,800	2.3%
White	19,223	5.1%	19,987	4.7%
Hispanic	854	0.4%	1,357	0.4%
Asian	271	0.4%	393	0.4%
Native American	297	2.4%	436	2.9%
Other	1,034	1.2%	1,497	1.4%
Total	**35,604**	**2.6%**	**40,470**	**2.4%**
No Behavioral Health Diagnosis				
Black	503,291	82.1%	592,721	82.3%
White	276,153	72.8%	316,327	75.0%
Hispanic	202,894	91.5%	285,020	91.9%
Asian	64,097	94.3%	85,165	93.3%
Native American	9,961	81.2%	12,121	79.3%
Other	71,394	85.8%	91,220	85.8%
Total	**1,127,790**	**81.9%**	**1,382,574**	**83.0%**

Note: "Other" race/ethnicity category includes Pacific Islanders, Alaskan Natives, Two or More Races, Prefer Not to Say, and Unknown.

Mental Health Services

Table 67 displays the key demographic characteristics of HealthChoice participants with a diagnosis of an MHD.[59] The proportion of White participants with an MHD decreased across the

[59] Individuals are identified as having an MHD if they meet the COMAR definition of MHD.

evaluation period from 38.5% in CY 2019 to 35.1% in CY 2023. The remaining race and ethnic groups saw minor increases in MHD diagnoses during the measurement period. In CY 2019, children and adults made up 38.8% and 61.2%, respectively, of participants with an MHD; the proportion of adults rose to 66.6% in CY 2023.

Table 67. Demographic Characteristics of HealthChoice Participants with an MHD, CY 2019–CY 2023

Demographic Characteristic	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
	% of Total	% of Total	% of Total	% of Total	% of Total
Race/Ethnicity*					
Asian	1.7%	1.9%	2.1%	2.2%	2.3%
Black	45.5%	45.4%	45.4%	46.2%	46.6%
White	38.5%	38.0%	37.3%	36.0%	35.1%
Hispanic	8.4%	8.6%	8.8%	9.1%	9.4%
Native American	0.9%	1.0%	1.1%	1.1%	1.1%
Other**	5.0%	5.2%	5.4%	5.4%	5.5%
Total	**100%**	**100%**	**100.0%**	**100%**	**100%**
Sex					
Female	54.9%	56.0%	57.8%	58.3%	58.2%
Male	45.1%	44.0%	42.2%	41.8%	41.8%
Total	**100%**	**100%**	**100%**	**100.0%**	**100%**
Region					
Baltimore City	24.9%	24.6%	24.0%	24.0%	24.1%
Baltimore Suburban	31.7%	32.1%	32.6%	33.0%	33.1%
Eastern Shore	11.0%	10.8%	10.4%	10.4%	10.4%
Southern Maryland	4.6%	4.6%	4.7%	4.6%	4.5%
Washington Suburban	17.7%	17.7%	18.1%	18.0%	18.2%
Western Maryland	10.0%	10.2%	10.2%	10.0%	9.7%
Out of State	0.1%	0.1%	0.1%	0.1%	0.1%
Total	**100%**	**100%**	**100.0%**	**100%**	**100%**
Age Group (Years)					
0–18	38.8%	37.2%	34.6%	34.1%	33.4%
19–64	61.2%	62.8%	65.4%	65.9%	66.6%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Total Participants	**212,533**	**205,783**	**217,745**	**232,555**	**249,979**

*Race and ethnicity values were calculated using the enhanced race/ethnicity variable implemented in 2023 and updated for the entire measurement period. Thus, race and ethnicity totals will not match previous HealthChoice Evaluation results.

**"Other" race/ethnicity category includes Pacific Islanders, Alaskan Natives, Two or More Races, Prefer Not to Say, and Unknown.

Table 68 displays the number and percentage of HealthChoice participants with an MHD diagnosis who had at least one ambulatory care visit, as well as participants with at least one ambulatory care visit with an MHD as a primary diagnosis. The percentage of HealthChoice participants with an MHD-only diagnosis who had an ambulatory care visit with an MHD as a

primary diagnosis decreased by 3.8 percentage points over the evaluation period, while the rate of overall ambulatory care visits decreased by only 0.5 percentage points. Among those with a dual diagnosis of MHD and SUD, the rate of overall ambulatory care visits increased by 0.6 percentage points between CY 2019 and CY 2023, while the rate of ambulatory care visits with an MHD as a primary diagnosis decreased by 3.4 percentage points. Between CY 2019 and CY 2023, the overall percentage of participants with an MHD or a dual diagnosis who had at least one ambulatory care visit decreased slightly, while the percentage with at least one ambulatory care visit where MHD was the primary diagnosis decreased from 17.0% in CY 2019 to 13.2% in CY 2023.

Table 68. HealthChoice Participants with an MHD Who Had an Ambulatory Care Visit, by MHD Diagnosis, CY 2019–CY 2023

Calendar Year	Total Number of Participants	At Least One Ambulatory Care Visit (Any Diagnosis)		At Least One Ambulatory Care Visit with MHD as Primary Diagnosis	
		Number of Participants	Percentage of Total Participants	Number of Participants	Percentage of Total Participants
MHD-Only					
2019	176,929	164,252	92.8%	30,946	17.5%
2020	172,655	156,252	90.5%	27,257	15.8%
2021	183,468	170,664	93.0%	29,152	15.9%
2022	196,664	182,097	92.6%	28,051	14.3%
2023	209,509	193,069	92.2%	28,776	13.7%
Dual Diagnosis (MHD + SUD)					
2019	35,604	33,664	94.6%	5,224	14.7%
2020	33,128	31,257	94.4%	4,546	13.7%
2021	34,277	32,729	95.5%	4,512	13.2%
2022	35,891	34,443	96.0%	4,294	12.0%
2023	40,470	38,528	95.2%	4,583	11.3%
Total					
2019	212,533	197,916	93.1%	36,170	17.0%
2020	205,783	187,509	91.1%	31,803	15.5%
2021	217,745	203,393	93.4%	33,664	15.5%
2022	232,555	216,540	93.1%	32,345	13.9%
2023	249,979	231,597	92.6%	33,359	13.3%

Table 69 displays the number and percentage of HealthChoice participants who had at least one outpatient ED visit with either any diagnosis or a primary diagnosis of an MHD. Between CY 2019 and CY 2023, the overall percentage of participants with an MHD or a dual diagnosis who had at least one outpatient ED visited decreased by 6.0 percentage points. The percentage that had an ED visit with a primary diagnosis of an MHD decreased by 3.2 percentage points.

The percentages of HealthChoice participants with a dual diagnosis (MHD and SUD) and at least one outpatient ED visit decreased by 6.6 percentage point between CY 2019 and CY 2023. Similarly, the percentage of participants with an MHD-only diagnosis and at least one outpatient

ED visit decreased by 5.8 percentage points over the evaluation period. The percentage of HealthChoice participants with a dual diagnosis and at least one outpatient ED visit with a primary diagnosis of an MHD decreased by 4.6 percentage points, whereas the corresponding rate among participants with an MHD-only diagnosis decreased by 3.0 percentage points.

Table 69. HealthChoice Participants with an MHD Who Had an Outpatient ED Visit, by MHD Diagnosis, CY 2019–CY 2023

Calendar Year	Total Number of Participants	At Least One Outpatient ED Visit (Any Diagnosis)		At Least One Outpatient ED Visit with MHD as Primary Diagnosis	
		Number of Participants	Percentage of Total Participants	Number of Participants	Percentage of Total Participants
MHD-Only					
2019	176,929	69,486	39.3%	12,721	7.2%
2020	172,655	54,201	31.4%	9,081	5.3%
2021	183,468	62,204	33.9%	10,307	5.6%
2022	196,664	66,514	33.8%	9,017	4.6%
2023	209,509	70,188	33.5%	8,848	4.2%
Dual Diagnosis (MHD + SUD)					
2019	35,604	22,631	63.6%	4,120	11.6%
2020	33,128	19,159	57.8%	2,934	8.9%
2021	34,277	20,458	59.7%	3,178	9.3%
2022	35,891	20,183	56.2%	2,625	7.3%
2023	40,470	23,054	57.0%	2,845	7.0%
Total					
2019	212,533	92,117	43.3%	16,841	7.9%
2020	205,783	73,360	35.6%	12,015	5.8%
2021	217,745	82,662	38.0%	13,485	6.2%
2022	232,555	86,697	37.3%	11,642	5.0%
2023	249,979	93,242	37.3%	11,693	4.7%

The Department monitors the extent to which HealthChoice participants who had an ED visit with a primary diagnosis of an MHD receive a follow-up outpatient visit with any practitioner within 7 or 30 days.

Table 70 displays the number of ED visits with a primary diagnosis of an MHD among participants aged 6 to 64 years and the percentage of visits where appropriate follow-up care was provided: i.e., an outpatient visit within 7 or 30 days (FUM).[60] A higher percentage of participants with only an MHD completed follow-up visits than participants with a dual diagnosis of MHD and SUD (within both 7 and 30 days) throughout the evaluation period. Among all participants with an MHD or dual diagnosis, the percentage of ED visits with a primary MHD diagnosis and a follow-up appointment within 7 days increased from 37.1% in CY 2019 to 39.0% in CY 2023. The overall

[60] This measure—Follow-Up after Emergency Department Visit for Mental Illness, or FUM—was calculated using the HEDIS® proprietary software from Cognizant.

percentage of follow-up visits within 30 days increased from 57.9% in CY 2019 to 58.8% in CY 2023.

Table 70. Number and Percentage of ED Visits for MHD and a Follow-Up Visit within 7 or 30 Days, CY 2019–CY 2023

Calendar Year	Total Number of Visits	At Least One Follow-Up within 7 Days		At Least One Follow-Up within 30 Days	
		Number of Visits	Percentage of Visits	Number of Visits	Percentage of Visits
MHD-Only					
2019	9,045	3,713	41.1%	5,556	61.4%
2020	7,465	2,493	33.4%	4,194	56.2%
2021	7,440	2,936	39.5%	4,429	59.5%
2022	7,404	3,065	41.4%	4,536	61.3%
2023	6,635	2,677	40.3%	3,918	59.1%
Dual Diagnosis (MHD + SUD)					
2019	3,895	1,093	28.1%	1,937	49.7%
2020	3,274	861	26.3%	1,561	47.7%
2021	3,271	998	30.5%	1,663	50.8%
2022	2,995	1,037	34.6%	1,692	56.5%
2023	2,695	959	35.6%	1,566	58.1%
Total					
2019	12,940	4,806	37.1%	7,493	57.9%
2020	10,739	3,354	31.2%	5,755	53.6%
2021	10,711	3,934	36.7%	6,092	56.9%
2022	10,399	4,102	39.4%	6,228	59.9%
2023	9,330	3,636	39.0%	5,484	58.8%

Substance Use Disorder Services

This section evaluates the quality and comprehensiveness of SUD-related care provided to HealthChoice participants. SUD services are carved out and administered by the ASO in alignment with specialty mental health services.[61]

Table 71 presents the demographic characteristics of HealthChoice participants with a diagnosis of SUD. Among racial and ethnic groups, White participants made up the highest proportion of persons with an SUD, followed by Black participants. The share of Black participants with an SUD increased by 1.1 percentage points between CY 2019 and CY 2023, while the share of White participants decreased by 3.7 percentage points. Between CY 2019 and CY 2023, males remained the majority of participants with an SUD, making up 57.4% of participants with an SUD in CY 2023. The Baltimore Suburban region had the highest share of persons with an SUD during the evaluation period, with the distribution among regions remaining steady.

[61] Individuals were identified as having an SUD if they had a claim that met the COMAR 10.67.08.02 definition of SUD.

Table 71. Demographic Characteristics of HealthChoice Participants with an SUD, CY 2019–CY 2023

Demographic Characteristics	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
	% of Total	% of Total	% of Total	% of Total	% of Total
Race/Ethnicity					
Asian	0.8%	0.9%	1.0%	1.0%	1.1%
Black	37.1%	35.7%	35.5%	36.2%	38.2%
White	55.7%	56.6%	56.2%	54.8%	52.0%
Hispanic	2.6%	2.6%	2.8%	3.3%	3.9%
Native American	0.8%	0.9%	0.9%	1.0%	1.1%
Other*	3.0%	3.3%	3.6%	3.7%	3.8%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Sex					
Female	42.5%	42.8%	42.7%	42.6%	42.6%
Male	57.5%	57.2%	57.3%	57.4%	57.4%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Region					
Baltimore City	30.0%	29.3%	28.3%	28.1%	28.6%
Baltimore Suburban	32.4%	32.8%	33.2%	33.1%	32.8%
Eastern Shore	13.0%	12.7%	12.8%	12.7%	12.1%
Southern Maryland	5.6%	5.6%	5.7%	5.6%	5.5%
Washington Suburban	7.0%	7.1%	7.2%	7.7%	8.7%
Western Maryland	12.0%	12.4%	12.8%	12.7%	12.2%
Out of State	0.1%	0.2%	0.1%	0.1%	0.1%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Age Group (Years)					
0-18	2.4%	1.9%	1.8%	2.2%	3.1%
19-64	97.6%	98.1%	98.2%	97.8%	96.9%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Total Participants	**72,538**	**68,325**	**69,652**	**69,756**	**73,149**

*"Other" race/ethnicity category includes Pacific Islanders, Alaskan Natives, Two or More Races, Prefer Not to Say, and Unknown.

Screening, Brief Intervention, and Referral to Treatment

Screening, Brief Intervention, and Referral to Treatment (SBIRT) is a public health approach for delivering population screening, early intervention, and treatment services[62] targeting SUDs. Health care providers using SBIRT ask participants about substance use during routine medical and dental visits, provide brief advice, and then, if appropriate, refer participants who are at risk of SUDs to more intensive treatment (SAMHSA, 2022). In July 2016, new SBIRT codes were

[62] An SBIRT service is identified by the following procedure codes: 99408, 99409, W7000, W7010, W7020, W7021, and W7022 during the calendar year.

introduced to give providers greater flexibility when billing for SBIRT services (Maryland Department of Health, 2016).

Table 72 presents the number of HealthChoice participants who received an SBIRT service during the evaluation period. The number of participants who received services per 1,000 HealthChoice participants decreased by 1.9 between CY 2019 and CY 2023. The total number of participants receiving services increased by 6.7% over the evaluation period.

Adolescents aged 12 to 14 years had the highest number of participants receiving services per 1,000 HealthChoice participants in CY 2019 through CY 2023. Among the group aged 12 to 14 years, the number of participants receiving services per 1,000 HealthChoice participants increased by 2.8 between CY 2019 and CY 2023.

Table 72. Number of HealthChoice Participants Who Received an SBIRT Service, by Age Group, CY 2019–CY 2023

	Age Group (Years)						Total
	11 and under	12–14	15–18	19–20	21–39	40–64	
CY 2019							
# of Participants	446,952	105,434	118,234	51,568	377,077	277,992	**1,377,257**
# with Service	1,064	5,532	6,074	1,279	4,166	4,540	**22,655**
Per 1000	2.4	52.5	51.4	24.8	11.0	16.3	**16.4**
CY 2020							
# of Participants	436,498	108,778	120,118	51,947	385,594	289,690	**1,392,625**
# with Service	941	4,946	5,019	1,024	2,664	2,909	**17,503**
Per 1000	2.2	45.5	41.8	19.7	6.9	10.0	**12.6**
CY 2021							
# of Participants	445,936	113,761	130,916	57,602	424,493	314,283	**1,486,991**
# with Service	1,042	6,479	6,869	1,511	3,957	4,391	**24,249**
Per 1000	2.3	57.0	52.5	26.2	9.3	14.0	**16.3**
CY 2022							
# of Participants	458,379	116,289	142,354	62,236	460,196	334,357	**1,573,811**
# with Service	995	5,471	6,233	1,293	3,595	4,331	**21,918**
Per 1000	2.2	47.0	43.8	20.8	7.8	13.0	**13.9**
CY 2023							
# of Participants	470,764	118,153	153,677	66,329	501,110	355,199	**1,665,232**
# with Service	1,067	6,537	7,731	1,495	3,505	3,836	**24,171**
Per 1000	2.3	55.3	50.3	22.5	7.0	10.8	**14.5**

The Department also monitors the extent to which HealthChoice participants with an SUD access ambulatory care services. Table 73 displays the percentage of HealthChoice participants with an SUD who had an ambulatory care visit, as well as those having at least one ambulatory care visit with a primary diagnosis of SUD. Participants with a co-occurring MHD and SUD were consistently more likely to receive an ambulatory care visit. The rate of ambulatory care

utilization among participants with a co-occurring MHD and SUD increased from 94.6% in CY 2019 to 95.2% in CY 2022. Alternatively, ambulatory care utilization by participants with an SUD-only diagnosis decreased by 0.2 percentage points. The overall percentage of participants with an SUD or a dual diagnosis who had at least one ambulatory care visit increased from 87.7% in 2019 to 88.8% in CY 2023, and the overall percentage with at least one ambulatory care visit with a primary diagnosis of an SUD decreased 2.8 percentage points during the measurement period.

Table 73. HealthChoice Participants with an SUD Who Had an Ambulatory Care Visit, by SUD Status, CY 2019–CY 2023

Calendar Year	Total Number of Participants	At Least One Ambulatory Care Visit		At Least One Ambulatory Care Visit with Primary Diagnosis of SUD	
		Number of Participants	Percentage of Total Participants	Number of Participants	Percentage of Total Participants
SUD-Only					
2019	36,934	29,948	81.1%	5,629	15.2%
2020	35,197	28,008	79.6%	4,471	12.7%
2021	35,275	29,020	82.3%	4,691	13.3%
2022	33,865	27,783	82.0%	4,557	13.5%
2023	32,679	26,426	80.9%	4,214	12.9%
Dual Diagnosis (MHD + SUD)					
2019	35,604	33,664	94.6%	7,744	21.8%
2020	33,128	31,257	94.4%	5,827	17.6%
2021	34,277	32,729	95.5%	5,800	16.9%
2022	35,891	34,443	96.0%	6,111	17.0%
2023	40,470	38,528	95.2%	7,170	17.7%
Total					
2019	72,538	63,612	87.7%	13,373	18.4%
2020	68,325	59,265	86.7%	10,298	15.1%
2021	69,552	61,749	88.8%	10,491	15.1%
2022	69,756	62,226	89.2%	10,668	15.3%
2023	73,149	64,954	88.8%	11,384	15.6%

Table 74 shows the percentage of HealthChoice participants with an SUD who had at least one outpatient ED visit, as well as the percentage with at least one ED visit with SUD as a primary diagnosis.[63] Throughout the evaluation period, those with dual diagnoses were more likely to have an ED visit and to have an SUD-related ED visit. From CY 2019 to CY 2023, the percentages of participants with an SUD-only and dual diagnosis (MHD and SUD) who had at least one ED visit decreased by 6.8 and 6.6 percentage points, respectively. The overall percentage of participants who had at least one ED visit with a primary diagnosis of SUD decreased from 12.3% in CY 2019 to 11.4% in CY 2023.

[63] This measure excludes ED visits that resulted in an inpatient hospital admission.

Table 74. HealthChoice Participants with an SUD Who Had an Outpatient ED Visit, by SUD Status, CY 2019–CY 2023

Calendar Year	Total Number of Participants	At Least One ED Visit		At Least One ED Visit with SUD Primary Diagnosis	
		Number of Participants	Percentage of Total Participants	Number of Participants	Percentage of Total Participants
SUD-Only					
2019	36,934	16,902	45.8%	3,515	9.5%
2020	35,197	14,387	40.9%	3,082	8.8%
2021	35,275	15,036	42.6%	3,445	9.8%
2022	33,865	13,338	39.4%	3,082	9.1%
2023	32,679	12,760	39.0%	3,124	9.6%
Dual Diagnosis (MHD + SUD)					
2019	35,604	22,631	63.6%	5,430	15.3%
2020	33,128	19,159	57.8%	4,684	14.1%
2021	34,277	20,458	59.7%	5,381	15.7%
2022	35,891	20,183	56.2%	4,798	13.4%
2023	40,470	23,054	57.0%	5,223	12.9%
Total					
2019	72,538	39,533	54.5%	8,945	12.3%
2020	68,325	33,546	49.1%	7,766	11.4%
2021	69,552	35,494	51.0%	8,826	12.7%
2022	69,756	33,521	48.1%	7,880	11.3%
2023	73,149	35,814	49.0%	8,347	11.4%

Table 75 displays the percentage of HealthChoice participants with an SUD who had at least one inpatient visit, as well as the percentage with at least one inpatient visit with an SUD as a primary diagnosis. Those with a dual diagnosis were more likely to have an inpatient visit and more likely to have an SUD-related inpatient visit each year during the evaluation period. From CY 2019 to CY 2023, the percentages of participants with an SUD-only and a dual diagnosis (MHD and SUD) who had at least one inpatient visit decreased by 1.9 and 3.8 percentage points, respectively. The overall percentage of participants who had at least one inpatient visit with a primary diagnosis of an SUD decreased slightly, from 2.8% in CY 2019 to 2.4% in CY 2023. The percentage of participants with a dual diagnosis who had an inpatient visit with a primary diagnosis of SUD decreased from 7.3% in CY 2019 to 6.1% in CY 2023.

Table 75. HealthChoice Participants with an SUD Who Had an Inpatient Admission, by SUD Status, CY 2019–CY 2023

Calendar Year	Total Number of Participants	At Least One Inpatient Visit		At Least One Inpatient Visit with SUD Primary Diagnosis	
		Number of Participants	Percentage of Total Participants	Number of Participants	Percentage of Total Participants
SUD-Only					
2019	36,934	4,667	12.6%	1,044	2.8%
2020	35,197	4,418	12.6%	1,050	3.0%
2021	35,275	4,511	12.8%	1,089	3.1%
2022	33,865	3,775	11.1%	859	2.5%
2023	32,679	3,482	10.7%	799	2.4%
Dual Diagnosis (MHD + SUD)					
2019	35,604	9,676	27.2%	2,612	7.3%
2020	33,128	8,440	25.5%	2,358	7.1%
2021	34,277	8,555	25.0%	2,429	7.1%
2022	35,891	8,307	23.1%	2,233	6.2%
2023	40,470	9,474	23.4%	2,449	6.1%
Total					
2019	72,538	14,343	19.8%	3,656	5.0%
2020	68,325	12,858	18.8%	3,408	5.0%
2021	69,552	13,066	18.8%	3,518	5.1%
2022	69,756	12,082	17.3%	3,092	4.4%
2023	73,149	12,956	17.7%	3,248	4.4%

Table 76 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).[64] The rate of methadone replacement therapy and MAT decreased overall among both groups during the evaluation period. The percentage of participants with an SUD-only diagnosis who received at least one methadone replacement therapy decreased from 39.7% in CY 2019 to 33.0% in CY 2023, alongside smaller decreases in the use of methadone replacement therapy among those with a dual diagnosis. The percentage of participants with a dual diagnosis who received at least one MAT decreased during the evaluation period—from 67.2% in CY 2019 to 63.8% in CY 2023.

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

Table 76. Number and Percentage of HealthChoice Participants with an SUD Who Received Methadone Replacement Therapy or MAT, by SUD Status, CY 2019–CY 2023

Calendar 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					
2019	36,934	14,656	39.7%	25,202	68.2%
2020	35,197	14,688	41.7%	25,520	72.5%
2021	35,275	14,110	40.0%	25,379	71.9%
2022	33,865	12,511	36.9%	23,777	70.2%
2023	32,679	10,795	33.0%	21,690	66.4%
Dual Diagnosis (MHD + SUD)					
2019	35,604	10,940	30.7%	23,933	67.2%
2020	33,128	10,585	32.0%	23,089	69.7%
2021	34,277	10,602	30.9%	23,844	69.6%
2022	35,891	10,420	29.0%	24,310	67.7%
2023	40,470	10,807	26.7%	25,808	63.8%
Total					
2019	72,538	25,596	35.3%	49,135	67.7%
2020	68,325	25,273	37.0%	48,609	71.1%
2021	69,552	24,712	35.5%	49,223	70.8%
2022	69,756	22,931	32.9%	48,087	68.9%
2023	73,149	21,602	29.5%	47,498	64.9%

The Department also monitors the extent to which HealthChoice participants with an ED visit and a primary diagnosis of SUD receive a follow-up outpatient visit with any practitioner within 7 or 30 days. Table 77 shows the number and percentage of ED visits with a primary diagnosis of SUD that had an outpatient follow-up visit from CY 2019 to CY 2023.[65] The results are displayed by the participant's status as having an SUD-only or co-occurring MHD and SUD. In CY 2019, 22.5% of all ED visits with a primary diagnosis of SUD had a follow-up visit within 7 days, and 34.5% had an appointment within 30 days; by CY 2023, these values had increased overall to 47.2% and 64.7%, respectively, despite decreases in both in CY 2020. The overall percentage of ED visits with a primary diagnosis of SUD with a follow-up appointment within 7 and 30 days increased for both participants with an SUD-only and those with a co-occurring diagnosis during the evaluation period. Between CY 2021 and CY 2022, the recorded numbers of follow-up visits increased significantly for both timelines and both diagnosis types, in part due to changes in how the HEDIS® measure used to count the visits is calculated.

[65] This measure was calculated using the HEDIS® proprietary software from Cognizant.

Table 77. Number and Percentage of ED Visits by HealthChoice Participants with an SUD Who Had a Follow-Up Visit within 7 or 30 days, CY 2019–CY 2023

Calendar Year	Total Number of Visits	At Least One Follow-Up within 7 Days		At Least One Follow-Up within 30 Days	
		Number of Visits	Percentage of Visits	Number of Visits	Percentage of Visits
SUD-Only					
2019	4,294	647	15.1%	989	23.0%
2020	3,587	483	13.5%	758	21.1%
2021	3,928	593	15.1%	926	23.6%
2022	3,967	1,216	30.7%	1,818	45.8%
2023	3,791	1,151	30.4%	1,679	44.3%
Dual Diagnosis (MHD + SUD)					
2019	7,490	2,008	26.8%	3,082	41.1%
2020	6,497	1,562	24.0%	2,467	38.0%
2021	7,217	1,961	27.2%	3,048	42.2%
2022	7,393	4,178	56.5%	5,696	77.0%
2023	6,914	3,900	56.4%	5,243	75.8%
Total					
2019	11,784	2,655	22.5%	4,071	34.5%
2020	10,084	2,045	20.3%	3,225	32.0%
2021	11,145	2,554	22.9%	3,974	35.7%
2022	11,360	5,394	47.5%	7,514	66.1%
2023	10,705	5,051	47.2%	6,922	64.7%

Section VI Conclusion

The HealthChoice program focuses on providing a variety of preventive services to participants. Over the evaluation period, with some exceptions, performance measures declined. HealthChoice remained above the national HEDIS® mean on all measures of child and adolescent immunizations and well-care visits, except for well-child visits in 15 months of life, despite ending the evaluation period with decreased performance on 5 out of 8 sub-measures. While the percentage of children who had an elevated blood lead level decreased between CY 2019 and CY 2023, the percentage of children receiving blood lead tests also decreased. Rates of screening for breast cancer, cervical cancer, and colorectal cancer all declined during the evaluation period. These trends correspond with the sharp decline in the number of breast, cervical, and colon cancer screenings received nationally during CY 2020 and the failure to return to pre-COVID levels in CY 2021 (Oakes et al., 2023; Star et al., 2023). The number of dental visits for child participants decreased between CY 2019 and CY 2023; however, child participants had higher percentages of dental visits among all service types—diagnostic, preventative, and restorative—when compared to adult participants in CY 2023. Greater adherence to asthma medication was associated with reductions in asthma-related ED use in the current year, as well as reductions in the following year, when adherence had been higher in the prior year. However, the effects of AMR on asthma inpatient admissions only had associations with admissions in the

following year. Measures of maternal and reproductive health similarly showed decreased performance from CY 2019 to CY 2023.

HealthChoice covers a broad range of populations with low income and various service needs. Therefore, health promotion activities under HealthChoice have an extensive scope. From care for persons with chronic diseases like asthma, diabetes, and HIV infection to those with behavioral health conditions, most measures of performance were improving until the COVID-19 PHE in CY 2020 negatively impacted service utilization, and few measures have returned to pre-COVID levels. While the percentage of HealthChoice participants with a behavioral health diagnosis decreased slightly during the evaluation period, these participants continue to have ED visits and inpatient admissions at a higher rate compared to the general HealthChoice population, particularly for participants with a dual diagnosis of MHD and SUD. This may represent the need for better access to care for persons with MHD and SUD. The Department will monitor the use of services to assure that necessary care is being delivered and that, where possible, prevention and early intervention minimizes the severity and duration of such conditions. The Department considers constant monitoring of performance measures for each aspect of health promotion and disease prevention to be a necessary part of demonstrating the HealthChoice program's effectiveness.

Section VII. Expanding Coverage to Additional Low-Income Marylanders with Resources Generated through Managed Care Efficiencies

Section §1115 demonstrations, like HealthChoice, can use calculated cost savings under budget neutrality provisions to fund a federal match for services otherwise not covered by Medicaid. In addition to testing the effectiveness of a managed care program to improve health outcomes and generate expenditure savings, the HealthChoice demonstration can test new services anticipated to benefit the enrolled population. This section of the report analyzes the innovative programs designed to address the social determinants of health and improve the health and wellbeing of the Maryland population using savings from the HealthChoice managed care program. These programs include Residential Treatment for Individuals with SUD, ACIS, DPP, ICS, and the Family Planning program.

In mid-2018, the Department submitted an amendment to the approved waiver containing requests to expand the Residential Treatment for Individuals with SUD and ACIS programs, implement the DPP, and adjust the criteria for the Family Planning program. CMS approved the amendment application in March 2019.

The Department submitted its application for §1115 waiver renewal in July 2021 for the five-year period of January 1, 2022, through December 31, 2026—which was approved by CMS in December 2021. This approval allows Maryland to modify existing programs and add new programs.

Under the 2022 to 2026 waiver period, Residential Treatment was expanded to include individuals with SMI and SED who are primarily receiving treatment for an SMI/SED and residing in short-term facilities that meet the definition of an IMD. The ACIS pilot program increased the statewide capacity to 900 spaces. Residential and inpatient treatment services for SUD were expanded to remove caps on lengths of stays (LOS) for SUD treatment in an IMD and aim for a statewide average LOS of 30 days or less. The MOM program, approved July 1, 2021, was established to address the fragmentation in the care of pregnant and postpartum Medicaid beneficiaries with OUD. The Family Planning program and HVS program were not renewed because they were added to the State Plan.

Residential Treatment for Individuals with Substance Use Disorders (SUD)

In 2016, CMS approved Maryland Medicaid to expand coverage to include SUD treatment in IMDs. Effective July 1, 2017, the approval permitted otherwise-covered services to be provided to Medicaid-eligible individuals aged 21 to 64 who are enrolled in an MCO and reside in a non-public IMD based on American Society of Addiction Medicine (ASAM) residential levels 3.7-WM, 3.7, 3.5, and 3.3 for up to two non-consecutive 30-day stays annually. On January 1, 2019, the Department phased in coverage of ASAM level 3.1. In March 2019, the Department received approval for a waiver amendment to allow coverage for ASAM level 4.0 for beneficiaries with a primary SUD and a secondary MHD in inpatient hospital settings only for up to 15 days per month. The Department extended coverage to individuals dually eligible for Medicare and

Medicaid as of January 1, 2020. Residential Treatment was expanded in the 2022 to 2026 waiver renewal to include individuals with SMI and SED, and the waiver renewal removed caps on LOS, with the aim of a statewide average LOS of 30 days or less.

Table 78 presents the total cost of care by member month for HealthChoice participants who received SUD-related IMD treatment in CY 2019 and CY 2023.[66] The total number of member months for participants increased by 52.6% between CY 2019 and CY 2023, whereas total cost of care increased by 104.4%. The cost per member per month (PMPM) increased by $907 (33.9%) between CY 2019 and CY 2023. In CY 2019 and CY 2023, participants aged 40-64 had the highest PMPM cost and female enrollees had slightly higher PMPM costs than males.[67] Black participants had the highest PMPM cost in CY 2019 and CY 2023. Baltimore City participants had the highest PMPM cost in CY 2019 and CY 2023.

Table 78. Cost of Care of HealthChoice Participants Who Received SUD-Related IMD Treatment, CY 2019 and CY 2023

Demographics	Total Member Months	Total Medicaid Cost	Cost Per Member Month	Total Member Months	Total Medicaid Cost	Cost Per Member Month
	CY 2019			CY 2023		
Age Group (Years)						
22–39	62,470	$147,113,799	$2,355	90,860	$296,936,553	$3,268
40–64	52,896	$161,752,606	$3,058	85,235	$334,261,843	$3,922
Total	**115,366**	**308,866,404**	**$2,677**	**176,095**	**631,198,395**	**$3,584**
Sex						
Female	40,473	$110,592,345	$2,732	60,680	$224,762,636	$3,704
Male	74,893	$198,274,059	$2,647	115,415	$406,435,759	$3,522
Total	**115,366**	**308,866,404**	**$2,677**	**176,095**	**631,198,395**	**$3,584**
Race/Ethnicity						
Asian	836	$2,150,630	$2,573	2,029	$7,085,216	$3,492
Black	47,442	$134,113,828	$2,827	76,398	$287,573,993	$3,764
White	60,959	$157,992,124	$2,592	83,434	$288,596,957	$3,459
Hispanic	2,107	$5,277,927	$2,505	5,809	$19,795,698	$3,408
Native American	818	$2,177,894	$2,662	1,751	$5,625,235	$3,213
Other*	3,204	$7,154,002	$2,233	6,674	$22,521,296	$3,374
Total	**115,366**	**308,866,404**	**$2,677**	**176,095**	**631,198,395**	**$3,584**
Region*						
Baltimore City	39,233	$125,128,399	$3,189	49,220	$211,354,322	$4,294
Baltimore Suburban	33,948	$84,767,444	$2,497	52,979	$193,819,485	$3,658
Eastern Shore	13,863	$30,776,401	$2,220	22,371	$65,886,973	$2,945
Southern Maryland	6,529	$13,246,631	$2,029	9,394	$26,520,848	$2,823
Washington Suburban	8,848	$20,908,948	$2,363	20,803	$65,576,689	$3,152

[66] Costs are rounded to the nearest whole dollar. The results for the IMD section have been updated and are not comparable to previous years.
[67] For data available.

Demographics	Total Member Months	Total Medicaid Cost	Cost Per Member Month	Total Member Months	Total Medicaid Cost	Cost Per Member Month
	CY 2019			CY 2023		
Western Maryland	12,793	$33,589,274	$2,626	21,029	$67,127,718	$3,192
Out of State	152	$449,307	$2,956	299	$912,361	$3,051
Total	**115,366**	**308,866,404**	**$2,677**	**176,095**	**631,198,395**	**$3,584**

*"Other" race/ethnicity category includes Pacific Islanders, Alaskan Natives, Two or More Races, Prefer Not to Say, and Unknown.

Table 79 displays the rate of MAT among HealthChoice participants who received IMD care, by race and ethnicity.[68] Overall, the rate of MAT decreased 9.2 percentage points between CY 2019 and CY 2023, with a drop of 5.2 percentage points between CY 2021 and CY 2022. White participants in an IMD consistently had MAT rates greater than 65% over the measurement period. Only Native American participants had higher rates in CY 2019, 2020, and 2021. Hispanic participants in an IMD had the lowest MAT rates over the measurement period, except for CY 2019 and CY 2023, when Asian participants had the lowest rate. In CY 2022, Hispanic and Asian participants in an IMD tied for the lowest MAT rates at 61.2%The percentage of Hispanic participants in an IMD with MAT fell from a high of 73.1% in CY 2019 to 63.2% in CY 2023.

Table 79. Use of Medication Assisted Treatment among HealthChoice Enrollees with an IMD Placement, by Race and Ethnicity, CY 2019–CY 2023

Race/Ethnicity	Total IMD Participants	Number of Participants w/ MAT	Percentage of Participants w/ MAT
CY 2019			
Asian	65	41	63.1%
Black	3,740	2,619	70.0%
White	5,157	4,114	79.8%
Hispanic	167	122	73.1%
Native American	67	52	77.6%
Other*	257	203	79.0%
Total	**9,453**	**7,151**	**75.6%**
CY 2020			
Asian	67	48	71.6%
Black	3,689	2,572	69.7%
White	4,919	3,908	79.4%
Hispanic	185	130	70.3%
Native American	67	54	80.6%
Other	254	189	74.4%
Total	**9,181**	**6,901**	**75.2%**
CY 2021			
Asian	86	60	69.8%
Black	3,988	2,778	69.7%
White	5,152	4,093	79.4%
Hispanic	221	154	69.7%

[68] The results for the IMD section have been updated and are not comparable to previous years.

Race/Ethnicity	Total IMD Participants	Number of Participants w/ MAT	Percentage of Participants w/ MAT
Native American	82	64	78.0%
Other	325	237	72.9%
Total	**9,859**	**7,386**	**74.9%**
CY 2022			
Asian	98	60	61.2%
Black	4,677	2,911	62.2%
White	5,964	4,531	76.0%
Hispanic	294	180	61.2%
Native American	101	74	73.3%
Other	439	305	69.5%
Total	**11,573**	**8,061**	**69.7%**
CY 2023			
Asian	119	67	56.3%
Black	5,271	3,066	58.2%
White	6,296	4,651	73.9%
Hispanic	389	246	63.2%
Native American	124	80	64.5%
Other	439	286	65.1%
Total	**12,638**	**8,396**	**66.4%**

*"Other" race/ethnicity category includes Pacific Islanders, Alaskan Natives, Two or More Races, Prefer Not to Say, and Unknown.

As part of the waiver, Hilltop performed an analysis to determine the impact of IMD treatment on the health and wellbeing of the Maryland population: namely, whether receiving IMD services impacted the likelihood of a participant initiating or engaging in AOD dependence treatment post-diagnosis.[69] Table 80 is a logistic regression that presents the results of said analysis.[70] Of the HealthChoice enrollees with an AOD dependence diagnosis, those who received IMD treatment were 9.5% more likely than participants who did not receive IMD treatment to initiate treatment post diagnosis ($p<0.001$). However, IMD treatment had no statistically significant impact on the likelihood of enrollees engaging in ongoing treatment after their initiation visit. Other associations found by the regression analysis include that participants in the Families and Children and ACA Expansion coverage categories were more likely than those in the ABD coverage category to initiate and to stay engaged in drug dependence treatment ($p<0.001$). Residents of every other Maryland region were less likely to take either step than Baltimore City residents ($p<0.001$), and participants in every other racial group were less likely to take either step than White participants ($p<0.001$ and $p<0.01$).

[69] Initiation of AOD Treatment: Members who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization, telehealth, or medication treatment within 14 days of the diagnosis. Engagement of AOD Treatment: members who initiated treatment and who were engaged in ongoing AOD treatment within 34 days of the initiation visit.

[70] The results for the IMD section have been updated and are not comparable to previous years.

Table 80. Impact of IMD Care on Probability of Initiation and Engagement of AOD Dependence Treatment CY 2019–CY 2023

Effect	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment					
	Initiation			Engagement		
	OR	95% CI		OR	95% CI	
IMD	1.095 ***	1.05	1.14	0.999	0.96	1.04
Age	1.001	1.00	1.00	1.002 *	1.00	1.00
Female†	0.961 *	0.93	0.99	0.957 **	0.93	0.99
Last Coverage Category†						
ACA	1.143 ***	1.09	1.20	1.166 ***	1.11	1.22
Families & Children	1.227 ***	1.16	1.30	1.249 ***	1.18	1.32
MCHP	6.280	0.84	47.01	6.074	0.82	45.04
Region†						
Baltimore Suburban	0.878 ***	0.84	0.92	0.874 ***	0.84	0.91
Eastern Shore	0.667 ***	0.63	0.70	0.687 ***	0.65	0.72
Southern Maryland	0.554 ***	0.52	0.59	0.565 ***	0.53	0.60
Washington Suburban	0.592 ***	0.56	0.62	0.585 ***	0.56	0.62
Western Maryland	0.738 ***	0.70	0.78	0.785 ***	0.74	0.83
Out of State	0.911	0.62	1.35	0.929	0.63	1.37
Race†						
Asian	0.648 ***	0.57	0.73	0.670 ***	0.59	0.76
Black	0.695 ***	0.67	0.72	0.715 ***	0.69	0.74
Hispanic	0.774 ***	0.72	0.84	0.776 ***	0.72	0.84
Native American/Alaskan	0.869	0.75	1.01	0.818 **	0.71	0.95
Other	0.889 **	0.82	0.96	0.867 ***	0.80	0.94
Comorbidity Score†						
Moderate	1.066 *	1.00	1.13	1.023	0.96	1.09
High	0.822 ***	0.77	0.88	0.776 ***	0.73	0.83
Very High	0.888 ***	0.83	0.95	0.664 ***	0.62	0.71
Other	1.178	0.89	1.56	0.962	0.73	1.27
Year†						
2020	1.129 ***	1.08	1.18	0.986	0.94	1.03
2021	1.160 ***	1.11	1.21	1.056 ***	1.01	1.10
2022	1.417 ***	1.35	1.48	2.583 ***	2.46	2.71
2023	1.412 ***	1.35	1.48	2.564 ***	2.446	2.688
Constant	1.771 ***	1.60	1.96	1.029	0.93	1.14

*** $p<.001$, ** $p<.01$, * $p<.05$

†, Reference Groups: Male, Aged, Blind, or Disabled (ABD), Baltimore City, White, Low, 2019

Table 81 presents the results of a logistic regression analyzing the impact of IMD care on the probability of initiation and engagement of AOD treatment for enrollees with a mental health

diagnosis. These results mirror those found for enrollees with an SUD diagnosis.[71] HealthChoice enrollees with a mental health condition and an AOD dependence diagnosis who received IMD care were 10.6% more likely to initiate treatment post-diagnosis compared to those who did not receive IMD care (p<0.001). However, IMD treatment had no statistically significant impact on the likelihood of enrollees engaging in ongoing treatment. Other findings include that participants in the Families and Children and ACA Expansion coverage categories were more likely than participants in the ABD coverage category to initiate and to engage in AOD dependence treatment (p<0.001); that residents of every other Maryland region were less likely than Baltimore City residents to take each step (p<0.001); and that Asian, Black, and Hispanic participants were less likely than White participants to initiate treatment (p<0.05 and p<0.001). Black, Hispanic, and participants categorized as *Other* were less likely to engage in treatment compared to White participants (p<0.05 to p<0.001). The results from these regression analyses indicate that, while usage of IMD care is associated with an increased likelihood of participants initiating AOD dependence treatment, it has no statistically significant impact on the likelihood of engaging in ongoing treatment. The cause of this association requires additional investigation.

Table 81. Impact of IMD Care on Probability of Initiation and Engagement of AOD Dependence Treatment for Enrollees with a Mental Health Diagnosis CY2019–CY 2023

Effect	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment					
	Initiation			Engagement		
	OR	95% CI		OR	95% CI	
IMD	1.106 ***	1.05	1.16	1.019	0.97	1.07
Age	1.002	1.00	1.00	1.003 **	1.00	1.00
Female†	0.905 ***	0.86	0.95	0.922 ***	0.88	0.96
Last Coverage Category†						
ACA	1.238 ***	1.17	1.31	1.280 ***	1.21	1.36
Families & Children	1.337 ***	1.24	1.44	1.348 ***	1.25	1.45
Region†						
Baltimore Suburban	0.824 ***	0.78	0.87	0.802 ***	0.76	0.85
Eastern Shore	0.679 ***	0.63	0.73	0.697 ***	0.65	0.75
Southern Maryland	0.555 ***	0.51	0.61	0.564 ***	0.51	0.62
Washington Suburban	0.570 ***	0.53	0.61	0.502 ***	0.47	0.54
Western Maryland	0.710 ***	0.66	0.77	0.735 ***	0.68	0.79
Out of State	0.714	0.42	1.21	0.666	0.39	1.13
Race†						
Asian	0.786 *	0.65	0.94	0.846	0.70	1.02
Black	0.790 ***	0.75	0.83	0.804 ***	0.77	0.84
Hispanic	0.869 *	0.77	0.98	0.850 **	0.75	0.96
Native American/Alaskan	0.909	0.74	1.11	0.893	0.73	1.09

[71] The results for the IMD section have been updated and are not comparable to previous years.

Effect	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment					
	Initiation			Engagement		
	OR	95% CI		OR	95% CI	
Other	0.952	0.85	1.07	0.878 *	0.79	0.98
Comorbidity Score†						
Moderate	1.016	0.91	1.14	1.000	0.90	1.12
High	0.781 ***	0.70	0.87	0.736 ***	0.66	0.82
Very High	0.824	0.74	0.92	0.633 ***	0.57	0.71
Other	1.275	0.82	1.98	1.027	0.68	1.56
Year†						
2020	1.145 ***	1.08	1.22	0.994	0.93	1.06
2021	1.247***	1.17	1.33	1.114 **	1.05	1.18
2022	1.547***	1.45	1.65	2.845 ***	2.66	3.04
2023	1.521 ***	1.42	1.62	2.786 ***	2.61	2.98
Constant	1.695 ***	1.45	1.98	0.994	0.85	1.16

*** $p<.001$, ** $p<.01$, * $p<.05$

†, Reference Groups: Male, Aged, Blind, or Disabled (ABD), Baltimore City, White, Low, 2019

Assistance in Community Integration Services (ACIS) Community Health Pilot Program

The goals of the ACIS pilot program, which began in late 2017, are to reduce unnecessary health services use, increase housing stability, and improve health outcomes for individuals at risk of institutional placement or homelessness.[72] Four jurisdictions, referred to as lead entities (LEs), currently participate in the pilot program: the Baltimore City Mayor's Office of Homeless Services (Baltimore City), the Cecil County Health Department (Cecil County), the Montgomery County Department of Health and Human Services (Montgomery County), and the Prince George's County Health Department (Prince George's County).

Hilltop recently completed the sixth annual review of the ACIS pilot program, with a focus on the living situations of ACIS participants at enrollment, obtainment of stable housing, ACIS billing and ACIS service utilization, and health service utilization. This evaluation focuses on CY 2019 through CY 2023.

Hilltop analyzed ACIS service utilization and MMIS2 health service utilization for the 799 program participants enrolled during CY 2019 to CY 2023. Table 82 shows the number of ACIS enrollments by sex, race/ethnicity, and age group during each calendar year. During the study period, more males (55.6%) were enrolled than females (44.4%). Similarly, more Black participants (63.6%) were enrolled than any other racial category. Finally, more 51- to 60-year-olds (30.7%) were enrolled compared to any other age group.

[72] See ACIS press release at https://health.maryland.gov/newsroom/Pages/Maryland-Medicaid-Announces-Community-Health-Pilot-Selections.aspx

Table 82. Demographics of Newly Enrolled ACIS Participants, CY 2019–CY 2023

Demographic Characteristic	CY 2019 N=164		CY 2020 N=160		CY 2021 N=176		CY 2022 N=120		CY 2023 N=179		Total N=799	
	#	%	#	%	#	%	#	%	#	%	#	%
Sex												
Female	85	51.8%	44	27.5%	67	38.1%	53	44.2%	106	58.6%	355	44.4%
Male	79	48.2%	116	72.5%	109	61.9%	67	55.8%	73	40.3%	444	55.6%
Race/Ethnicity												
Black	108	65.9%	98	61.3%	128	72.7%	64	53.3%	110	60.8%	508	63.6%
Other*	**	**	23	14.4%	18	10.2%	26	21.7%	33	18.2%	100	12.5%
White	**	**	39	24.4%	30	17.0%	30	25.0%	36	19.9%	135	16.9%
Age Category at Enrollment												
> 30	24	14.6%	19	11.9%	22	12.5%	16	13.3%	42	23.2%	123	15.4%
31–40	**	**	35	21.9%	37	21.0%	24	20.0%	33	18.2%	129	16.1%
41 –50	41	25.0%	30	18.8%	36	20.5%	19	15.8%	43	23.8%	169	21.2%
51–60	49	29.9%	56	35.0%	63	35.8%	40	33.3%	37	20.4%	245	30.7%
61+	**	**	20	12.5%	18	10.2%	21	17.5%	24	13.3%	83	10.4%

*"Other" race/ethnicity category includes Asian, Hispanic, Pacific Islander, Native American, Two or More Races, Other, and Unknown.
**Cell values of 10 or less have been suppressed.

The ACIS data analyzed included:

- General living situation at time of enrollment
- Specific living situation at time of enrollment
- ACIS participants stably housed
    - Number of days from ACIS enrollment date to stable housing
    - First stable housing obtained
- ACIS billing review
- ACIS service delivery
- ACIS participant discharges

The MMIS2 services analyzed included:

- ED visits
- Avoidable ED visits
- Inpatient admissions
- MHD inpatient admissions
- SUD inpatient admissions
- Nursing facility admissions
- Ambulatory care visits

- Participants with a diagnosis of an MHD
- Participants with a diagnosis of an SUD
- MHD outpatient community visits
- SUD outpatient community visits

ACIS Data Measures

Figure 18 illustrates the general living situation of participants at the time of program enrollment. On average across all study years, approximately 73.4% of ACIS participants were homeless at the time of enrollment. The proportion of homeless participants at the time of enrollment decreased from 70% in CY 2022 to 60.9% in CY 2023.

Figure 18. ACIS Participants General Living Situation at Time of Enrollment, CY 2019–CY 2023

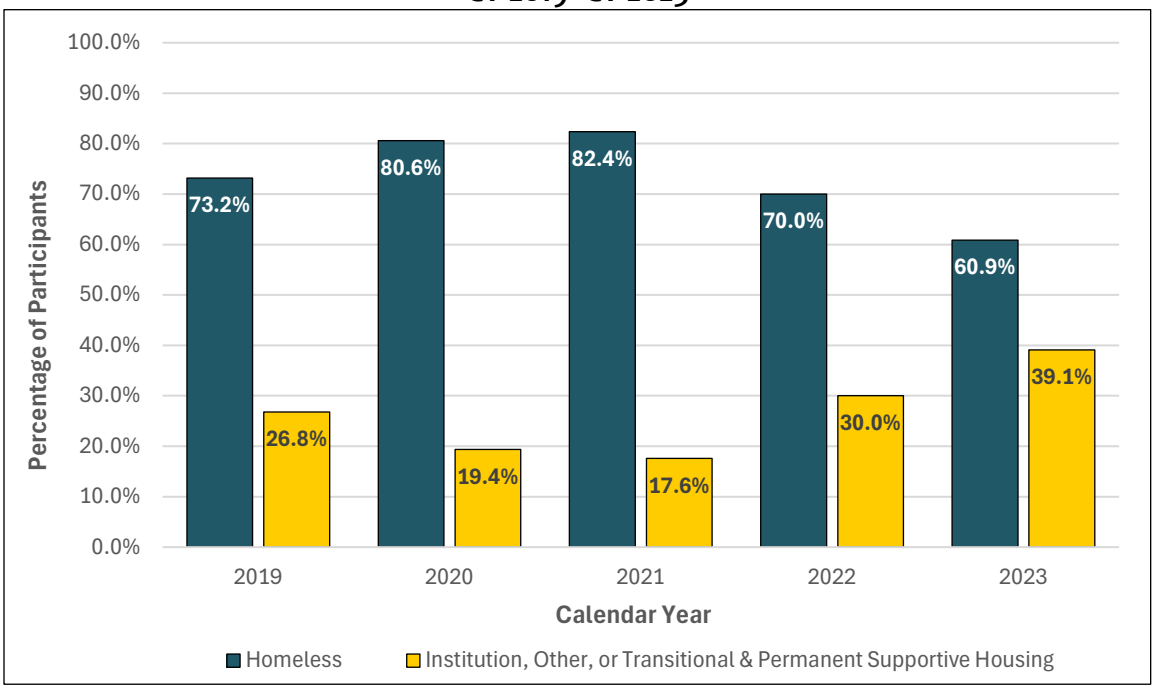
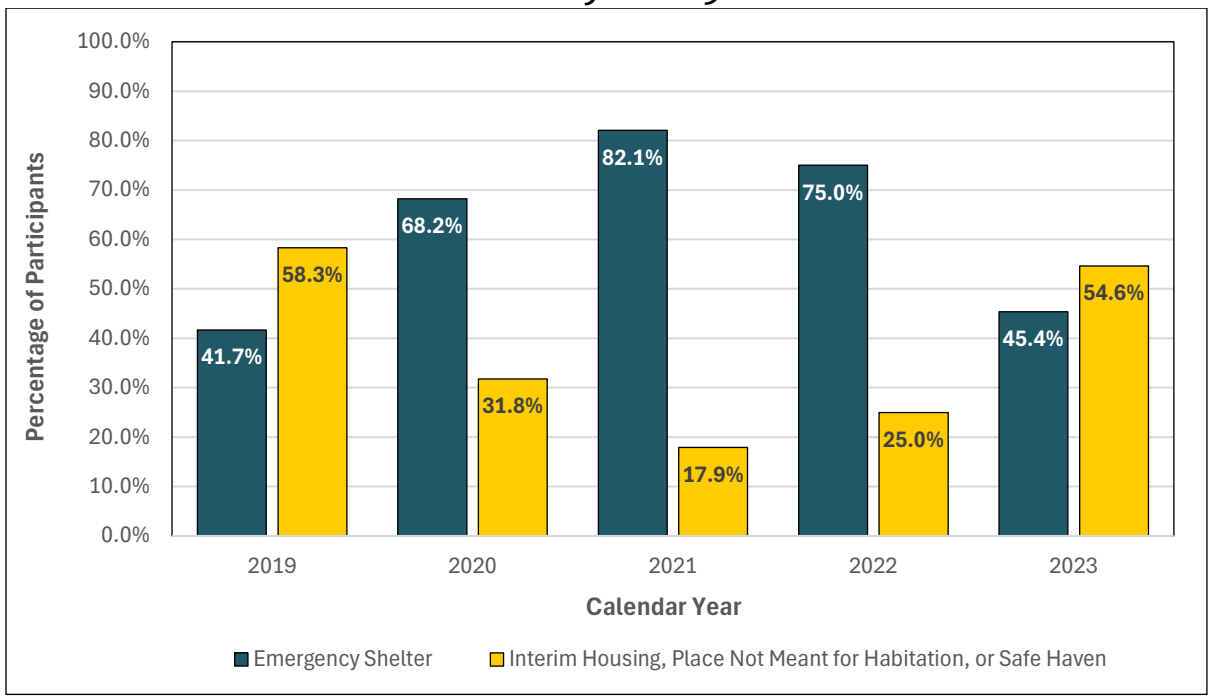


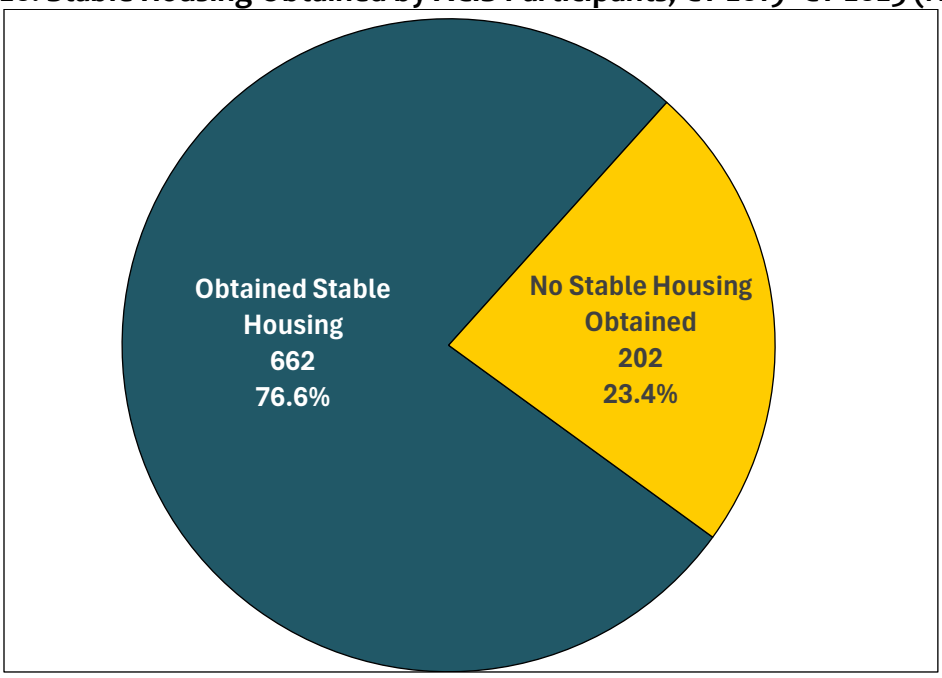
Figure 19 shows that, of the ACIS participants who were homeless, the proportion utilizing emergency shelter vouchers was 41.7% in CY 2019 before increasing to 82.1% in CY 2021, potentially due to service providers expanding hotel or motel placements in response to the COVID-19 PHE. The proportion of participants in an emergency shelter decreased significantly from 75% in CY 2022 to 45.4% in CY 2023.

Figure 19. ACIS Participants Specific Living Situation at Time of Enrollments, CY 2019–CY 2023



Of the 864 ACIS participants enrolled during the period between CY 2019 and CY 2023, approximately 77% of participants obtained stable housing (Figure 20).

Figure 20. Stable Housing Obtained by ACIS Participants, CY 2019–CY 2023 (N = 864)



Note: Based on ACIS service data through CY 2024 for ACIS participants enrolled during CY 2019 to CY 2023.

Table 83 shows the average, median, maximum, and minimum number of months that it took participants to obtain stable housing, by LE. There was considerable variation between different LEs in the average and maximum lengths of time before clients were stably housed, but the minimum number of days before a client was housed with each LE was zero. The LEs have varied approaches to helping participants obtain housing: Baltimore City and Montgomery County typically will not enroll a participant in the pilot program if they do not have a housing voucher available, and even with a housing voucher, it may still take some time getting a participant physically housed due to wait lists, housing stock issues, etc.

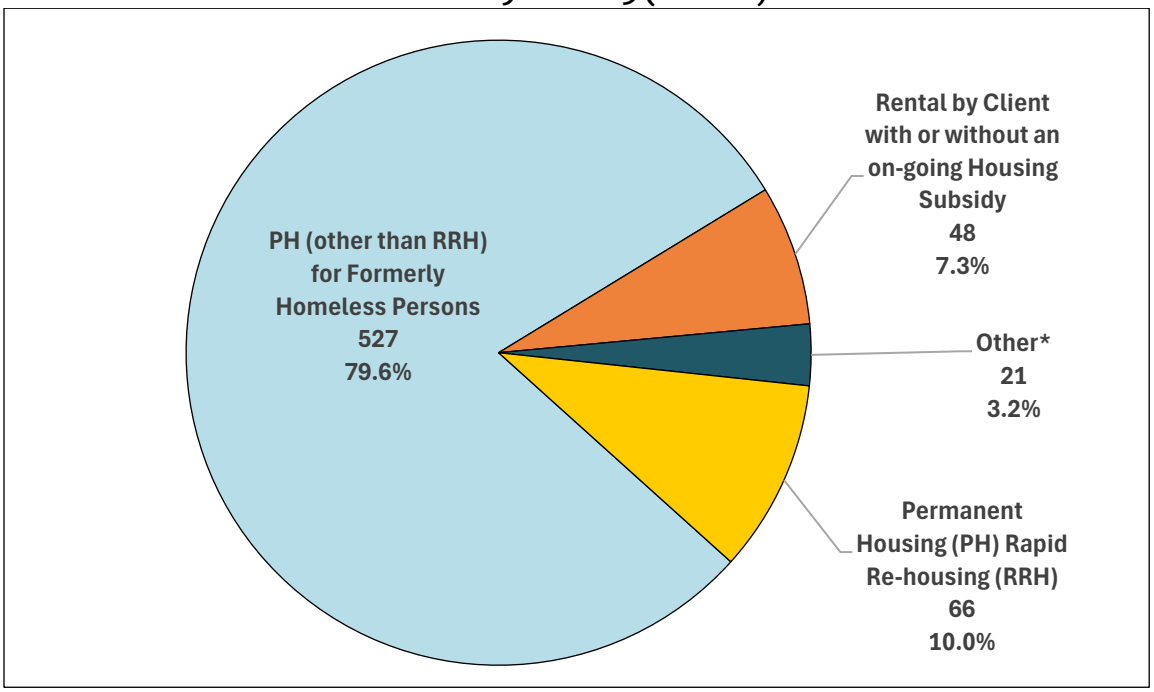
Table 83. Average, Median, Maximum, and Minimum Number of Months to Obtain Stable Housing for ACIS Participants, by Lead Entity, CY 2019 – 2023 (N = 662)

Lead Entity	Number of Months			
	Average	Median	Maximum	Minimum
Baltimore City	2.5	2	28	0
Cecil County	4.2	3	22	0
Montgomery County	2.2	1	16	0
Prince George's County	5.7	4	21	0

Note: Based on ACIS service data through CY 2024 for ACIS participants enrolled during CY 2019 to CY 2023.

Figure 21 shows the type of living situation of the ACIS participants when they first obtained stable housing. The majority (79.6%) began living in permanent housing (PH) other than rapid re-housing (RRH).

Figure 21. ACIS Participants Living Situation upon Obtaining Stable Housing, CY 2019–CY 2023 (N = 662)



*Other includes host home (non-crisis), owned by client, no ongoing housing subsidy, rental by client in a public housing unit, or rental by client with housing choice voucher.

LEs are only reimbursed for ACIS services delivered when a participant is Medicaid-eligible and the LE provided three or more ACIS services to that participant in a given month. This is a PMPM reimbursement model. Figure 22 shows the percentage of participants served by PMPM eligibility status for each CY 2023 quarter, by LE. Over the four quarters, Cecil County had the highest average of participants served who were PMPM-eligible (98%), followed by Prince George's County (94%), Montgomery County (87%), and Baltimore City (85%).

Figure 22. Percentage of Participants Served by PMPM Eligibility Status, by Lead Entity and CY 2023 Quarter

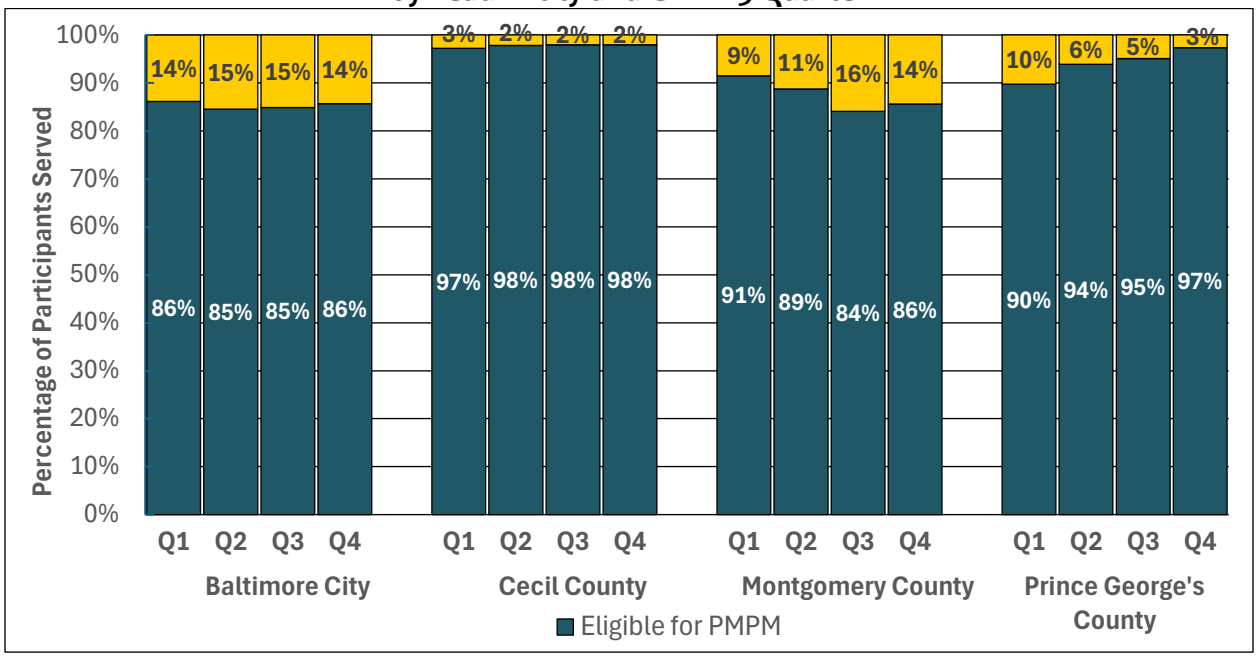


Figure 23 shows the percentage of services delivered by PMPM eligibility status for each CY 2023 quarter, by LE. Over the four quarters, Prince George's County had the highest average percentage of services delivered that were PMPM-eligible (98%), followed by Baltimore City and Cecil County (both at roughly 97% of services), and Montgomery County (which had an average of 96%).

Figure 23. Percentage of Services Delivered by PMPM Eligibility Status, by Lead Entity and CY 2023 Quarter

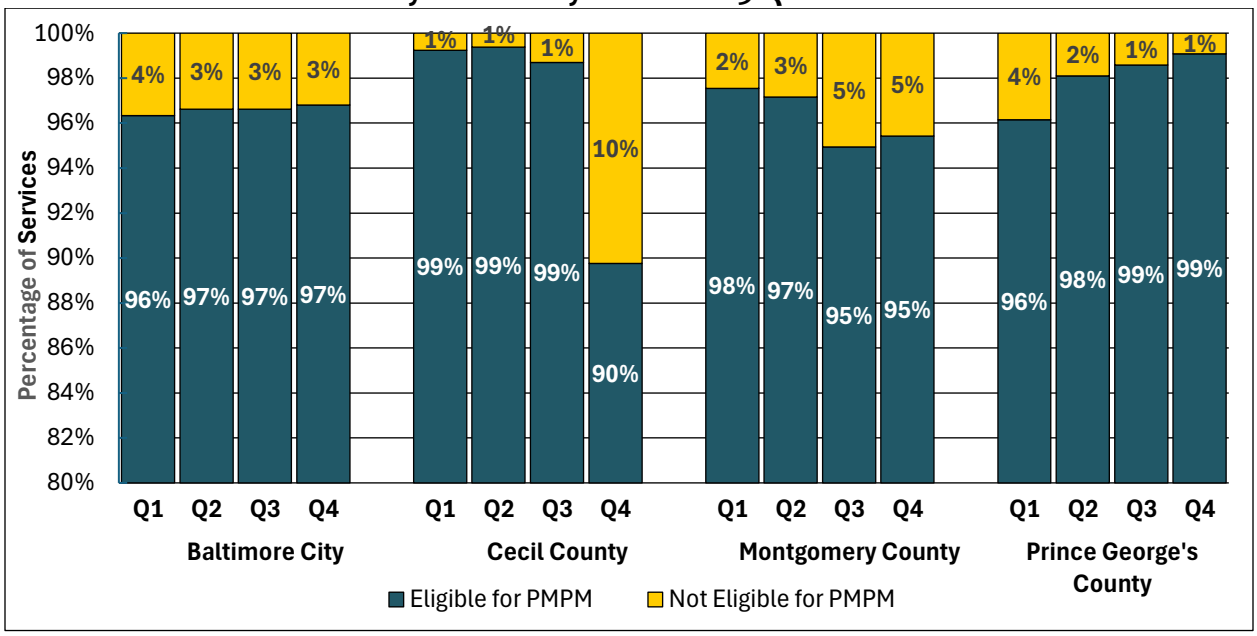


Table 84 shows the average eligible and non-eligible services per person by PMPM eligibility status for CY 2023. Baltimore City had the highest average eligible services per person (8.1), followed by Montgomery County (5.7).

Table 84. Average Eligible Services Per Person by PMPM Eligibility Status, CY 2023

Lead Entity	Average Eligible Services per Person	Average Non-Eligible Services per Person
Baltimore City	8.1	1.6
Cecil County	3.4	0.8
Montgomery County	5.7	1.5
Prince George's County	3.7	1.1

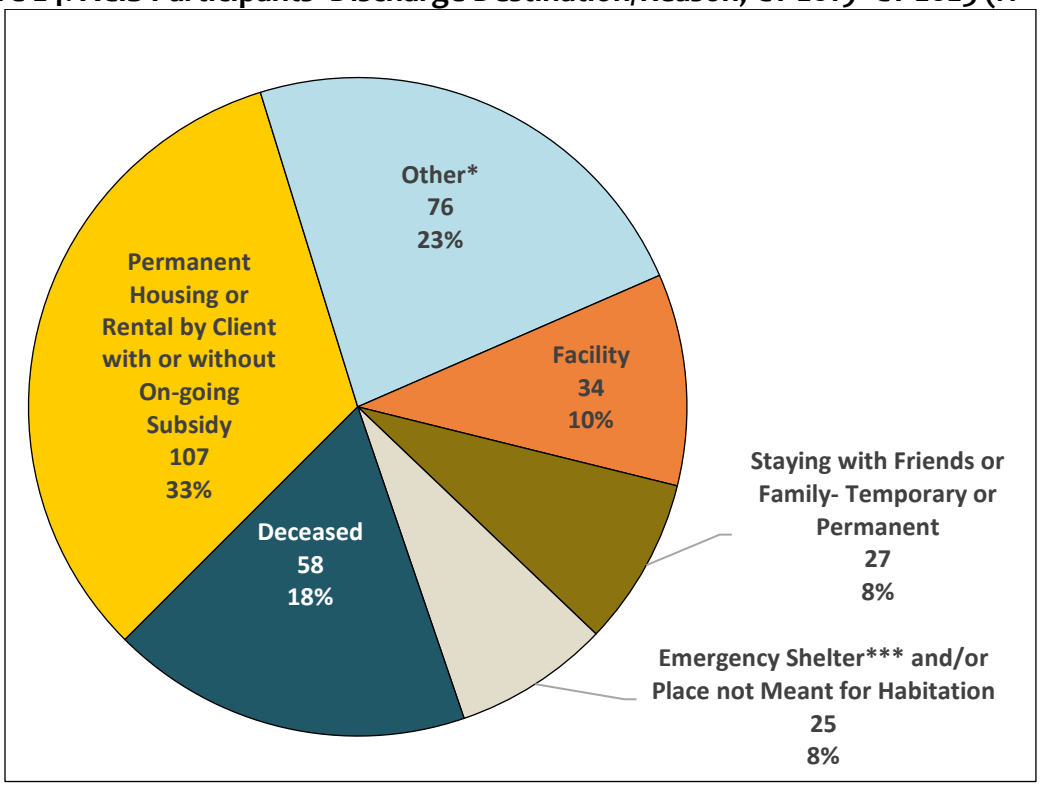
Housing case management was the most frequently delivered ACIS service during CY 2023, accounting for 69.3% of ACIS services (Table 85).

Table 85. ACIS Services Delivered, CY 2023

Type of ACIS Service	Frequency	Percentage
Housing Case Management	19,191	69.3%
Intake/Assessment	179	0.6%
Separation from Program—with and without Service	75	0.3%
Tenancy-Based Case Management	8,252	29.8%
Total	**27,697**	**100.0%**

Of ACIS participants enrolled between CY 2019 and CY 2023, 327 left the program by the end of CY 2023. Participants obtaining PH or renting with or without a housing subsidy accounted for the highest percentage (33%) of discharge destinations (Figure 24).

Figure 24. ACIS Participants' Discharge Destination/Reason, CY 2019–CY 2023 (N = 327)



*Other includes no exit interview completed, other, client refused, and client does not know.
**Emergency shelter includes hotels/motels paid for with or without an emergency voucher.
***Facility includes jail or prison, nursing home, substance abuse treatment center, hospital or other non-psychiatric facility, psychiatric facility, halfway house, or safe haven.

Health Service Utilization Measures

Table 86 shows that 79.4% of participants in CY 2023 had an ambulatory care visit. Inpatient admissions for ACIS participants decreased from 22.4% in CY 2019 to 16.7% in CY 2023, as did MHD inpatient admissions (7.2% in CY 2019 to 4.3% in CY 2023). The rate of ED visits for ACIS participants decreased from 51.6% in CY 2019 to 50.7% in CY 2023, while the percentage of participants with at least one avoidable ED visit also decreased from 35.6% in CY 2019 to 29.3% in CY 2023. The rate of nursing facility admissions decreased from 4.7% in CY 2020 to 2.5% in CY 2023.

Table 86. Health Service Utilization of ACIS Participants, CY 2019–CY 2023

Health Service Utilization	CY 2019 N = 250		CY 2020 N = 406		CY 2021 N = 483		CY 2022 N = 520		CY 2023 N = 611	
	#	%	#	%	#	%	#	%	#	%
Ambulatory Care Visits										
At Least One Visit	203	81.2%	336	82.8%	387	80.1%	418	80.4%	485	79.4%
No Visits	47	18.8%	70	17.2%	96	19.9%	102	19.6%	126	20.6%
Inpatient Admissions										
At Least One Visit	56	22.4%	109	26.9%	91	18.8%	85	16.4%	102	16.7%
No Visits	194	77.6%	297	73.2%	392	81.2%	435	83.7%	509	83.3%
MHD Inpatient Admissions										
At Least One Visit	18	7.2%	33	8.1%	22	4.6%	17	3.3%	26	4.3%
No Visits	232	92.8%	373	91.9%	461	95.5%	503	96.7%	585	95.7%
ED Visits										
At Least One Visit	129	51.6%	223	54.9%	261	54.0%	269	51.7%	310	50.7%
No Visits	121	48.4%	183	45.1%	222	46.0%	251	48.3%	301	49.3%
Avoidable ED Visits										
At Least One Visit	89	35.6%	129	31.8%	141	29.2%	158	30.4%	179	29.3%
No Visits	161	64.4%	277	68.2%	342	70.8%	362	69.6%	432	70.7%
Nursing Facility Admissions										
At Least One Visit	*	*	19	4.7%	19	3.9%	15	2.9%	15	2.5%
No Visits	*	*	387	95.3%	464	96.1%	505	97.1%	596	97.5%

* Cell values of 10 or less and those that can be used to calculate them have been suppressed.

Table 87 shows the number of ACIS participants with any SUD diagnosis. The percentage of ACIS participants with an SUD diagnosis in CY 2023 increased to 48.6% from 46.4% in CY 2022. Of those with an SUD diagnosis during the study period, those with at least one outpatient SUD visit decreased, from 34.7% in CY 2019 to 30.3% in CY 2023.

Table 87. ACIS Participants with Any SUD Diagnosis and SUD Outpatient Visit, CY 2019–CY 2023

Any Substance Use Disorder Diagnosis and Outpatient Visits	CY 2019 N = 250		CY 2020 N = 406		CY 2021 N = 483		CY 2022 N = 520		CY 2023 N = 611	
	#	%	#	%	#	%	#	%	#	%
Any SUD Diagnosis										
Yes	124	49.6%	208	51.2%	248	51.4%	241	46.4%	297	48.6%
No	126	50.4%	198	48.8%	235	48.7%	279	53.7%	314	51.4%
SUD Outpatient Visits										
At Least One Visit	43	34.7%	62	29.8%	82	33.1%	81	33.6%	90	30.3%
No Visits	81	65.3%	146	70.2%	166	66.9%	160	66.4%	207	69.7%

Table 88 shows the number of ACIS participants with any MHD diagnosis. The percentage of ACIS participants with an MHD diagnosis decreased from 72.0% in 2019 to 61.9% in CY 2023. Of those with an MHD diagnosis during the study years, those with at least one outpatient MHD visit increased, from 49.4% in CY 2019 to 52.9% in CY 2023.

Table 88. ACIS Participants with Any MHD Diagnosis and MHD Outpatient Visits, CY 2019–CY 2023

Any Mental Health Disorder Diagnosis and Outpatient Visits	CY 2019 N = 250		CY 2020 N = 406		CY 2021 N = 483		CY 2022 N = 520		CY 2023 N = 611	
	#	%	#	%	#	%	#	%	#	%
Any MHD Diagnosis										
Yes	180	72.0%	292	71.9%	294	60.9%	300	57.7%	378	61.9%
No	70	28.0%	114	28.1%	189	39.1%	220	42.3%	233	38.1%
MHD Outpatient Visits										
At Least One Visit	89	49.4%	153	52.4%	159	54.1%	164	54.7%	323	52.9%
No Visits	91	50.6%	139	47.6%	135	45.9%	136	45.3%	288	47.1%

National Diabetes Prevention Program (DPP)

The Department expanded coverage of the National DPP lifestyle change program to all eligible HealthChoice participants as of September 1, 2019. The National DPP is an evidence-based program established by the CDC to prevent or delay the onset of type 2 diabetes through healthy eating and physical activity (CDC, 2024c). Hilltop partnered with the Department and MCOs to develop an algorithm that MCOs can use to search their members' electronic medical records to identify individuals who may be at risk of developing type 2 diabetes and therefore potentially be eligible for enrollment in the DPP. The Department is also focusing on establishing needed infrastructure, such as provider enrollment and MCO contracting. By identifying participants early through screening and testing for prediabetes, the Department hopes to reduce the incidence of diabetes and increase the quality of life for participants in the Maryland Medicaid program. This program also aligns with the population health goals under Maryland's Total Cost of Care Model and the SIHIS initiative.

Since its implementation in September 2019 through December 31, 2025, there have been 2,558 DPP encounters. The earliest date of service was June 3, 2020. Of the 2,558 DPP encounters, 1,441 (56.3%) were in-person, 718 (28.1%) were in-person makeup sessions, and 392 (15.3%) were conducted virtually. The average age of DPP participants was 47 years old (standard deviation: 12 years). The majority were women (85.4%), self-identified as Black/African American (64.6%), resided in Prince George's County (28.6%) and were in the Families and Children Medicaid coverage group (91.8%).

Association between DPP Participation and Diabetes Incidence and Utilization

Multivariate logistic models and multivariate linear models were used to analyze the impact of DPP participation on diabetes incidence, number of ED visits, and number of inpatient admissions. Table 89 presents the impact of DPP participation, defined as receiving at least one DPP encounter/service by a licensed DPP provider, on diabetes incidence when controlling for demographic characteristics (race/ethnicity, age, gender, and county of residence), comorbidity levels, coverage group, MCO, and year fixed effects.

Participation in DPP was associated with significantly lower odds of developing diabetes (OR = 0.516, $p<0.001$). A marginal increase in age was associated with an increase in the odds of developing diabetes (OR = 1.019, $p<0.001$).

Regarding race/ethnicity, individuals classified as Asian (OR = 1.357, $p<0.001$), Black (OR = 1.292, $p<0.001$), Hispanic (OR = 1.272, $p<0.001$), and Two or More Races (OR = 1.388, $p<0.001$) had significantly higher odds of developing diabetes compared to White enrollees.

County of residence was also significantly associated with diabetes incidence. Compared to residents of Baltimore City, residents of Allegany (OR = 1.415, $p<0.001$), Calvert (OR = 1.184, $p<0.05$), Caroline (OR = 1.258, $p<0.01$), and Garrett County (OR = 1.638, $p<0.001$) had higher odds of developing diabetes. In contrast, residents of Frederick (OR = 0.875, $p<0.01$), Howard (OR = 0.780, $p<0.001$), Montgomery (OR = 0.848, $p<0.001$), Prince George's (OR = 0.92, $p<0.01$), Wicomico (OR = 0.678, $p<0.001$), and Worcester County (OR = 0.777, $p<0.01$) had significantly lower odds of developing diabetes.

Individuals in the ABD coverage category had the highest odds of developing diabetes (OR = 1.384, $p<0.001$), while those in the MCHP category had significantly lower odds (OR = 0.692, $p<0.01$).

As expected, increasing comorbidity levels were strongly associated with higher odds of diabetes incidence. Compared to individuals with low comorbidity, those with moderate (OR = 2.819, $p<0.001$), high (OR = 4.267, $p<0.001$), and very high (OR = 10.638, $p<0.001$) comorbidity levels had substantially greater odds of developing diabetes.

Finally, year fixed effects indicate a declining trend in diabetes incidence over time, with significantly lower odds of diabetes in 2022 (OR = 0.910, $p<0.001$) and 2023 (OR = 0.879, $p<0.001$) compared to the reference year (2020).

Table 89. Associations between DPP Participation and Diabetes Incidence among HealthChoice Participants Aged 18-64 Years with Prediabetes, CY 2020–CY 2023

Effect	Diabetes Incidence		
	Odds Ratio	95% CI	
In DPP	0.516***	0.376	0.71
Age	1.019***	1.017	1.02
Male†	1.022	0.99	1.055
Race/Ethnicity†			
Asian	1.357***	1.266	1.454
Black	1.292***	1.239	1.347
Black and White	1.248	0.99	1.575
Hispanic	1.272***	1.198	1.351
Native American	1.158	0.979	1.37
Other	1.09	0.98	1.212
Pacific Islander	1.348	0.927	1.96
Two or More Races	1.388***	1.172	1.644
Unknown	0.77	0.53	1.118

Effect	Diabetes Incidence		
	Odds Ratio	95% CI	
County†			
Allegany	1.415***	1.242	1.611
Anne Arundel	0.984	0.916	1.058
Baltimore County	0.979	0.927	1.034
Calvert	1.184*	1.022	1.371
Caroline	1.258**	1.059	1.495
Carroll	0.901	0.787	1.03
Cecil	0.97	0.845	1.114
Charles	0.937	0.844	1.04
Dorchester	1.166	0.995	1.365
Frederick	0.875**	0.797	0.961
Garrett	1.638***	1.329	2.018
Harford	0.949	0.867	1.038
Howard	0.780***	0.712	0.855
Kent	0.986	0.78	1.248
Montgomery	0.848***	0.8	0.899
Out of State	1.175	0.739	1.87
Prince George's	0.92**	0.873	0.969
Queen Anne's	1.03	0.83	1.277
Somerset	0.884	0.752	1.04
St. Mary's	0.948	0.845	1.065
Talbot	0.988	0.804	1.214
Washington	0.937	0.844	1.041
Wicomico	0.678***	0.612	0.751
Worcester	0.777**	0.675	0.896
Last Coverage Cat.†			
ABD	1.384***	1.321	1.449
Families and Children	1.086***	1.049	1.126
MCHP	0.692**	0.549	0.872
Last MCO†			
Aetna	0.982	0.901	1.071
CareFirst	1.082*	1.01	1.159
Jai	0.976	0.883	1.079
Kaiser	0.712***	0.658	0.772
MPC	1.146***	1.091	1.205
MedStar	0.999	0.94	1.061
United	0.917**	0.869	0.967
Wellpoint	1.042	0.992	1.094
Comorbidity Score†			
Moderate	2.819***	2.573	3.089
High	4.267***	3.871	4.702
Very High	10.638***	9.685	11.684
Year†			
2021	0.963*	0.932	0.995

Effect	Diabetes Incidence		
	Odds Ratio	95% CI	
2022	0.910***	0.88	0.941
2023	0.879***	0.85	0.909
Constant	0.016***	0.014	0.018

****p*<0.001, ***p*<0.01, **p*<0.05

†, Reference Groups: Female, White, Baltimore City, Affordable Care Act, Priority Partners, Low, 2020

Table 90 presents the results of a linear regression model that was used to examine the association between DPP participation and the number of ED visits, controlling for demographic characteristics (race/ethnicity, age, gender, and county of residence), comorbidity levels, coverage group, MCO, and year fixed effects. In this model, coefficient values represent the predicted change in the number of ED visits associated with either 1) a one-unit increase in a continuous independent variable or 2) a categorical variable compared to the reference group.

The analysis found no statistically significant association between DPP participation and the number of ED visits (β = -0.066, 95% CI: -0.261, 0.129). However, age was significantly associated with a decrease in ED visits, with each additional year of age corresponding to 0.022 fewer ED visits (p<0.001). Male individuals had significantly higher ED utilization than females (β = 0.122, p<0.001).

Race/ethnicity was a significant predictor of ED utilization, with Black (β = 0.199, p<0.001) and Black-White multiracial (β = 0.255, p<0.05) individuals experiencing higher ED visit rates compared to White individuals. In contrast, Asian (β = -0.096, p<0.001), "Other" race (β = -0.101, p<0.001), and individuals with unknown race (β = -0.273, p<0.001) had significantly lower ED utilization. Coverage category also played a role.

Comorbidity levels were the strongest predictors of ED utilization. Compared to enrollees with low comorbidity, those with moderate (β = 0.379, p<0.001), high (β = 0.788, p<0.001), and very high (β = 2.884, p<0.001) comorbidity scores had significantly higher numbers of ED visits.

Table 90. Associations between DPP Participation and Number of ED Visits among HealthChoice Participants Aged 18-64 Years with Prediabetes, CY 2020–CY 2023

Effect	Number of ED Visits		
	Coefficient	95% CI	
In DPP	-0.066	-0.261	0.129
Age	-0.022***	-0.024	-0.021
Male†	0.122***	0.089	0.155
Race/Ethnicity†			
Asian	-0.096***	-0.138	-0.054
Black	0.199***	0.15	0.248
Black and White	0.255*	0.04	0.47
Hispanic	0.025	-0.021	0.071
Native American	0.102	-0.024	0.229
Other	-0.101***	-0.152	-0.051
Pacific Islander	-0.061	-0.234	0.113

Effect	Number of ED Visits		
	Coefficient	95% CI	
Two or More Races	-0.008	-0.097	0.081
Unknown	-0.273***	-0.339	-0.207
County†			
Allegany	-0.370***	-0.518	-0.222
Anne Arundel	-0.508***	-0.584	-0.432
Baltimore County	-0.500***	-0.569	-0.431
Calvert	-0.360***	-0.489	-0.231
Caroline	-0.542***	-0.655	-0.428
Carroll	-0.518***	-0.621	-0.414
Cecil	-0.142*	-0.284	-0.001
Charles	-0.448***	-0.536	-0.36
Dorchester	-0.047	-0.223	0.13
Frederick	-0.529***	-0.633	-0.425
Garrett	-0.404***	-0.6	-0.207
Harford	-0.531***	-0.617	-0.445
Howard	-0.598***	-0.669	-0.527
Kent	-0.167	-0.359	0.025
Montgomery	-0.525***	-0.589	-0.46
Out of State	-0.159	-0.819	0.501
Prince George's	-0.581***	-0.646	-0.517
Queen Anne's	-0.142	-0.31	0.027
Somerset	-0.262***	-0.412	-0.112
St. Mary's	-0.351***	-0.46	-0.242
Talbot	-0.280**	-0.479	-0.081
Washington	-0.414***	-0.633	-0.195
Wicomico	-0.309***	-0.407	-0.21
Worcester	-0.409***	-0.516	-0.301
Last Coverage Cat.†			
ABD	0.506***	0.411	0.601
Families and Children	-0.034**	-0.057	-0.011
MCHP	-0.536***	-0.598	-0.474
Last MCO†			
Aetna	0.054*	0.001	0.107
CareFirst	-0.013	-0.077	0.052
Jai	0.142	-0.01	0.294
Kaiser	-0.140***	-0.187	-0.092
MPC	0.045	-0.009	0.099
MedStar	0.004	-0.09	0.099
United	0.070**	0.02	0.119
Wellpoint	0.057*	0.011	0.103
Comorbidity Score†			
Moderate	0.379***	0.363	0.396
High	0.788***	0.76	0.816
Very High	2.884***	2.819	2.949

Effect	Number of ED Visits		
	Coefficient	95% CI	
Year†			
2021	0.029	-0.007	0.066
2022	0.013	-0.024	0.049
2023	0.095***	0.059	0.131
Constant	1.395***	1.304	1.487

***p<0.001, **p<0.01, *p<0.05

†, Reference Groups: Female, White, Baltimore City, Affordable Care Act, Priority Partners, Low, 2020

Table 91 shows the impact of DPP participation on the number of inpatient admissions, controlling for demographic characteristics (race/ethnicity, age, gender, and county of residence), comorbidity levels, coverage group, MCO, and year fixed effects. The analysis found no statistically significant association between DPP participation and the number of inpatient admissions (β = -0.040, 95% CI: -0.091, 0.011).

Age was significantly associated with a decrease in inpatient admissions, with each additional year of age corresponding to 0.003 fewer admissions (p<0.001). Male individuals had significantly higher inpatient admissions compared to females (β = 0.062, p<0.001).

Race/ethnicity was also a significant predictor of inpatient admission. Compared to White individuals, Asian (β = -0.036, p<0.001), Black (β = -0.015, p<0.05), Hispanic (β = -0.026, p<0.001), "Other" (β = -0.037, p<0.001), and Unknown race individuals (β = -0.064, p<0.001) had significantly lower inpatient utilization.

MCO enrollment showed mixed effects. Kaiser (β = 0.041, p<0.001) and CareFirst (β = 0.036, p<0.001) enrollees had significantly higher inpatient utilization, while those in MPC (β = -0.015, p<0.05) and MedStar (β = -0.016, p<0.05) had slightly lower inpatient admissions compared to those in Priority Partners.

Comorbidity levels were the strongest predictors of inpatient utilization. Compared to enrollees with low comorbidity, those with moderate (β = 0.018, p<0.001), high (β = 0.063, p<0.001), and very high (β = 0.833, p<0.001) comorbidity scores had significantly higher inpatient admissions.

Table 91. Associations between DPP Participation and Number of Inpatient Admissions among HealthChoice Participants Aged 18-64 Years with Prediabetes, CY 2020–CY 2023

Effect	Number of Inpatient Admissions		
	Coefficient	95% CI	
In DPP	-0.040	-0.091	0.011
Age	-0.003***	-0.003	-0.003
Male†	0.062***	0.054	0.07
Race/Ethnicity†			
Asian	-0.036***	-0.048	-0.025
Black	-0.015*	-0.027	-0.003
Black and White	0.040	-0.051	0.131

Effect	Number of Inpatient Admissions		
	Coefficient	95% CI	
Hispanic	-0.026***	-0.038	-0.014
Native American	-0.010	-0.05	0.03
Other	-0.037***	-0.055	-0.02
Pacific Islander	0.007	-0.057	0.07
Two or More Races	-0.01	-0.045	0.025
Unknown	-0.064***	-0.08	-0.049
County†			
Allegany	-0.027	-0.073	0.018
Anne Arundel	-0.070***	-0.089	-0.05
Baltimore County	-0.057***	-0.073	-0.042
Calvert	-0.070***	-0.109	-0.031
Caroline	-0.094***	-0.133	-0.055
Carroll	-0.087***	-0.12	-0.054
Cecil	-0.029	-0.072	0.014
Charles	-0.093***	-0.114	-0.072
Dorchester	-0.108***	-0.148	-0.068
Frederick	-0.105***	-0.127	-0.083
Garrett	-0.129***	-0.193	-0.066
Harford	-0.049***	-0.074	-0.023
Howard	-0.049***	-0.07	-0.029
Kent	-0.093**	-0.159	-0.028
Montgomery	-0.077***	-0.092	-0.062
Out of State	-0.008	-0.16	0.144
Prince George's	-0.063***	-0.078	-0.048
Queen Anne's	-0.101**	-0.163	-0.038
Somerset	-0.149***	-0.184	-0.115
St. Mary's	-0.082***	-0.108	-0.056
Talbot	-0.073*	-0.13	-0.016
Washington	-0.094***	-0.127	-0.062
Wicomico	-0.123***	-0.145	-0.1
Worcester	-0.178***	-0.205	-0.151
Last Coverage Cat.†			
ABD	0.149***	0.128	0.171
Families and Children	-0.033***	-0.04	-0.027
MCHP	-0.069***	-0.089	-0.049
Last MCO†			
Aetna	0.016	-0.001	0.033
CareFirst	0.036***	0.014	0.057
Jai	0.018	-0.016	0.051
Kaiser	0.041***	0.026	0.056
MPC	-0.015*	-0.028	-0.002
MedStar	-0.016*	-0.03	-0.001
United	-0.001	-0.014	0.012
Wellpoint	0.000	-0.012	0.012

Effect	Number of Inpatient Admissions		
	Coefficient	95% CI	
Comorbidity Score†			
Moderate	0.018***	0.014	0.022
High	0.063***	0.057	0.069
Very High	0.833***	0.817	0.85
Year†			
2021	-0.008	-0.017	0.001
2022	-0.016***	-0.025	-0.007
2023	-0.011*	-0.02	-0.002
Constant	0.226***	0.201	0.251

***$p<0.001$, **$p<0.01$, *$p<0.05$

†, Reference Groups: Female, White, Baltimore City, Affordable Care Act, Priority Partners, Low, 2020

Total Cost of Care

Table 92 compares the PMPM cost for HealthChoice enrollees with a prediabetes diagnosis in DPP to enrollees with a prediabetes diagnosis not in DPP. Analysis was restricted to enrollees aged 18 to 65 who are not currently pregnant.

PMPM costs for DPP participants fluctuated over the years, peaking in CY 2022 at $1,079.23 before decreasing slightly to $981.15 in CY 2023. This represents an overall increase of 46.4% from CY 2020 to CY 2022, followed by a 9.1% decrease in CY 2023.

For non-DPP participants, PMPM costs remained consistently higher than those of DPP participants. The PMPM cost for non-DPP participants decreased from $1,155.98 in CY 2020 to $1,107.58 in CY 2022, before slightly increasing to $1,122.76 in CY 2023.

By CY 2023, the gap between DPP and non-DPP PMPM costs had widened to $141.61, reversing the trend from CY 2022, when the cost difference had narrowed to $28.35. Overall, these cost trends suggest potential cost savings associated with the DPP program.

Table 92. Total Cost of Care for HealthChoice DPP Participants vs Non-DPP Participants with a Prediabetes Diagnosis, CY 2020–CY 2023

Calendar Year	Total FFS Cost	Total Capitation	Total Medicaid Cost	PMPM Cost
DPP Participants				
2020	$13,482.43	$300,145.18	$313,627.61	$670.14
2021	$410,927.94	$1,072,040.02	$1,482,967.96	$989.30
2022	$506,978.31	$1,857,603.59	$2,364,581.90	$1,079.23
2023	$2,824,248.38	$7,734,875.91	$10,559,124.29	$981.15
Non-DPP Participants				
2020	$309,057,095.10	$667,741,874.10	$976,798,969.10	$1,155.98
2021	$406,556,325.60	$870,495,894.40	$1,277,052,220.00	$1,130.36
2022	$477,611,292.20	$1,026,711,637.00	$1,504,322,929.00	$1,107.58
2023	$719,303,634.80	$1,446,400,393.00	$2,165,704,028.00	$1,122.76

Increased Community Services (ICS)

The ICS program provides cost-effective HCBS to certain adults with physical disabilities as an alternative to institutional care in a nursing facility. The goal of the program is to provide quality services for individuals aged 18 and over in the community, ensure the safety and wellbeing of its participants, and increase opportunities for self-advocacy and self-reliance. The ICS program was initially approved as part of the HealthChoice demonstration in 2009. While the ICS program offers the same service package as the Department's Community Options §1915(c) waiver, the ICS program differs in financial eligibility and some technical requirements. To participate in the ICS program, individuals must have a nursing facility stay of 90 days or more and be Medicaid-eligible in the last 30 days before transition. Once transitioned, participants contribute any income they have above 300% of their Supplemental Security Income to the cost of their care in the community. The 2016 waiver renewal expanded the program from 30 to 100 potential participants, and the ICS program was included in the 2021 waiver renewal. Hilltop analyzed the transitions of former long-stay nursing facility residents to community settings after they applied to the ICS program.

Methodology

The ICS measure utilized two data sources: MMIS2 and *LTSSMaryland*. *LTSSMaryland* was used to define those who meet the technical eligibility requirements to apply for the ICS program. This includes Community Options Waiver applicants who were denied due to overscale income who also applied for the ICS program from a nursing facility during the evaluation period: CY 2019 through CY 2023. To identify which of these people went on to transition from a nursing facility to the community under the ICS program, MMIS2 data on special program enrollment were examined. Hilltop also calculated the average Medicaid costs per member per year (PMPY) and per member per month (PMPM) for the identified ICS waiver participants and nursing facility residents during CY 2019 through CY 2023.

Results

Between CY 2019 and CY 2023, 108 long-stay nursing facility residents were eligible to transition from a nursing facility to a community setting under the ICS program. During this time, 13 people (12.0% of those eligible) successfully transitioned under the ICS program. In addition, during the measurement period, total PMPY Medicaid costs for ICS program participants averaged $43,068 while nursing facility costs averaged $67,335 per resident annually, a difference of $24,266 PMPY. On average, the total Medicaid PMPM costs for nursing facility residents were $3,710 higher than the total Medicaid costs for an ICS Waiver participant. While this program is small, it is contributing to the rebalancing effort moving participants from nursing facility living to the community with use of HCBS.

Family Planning Program

The 2016 HealthChoice waiver allowed the Department to provide a limited benefit package of family planning services to eligible participants through the end of 2021. As of January 2022,

family planning services were no longer covered through the §1115 waiver as they were incorporated into the State Plan. The program covers medical services related to family planning, including 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.

In CY 2017, women younger than 51 years—regardless of postpartum status—who were not otherwise eligible for Medicaid, CHIP, or Medicare and who had a family income at or below 200% of the FPL were eligible for the Family Planning program. The Department expanded eligibility under its Family Planning program to lift the age limit, open coverage to include men, and cover services for postpartum individuals effective July 1, 2018. Specifically, the §1115 waiver allowed women to receive full Medicaid benefits for two months postpartum. As of April 2022, the Department has expanded postpartum care services to 12 months regardless of any changes in income or household size through an SPA.[73] This aligns with Maryland's SIHIS priority to improve maternal and child health. Those who no longer qualify for Medicaid pregnancy benefits after the end of the postpartum period because they exceed income limits will be automatically enrolled in the Family Planning program for 12 months. After 12 months, these women can re-apply to continue their enrollment.

Table 93 shows that the number of family planning participants with any period of enrollment decreased from CY 2019 to CY 2023 by 24.0%. The percentage of participants with at least one service decreased by 5.6 percentage points during the evaluation period, with the rate remaining stable from CY 2022 to CY 2023.

Table 93. Number and Percentage of Family Planning Participants (Any Period of Enrollment) Who Received a Corresponding Service, CY 2019–CY 2023

	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
Number of Participants	16,375	14,748	13,838	13,486	12,437
Number with at Least 1 Service	2,034	1,634	1,156	914	848
Percentage with at Least 1 Service	12.4%	11.1%	8.4%	6.8%	6.8%

The number of participants with 12 months of enrollment in the Family Planning program decreased from CY 2019 to CY 2023 by 50.1% (Table 94). The percentage of participants enrolled in the program for 12 months (continuous enrollment) with at least one service increased slightly from 8.5% in CY 2019 to 8.6% in CY 2023, with a low of 5.5% in CY 2022.

Table 94. Number and Percentage of Family Planning Participants (12-Month Enrollment) Who Received a Corresponding Service, CY 2019–CY 2023

	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
Number of Participants	5,962	10,331	11,171	8,268	2,976
Number with at Least 1 Service	507	1,083	897	455	255
Percentage with at Least 1 Service	8.5%	10.5%	8.0%	5.5%	8.6%

[73] https://health.maryland.gov/newsroom/Pages/Maryland-Department-of-Health-announces-expanded-Medicaid-coverage-for-new-mothers.aspx.

The number of women enrolled in the Family Planning program for both any period of enrollment and 12 months of enrollment decreased from CY 2019 to CY 2023. However, the number of women enrolled continuously decreased sharply from CY 2022 to CY 2023, most likely due to continuous Medicaid eligibility ending in March 2023. Women who lose Medicaid coverage after their postpartum period are automatically enrolled in the Family Planning program, and their coverage auto-renews annually (previously coverage was limited up to five years). However, some women may be unaware that they are enrolled in the program because no action is required on their part. Consequently, they may not seek services or know they are eligible to receive them.

Section VII Conclusion

Throughout the demonstration period, resources generated through managed care efficiencies allowed the Department to establish innovative programs to improve the health status of the HealthChoice population. Residential Treatment for Individuals with SUD was made possible through a §1115 waiver of Medicaid's limitations for coverage of care in IMDs and is intended to improve outcomes for those with SUD. The PMPM cost of care for HealthChoice participants who received IMD treatment for an SUD increased by 33.9% between CY 2019 and CY 2023. Participants aged 40-64 had the highest PMPM cost. The MAT utilization rate among IMD participants decreased 9.2 percentage points between CY 2019 and CY 2023 with a 5.2 percentage point decrease between CY 2021 and CY 2022. Logistic regressions analyzing the impact of IMD care on the probability of initiation and engagement for AOD treatment indicate that IMD treatment is associated with an increased likelihood of participants initiating treatment but with no impact on the likelihood of engaging in ongoing treatment.

Hilltop recently completed the sixth annual review of the ACIS pilot program, whose goals are to help optimize housing stability, health services use, and health outcomes for individuals at risk of institutional placement or homelessness. Around 73.4% of ACIS participants were homeless when they enrolled in the program but around 77% of participants enrolled between CY 2019 and CY 2023 obtained stable housing, with the majority moved to permanent housing. The rates of ambulatory care visits, inpatient admissions, ED visits, and avoidable ED visits among the ACIS population decreased over the evaluation period.

Access to the National DPP lifestyle change program was expanded to all eligible HealthChoice participants as of September 1, 2019, to reduce the risk of type 2 diabetes and improve their health. Regression analyses indicate that participants in the DPP are significantly less likely to develop diabetes but found no association between DPP participation and ED visits inpatient admissions. PMPM costs were lower for DPP participants than for non-DPP participants each year between CY 2020 and CY 2023.

The Department monitors several ongoing programs, including the ICS program for ABD adults, where nearly 12.0% of participants transitioned to a community setting during the evaluation period. In the long-running Family Planning program, eligibility was expanded by removing the age limit and opening coverage to men as well. As of 2023, more than 12,400 participants (with any period of enrollment) were enrolled in the program, and 6.8% received a family planning service.

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Appendix. Definitions and Specifications

Table A1. Coverage Category Inclusion Criteria

Coverage Category	Inclusion Criteria		
Aged, Blind, and Disabled (ABD)	Coverage Group = A04, H01, H98, H99, L01, L98, L99, S01, S02, S03, S04, S05, S06, S07, S08, S10, S14, S15, S16, S17, S18, S19, S20, S21, S98, S99		
MCHP	Coverage Group = D02, D04, P13, P14		
	OR		
	Coverage Group = F05, P06, P07	AND	Coverage Type = "S"
ACA Expansion	Coverage Group = A01, A02, A03		
Families & Children	All other Coverage Groups/Coverage Types		

Table A2. Medicaid Coverage Group Descriptions

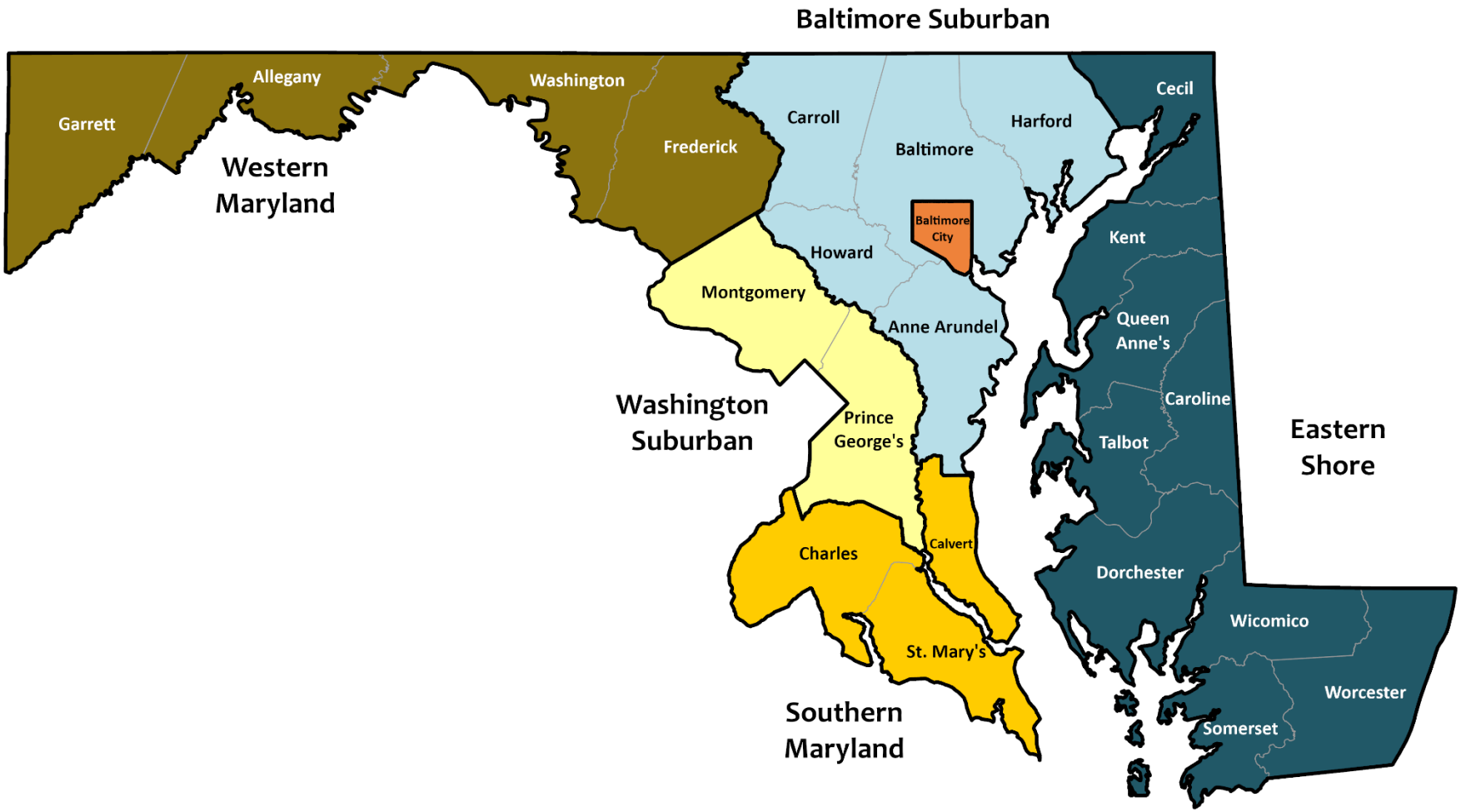
Coverage Group	Description
A02	Childless Adults < 65, 138% FPL, inc disabled
A03	Parents and Caretaker Relative 124%-138% FPL
A04	Disabled Adults, no Medicare 77% FPL
C10	Family Planning Presumptive Eligibility (FPPE)
C13	Presumptive Eligibility
D02	MCHP Premium, 212%-264% FPL
D04	MCHP Premium, 265%-322% 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
F02	Post-TCA: Earnings Extension
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
G99	Refugee Med Needy Spenddown
H01	HCB Waiver
H02	HCBS Waiver Participants Processed on E&E
H13	Walter Lomax- Healthcare to Individual Erroneously Convicted
H98	HCB Waiver Med Needy
L01	SSI Recipient in LTC

Coverage Group	Description
L98	ABD Long Term Care
L99	ABD Long Term Care Spenddown
P02	Pregnant Women up to 189% FPL
P06	Newborns of Elig Mothers and their < 1
P07	Children 1-19, 1-6 143% FPL, 6-19 138% FPL
P10	Family Planning Program
P11	Pregnant Women 190% - 264% of FPL
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	Disabled Widowed Beneficiaries (DWB)
S06	Qualified Disabled Working Individuals
S07	Specified Low Income Medicare Beneficiaries (SLMB) group I
S13-D	Employed Individuals with Disabilities Program (EID)
S14	Specified Low Income Medicare Beneficiaries (SLMB) group II
S16	Increased Community Services Program (ICS) formerly MPDP
S19	Disabled Adult Children (DAC)
S20	Disabled Widowed Beneficiaries (DWB)
S21	Temporary Category for Children Losing SSI Transitioning to Other Children's Medicaid Coverage Groups
S98	ABD - Med Needy
S99	ABD – Spenddown
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
X02	MAGI and Non-MAGI Undocumented or Ineligible Aliens, Emergency Medical Services
X11	Healthy Babies Act Prenatal (as of 7/1/2023)
X12	Healthy Babies Act Postpartum. (as of 7/1/2023)

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

Figure A1. Maryland Map with Regions and Counties



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