NC Medicaid Annual Health Disparities Report

2022

NC DEPARTMENT OF
HEALTH AND
HUMAN SERVICES
Division of Health Benefits

JANUARY 2025

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Acronym List

ADHD — Attention-Deficit/Hyperactivity Disorder

AHRQ — Agency for Healthcare Research and Quality

AMH — Advanced Medical Home

CAHPS — Consumer Assessment of Healthcare Providers and Systems Plan Survey

CCNC — Community Care of North Carolina

CDC — Centers for Disease Control and Prevention

CHIP — Children's Health Insurance Program

CMHRP — Care Management for High-Risk Pregnancies

CMS — Centers for Medicare & Medicaid Services

COPD — Chronic Obstructive Pulmonary Disease

CY — Calendar Year

DHB — Division of Health Benefits

ED — Emergency Department

HEDIS — Healthcare Effectiveness Data and Information Set

HMO — Health Maintenance Organization

I/DD — Intellectual/Developmental Disabilities

LME/MCO — Local Management Entity-Managed Care Organization

LTSS — Long Term Services and Supports

NC — North Carolina

NCDHHS — North Carolina Department of Health and Human Services

NCQA — National Committee for Quality Assurance

NQF — National Quality Forum

OB/GYN — Obstetrician Gynecologist

OSUAP — Opioid and Substance Use Action Plan

PAU — Potentially Avoidable Utilization

PCCM — Primary Care Case Management

PCP — Primary Care Provider

PDI — Pediatric Quality Indicators

PHP — Prepaid Health Plan

PIP — Performance Improvement Projects

PIHP — Prepaid Inpatient Health Plan

PMH — Pregnancy Medical Home

PMP — Pregnancy Management Program

PQA — Pharmacy Quality Alliance

PQCNC — Perinatal Quality Collaborative of North Carolina

PQI — Prevention Quality Indicator

QRS — Quality Rating System

HHS — United States Department of Health and Human Services

MESSAGE FROM
NCDHHS Secretary

December 21, 2024

Everyone should have the opportunity to live a healthy life.

To provide that opportunity in a way that addresses the health and well-being of all North Carolinians, we must identify and work to eliminate disparities and differences in the quality and availability of health care between populations.

NC Medicaid has three priorities, outlining the most pressing challenges the state is working to address: behavioral health and resilience, child and family well-being, and building a strong and inclusive workforce. Across these priorities, we center health equity as a driving force behind our work and use data about health disparities to drive our decision making.

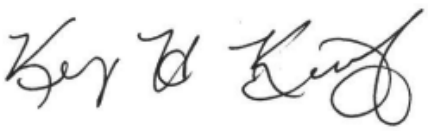
In the last year we have advanced these key priorities through the passage of Medicaid Expansion and an $835 million investment in behavioral and mental health services. The expansion of Medicaid extends health care coverage to previously underserved populations, providing critical access to health services for 600,000 North Carolinians. These interventions, in addition to many other innovative changes, exemplify NC Medicaid's dedication to improving health care delivery and outcomes for all North Carolinians. However, there is still a lot of work to do.

The NC Medicaid Annual Health Disparities Report overviews health disparities in the NC Medicaid population and highlights areas for intervention. Serving over three million North Carolinians, it is important for NC Medicaid to identify, monitor and address the poor health outcomes of populations that are disproportionately worse than others.

Using this data allows the opportunity to address whole-person health and improve health and well-being. Our goal is for NC Medicaid and its partners to use the data presented in this report to work toward decreasing disparities in health care delivery and outcomes. The report's findings, along with other invaluable analyses developed by the NCDHHS Office of Health Equity, will serve as a guide for our innovations and investments across physical, behavioral and social health.

A health system that fails some, fails us all. By using the findings presented in this report to motivate and inspire change, NC Medicaid moves closer to its goal to support every beneficiary in achieving their highest level of health and well-being.

Sincerely,



Kody H. Kinsley
Secretary
NC Department of Health and Human Services

MESSAGE FROM
Deputy Secretary

December 31, 2024

On behalf of NC Medicaid and the North Carolina Department of Health and Human Services (NCDHHS), I am pleased to share the first of our annual "2022 NC Medicaid Annual Health Disparities Report." This report provides North Carolinians with an overview of identified health disparities in the NC Medicaid population and highlights areas for intervention. The report looks at 50 different quality measures, organized into six domains: beneficiary experience, child and adolescent health, women's health, mental health, substance use, and health care utilization. Each measure was stratified by up to nine demographic elements, such as ethnicity, gender, and disability status, to identify disparities amongst populations that have been historically marginalized. This is the first report of its kind for NC Medicaid, and we intend to publish iterations of it annually, tracking these disparities over time and evaluating progress toward disparity reduction.

The North Carolina Department of Health and Human Services' (NCDHHS) Division of Health Benefits is committed to championing equitable health outcomes for the more than three million North Carolinians it serves. Having a report dedicated to examining the presence of disparities and some of their underlying factors will aid in identifying potential areas for intervention. The goals of this report include providing health plans, providers, policy makers, beneficiaries and other partners with information to assess progress toward the goal of reducing disparities and identifying opportunities for improvement.

NC Medicaid prioritizes an innovative, whole-person, well-coordinated system of care that addresses both medical and nonmedical drivers of health. This report is one tool that NC Medicaid is using to promote health equity. There are numerous programs and initiatives within NC Medicaid that share this aim; this report highlights some of these. There are also programs within NCDHHS, such as the Office of Health Equity working towards eliminating health disparities for all North Carolinians and keeping communities healthy, safe, and connected to needed resources and services. We hope this report provides valuable information and supports these critical efforts. We look forward to ongoing collaborative work to promote high-quality and equitable care provision to our beneficiaries.

Sincerely,

Jay Ludlam
Deputy Secretary, NC Medicaid
NC Department of Health and Human Services

MESSAGE FROM
Chief Medical Officer

October 18, 2024

North Carolina Medicaid's vision is to improve the health of North Carolinians through an equitable, innovative, whole person, centered and well-coordinated system of care that addresses both the medical and non-medical drivers of health. Despite significant advances in medicine and research, health disparities, defined as preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health, persist across this country. North Carolina is not immune to this and in response, NCDHHS has been working diligently to address and reduce health disparities through historical investments in health and well-being and innovative approaches to whole person health.

In order to make impactful and sustainable progress in eliminating health disparities in our historically marginalized and rural communities, we need reliable, accessible, and intentional data. On behalf of NC Medicaid and NCDHHS, I am pleased to share the first annual "2022 NC Medicaid Annual Health Disparities Report." Through enrollment applications, NC Medicaid has access to a vast amount of beneficiary-reported sociodemographic information. By using this data to systematically track health disparities, NC Medicaid aims to inform, equip, and empower providers with data to improve care delivery and eliminate these disparities.

As Chief Medical Officer (CMO) for NC Medicaid, I serve as a liaison between the healthcare provider community and Medicaid, and I work to ensure broad access to health care services for all beneficiaries. While many of the health disparities identified in this report are rooted in our country's long history of systemic discrimination and linked to health-related resource needs and barriers in access to care, health care workers play a critical role in addressing them. By engaging in a range of health equity interventions, such as educating providers, identifying risk factors for negative health outcomes, improving equity-focused and culturally competent provider trainings, and working to limit the barriers that many populations face when trying to access care, health systems have a unique opportunity to leverage change. I am hopeful that this report will support NC Medicaid's health care partners across the state in developing targeted interventions to reduce care gaps and improve the delivery of equitable and high-quality care.

Sincerely,

Dr. Janelle White
Chief Medical Officer, NC Medicaid
NC Department of Health and Human Services

Introduction

NC Medicaid serves over three million North Carolinians, providing health care to eligible low-income adults, children, pregnant women, seniors and people with disabilities. NC Medicaid is made of many programs that focus on a wide range of health and social needs. NC Medicaid also funds necessary services for individuals with severe behavioral health needs, and supports children and adults with developmental disabilities through innovative community-based services. NC Medicaid's goal is to improve the health of North Carolinians through an innovative, whole person-centered, and well-coordinated system of care that addresses both medical and non-medical drivers of health and has as enhanced focus on promoting health equity.[1]

Starting July 1, 2021, most NC Medicaid beneficiaries began receiving the same Medicaid services under a new model called NC Medicaid Managed Care. In this model, beneficiaries could choose a health plan and receive care through a health plan's network of doctors.[2] (See Table 1 for more information). NC Medicaid works to develop data-driven, outcome-based continuous quality improvement processes, in which promoting equity by reducing or eliminating health disparities is a central goal.

TABLE 1: NC Medicaid Health Care Programs

Type	Population Served	Description
Standard Plans	Most Medicaid beneficiaries, including those with low to moderate intensity behavioral health needs.	These plans provide integrated physical health, pharmacy, care coordination and basic behavioral health services.
Eastern Band of Cherokee Indians (EBCI) Tribal Option	Federally recognized tribal members and others who qualify for services through Indian Health Service (IHS) and live in the following counties: Buncombe, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, Swain, Transylvania.	A primary care case management entity created by the Cherokee Indian Hospital Authority (CIHA) that provides care coordination and management of medical, behavioral health, pharmacy and support services.
NC Medicaid Direct	Beneficiaries who are not enrolled in NC Medicaid Managed Care.	Provides care management for physical health services through Community Care of North Carolina (CCNC) and care coordination for behavioral health, intellectual and developmental disabilities (I/DDs), or traumatic brain injuries (TBIs) through Local Management Entity-Managed Care Organizations (LME/MCOs). Offers certain services Standard Plans do not.
NC MEDICAID PROGRAMS NOT YET LAUNCHED		
Behavioral Health and Intellectual/ Developmental Disabilities Tailored Plans	Members[3] with significant mental health needs, severe substance use disorders, I/DDs or TBIs.	Offers the same integrated health services as Standard Plans but provides enhanced I/DD, TBI, and behavioral health services. Projected to launch in summer of 2024.
Children and Families Specialty Plan (CFSP)	Medicaid-enrolled children, youth, and families served by the child welfare system.	Provide beneficiaries with access to physical health, behavioral health and pharmacy services, long term services and supports (LTSS) and I/DD services, as well as services to address unmet health-related resource needs. Anticipated to launch in 2025.

[1] North Carolina Medicaid Managed Care Quality Strategy. (2023) https://medicaid.ncdhhs.gov/nc-medicaid-2023-quality-strategy/download?attachment
[2] To learn more about NC Medicaid's managed care transition visit this website: https://ncmedicaidplans.gov/en
[3] The term 'beneficiary' is often used when referring to people enrolled in NC Medicaid Direct and other non-managed care programs. For this report, the term 'beneficiary' will be used more broadly to refer to the entire NC Medicaid population.

Research shows that Medicaid beneficiaries experience increased barriers to care compared to the general population due in part to higher rates of poverty, chronic illness and disability.[4, 5] A 2020 CMS report found Medicaid enrollees were more likely to live in rural communities, over 10% spoke a primary language other than English, and 11% qualified for benefits based on disability status.[6]

The purpose of the 2022 Annual Health Disparities Report is to note the disparities the NC Medicaid population experiences and highlight opportunities NC Medicaid has to address these disparities in pursuit of health equity. The measures in this report encompass various domains such as beneficiary experience, child and adolescent health, women's health, mental health, substance use and health care utilization. When relevant and available, data about disparities will be accompanied by historical context. Results are also paired with information on NC Medicaid programs and policies that could help address the identified inequities.

Statement of Positionality

This report was written and reviewed by members of the Quality, Population Health and Evaluation (QPHE) team within the North Carolina Department of Health and Human Services (NCDHHS) NC Medicaid. Where possible, content was reviewed by subject matter experts and relevant partners. The report authors acknowledge that interpretation of results was not always completed in consultation with impacted communities and that is a limitation of this report.

[4] Hsiang WR, Lukasiewicz A, Gentry M, Kim CY, Leslie MP, Pelker R, Forman HP, Wiznia DH. Medicaid Patients Have Greater Difficulty Scheduling Health Care Appointments Compared with Private Insurance Patients: A Meta-Analysis. Inquiry. 2019 Jan-Dec;56:46958019838118. doi: 10.1177/0046958019838118. PMID: 30947608; PMCID: PMC6452575.

[5] Coughlin t et al., What Difference Does Medicaid Make: Assessing Cost Effectiveness, Access, and Financial Protection under Medicaid for Low-Income Adults, Kaiser Commission on Medicaid and the Uninsured, May 2013. Appendix Table 1, data from 2003-2009. MEPS.

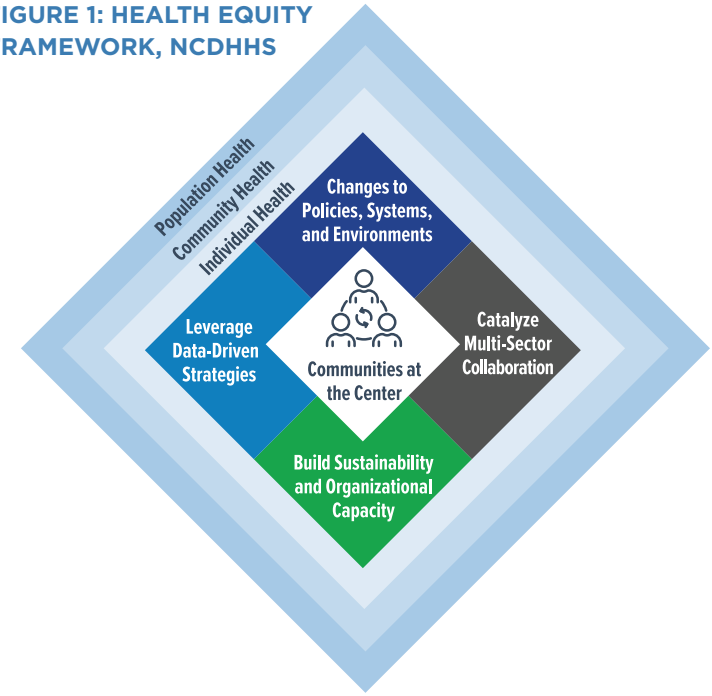
[6] Proctor, Kimberly. (2023) Centers for Medicare and Medicaid services (CMS). CMS Releases Data Briefs That Provide Key Medicaid Demographic Data for the First Time, https://www.cms.gov/blog/cms-releases-data-briefs-provide-key-medicaid-demographic-data-first-time

Guiding Principles for the Annual Health Disparities Report

> Health Equity is the attainment of the highest level of health for all people, where everyone has a fair and just opportunity to attain their optimal health.
>
> *— The Centers for Medicare & Medicaid Services*

Health disparities have long existed within the American health care system. In recent years, the COVID-19 pandemic has highlighted and exacerbated these longstanding disparities.[7] Members of populations that have been systemically discriminated against experience disparities across many measures of health, reflecting inequities within the health care system and across broader social and economic conditions that influence health.[8, 9]

FIGURE 1: HEALTH EQUITY FRAMEWORK, NCDHHS



Achieving equitable health care delivery and outcomes requires focused, ongoing and widespread efforts to prevent avoidable inequalities, address historical and contemporary injustices, and eliminate disparities in health outcomes. NC Medicaid is in a distinct position to track disparities as it serves roughly three million individuals and families with low incomes. With access to a vast amount of demographic data for its beneficiaries, NC Medicaid can complete complex monitoring and evaluation of health disparities, which serve as a metric for inequalities, and track differences over time. NCDHHS introduced a Health Equity Framework, which includes leveraging data-driven strategies as a central pillar (see Figure 1).[10] NC Medicaid hopes to use its unique position to illuminate existing gaps and contribute to data-driven decision making. The Annual Health Disparities Report is one tool NC Medicaid has developed to support these efforts.

Annual Health Disparities Report Mission: To promote, strengthen and evaluate NC Medicaid's efforts to improve the health and wellbeing of all its beneficiaries.

[7] Yearby, R., Clark, B., & Figueroa, J. F. (2022). Structural racism in historical and modern US health care policy. Health Affairs, 41(2), 187–194. https://doi.org/10.1377/hlthaff.2021.01466
[8] Ndugga, N., Artiga, S., & Hill, L. (2023, July 10). Key data on health and health care by race and ethnicity. KFF. https://www.kff.org/racial-equity-and-health-policy/report/key-data-on-health-and-health-care-by-race-and-ethnicity
[9] Haldar, S., Guth, M., Rudowitz, R., & Artiga, S. (2023, June 2). Medicaid and Racial Health Equity. KFF. https://www.kff.org/medicaid/issue-brief/medicaid-and-racial-health-equity/
[10] NCDHHS Community and Partner Engagement Guide. (2024). https://www.ncdhhs.gov/health-equity-community-and-partner-engagement-guide/download?attachment=

Overarching Goals of Report:

1. Measure and monitor NC Medicaid's progress toward eliminating the health disparities experienced by populations that have been systemically discriminated against.
2. Provide current data that may aid prepaid health plans (PHPs), primary care case management entities, community-based organizations, tribal governments, local health departments, state agencies, legislators, local businesses and communities in devising tailored services and outreach plans; and
3. Inform key decision makers about existing health disparities that can be addressed through policy reform and system-level change.

FIGURE 2: NC Medicaid Quality Strategy Framework

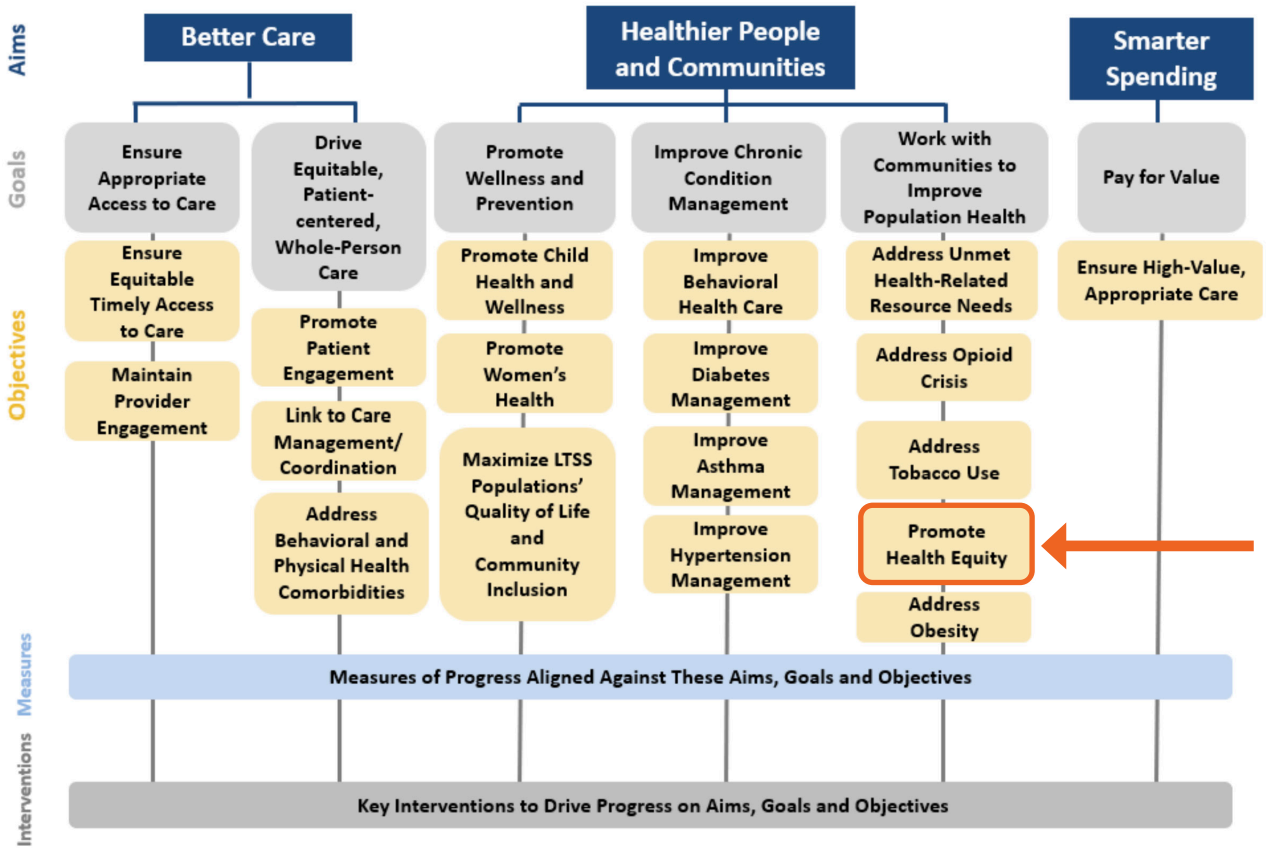


FIGURE 3: Quality Strategy Breakdown

AIM #2:	GOAL #5:	OBJECTIVE #5.4:	INTERVENTIONS
Healthier People, Healthier Communities	Work with communities to improve population health	Promote Health Equity	Mechanisms to assess and address health disparities, including a focus on health equity within performance improvement projects, and the Department-developed Annual Health Disparities Report

Shared Term Definitions

Shared definitions are crucial for enabling people from different disciplines, roles and groups to work together toward shared goals.[12] Having a deeper understanding of language can help ensure that our organizations are indeed centering care around the lived experience of patients and communities without reinforcing labels, objectification, stigmatization and marginalization.[13] Below you can find definitions drawn from the NCDHHS Office of Health Equity.[14]

Health equity is the intentional effort to ensure that everyone experiences a fair opportunity to achieve the highest level of health without barriers to access and care. Health equity can be achieved through ongoing focused societal efforts to address and eliminate inequities and injustices that lead to health disparities.

Health inequities are disparities in health that stem from unjust, systemic policies and practices which limit opportunities for good health.

Health disparities are preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by populations who have been socially, economically, geographically, and environmentally disadvantaged.

This report recognizes the importance of health literacy as a foundation for equitable communication. Efforts were made to ensure that information is clear, accessible, and actionable for a broad range of audiences, including those with limited health literacy. By integrating both health equity and health literacy principles, the report aims to foster understanding and engagement across diverse communities.

What Does it Mean to Apply a Health Equity Lens to Communications?[11]

Applying a health equity lens means intentionally looking at the potential impacts, positive and negative, of proposed communications and messaging. NC Medicaid has applied a health equity lens, to the best of its ability, to all aspects of this report, taking the time to avoid bias and stigmatization and reflect on systemic social and health inequities. This report was written with the CDC's health equity guiding principles for inclusive communication and used their preferred terms for select population groups and communities. However, we acknowledge terms that might be appropriate in some circumstances, or that some people prefer, might not be appropriate for others.

[11] Health Equity Guiding Principles for Inclusive Communication. Centers for Disease Control and Prevention (CDC). https://www.cdc.gov/healthcommunication/Health_Equity.html
[12] Peek CJ, Westfall JM, Stange KC, Liaw W, Ewigman B, DeVoe JE, Green LA, Polverento ME, Bora N, deGruy FV, Harper PG, Baker NJ. Shared Language for Shared Work in Population Health. Ann Fam Med. 2021 Sep-Oct;19(5):450-457. doi: 10.1370/afm.2708. PMID: 34546952; PMCID: PMC8437558.
[13] American Medical Association (AMA). Advancing Health Equity: A Guide to Language, Narrative, and Concepts. https://www.ama-assn.org/system/files/ama-aamc-equity-guide.pdf
[14] NCDHHS. Office of Health Equity. Health Equity Resources, Common Definitions. Accessed 4/30/2024. Available here: https://www.ncdhhs.gov/divisions/office-health-equity/health-equity-resources

How to Best Use this Report

By developing this report and tracking progress annually, NC Medicaid hopes to build a measurement framework to help groups across the state align on shared priorities. This report will build a shared and consistent way to measure disparities that inform internal and external work promoting programs and policies that improve health care delivery and health outcomes for all. Below is a table outlining different stakeholders and potential ways they could engage with this report:

TABLE 2: Ideas for Report Use by Stakeholder Type

Stakeholders	Ideas for Using the Report
Community-Based Organizations	Highlight areas of need for populations across the state that have been economically and socially marginalized, using this information to create resources and programs tailored to them.
Providers and Others Serving NC Medicaid Beneficiaries	Assist with risk assessment, encourage patient engagement and increase awareness about potential areas of need.
Health Disparity & Patient Advocates	Identify areas of focus for preventive health legislation and be equipped with data/evidence of need. Highlight the importance of NC Medicaid in supporting the health of three million North Carolinians.
NC Medicaid Beneficiaries	Learn about areas of concern, inequities and opportunities for preventive care to stay informed and prepared for discussions with their doctors.
Health Plans and Care Management Entities	Identify areas of need within the larger NC Medicaid beneficiary population and inform care management strategies for populations with identified disparities.

Look for these boxes throughout the report!

CALL OUT: These Contain Helpful Information

Boxes that look like this are scattered throughout the report to provide information on North Carolina Medicaid's efforts related to the priority populations. They call out innovative programs that support communities and strengthen their work or refer to additional data sources that give a deeper look into health disparities for that group.

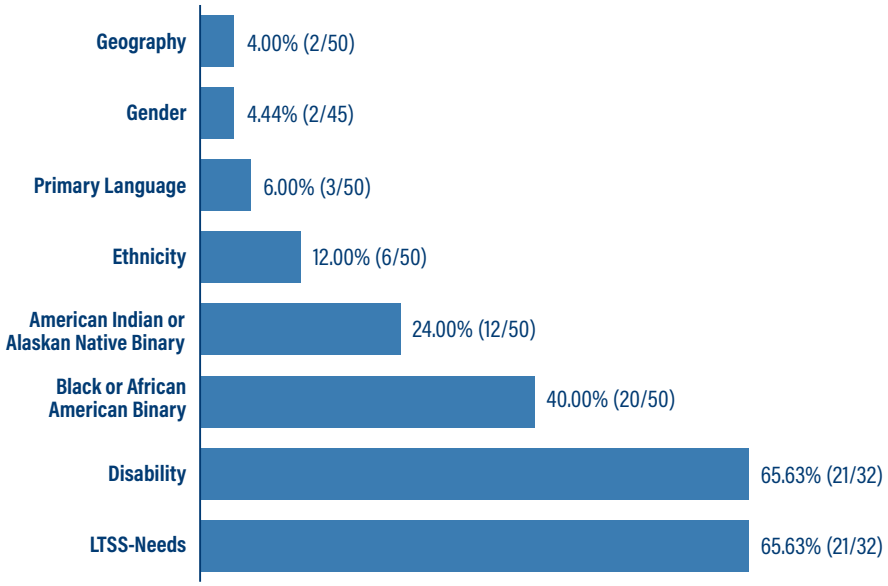
Words or phrases that look like this throughout the report contain links. Click on them to explore more related content.

Executive Summary

The 2022 Annual Health Disparities Report reviewed 50 measures across nine stratification elements, identifying areas where groups of interest fared worse than reference groups. Based on the calendar year (CY) 2022 health disparities analysis, NC Medicaid identified key findings across the following demographic factors: LTSS needs status, disability status, gender, primary language, ethnicity, Black or African American binary race,[15] American Indian or Alaskan Native binary race,[16] and geography.[17] **A health disparity was identified if the relative difference in a quality measure rate between the group of interest and the reference group was greater than 10%.**

This section summarizes key findings for each of these demographic groups. To learn more about the programs and policies NC Medicaid is implementing to address these disparities visit the Addressing Health Inequities section. Figure 4 presents the percentage of measures with identified disparities for each demographic factor.[18] It was not possible to stratify all measures by all demographic factors, so denominators vary slightly across demographic factors.

FIGURE 4: Percent of Measures in the Report with an Identified Disparity by Demographic Strata.



Key Findings for the African American/Black Population

Individuals who identify as African American/Black make up around 22.2% of North Carolina's population and 37.4% of the total NC Medicaid population. Nationally, African American/Black populations experience persistent disparities in health and health care access across many different indicators. These disparities often reflect structural and systematic inequities rooted in racism and discrimination.[19] NC Medicaid identified disparities among the African American/Black population across most measures related to behavioral health and immunizations; however, the African American/Black populations fared better for measures related to women's health screening including screenings for chlamydia and cervical cancer. See Appendix D for list of all findings for African American/Black population.

[15] Black or African American Binary Race: A descriptive category that divides a population into two sub-parts: those who identify as Black or African American and those who do not.
[16] American Indian or Alaska Native Binary Race: A descriptive category that divides a population into two sub-parts: those who identify as American Indian or Alaska Native and those who do not.
[17] See the Statistical Analysis Section of the Methodology for detailed descriptions of each demographic stratification.
[18] A disparity is identified as a relative difference greater than 10% between the group of interest and the reference group. See the Methodology section for more information on this approach.
[19] Ndugga, N., Artiga, S., & Hill, L. (2023, July 10). *Key data on health and health care by race and ethnicity.* KFF. https://www.kff.org/racial-equity-and-health-policy/report/key-data-on-health-and-health-care-by-race-and-ethnicity/

Key Findings for American Indian/Alaskan Native Populations

Structural racism in US health policy has resulted in a legacy of health disparities for those who identify as American Indian and Alaskan Native; these populations experience lower life expectancy and disproportionate disease burden.[20, 21] These outcomes are due in part to disproportionate rates of poverty and discrimination in the delivery of health services and cultural differences in care. The American Indian/Alaskan Native population make up roughly 1.6% of all NC Medicaid beneficiaries. Ten percent of NC Medicaid beneficiaries who identified as American Indian or Alaskan Native are covered by the Eastern Band of Cherokee Indians (EBCI) Tribal Option. This plan, which provides care to approximately 4,500 federally recognized Tribal members and individuals who are eligible for care through the Indian Health Service, is the first of its kind in the United States. In this analysis, the American Indian/Alaskan Native population had identified disparities in areas related to behavioral health and access to outpatient care. However, those who identified as American Indian/Alaskan Native fared better for measures related to appropriate follow-up care for substance use. See Appendix D for list of all findings for American Indian/Alaskan Native population.

Key Findings for People with Disabilities and LTSS Needs

Low-income adults who identify as needing LTSS are among the most complex, expensive, and fast-growing populations covered by Medicaid. They are a diverse population in terms of individuals' care needs, service utilization and spending.[22] The populations using LTSS encompass individuals from birth until death. In 2022, over 1,300 NC Medicaid beneficiaries identified as blind and over 304,000 identified as having a disability.[23] The disability status and LTSS needs status populations experience disparities for measures related to service utilization and child health care; however, these populations saw more favorable performance in measures related to medication adherence and prenatal care. See Appendix D for list of all findings for the population with identified disabilities and LTSS needs.

Key Findings by Geography

It is important to stratify data by geography, as people who live in rural areas face numerous health disparities that their urban counterparts do not. Research has found that people who live in rural areas have higher rates of poverty, less access to health care and are less likely to have health insurance.[24] According to the National Center for Health Statistics, 54 out of North Carolina's 100 counties are classified as rural.[25] Please refer to Figure 5 in the Methodology section for a county-level map of North Carolina. Beneficiaries living in rural counties fared better for pediatric quality indicators but fared worse in emergency department (ED) utilization for substance use disorder. See Appendix D for a list of all findings for the rural population.

[20] Disparities. Indian Health Service (IHS). Accessed on 1.9.2024. https://www.ihs.gov/newsroom/factsheets/disparities/

[21] Department of Health and Human Services, Office of Minority Health. Profile: American Indian/Alaska Native [Internet]. Rockville (MD): HHS; 2021 Nov 23 [cited 2024 March 18]. Available from: https://www.minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&lvlid=62 Google Scholar

[22] NC Medicaid Long-Term Services and Supports Care Management. https://medicaid.ncdhhs.gov/care-management/long-term-services-and-supports-care-management

[23] These populations were identified using aged, blind, or disabled (ABD) status codes.

[24] About Rural Health. 2023. Centers for Disease Control and Prevention (CDC). www.cdc.gov/ruralhealth/about.html#:~:text=Rural%20residents%20report%20less%20leisure,lead%20to%20poor%20health%20outcomes.

[25] NCHS Urban-Rural Classification Scheme for Counties. Centers for Disease Control and Prevention. www.cdc.gov/nchs/data_access/urban_rural.htm

[26] North Carolina, United States Census Bureau. Population Estimates July 1, 2022. www.census.gov/quickfacts/fact/table/NC,US/PST045222

Key Findings for the Hispanic and Latino Population

Since the 1990s, the Hispanic/Latino population has been the fastest growing demographic in North Carolina; it is now composed of well over one million people.[26] In 2022, Hispanic/Latino beneficiaries made up roughly 15% of the total NC Medicaid population. Research shows this population often experiences health disparities in diabetes and obesity rates, work-related injuries, human immunodeficiency virus (HIV) and liver disease.[27] These disparities are often tied to factors such as language or cultural barriers, discrimination, lack of access to preventive care and lack of health insurance.[28] In this report, members of the Hispanic/Latino population fared worse in measures relating to pediatric hospitalizations and appropriate follow-up after ED visits for substance use. This population fared better in measures relating to child and adolescent vaccinations and appropriate follow-up after ED and hospital visits relating to mental illness. See Appendix D for list of all findings for the Hispanic and Latino population.

Key Findings for Those Whose Primary Language is Spanish

In 2021, 12.5% of North Carolina's children and 8.3% of adults primarily spoke Spanish at home. Of those children, 2.9% spoke English less than "very well," and of those adults, 4% spoke English less than "very well."[29] Research has found that Spanish-speaking populations report worse health status and access to care than their English-speaking counterparts.[30] This is driven by the way the U.S. health system is built around the English language; providers may be unprepared or unable to provide sufficient translation services. Language barriers lead to miscommunication between provider and patient, decreasing the quality-of-care delivery and patient safety.[31] For individuals whose primary language is Spanish, this report's analysis identified disparities in measures relating to appropriate care for substance use treatment. However, this population fared better on measures relating to appropriate follow-up after hospitalizations or emergency department visits due to mental illness. See Appendix D for list of all findings for the Spanish speaking population.

Key Findings for Those Who Identified as Female

Most medical concepts of diseases are based on male physiology, leading to gendered norms in research and clinical practice.[32] Gender biases in the health care system have serious implications. Studies have found that hospital staff take women's pain less seriously, spend less time treating them, and are more likely to wrongly diagnose pain as "emotional."[33] For example, individuals who identify as female are significantly more likely than men to be misdiagnosed and discharged in the middle of having a heart attack.[34] Individuals who identified as female make up around 57% of the total NC Medicaid enrolled population. For individuals who identify as female, this analysis only found disparities in hospital admission rates relating to asthma in younger adults and pediatric urinary tract infections (UTIs). Those identifying as female fared better than those who identified as male on appropriate Follow-Up after hospitalization for mental illness. See Appendix D for list of all findings for the female identifying population.

[27] Vega WA, Rodriguez MA, Gruskin E. Health disparities in the Latino population. Epidemiol Rev. 2009;31:99-112. doi: 10.1093/epirev/mxp008. Epub 2009 Aug 27. PMID: 19713270; PMCID: PMC5044865.
[28] Hispanic/Latino Health. U.S Department of Health and Human Services. Office of Minority Health. (2022). https://minorityhealth.hhs.gov/hispaniclatino-health
[29] North Carolina Language, English Proficiency. Migration Policy Institute. (2021). www.migrationpolicy.org/data/state-profiles/state/language/NC
[30] DuBard CA, Gizlice Z. Language spoken and differences in health status, access to care, and receipt of preventive services among US Hispanics. Am J Public Health. 2008 Nov;98(11):2021-8. doi: 10.2105/AJPH.2007.119008. Epub 2008 Sep 17. PMID: 18799780; PMCID: PMC2636430.
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[33] Women and pain: disparities in experience and treatment. (2017). Harvard Medical School. Harvard Health Publishing. https://www.health.harvard.edu/blog/women-and-pain-disparities-in-experience-and-treatment-2017100912562
[34] Nabel EG. Coronary heart disease in women--an ounce of prevention. N Engl J Med. 2000 Aug 24;343(8):572-4. doi: 10.1056/NEJM200008243430809. PMID: 10954767.

Methodology

This section will go through the demographic factors used in this analysis, the disparity calculation and definition and the measures used in this report. For a list of utilized data sources and their descriptions see Appendix B. This report focuses on data from 2022. However, in Appendix E, we drew on data from one year prior to determine the extent to which disparities have improved, persisted, or emerged among NC Medicaid beneficiaries. There is a significant lag in accessing quality measurement data. Validated rates are usually not available until Fall of the following year.

Demographic Factors

NC Medicaid analyzed disparities based on people's identified ethnicity, race, age, gender, primary language, LTSS needs status, disability status and geography, where applicable. Tables 3 through 7 display the race and ethnicity categories that NC Medicaid uses, along with the individual racial and ethnic groups that comprise each category. Please note, race and ethnicity category stratifications for each measure are dependent on the availability of data. For this report, NC Medicaid prioritized binary race comparisons (i.e., the group of interest compared to all other populations combined) to identify health disparities for the populations who identify as Black or African American and American Indian or Alaska Native, where available.

TABLE 3: Race Categories and Groups*

Race Category	Groups Included
Black or African American	Black, Black or African American
White	White, Caucasian
American Indian/Alaskan Native	American Indian, American Indian or Alaska Native
Asian	Asian
Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander, Hawaiian or Pacific Islander
Multiracial	Multiracial^^
Unknown	Unknown, Unreported
Other	Other

**All racial group descriptions come directly from NC Medicaid application*
^^ indicates that Multiracial includes individuals who selected two or more races.

TABLE 4: African American/Black Binary Comparison

Race Category	Groups Included
Black or African American	Black, Black or African American+
Not Black or African American*	White, Caucasian, Asian, Native Hawaiian or Other Pacific Islander, Hawaiian or Pacific Islander, Asian or Hawaiian/Pacific Islander, Multiracial^, Un-known/Missing, Unknown, Unreported, Other

** Indicates reference group for the identification of racial disparities.*
+ Includes beneficiaries who select Black or African American and one or more additional race values.
^ Multiracial is only included in the Not Black or African American group if beneficiaries did not select Black or African American as one of their races.

TABLE 5: American Indian/Alaskan Native Binary Comparison

Race Category	Groups Included
American Indian/Alaskan Native	American Indian or Alaska Native, American Indian or Alaska Native+
Not American Indian/Alaskan Native*	White, Caucasian, Black, Black or African American, Asian, Native Hawaiian or Other Pacific Islander, Hawaiian or Pacific Islander, Asian or Hawaiian/Pacific Islander, Multiracial^, Unknown/Missing, Unknown, Un-reported, Other

** Indicates reference group for the identification of racial disparities.*
+ includes beneficiaries who select American Indian/Alaskan Native and one or more additional race values.
^ Multiracial is only included in the Not American Indian/Alaskan Native group if beneficiaries did not select American Indian or Alaska Native as one of their races.

TABLE 6: Ethnicity Categories and Groups

Ethnicity Category	Groups Included
Hispanic/Latino	Hispanic Cuban, Hispanic Mexican American, Hispanic Puerto Rican, Hispanic Other, and Hispanic
Non-Hispanic/Latino*	Not Hispanic/Latino, Non-Hispanic

**Indicates reference group for the identification of ethnic disparities.*

Table 7 displays the remaining demographic stratification groups and their respective reference groups. Please note, the demographic category stratifications presented for each measure are dependent on the availability of data. Where possible, data for the demographic categories represented in Table 7 is sourced from the beneficiary reported information on the NC Medicaid application.

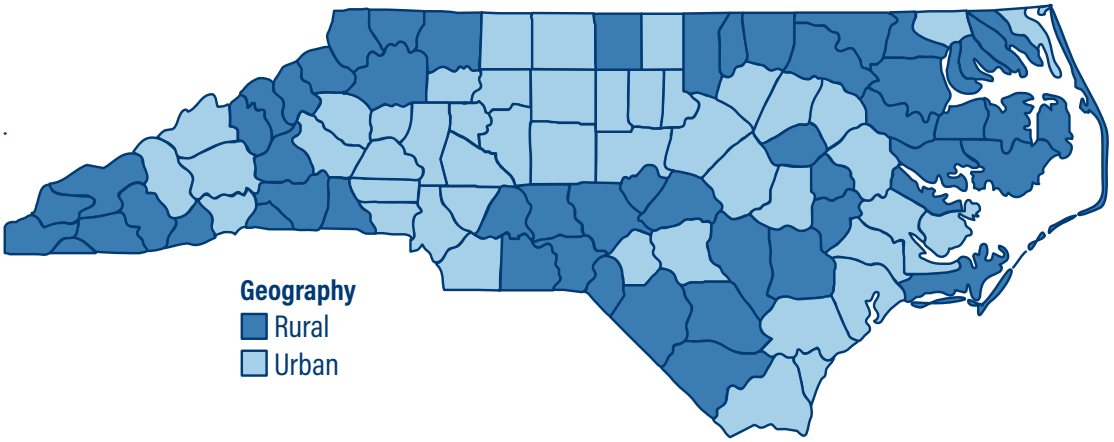
TABLE 7: Additional Demographic Stratification Groups

Stratification	Groups
Age	Age group determined by each measure's specifications, where applicable.
Gender	Male*, Female
Primary Language	English*, Spanish, Other
LTSS Needs Status	LTSS (Individuals who are aged, blind or have a disability [ABD]), Non-LTSS (non-ABD) *
Disability Status	Disability, No Disability*
Geography	Urban*, Rural[35] (see Figure 5)

**Indicates reference group for the identification of disparities.*

[35] NCHS Urban-Rural Classification Scheme for Counties. Centers for Disease Control and Prevention. https://www.cdc.gov/nchs/data_access/urban_rural.htm

FIGURE 5: NC Medicaid Counties, Rural vs. Urban



As shown in Tables 3, 4 and 5, the Department uses three methods for stratifying race to adequately capture all aspects of a beneficiary's identity. As part of the enrollment process, members have the option to select up to six distinct race values (White or Caucasian, Black or African American, Asian, Native Hawaiian, Other Pacific Islander, American Indian or Alaskan Native) and an open-ended "Other" category (see Figure 6). The enrollment process also captures additional demographic information, such as primary language and county of residence (see Figure 7).

FIGURE 6 & 7: Segments of Application for Health Coverage, NCDHHS[36]

1. First name, Middle name, Last name & Suffix			
2. Home address (Leave blank if you don't have one)			3. Apartment or Suite Number
4. City	5. State	6. Zip Code	7. County
8. Mailing Address (if different from home address)			9. Apartment of Suite Number
10. City	11. State	12. Zip Code	13. County
14. Phone Number		15. Other Phone Number	
16. What is your preferred spoken or written language (if not English)?			

11. Race (OPTIONAL – Check all that apply)
- ☐ White or Caucasian ☐ Black or African-American ☐ Asian ☐ Native Hawaiian
- ☐ Other Pacific Islander
- ☐ American Indian or Alaska Native (If you, complete Appendix B)
- Other: _____

[36] For more information, visit the How to Apply for NC Medicaid website. Spanish translation available.

Assigning all beneficiaries to a single-race category, including a derived multiracial field for those beneficiaries who select more than one race, leads to a relative underreporting of certain groups. On its own, this approach can mask valuable information that should be considered in analysis. Using the three methods outlined below provides the Department with a more holistic picture for monitoring and evaluating racial disparities.

Approaches for stratifying race:

1. **Method 1:** Beneficiaries who select more than one race are only included in a "multiracial" stratum. Members who select a single race are included in their reported race strata (see Table 3).
2. **Method 2:** Beneficiaries who select "Black or African American" as their race are included in the "Black or African American" stratum. This includes beneficiaries who select "Black or African American" and one or more other race values. Any remaining beneficiaries are included in the "Not Black or African American" stratum (see Table 4).
3. **Method 3:** Beneficiaries who select "American Indian or Alaska Native" as their race are included in the "American Indian or Alaska Native" stratum. This includes beneficiaries who select "American Indian or Alaska Native" and one or more other race values. Any remaining beneficiaries are included in the "Not American Indian or Alaska Native" stratum (see Table 5).

Following the approach outlined above allows the Department to parse out those groups that Departmental analyses have confirmed are under- or misrepresented via the "multiracial" reporting group outlined in Method one. By combining approaches, the Department can see a full picture of each subgroup's performance that is necessary for measuring disparity reduction and quality performance. *This report focuses on methods two and three.*

Identifying Disparities

For the 2022 Annual Health Disparities Report, NC Medicaid selected measures to identify health disparities based on demographic strata (see demographics section above). **A health disparity was identified if the relative difference in a quality measure rate between the group of interest and the reference group was greater than 10%.**

For measures where a higher rate indicates better performance (e.g., Breast Cancer Screening), the following formula was used:

$$\text{Relative Difference} = \frac{\text{(Reference Group Performance Rate - Group of Interest Performance Rate)}}{\text{Reference Group Performance Rate}}$$

$$\text{Disparity Identified if Relative Difference} > 10\%$$

For measures where a lower rate indicates better performance (e.g., Concurrent Use of Prescription Opioids and Benzodiazepines), the following formula was used:

$$\text{Relative Difference} = \frac{\text{(Group of Interest Performance Rate - Reference Group Performance Rate)}}{\text{Reference Group Performance Rate}}$$

$$\text{Disparity Identified if Relative Difference} > 10\%$$

For example, if the rate of eligible beneficiaries receiving well-child visits for the not Black or African American group was 65% and the rate for the Black or African American group was 45%, the rate for the Black or African American group (the group of interest) was below the rate for the not Black or African American group (the reference group) by a 30.8% relative difference (>10%), indicating a racial disparity. This is shown in the equation below:

$$30.8\% = \frac{(65.0\%-45.0\%)}{65.0\%}$$

For example, if the rate of eligible beneficiaries without a cancer diagnosis using opioids at a high dosage for the Black or African American group was 65% and the rate for the not Black or African American group was 45%, the rate for the Black or African American group (the group of interest) was above the rate for the not Black or African American group (the reference group) by a 44.4% relative difference (>10%), indicating a racial disparity. This is shown in the equation below:

$$44.4\% = \frac{(65.0\%-45.0\%)}{45.0\%}$$

Findings in this report are calculated from the NC Medicaid beneficiary population, with limited benefit beneficiaries excluded. Limited benefit beneficiaries often have alternative sources of health insurance coverage and receive only partial coverage from NC Medicaid, making it difficult to accurately ascertain their quality measurement performance.[37] When a disparity was identified for a measure, figures were developed to display the different performances and highlight areas of growth. Additionally, the Department provided background information on several of its programs to contextualize the efforts it is making toward eliminating the identified health disparities. For a full table of measure's relative difference calculations, see Appendix D.

Relative Change vs. Absolute Change

Relative Change: By what percentage did performance for the group of interest change when compared to the reference group?

Absolute Change: What is the simple difference between performance for the group of interest and the reference group?

[37] Limited benefit members were identified using managed care status codes which were excluded from the analysis. Managed care status codes 018,020,021, 023,024, and 043 were excluded from this analysis. See appendix for more detailed information on these limited benefit groups.

Measures

To identify the list of measures that would be included in the 2022 Annual Health Disparities Report, NC Medicaid considered multiple factors, including data availability, completeness and accuracy. The National Quality Forum (NQF) developed a protocol for identifying disparity-sensitive quality measures.[38] To select measures for this report, NC Medicaid drew on this protocol and prioritized prevalence, quality gap and impact:

- **Prevalence:** How common is the condition among populations that have been systemically discriminated against?
- **Quality Gap:** How large is the gap in quality of care between the comparison population and the group of interest?
- **Impact:** How influential is the condition or topic financially, publicly and within the community at large?

Table 8 displays measures and their stewards included in the 2022 Annual Health Disparities Report. For more information on the data sources used for these measures see Appendix B. Each measure was placed into one of the following domains based on the type of care or health status being measured:

1. Beneficiary Experience,
2. Child and Adolescent Health,
3. Women's Health,
4. Mental Health,
5. Substance Use, and
6. Health Care Utilization.

Please note that measures are organized under the domains in which they appear in the report.

What is a Quality Measure?

Quality measures are tools that help quantify health care processes, outcomes, patient perceptions, and systems that are associated with the ability to provide high-quality health care. Quality measures help identify successes and opportunities, so NC Medicaid and its partners can prioritize efforts to achieve better outcomes for beneficiaries.

TABLE 8: Measures Organized by Domain and Data Sources

Measure		Measure Set (Steward)
Beneficiary Experience (n=18 measures)	Rating of Health Plan — Adult and Child	CAHPS Measure (AHRQ)
	Rating of All Health Care — Adult and Child	CAHPS Measure (AHRQ)
	Customer Service — Adult and Child	CAHPS Measure (AHRQ)
	How Well Doctors Communicate — Adult and Child	CAHPS Measure (AHRQ)
	Rating of Personal Doctor — Adult and Child	CAHPS Measure (AHRQ)
	Rating of Specialist Seen Most Often — Adult and Child	CAHPS Measure (AHRQ)
	Getting Needed Care — Adult and Child	CAHPS Measure (AHRQ)
	Getting Care Quickly — Adult and Child	CAHPS Measure (AHRQ)
	Flu Vaccinations for Adults (FVA)	CAHPS Measure (AHRQ)
	Medical Assistance with Smoking and Tobacco Use Cessation (MSC) — Discussing Cessation Medication	CAHPS Measure (AHRQ)

[38] Healthcare Disparities and Cultural Competency Consensus Standards: Disparities-Sensitive Measure Assessment (2008) National Quality Forum (NQF). Available here: https://www.qualityforum.org/Publications/2008/03/National_Voluntary_Consensus_Standards_for_Ambulatory_Care%e2%80%94Measuring_Healthcare_Disparities.aspx

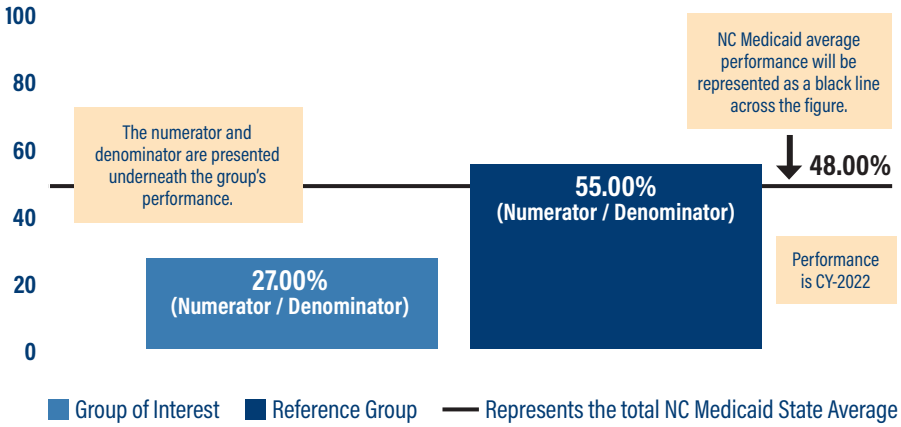
Measure		Measure Set (Steward)
Child and Adolescent Health (n=6 measures)	Child and Adolescent Well-Care Visits (WCV)	HEDIS Measure (NCQA)
	Childhood Immunization Status — Combination 10 (CIS-10)	HEDIS Measure (NCQA)
	Immunizations for Adolescents — Combination 2 (IMA-2)	HEDIS Measure (NCQA)
	Well-Child Visits in the First 30 Months of Life — Well-Child Visits in the First 15 Months—Six or More Well-Child Visits (W30-6+)	HEDIS Measure (NCQA)
	Well-Child Visits in the First 30 Months of Life — Well-Child Visits for Age 15 Months to 30 Months — Two or More Well-Child Vis-its (W30-2+)	HEDIS Measure (NCQA)
	Oral Evaluation, Dental Services (OEV)	Non-HEDIS Measure (DQA)
Women's Health (n=5 measures)	Breast Cancer Screening (BCS)	HEDIS Measure (NCQA)
	Cervical Cancer Screening (CCS)	HEDIS Measure (NCQA)
	Chlamydia Screening in Women (CHL)	HEDIS Measure (NCQA)
	Prenatal and Postpartum Care (PPC)-Timeliness of Prenatal Care & Postpartum Care	HEDIS Measure (NCQA)
Mental Health (n=6 measures)	Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA)	HEDIS Measure (NCQA)
	Follow-Up After Hospitalization for Mental Illness — 7-Day Fol-low-Up and 30-Day Follow-Up (FUH)	HEDIS Measure (NCQA)
	Follow-Up After ED Visit for Mental Illness — 7-Day Follow-Up and 30-Day Follow-Up (FUM)	HEDIS Measure (NCQA)
	Use of First Line Psychosocial Care for Children and Adolescents on Antipsychotics (APP)	HEDIS Measure (NCQA)
Substance Use (n=7 measures)	Follow-Up After ED Visit for Substance Use — 7-Day Follow-Up and 30-Day Follow-Up (FUA)	HEDIS Measure (NCQA)
	Use of Opioids at High Dosage in Persons Without Cancer (OHD)	Non-HEDIS Measure (PQA)
	Use of Pharmacotherapy for Opioid Use Disorder (OUD)	Non-HEDIS Measure (CMS)
	ED Utilization for SUD per 1,000 Medicaid Beneficiaries	SUD Metric
	Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries	SUD Metric
	Readmissions Among Beneficiaries with SUD	SUD Metric
Health Care Utilization (n=8 measures)	PQI 01: Diabetes Short-Term Complications Admission Rate Per 100,000 Member Months	Utilization Metric (AHRQ)
	PQI 15: Asthma in Younger Adults Admission Rate Per 100,000 Member Months	Utilization Metric (AHRQ)
	PQI 05: Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate Per 100,000 Member Months	Utilization Metric (AHRQ)
	PQI 08: Heart Failure Admission Rate Per 100,000 Member Months	Utilization Metric (AHRQ)
	PDI 14: Pediatric Asthma Admission Rate Per 100,000 Member Months	Utilization Metric (AHRQ)
	PDI 15: Pediatric Diabetes Short-Term Complications Admission Rate Per 100,000 Member Months	Utilization Metric (AHRQ)
	PDI 16: Pediatric Gastroenteritis Admission Rate Per 100,000 Member Months	Utilization Metric (AHRQ)
	PDI 18: Pediatric Urinary Tract Infection Admission Rate Per 100,000 Member Months	Utilization Metric (AHRQ)

Note: Measure counts include sub measures as distinct measures

How to Read this Report

This report contains figures depicting NC Medicaid's performance on select measures in CY2022, with national and historical context when relevant. Each measure was analyzed with all available demographic stratifications listed in Tables 3-7. A figure was only developed when a disparity was identified, which is defined as a relative difference of 10% or greater. All relative difference results for each measure are in Appendix D. Each figure will contain the performance of the group of interest, the reference group and the NC Medicaid state average.[39] Figure 8 below shows the figure elements and how they can be used to interpret performance.

FIGURE 8: Example



Note: Not all measures follow a traditional rate structure (numerator/denominator); some measures are per 1,000 beneficiaries or per 100,000 member months.

Caveats & Limitations

Disparity Identification Variations

Due to the availability of data for each data source, there are differences in which demographic strata could be assessed for each measure. For age-specific measures, disparities are only assessed for age groups that fall within the measure specifications. Disparities between age groups were not assessed if the measure specifications only include one age group. For example, the *Childhood Immunization Status (CIS)* measure is limited to beneficiaries who turn 2 years of age during the measurement year; therefore, disparities between age groups are not relevant. Similarly, for gender-specific measures (e.g., *Cervical Cancer Screening*), gender disparities are not assessed.

Health-Related Resource Needs

Quality measurement data, often consisting of claims and encounters data, only tells a piece of the story about an individual's health. The conditions in which people are born, grow, work, live and age, along with the systems shaping the experiences of their daily life significantly influence health outcomes.[40] Access to healthy food, stable housing and reliable transportation contribute to overall health. NC Medicaid is currently working to determine how best to measure and address these factors, referred to as health-related resource needs.

[39] The NC Medicaid state average is the performance of all NC Medicaid beneficiaries except those with limited benefits. See appendix section "Partial Benefit Group Exclusions" for more details.
[40] Office of Health Equity (OHE). (2018) NC Health Equity Report. Social Determinants of Health Definition. https://www.ncdhhs.gov/media/21175/open

A new quality measure, developed in 2023, will track health plans' ability to screen their members for these needs. While the data is not yet available and could not be included in this report, it will be incorporated into future iterations of the Annual Health Disparities Report. This data will enhance the Department's ability to promote and tailor programs and policies to achieve equity around these social drivers of health.

Disparity Methodology

This report only displays results that met NC Medicaid's health disparity standard, a 10% relative difference between the reference group and the group of interest.[41] Data for certain measures did not meet this standard and therefore are not presented in this report; however, inequities or health disparities may still exist for that health topic. A 10% relative difference as the health disparity benchmark is a NC Medicaid standard and is not shared across all NC organizations looking at disparities or across other state Medicaid programs. Multiple data sources should be leveraged when seeking to understand the full picture of health disparities across these populations and measures.

Identifying vs. Addressing

It is important to note the difference between health disparities and health equity. This report highlights health disparities across a variety of populations. However, reporting is only the first step and does not directly correlate to increased health equity. Ideally, this report will be a tool for stakeholders, such as community members, tribes, advocacy groups and other interested parties, to inform their work in supporting populations across the state and addressing health inequities- serving as a tool for advocacy and positive change.

Process & Utilization vs. Outcome Measures

Most of the measures in this report are health care utilization or process measures. These measures assess the frequency with which the population accessed specific health care services. As health is a multidimensional construct, it is important to note that utilization data does not give the entire picture of an individual's experience with health care or their health outcomes. While NC Medicaid collects information on beneficiary experience via patient-reported measures, due to a lack of reliable and complete clinical data, measures on beneficiary health outcomes are currently incomplete. Given this report's focus on utilization metrics, it is important to keep in mind that a population with a higher rate for certain measures indicates increased encounters with the health care system, but not necessarily better health outcomes or experience.

Race-based Clinical Algorithms

Clinical algorithms are used across medical specialties to assist in decisions such as diagnosis, medical management, and risk stratification. Historically, race has been a component of a variety of algorithms, leading to clinical decisions that are based off a social, not genetic, or scientific classification. While some organizations have updated their algorithms, many problematic algorithms remain. These race-based clinical algorithms have the potential to impact clinical decisions within our NC Medicaid population, influencing the performance of certain populations for utilization quality measures. Moving forward NC Medicaid will use its position within the state to raise awareness of these algorithms and engage in mindful review of clinical policies to ensure we avoid language that supports race-based medicine.

[41] See Methodology section for more details on this standard and calculation.

Results

The Results section is organized by the following domains:

1. Beneficiary Experience
2. Child and Adolescent Health
3. Women's Health
4. Mental Health
5. Substance Use
6. Health Care Utilization

At the beginning of each domain section there will be table that displays the statewide aggregate rate for each measure, along with a narrative description of the measures included in the domain and national and historical context for the disparities that exist relating to the measures. After the introduction, a high-level overview of the domain's findings follows, including whether there were any measures that did not have identified disparities.

Context for Result Interpretation

It is important to understand that the disparities discussed in this report are not in any way caused by demographic elements (e.g., race, gender, ethnicity), but by social conditions that are more likely to affect populations that have been marginalized. NC Medicaid wants to focus on population level disparities to uncover social and economic conditions which could be generating poor health outcomes for people who identify with certain demographic groups. Factors such as poverty, discrimination, large gaps between the rich and the poor, access to care and stigma can make it more difficult for people to stay healthy.

To see how total NC Medicaid's performance compares to other state Medicaid health maintenance organizations (HMOs), visit Appendix C. Appendix C contains the comparison between NC Medicaid performance and National Medicaid HMO average performance for all measures.

Small cell suppression note:

For any stratification that resulted in denominators smaller than 30, the data was suppressed and will not be shown in this report. Some results displayed have denominators only slightly larger than 30, caution should be exercised when interpreting these findings, given that the small size of the eligible population.

Beneficiary Experience Domain Findings

The Beneficiary Experience domain includes 18 measures that assess adult and child NC Medicaid beneficiary experiences with health plans, providers, and services based on CAHPS survey responses. Research has found disparities between the care experiences of some Medicaid beneficiaries who identify as Black or African American and Hispanic/Latino, compared to White enrollees.[42] CAHPS is an important tool for shedding light on disparities in beneficiary experience. CAHPS results provide actionable feedback that is meaningful in improving overall beneficiary experience. Note: MY2022 CAHPS data were collected between June through October of 2023.

Table 9 displays the statewide aggregates for the measures included in the Beneficiary Experience domain.

TABLE 9: Beneficiary Experience Measure Domain NC Medicaid Aggregates

Beneficiary Experience Measure	MY 2022 NC Medicaid Aggregate
Rating of Health Plan	
Adult	73.8%
Child	83.5%
Rating of All Health Care	
Adult	76.1%
Child	87.3%
Customer Service	
Adult	93.3%
Child	88.8%
How Well Doctors Communicate	
Adult	93.3%
Child	96.5%
Rating of Personal Doctor	
Adult	84.2%
Child	90.9%

Beneficiary Experience Measure	MY 2022 NC Medicaid Aggregate
Rating of Specialist Seen Most Often	
Adult	84.3%
Child	86.5%
Getting Needed Care	
Adult	81.9%
Child	86.7%
Getting Care Quickly	
Adult	83.6%
Child	89.6%
Flu Vaccinations for Adults (FVA)	40.1%
Effectiveness of Care	
Medical Assistance with Smoking and Tobacco Use Cessation — Discussing Cessation Medication	32.6%

Some demographic stratifications are based on numerators and/or denominators less than 100. While no rates with less than 11 responses in the numerator are shared, caution should be exercised when interpreting disparities findings for the CAHPS measures. As a note, CAHPS results could not be stratified by LTSS-needs or disability status.

Using the Adult CAHPS data from measurement year 2022, no disparities were identified for the *Customer Service*, *Rating of Health Plan*, *Rating of Personal Doctor*, *How Well Doctors Communicate*, *Getting Care Quickly*, *Getting Needed Care* and *Flu Vaccinations for Adults* measures.

[42] Nguyen, Kevin. Wilson, Ira. Wallack, Anya. Trivedi, Amal. (2022) Racial and Ethnic Disparities in Patient Experience of Care Among Nonelderly Medicaid Managed Care Enrollees. Health Affairs. Wol. 41 No. 2: Racism and Health. https://www.healthaffairs.org/doi/10.1377/hlthaff.2021.01331

Using the Child CAHPS data from measurement year 2022, no disparities were identified for the *Rating of Health Plan*, *Rating of Personal Doctor*, *Rating of All Health Care*, *Rating of Specialist Most Seen*, *How Well Doctors Communicate*, *Customer Service*, *Rating of Specialist Seen Most Often*, *Getting Needed Care* and *Getting Care Quickly* measures.

See Appendix D for stratified results for all these measures.

Rating of All Health Care — Adult

The *Rating of All Health Care — Adult* measure assesses how respondents rate all their health care in the last six months, using any number from zero to 10, where zero is the worst health care possible and 10 is the best health care possible. Ratings of eight, nine, or 10 are considered positive ratings. Health disparities were assessed based on the proportion of respondents who gave a positive rating.

There is strong evidence suggesting that people who perceive more discrimination in health care settings are at greater risk for reduced mental and physical health status.[43, 44, 45] Notably, individuals who experience racial discrimination on a regular basis experience the effects of chronic stress on their body, with their heart, arteries, endocrine system and additional body systems aging at a faster rate as compared with those not experiencing discrimination regularly.[46] Medicaid managed care members who identify as Black or African American or Hispanic/Latino groups have historically reported worse care experiences than White members.[47]

Nationally, those who identity as American Indian or Alaskan Native, were the most likely among racial groups to report discrimination in health care. Due to a long history of discrimination and marginalization, those who identify as American Indian/Alaskan Native frequently contend with issues that prevent them from receiving quality medical care, such as cultural barriers, geographic isolation, inadequate sewage disposal, and low income.[49]

Among adult respondents in NC Medicaid, no disparities were identified based on geography, ethnicity, gender, or Black binary race for the *Rating of All Health Care — Adult* measure. However, disparities were identified based on American Indian/Alaskan Native binary race.

- Beneficiaries who identified as American Indian/Alaskan Native rated their health care worse than those who did not, with a relative difference of 10.77% (See Figure 9).

[43] Pascoe EA, Smart Richman L. Perceived discrimination and health: a meta-analytic review. Psychol Bull. 2009 Jul;135(4):531-54. doi: 10.1037/a0016059. PMID: 19586161; PMCID: PMC2747726.

[44] Mays VM, Jones AL, Delany-Brumsey A, Coles C, Cochran SD. Perceived Discrimination in Health Care and Mental Health/Substance Abuse Treatment Among Blacks, Latinos, and Whites. Med Care. 2017 Feb;55(2):173-181. doi: 10.1097/MLR.0000000000000638. PMID: 27753743; PMCID: PMC5233585.

[45] Angela R. Dixon, Leslie B. Adams, Tszshan Ma, Perceived healthcare discrimination and well-being among older adults in the United States and Brazil, SSM - Population Health, Volume 18, 2022, 101113, ISSN 2352-8273, https://doi.org/10.1016/j.ssmph.2022.101113.

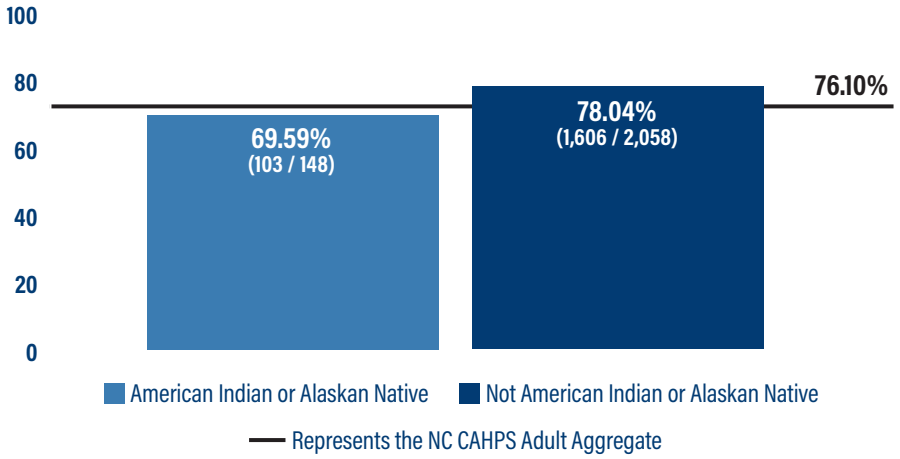
[46] How poverty and racism "weather" the body, accelerating aging and disease. (2023, March 28). NPR. Retrieved March 18, 2024, from https://www.npr.org/sections/health-shots/2023/03/28/1166404485/weathering-arline-geronimus-poverty-racism-stress-health.

[47] Nguyen, K. H., Wilson, I. B., Wallack, A. R., & Trivedi, A. N. (2022). Racial and ethnic disparities in patient experience of care among nonelderly Medicaid managed care enrollees. Health Affairs, 41(2), 256–264. https://doi.org/10.1377/hlthaff.2021.01331

[48] Johansson P, Jacobsen C, Buchwald D. Perceived discrimination in health care among American Indians/Alaska natives. Ethn Dis. 2006 Autumn;16(4):766-71. PMID: 17061725.

[49] US Department of Health and Human Services. Office of Minority Health (OMH). American Indian/Alaska Native Health. Accessed on 6/3/2024. Available here: https://minorityhealth.hhs.gov/american-indianalaska-native-health

FIGURE 9: Rating of All Health Care-Adult, 2022 NC Medicaid Performance by American Indian/ Alaskan Native Binary Race



NC Medicaid Ombudsman

The Ombudsman program offers help to NC Medicaid beneficiaries who have trouble getting access to health care, and connects people to resources like legal aid, social services, housing resources, food assistance and other programs. The Ombudsman provides free, confidential support and education about the rights and responsibilities people have under NC Medicaid.

In 2022, the Ombudsman program answered 18,023 calls from beneficiaries, and completed 98% of their 14,038 cases opened. Learn more on the NC Medicaid Ombudsman website.

Medical Assistance with Smoking and Tobacco Use Cessation (MSC) — Discussing Cessation Medication

The *Medical Assistance with Smoking and Tobacco Use Cessation (MSC) — Discussing Cessation Medication* assesses the percentage of current smokers or tobacco users who discussed or were recommended cessation medications (e.g., nicotine gum, patch, nasal spray, inhaler, prescription medication) to assist them with quitting smoking or using tobacco in the last six months.

Disparities in smoking cessation assistance receipt exist in safety-net settings, in particular within populations with no health insurance coverage and across race/ethnicity groups, even after controlling for other socioeconomic and demographic factors.[50] Advice from doctors helps people who smoke to quit. Even doctors providing brief simple advice about quitting smoking increases the likelihood that someone who smokes will successfully quit and remain a nonsmoker 12 months later.[51]

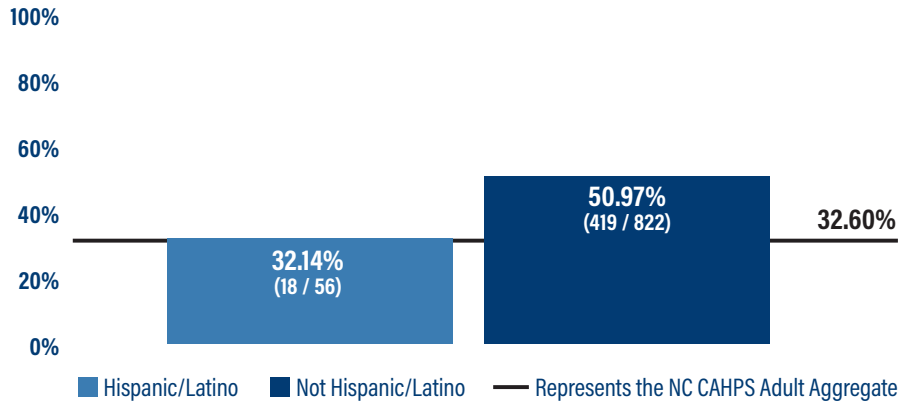
To assist in quitting smoking, health care providers can prescribe medications like bupropion and varenicline. In addition to these products, nicotine replacement therapy can provide nicotine without the harmful chemicals found in cigarette smoke.[52] The United States Preventive Services Task Force (USPSTF) recommends that clinicians direct patients who use tobacco to other tobacco cessation interventions with proven effectiveness and established safety. Cessation counseling and strategies have been shown to increase the rates of six-month smoking cessation from 4.8% for those who received no advice to 8.0% for those who received advice. These benefits are increased if the cessations strategies are combined with medications.[53]

This disparity is not unique to North Carolina, in 2015, Hispanic adults who smoked were less likely to receive advice to quit from a health care professional than non-Hispanic white adults who smoked.[54, 55] Research suggests the use of culturally sensitive educational initiatives directed at both providers and Hispanic/Latino communities.

Among respondents in NC Medicaid, no disparities were identified based on binary race, gender, geography, or primary language for the *Medical Assistance with Smoking and Tobacco Use Cessation (MSC) — Discussing Cessation Medication* measure. However, disparities were identified based on ethnicity categories.

- Beneficiaries who identified as Hispanic and Latino reported lower rates than those who did not, with a relative difference of 36.94% (See Figure 10).

FIGURE 10: Medical Assistance with Smoking and Tobacco Use Cessation-Adult (MSC) Discussing Cessation Medication, 2022 NC Medicaid Performance by Ethnicity



[50] Bailey SR, Heintzman J, Jacob RL, Puro J, Marino M. Disparities in Smoking Cessation Assistance in US Primary Care Clinics. Am J Public Health. 2018 Aug;108(8):1082-1090. doi: 10.2105/AJPH.2018.304492. Epub 2018 Jun 21. PMID: 29927641; PMCID: PMC6050829.

[51] Stead LF, Buitrago D, Preciad N, et al. Physician Advice for Smoking Cessation. Cochrane Database of Systematic Reviews. May 2013. Available at: https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD000165.pub4/full. Accessed on: Jun 28, 2023

[52] Centers for Disease Control and Prevention. How Quit Smoking Medicines Work. Nov 28, 2022. Available at: https://www.cdc.gov/tobacco/campaign/tips/quit-smoking/quit-smoking-medications/how-quit-smoking-medicines-work. Accessed on: Jun 28, 2023.

[53] US Preventive Services Task Force. Interventions for Tobacco Smoking Cessation in Adults, Including Pregnant Persons. Jan 19, 2021. Available at: https://jamanetwork.com/journals/jama/fullarticle/2775287. Accessed on: Jun 28, 2023.

[54] Babb S, Malarcher A, Schauer G, Asman K, Jamal A. Quitting Smoking Among Adults — United States, 2000–2015. MMWR Morb Mortal Wkly Rep 2017;65:1457–1464. DOI: http://dx.doi.org/10.15585/mmwr.mm6552a1

[55] Babb S, Malarcher A, Asman K, Johns M, Caraballo R, VanFrank B, Garrett B. Disparities in Cessation Behaviors Between Hispanic and Non-Hispanic White Adult Cigarette Smokers in the United States, 2000-2015. Prev Chronic Dis. 2020 Jan 30;17:E10. doi: 10.5888/pcd17.190279. PMID: 31999539; PMCID: PMC6993776.

Child and Adolescent Health Domain Findings

The Child and Adolescent Health domain includes six measures that assess whether children and adolescents received oral health services, had well-child or well-care visits and received immunizations in alignment with the Bright Futures/American Academy of Pediatrics (AAP) recommendations.[56] NC Medicaid provides coverage for over half of the state's birth events and insures three in seven of North Carolina's children.[57] Around 45% of NC Medicaid enrollees are younger than 19 years old, so child and adolescent health is a central priority for NC Medicaid.

Table 10 displays the statewide aggregates for the measures included in the Child and Adolescent Health domain.

TABLE 10: Child and Adolescent Health Domain NC Medicaid Aggregates

Child and Adolescent Health Domain Findings	CY 2022 NC Medicaid Aggregate*
Childhood Immunization Status, Combination 10 (CIS-10)	28.65%
Immunizations for Adolescents, Combination 2 (IMA-2)	29.69%
Well-Child Visits in the First 15 Months — Six or More Well-Child Visits (W30-6+)	61.72%
Well-Child Visits for Age 15 Months to 30 Months — Two or More Well-Child Visits (W30-2+)	66.90%
Child and Adolescent Well-Care Visits (WCV)	49.47%
Oral Evaluation, Dental Services (OEV)	48.49%

**CY 2022 NC Medicaid Aggregate rate represents the performance of NC Medicaid beneficiaries but excludes limited benefit members. Please see appendix A "Partial Benefit Group Exclusions" section for more information*

See Appendix D for stratified results for all these measures.

Childhood Immunization Status — Combination 10 (CIS-10)

The *Childhood Immunization Status — Combination 10* (CIS-10) measure assesses the percentage of children two years of age who had four diphtheria, tetanus and acellular pertussis (DTaP); three polio (IPV); one measles, mumps and rubella (MMR); three haemophilus influenza type B (HiB); three hepatitis B (HepB), one chicken pox (VZV); four pneumococcal conjugate (PCV); one hepatitis A (HepA); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday.[58] Please note, this measure was not assessed for age disparities.

Childhood vaccines are crucial in protecting children from several serious and potentially life-threatening diseases, like measles, meningitis, polio, tetanus and whooping cough. These immunizations are given at a time when children are most vulnerable to disease and play a critical role in ensuring children receive necessary preventive care.[59] According to the CDC, vaccination coverage among young

[56] Bright Futures/American Academy of Pediatrics. Recommendations for Preventive Pediatric Health Care. Available at: https://downloads.aap.org/AAP/PDF/periodicity_schedule.pdf?_ga=2.113704965.304236808.1687819467-622056754.1553100444. Accessed on: Jun 28, 2023.

[57] Medicaid Delivery Reform and Value-Based Payment Update. (2022) North Carolina Department of Health and Human Services. Available here: https://medicaid.ncdhhs.gov/medicaid-delivery-reform-and-value-based-payment-update/download?attachment#:~:text=Maternal%20and%20Infant%20Health%20Reform,Carolina%2C%20most%20notably%20across%20race.

[58] Childhood Immunization Status (CIS) Combination 10. National Committee for Quality Assurance (NCQA). (2023). https://www.ncqa.org/hedis/measures/childhood-immunization-status/

[59] Centers for Disease Control and Prevention. Why Vaccinate. Available at: https://www.cdc.gov/vaccines/parents/why-vaccinate/index.html. Accessed on: Jun 28, 2023.

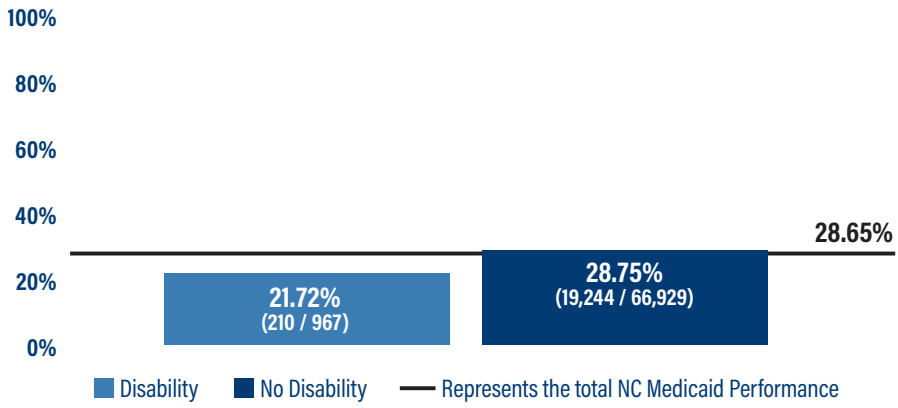
children has remained high and stable for most vaccines, although disparities persist. Coverage is lower among Black and Hispanic children, those of lower socioeconomic status and those living in rural areas.[60] These disparities have been linked to inadequate access to health care, lack of reliable transportation and childcare, knowledge around vaccines, and language and cultural barriers.[61]

Across the United States, early childhood vaccination coverage is low in rural areas. Parental hesitancy is a major barrier, and this hesitancy is often based on vaccine ingredients, safety, and knowledge around vaccine importance.[62]

For 2022, among children in NC Medicaid, no disparities were identified based on gender, primary language, American Indian/Alaskan Native binary race, or ethnicity for the *Childhood Immunization Status—Combination 10* (CIS–10) measure. However, disparities were identified based on LTSS needs status, disability status, geography and Black/African American binary race:

- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 24.47% (See Figure 11).
- Beneficiaries who identified as having LTSS needs fared worse than those who did not require LTSS, with a relative difference of 21.38% percent (See Figure 12).
- Beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 41.24% (See Figure 13).
- Beneficiaries who live in rural counties fared worse than those who live in urban counties, with a relative difference of 14.84% (See Figure 14).

FIGURE 11: Childhood Immunization Status (CIS) Combination 10, 2022 NC Medicaid Performance by Disability Status



[60] Hill HA, Chen M, Elam-Evans LD, Yankey D, Singleton JA. Vaccination Coverage by Age 24 Months Among Children Born During 2018–2019 — National Immunization Survey–Child, United States, 2019–2021. MMWR Morbidity Mortality Weekly Rep 2023; 72:33–38. DOI: http://dx.doi.org/10.15585/mmwr.mm7202a3.

[61] Kulkarni, A., Desai, R., Alcalá, H., & Balkrishnan, R. (2021). Persistent Disparities in Immunization Rates for the Seven-Vaccine Series Among Infants 19–35 Months in the United States. Health Equity, 5(1), 135-139. doi: 10.1089/heq.2020.0127. Retrieved from https://www.liebertpub.com/doi/pdf/10.1089/heq.2020.0127

[62] Albers AN, Thaker J, Newcomer SR. Barriers to and facilitators of early childhood immunization in rural areas of the United States: A systematic review of the literature. Prev Med Rep. 2022 Apr 25;27:101804. doi: 10.1016/j.pmedr.2022.101804. PMID: 35656229; PMCID: PMC9152779.

FIGURE 12: Childhood Immunization Status (CIS) Combination 10, 2022 NC Medicaid Performance by LTSS Needs Status

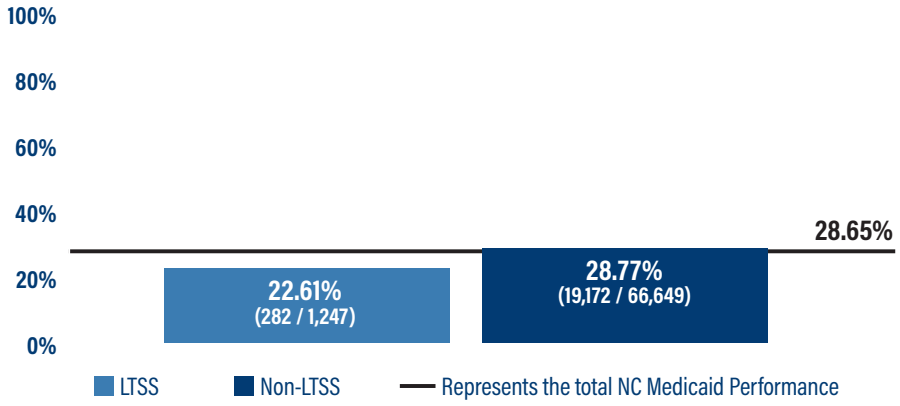


FIGURE 13: Childhood Immunization Status (CIS) Combination 10, 2022 NC Medicaid Performance by Black or African American Binary Race

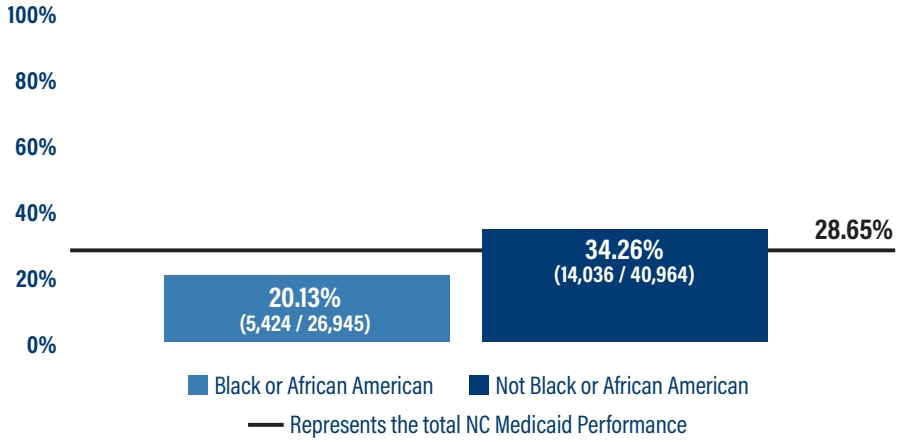
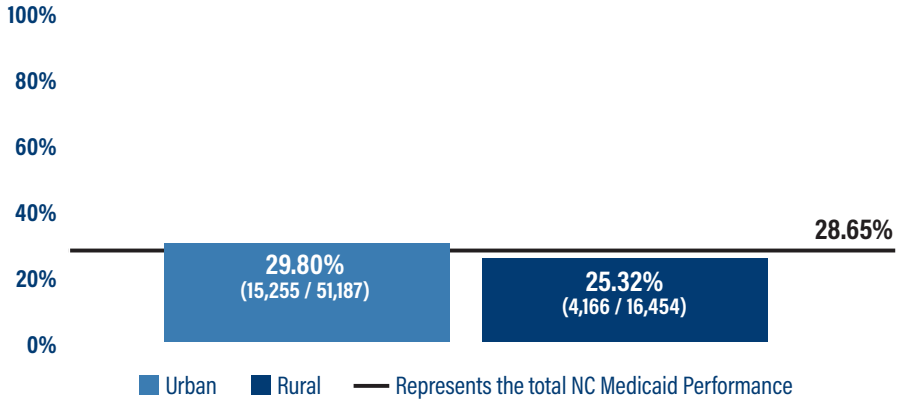


FIGURE 14: Childhood Immunization Status (CIS) Combination 10, 2022 NC Medicaid Performance by Geography



NC Medicaid Standard Plan Withhold Program

The Department will be withholding a percentage of capitation payments from Standard Plans in 2024 in order to incentivize increasing measure performance and promoting health equity. To earn back these withheld dollars, plans must meet quality performance targets. CIS, Combination 10 is one of the three selected withhold measures. Plans will be held accountable for overall CIS performance improvement, but also for priority population improvement. The priority population for this measure is Black or African American beneficiaries. To earn back the full amount of withheld funds for this measure, the Standard Plan must improve performance for their Black or African American population by a relative 10%. This is a critical opportunity to address known disparities in CIS performance. To learn more you can review the Withhold Program Guidance Document.

Immunizations for Adolescents — Combination 2 (IMA–2)

The *Immunizations for Adolescents — Combination 2 (IMA–2)* measure assesses the percentage of adolescents 13 years of age who had one dose of meningococcal vaccine; one Tdap vaccine; and have completed the HPV series by their 13th birthday.[63] Please note, this measure was not assessed for age disparities.

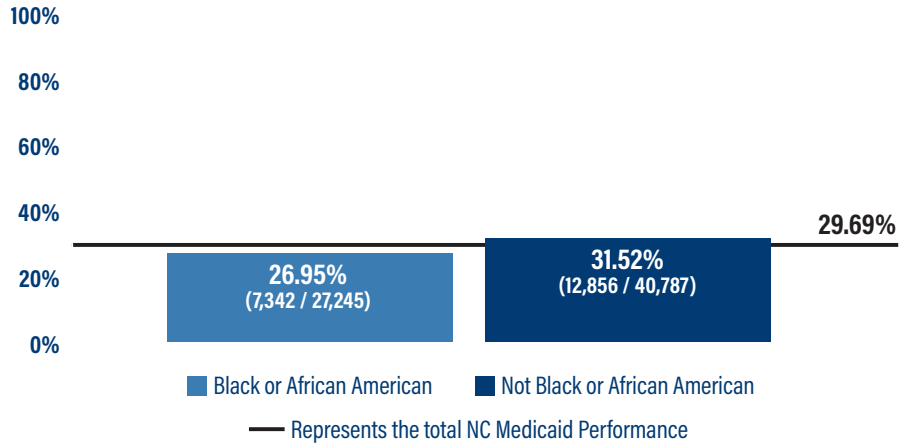
Vaccines are a safe and effective way to protect adolescents against potentially deadly diseases. The best defense against vaccine-preventable disease, including meningococcal meningitis, tetanus, diphtheria, pertussis (whooping cough), and HPV, is by receiving the recommended vaccinations.[69] These are serious diseases that can lead to breathing difficulties, heart problems, nerve damage, pneumonia, seizures, cancer and even death.[64] Nationally, adolescents have high rates of Tdap and meningococcal vaccination; however, rates for the HPV vaccination are much lower.[65] Despite overall progress in increasing vaccination coverage among adolescents, coverage disparities remain, particularly in areas with relatively high population density, also known as metropolitan statistical areas (MSAs). Receipt of the HPV vaccine was lower among adolescents living in non-MSAs than among adolescents living in MSAs.[66] Research on why children are unvaccinated has focused on vaccine hesitancy, the hesitancy to vaccinate despite availability, and under-vaccination, the lack of vaccination due to unavailability or inaccessibility of vaccines, often caused by resource deficits or structural disadvantage.[67, 68] A survey done in 2018, found that parental concerns around HPV vaccinations focused on safety worries, lack of necessity, knowledge about HPV and absence of physician recommendation.[69]

Among adolescents enrolled in NC Medicaid, no disparities were identified based on gender, geography, LTSS needs status, disability status, primary language, American Indian/Alaskan Native binary race, or ethnicity for the *Immunizations for Adolescents — Combination 2 (IMA–2)* measure. However, disparities were identified based on Black or African American binary race:

- Adolescent beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 14.51% (See Figure 15).

[63] Immunizations for Adolescents (IMA) Combination 2. National Committee for Quality Assurance (NCQA). (2023). https://www.ncqa.org/hedis/measures/immunizations-for-adolescents/
[64] National Foundation for Infectious Diseases. AdolescentVaccination.org. 2024. "10 Reasons to be Vaccinated." Available here: http://adolescentvaccination.org/10-reasons
[65] Immunizations for Adolescents (IMA) Combination 2. National Committee for Quality Assurance (NCQA). (2023). https://www.ncqa.org/hedis/measures/immunizations-for-adolescents/
[66] Pingali C, Yankey D, Elam-Evans LD, et al. National Vaccination Coverage Among Adolescents Aged 13–17 Years — National Immunization Survey-Teen, United States, 2021. MMWR MorbiED utidity Mortality Weekly Rep 2022; 71:1101–1108. DOI: http://dx.doi.org/10.15585/mmwr.mm7135a1
[67] MacDonald NE. Vaccine hesitancy: Definition, scope, and determinants. *Vaccine*. 2015. Aug 14;33(34):4161–4. doi: 10.1016/j.vaccine.2015.04.036
[68] Smith PJ, Chu SY, Barker LE. Children who have received no vaccines: Who are they and where do they live? *Pediatrics*. 2004. Jul 1;114(1):187–95. doi: 10.1542/peds.114.1.187
[69] Anna Beavis, Melinda Krakow, Kimberly Levinson, Anne F. Rositch, Reasons for Lack of HPV Vaccine Initiation in NIS-Teen Over Time: Shifting the Focus from Gender and Sexuality to Necessity and Safety, Journal of Adolescent Health, Volume 63, Issue 5, 2018, Pages 652-656, ISSN 1054-139X, https://doi.org/10.1016/j.jadohealth.2018.06.024.

FIGURE 15: Immunizations for Adolescents (IMA), Combination 2, 2022 NC Medicaid Performance by Black or African American Binary Race



Well-Child Visits in the First 30 Months of Life

The *Well-Child Visits in the First 30 Months of Life* measure has two sub measures:

1. *Well-Child Visits in the First 15 Months — Six or More Well-Child Visits* (W30–6+) measure assesses the percentage of beneficiaries who turned 15 months old during the measurement period and had six or more well-child visits with a PCP during the last 15 months.[70]
2. *Well-Child Visits in the First 30 Months of Life — Well-Child Visits for Age 15 Months to 30 Months — Two or More Well-Child Visits* (W30–2+) measure assesses the percentage of children who turned 30 months old during the measurement period and had two or more well-child visits.

Please note, this measure was not assessed for age disparities.

Well-child visits are essential for helping children stay healthy as these visits are used to track growth and developmental milestones, administer vaccinations to prevent illnesses and serve as an opportunity for parents/caretakers to discuss any concerns about their child's health.[71] Routine well-child visits ensure a collaborative partnership is formed between the pediatrician, parent and child.[72] Research has found that while well-child visit adherence has increased over the years, large racial and ethnic disparities remain.[73, 74] These disparities can, in part, be attributed to cultural barriers in seeking preventive care, the limitations that come with low socioeconomic status and limited access to care.[75]

[70] Well-Child Visits in the First 30 Months of Life (W30). National Committee for Quality Assurance (NCQA) (2023). https://www.ncqa.org/hedis/measures/child-and-adolescent-well-care-visits/

[71] Centers for Disease Control and Prevention. Vaccines for Your Children: Catch up on Well-Child Visits and Recommended Vaccinations. Available at: https://www.cdc.gov/vaccines/parents/visit/vaccination-during-COVID-19.html. Accessed on: Jun 28, 2023.

[72] American Academy of Pediatrics. Family Life: AAP Schedule of Well-Childcare Visits; 2022. Available at: https://www.healthychildren.org/English/family-life/health-management/Pages/Well-Child-Care-A-Check-Up-for-Success.aspx. Accessed on: Jun 28, 2023.

[73] Garg A, Wilkie T, LeBlanc A, Lyu R, Scornavacca T, Fowler J, Rhein L, Alper E. Prioritizing Child Health: Promoting Adherence to Well- Child Visits in an Urban, Safety-Net Health System During the COVID-19 Pandemic. Jt Comm J Qual Patient Saf. 2022 Apr;48(4):189-195. doi: 10.1016/j.jcjq.2022.01.008. Epub 2022 Jan 26. PMID: 35216919; PMCID: PMC8789396.

[74] Abdus S, Selden TM. Adherence with recommended well-child visits has grown, but large gaps persist among various socioeconomic groups. Health Aff (Millwood). 2013 Mar;32(3):508-15. doi: 10.1377/hlthaff.2012.0691. PMID: 23459729.

[75] Ronsaville DS, Hakim RB. Well childcare in the United States: racial differences in compliance with guidelines. Am J Public Health. 2000 Sep;90(9):1436-43. doi: 10.2105/ajph.90.9.1436. PMID: 10983203; PMCID: PMC1447611.

Among children in NC Medicaid, no disparities were identified based on gender, primary language, ethnicity, American Indian/Alaskan Native binary race, or geography for the *Well-Child Visits in the First 30 Months of Life — Well-Child Visits in the First 15 Months — Six or More Well-Child Visits* (W30–6+) measure. However, disparities were identified based on LTSS needs status, disability status and Black or African binary race.

- Child beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 66.49% (See Figure 16).
- Child beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 71.47% (See Figure 17).
- Child beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 12.16% (See Figure 18).

FIGURE 16: Well-Child Visits in the First 30 Months of Life (W30), First 15 Months, 2022 NC Medicaid Performance by Disability Status

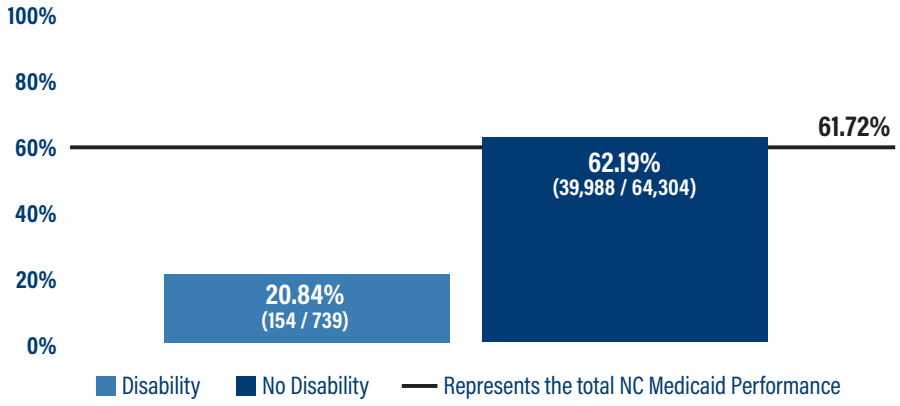


FIGURE 17: Well-Child Visits in the First 30 Months of Life (W30), First 15 Months, 2022 NC Medicaid Performance by LTSS Needs Status

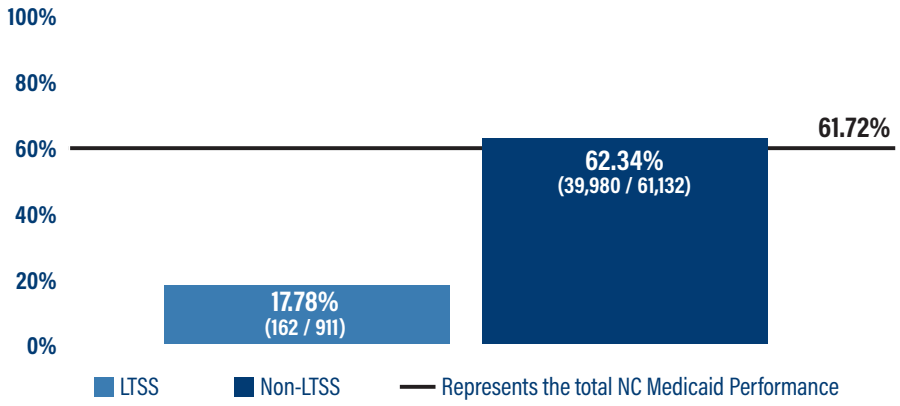
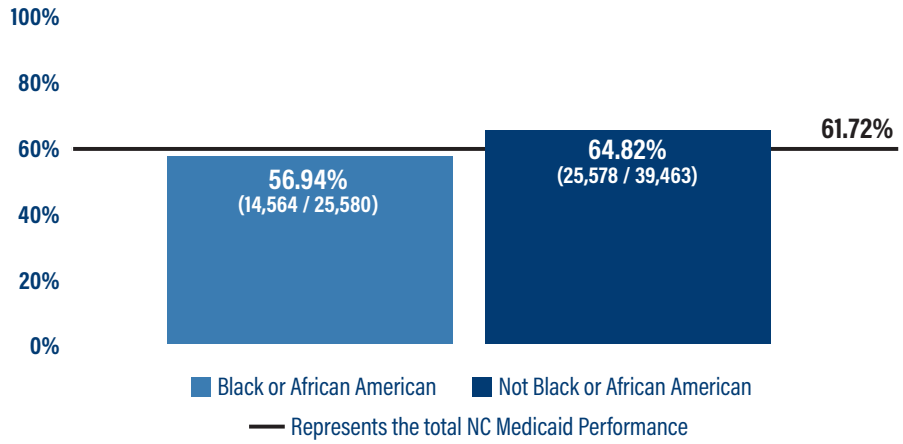


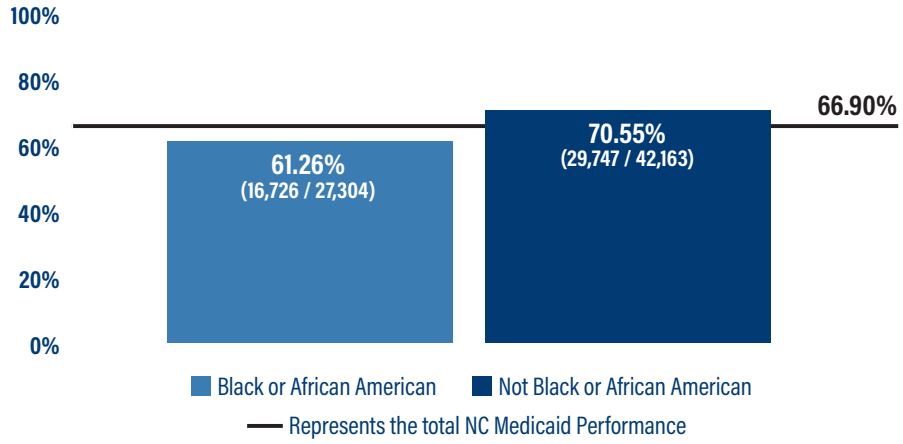
FIGURE 18: Well-Child Visits in the First 30 Months of Life (W30), First 15 Months, 2022 NC Medicaid Performance by Black or African American Binary Race



For the second sub measure, *Well-Child Visits in the First 30 Months of Life—Well-Child Visits for Age 15 Months to 30 Months—Two or More Well-Child Visits* (W30–2+) , no disparities were identified based on gender, LTSS needs status, disability status, geography, ethnicity, primary language, or American Indian/Alaskan Native binary race. However, disparities were identified based on Black or African American binary race:

- Child beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 13.17% (See Figure 19).

FIGURE 19: Well-Child Visits in the First 30 Months of Life (W30), 15-30 Months, 2022 NC Medicaid Performance by Black or African American Binary Race



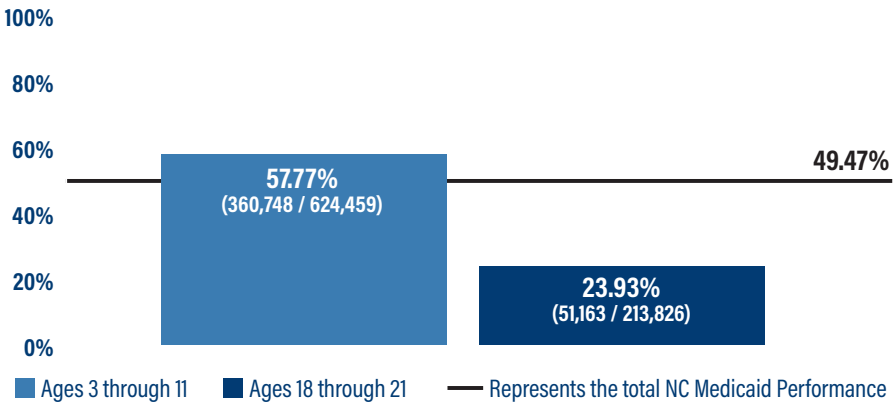
Child and Adolescent Well-Care Visits (WCV)

The Child and Adolescent Well-Care Visits (WCV) measures assesses the percentage of beneficiaries three to 21 years of age who had at least one comprehensive well-care visit with a primary care provider (PCP) or obstetrician/gynecologist (OB/GYN) during the measurement period.[76] According to the AAP and Bright Futures, it is important for children and adolescents to receive timely comprehensive assessments in order to monitor development, identify health problems early, and support parents and caretakers in making informed decisions about their child's health and well-being.[77] According to a 2022 study, the national rate of children receiving the recommended number of well-child visits has increased since 2007, but large gaps remain across race, ethnicity, poverty level, insurance and geography.[78] These disparities can, in part, be attributed to cultural barriers in seeking preventive care, limited maternal education and geographic access to care.[79]

Among children and adolescents enrolled in NC Medicaid, no disparities were identified based on binary race, ethnicity, gender, primary language, disability status, LTSS needs status, or geography for the WCV measure. However, disparities were identified based on age:

- Adolescents aged 18 through 21 fared worse than children aged 3 through 11, with relative difference of 58.58% (See Figure 20).
- Adolescents aged 18 through 21 fared worse than adolescents aged 12 through 17, with relative difference of 52.28% (See Figure 21).

FIGURE 20: Child and Adolescent Well-Care Visits (WCV), 2022 NC Medicaid Performance by Age Group



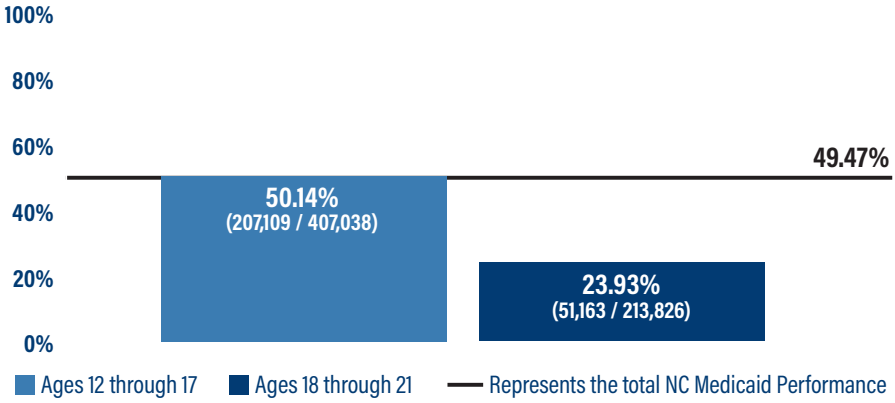
[76] Child and Adolescent Well-Care Visits (WCV). National Committee for Quality Assurance (NCQA) (2023). https://www.ncqa.org/hedis/measures/child-and-adolescent-well-care-visits/

[77] AAP and Bright Futures. *Recommendations for Preventive Pediatric Health Care.* 2022. Available at: https://downloads.aap.org/AAP/PDF/periodicity_schedule.pdf?_ga=2.154115824.997896208.1674250263-622056754.1553100444. Accessed on: Jun 28, 2023.

[78] Abdus S, Selden TM. Well-Child Visit Adherence. *JAMA Pediatr.* 2022;176(11):1143–1145. doi:10.1001/jamapediatrics.2022.2954

[79] Van Eck K, Thakkar M, Matson PA, Hao L, Marcell AV. Adolescents' Patterns of Well-Care Use Over Time: Who Stays Connected. Am J Prev Med. 2021 May;60(5):e221-e229. doi: 10.1016/j.amepre.2020.12.008. Epub 2021 Feb 27. PMID: 33648787; PMCID: PMC8068632.

FIGURE 21: Child and Adolescent Well-Care Visits (WCV), 2022 NC Medicaid Performance by Age Group



The NC Integrated Care for Kids Model (InCK)

The NC Integrated Care for Kids Model (InCK) is a health equity-driven, child-centered local service delivery and state payment model aimed at improving the quality of care and reducing expenditures for children insured by NC Medicaid in select North Carolina counties. NC InCK is working to integrate care for children across core child service areas to improve their well-being. In designing its care management services, the NC InCK team strived to design a family-led, strengths-based model that provides necessary, convenient care to children and families. To learn more, visit the InCK website.

Oral Evaluation, Dental Services (OEV-CH)

The *Oral Evaluation, Dental Services* measure assesses the percentage of children under age 21 who received a comprehensive or periodic oral evaluation within the reporting year.[80]

Dental health is an important part of people's overall health. CMS suggests that a child's first dental visit should take place within six months of when a baby's first tooth appears, with continued preventive dental care visits twice a year. States are required to provide dental benefits to children covered by Medicaid, however, availability and access to dental services can sometimes be a barrier. The CDC has reported disparities in oral health outcomes for certain populations, primarily due to social determinants of health, such as living in communities where they don't have access to fluoridated water, school sealant programs, or healthy food.[81]

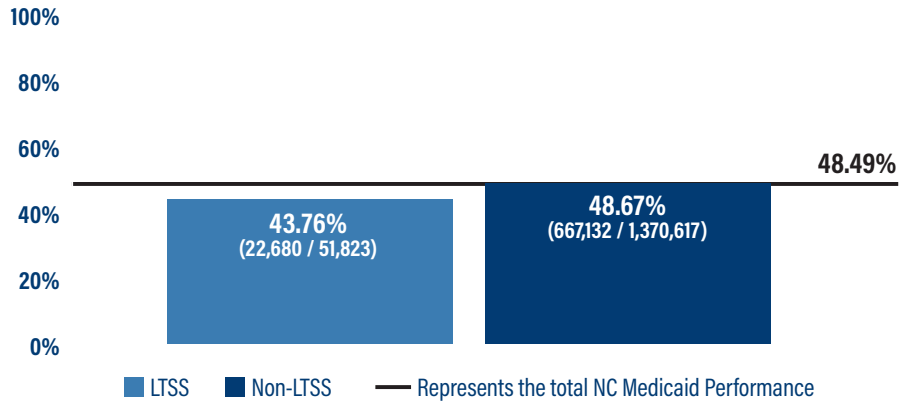
[80] Oral Evaluation, Dental Services (OEV-CH) Measure Summary (2024). Centers for Medicare and Medicaid Services (CMS). Available here: www.medicaid.gov/medicaid/quality-of-care/downloads/dentaloralhealth-ta-resource.pdf
[81] National Institute of Dental and Craniofacial Research. Oral Health in America: A Report of the Surgeon General. National Institutes of Health, US Department of Health, and Human Services; 2000.

Among children and adolescents in NC Medicaid, no disparities were identified based on ethnicity, gender, primary language, disability status, American Indian/ Alaskan Native binary race, or geography for the *Oral Evaluation* (OEV) measure. However, disparities were identified based on Black or African American binary race, LTSS needs status and age:

- Child beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 10.09% (See Figure 22).
- Child beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 12.45% (See Figure 23).
- Child beneficiaries who are 19 through 20 years old fared worse than those who are 10 through 11 years old, with a relative difference of 54.71% (See Figure 24).

Disparities in oral health exist among many groups of US children and adults.[82] About 28% of non-Hispanic Black children (aged 2 to 5) have had cavities in their primary teeth, compared with 18% of non-Hispanic white children.[83] These disparities can be explained, at least in part, by the lack of dental insurance, low dentist to population ratio in communities that have been systemically discriminated against and the lack of diversity in the dental profession. Research has also found that racism can affect access to oral health and clinical decision making.[84]

FIGURE 22: Oral Evaluation (OEV), Total Rate, 2022 NC Medicaid Performance by LTSS Needs Status



[82] CDC. Health Disparities in Oral Health. Accessed on 6/3/2024. Available here: https://www.cdc.gov/oral-health/health-equity/index.html
[83] Centers for Disease Control and Prevention. Oral Health Surveillance Report: trends in dental caries and sealants, tooth retention, and edentulism, United States, 1999–2004 to 2011–2016. US Dept of Health and Human Services; 2019. Accessed June 3, 2024.
[84] Borrell LN, Williams DR. Racism and oral health equity in the United States: Identifying its effects and providing future directions. J Public Health Dent. 2022 Mar;82 Suppl 1(Suppl 1):8-11. doi: 10.1111/jphd.12501. Epub 2022 Jan 27. PMID: 35088413; PMCID: PMC9541355.

FIGURE 23: Oral Evaluation (OEV), Total Rate, 2022 NC Medicaid Performance by Black or African American Binary Race

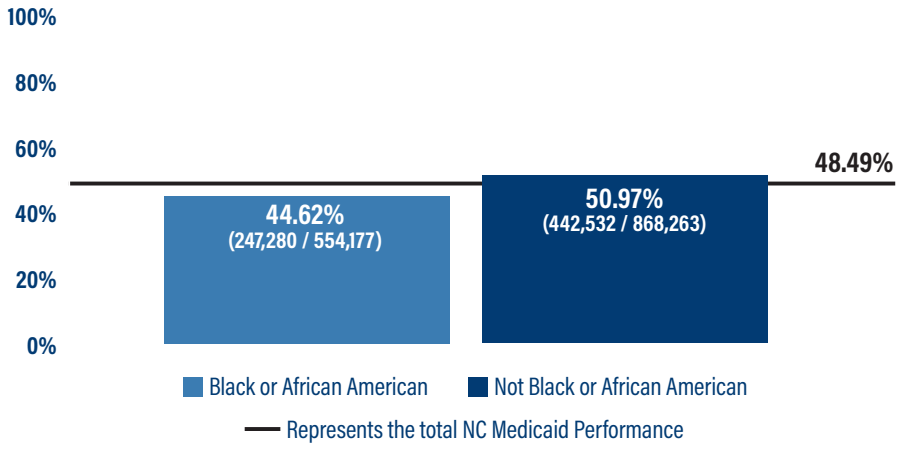
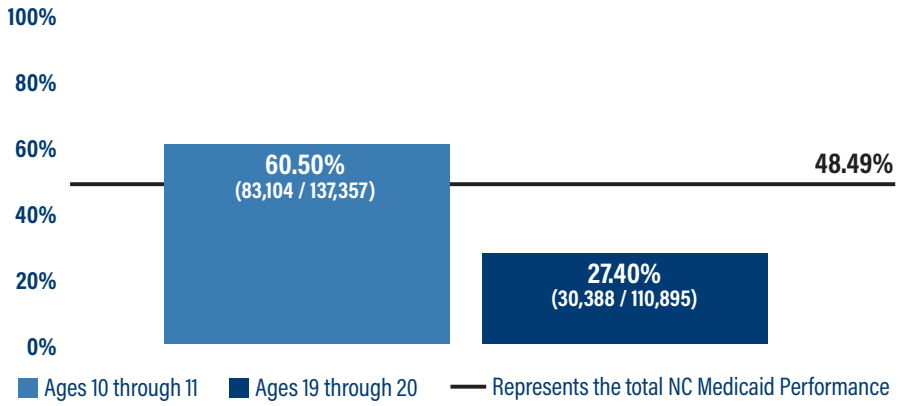


FIGURE 24: Oral Evaluation (OEV), Total Rate, 2022 NC Medicaid Performance by Age Group



Women's Health Domain Findings

The Women's Health domain includes three measures related to important female screenings, and two measures related to prenatal and postpartum care. Individuals who identified as female make up roughly 57% of the total NC Medicaid enrolled population, and NC Medicaid focuses on this important population through a variety of programs and policies, some of which are listed in this section.

Table 11 displays the statewide aggregates for the measures included in the Women's Health domain.

TABLE 11: Women's Health Domain NC Medicaid Aggregates

Women's Health Domain Findings	CY 2022 NC Medicaid Aggregate*
Breast Cancer Screening (BCS)	46.36%
Cervical Cancer Screening (CCS)	50.80%
Chlamydia Screening in Women (CHL) (total)	57.07%
Prenatal and Postpartum Care (PPC) —- Timeliness of Prenatal Care	41.91%
Prenatal and Postpartum Care (PPC) — Postpartum Care	60.86%

**CY 2022 NC Medicaid Aggregate rate represents the performance of NC Medicaid beneficiaries but excludes limited benefit members. Please see appendix A "Partial Benefit Group Exclusions" section for more information*

CMS Maternal Health Factsheet

More than one out of every four Medicaid and Children's Health Insurance Program (CHIP) beneficiaries are females in their reproductive years (ages 15 through 49), and Medicaid finances about 41% of all births in the United States. This CMS infographic provides an overview of the demographics, access to care, health status, health outcomes, risk factors, and health care utilization among beneficiaries seeking pregnancy-related care and those with a recent live birth.

NC Medicaid did not identify any disparities for the Breast Cancer Screening (BCS) measure. See Appendix D for stratified results for all these measures.

Cervical Cancer Screening (CCS)

The *Cervical Cancer Screening* (CCS) measure assesses the percentage of beneficiaries 21 to 64 years of age who were recommended for routine cervical cancer screening and were screened for cervical cancer using any of the following criteria:

- Beneficiaries 21 to 64 years of age, who were recommended for routine cervical cancer screening and had cervical cytology performed within the last three years.
- Beneficiaries 30 to 64 years of age, who were recommended for routine cervical cancer screening and had cervical high-risk human papillomavirus (hrHPV) testing within the last five years.
- Beneficiaries 30 to 64 years of age, who were recommended for routine cervical cancer screening and had cervical cytology/hrHPV co-testing within the last five years.[85]

[85] Cervical Cancer Screening (CCS). National Committee on Quality Assurance (NCQA). (2023). https://www.ncqa.org/hedis/measures/cervical-cancer-screening/

While cervical cancer is one of the most common causes of cancer-related death for American women, effective screening and early detection of precancerous cervical cells have led to a significant reduction in this death rate.[86, 87] UPSTF recommends screening for chlamydia in sexually active women 24 years of age and younger or 25 years of age or older and at increased risk of infection.[88] Under-screened women are more likely to be diagnosed with invasive cervical cancer at later stages and have worse survival outcomes. Under- or un-insured women, low-income women, and minoritized groups face barriers to screening, including lack of insurance and cost.[89] Access to reliable transportation, knowledge of affordable clinics, adequate health literacy and trust in a patient's health care provider can all impact whether someone gets screened or not.[90]

Among those who identify as women in NC Medicaid, no disparities were identified based on ethnicity, primary language, American Indian/Alaskan Native or Black or African American binary race, ethnicity, or geography for the CCS measure. However, disparities were identified based on LTSS needs status and disability status:

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 18.66% (See Figure 25).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 12.40% (See Figure 26).

FIGURE 25: Cervical Cancer Screening (CCS), 2022 NC Medicaid Performance by LTSS Needs Status

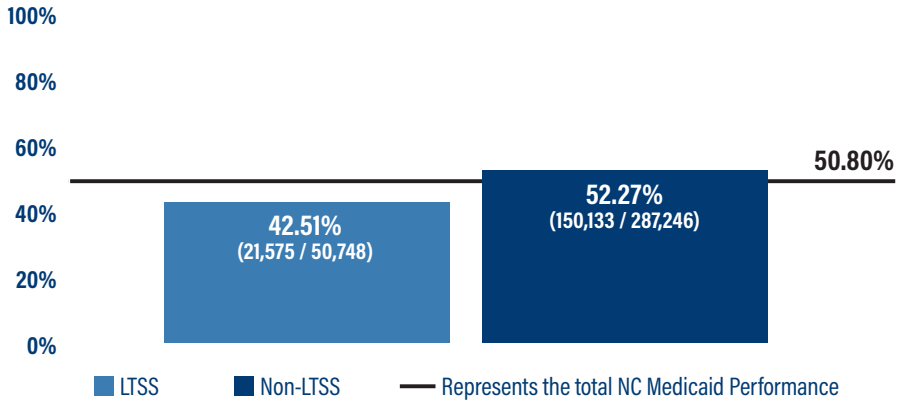
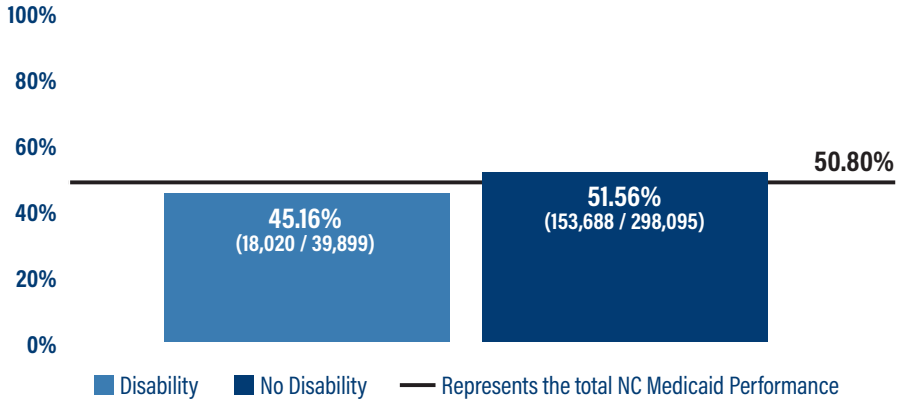


FIGURE 26: Cervical Cancer Screening (CCS), 2022 NC Medicaid Performance by Disability Status



[86] The National Committee for Quality Assurance. Cervical Cancer Screening (CCS). Available at: https://www.ncqa.org/hedis/measures/cervical-cancer-screening. Accessed on: Jun 28, 2023.
[87] National Cancer Institute. Cervical Cancer Screening. Cervical Cancer. 2022. Available at: https://www.cancer.gov/types/cervical/screening. Accessed on: Jun 28, 2023.
[88] United States Preventive Services Task Force. Chlamydia and Gonorrhea: Screening. Available at: https://www.uspreventiveservicestaskforce.org/uspstf/document/final-evidence-summary/chlamydia-and-gonorrhea-screening. Accessed on: Jun 28, 2023.
[89] Zeno EE, Brewer NT, Spees LP, Des Marais AC, Sanusi BO, Hudgens MG, Jackson S, Barclay L, Wheeler SB, Smith JS. Racial and ethnic differences in cervical cancer screening barriers and intentions: The My Body My Test-3 HPV self-collection trial among under-screened, low-income women. PLoS One. 2022 Oct 13;17(10):e0274974. doi: 10.1371/journal.pone.0274974. PMID: 36227948; PMCID: PMC9562154.
[90] Dr. Cardenas-Trowers. The Link Between Racial Disparities and Cervical Cancer. (2022). The Mayo Clinic. Q&A Podcast. https://newsnetwork.mayoclinic.org/discussion/mayo-clinic-qa-podcast-the-link-between-racial-disparities-and-cervical-cancer/

Chlamydia Screening in Women (CHL)

The Chlamydia Screening in Women (CHL) measure assesses the percentage of women 16 to 24 years of age who were identified as sexually active and had at least one test for chlamydia during the measurement year.[91]

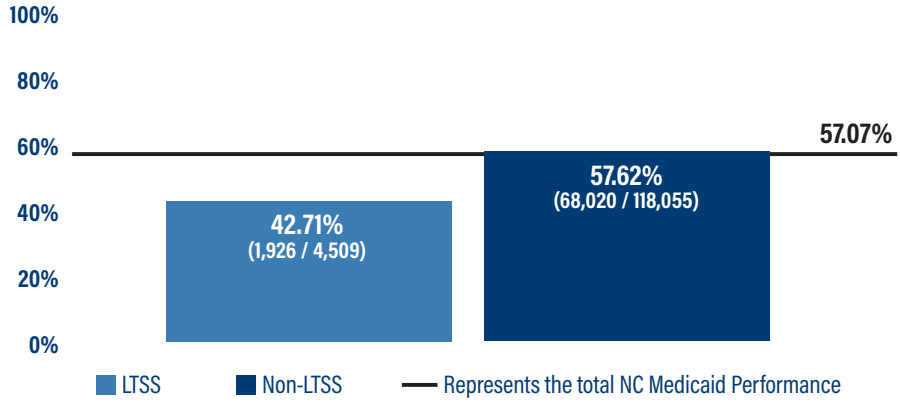
Chlamydia is the most frequently reported bacterial sexually transmitted infection (STI) in the United States.[92] It is prevalent among adolescent and young females, with almost two-thirds of all reported infections occurring among people 15 to 24 years of age. If left untreated, chlamydia can lead to severe and permanent complications including pelvic inflammatory disease and infertility.[93] Chlamydia screening remains an underused preventive health service for young women of all racial and ethnic groups. Black or African American women tend to have higher rates of chlamydia testing than people in other racial/ethnic groups.[94] Research has found that racial bias may play a part in screening practices.[95] These screenings should be informed by people's risk for contracting STIs, rather than demographic characteristics.

Among those who identify as women in NC Medicaid, no disparities were identified based on ethnicity, primary language, American Indian/Alaskan Native or Black and African American binary race, or geography for the CHL measure. However, disparities were identified based on LTSS needs status, disability status and age:

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 25.86% (See Figure 27).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 31.29% (See Figure 28).
- Beneficiaries who are aged 16 through 20 years old fared worse than those ages 21 through 24, with a relative difference of 14.68% (See Figure 29).

Women ages 21 through 24 having higher screening rates could be due, in part, to their higher rates of reported chlamydia. In 2022, women aged 20 through 24 had a higher rate of reported cases of chlamydia (3,532.3 per 100,000) than women aged 15 through 19 (2,652.3 per 100,000).[96]

FIGURE 27: Chlamydia Screening in Women (CHL), 2022 NC Medicaid Performance by LTSS Needs Status



[91] Chlamydia Screening in Women (CHL). National Committee for Quality Assurance (NCQA). (2023). https://www.ncqa.org/hedis/measures/chlamydia-screening-in-women/
[92] CDC. Sexually Transmitted Disease Surveillance, 2021. Atlanta, GA: Department of Health and Human Services; April 2023.
[93] United States Preventive Services Task Force. Chlamydia and Gonorrhea: Screening. Available at: https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/chlamydia-and-gonorrhea-screening#bootstrap-panel--4. Accessed on: Jun 28, 2023.
[94] Patel CG, Chesson HW, Tao G. Racial Differences in Receipt of Chlamydia Testing Among Medicaid-Insured Women in 2013. Sex Transm Dis. 2016 Mar;43(3):147-51. doi: 10.1097/OLQ.0000000000000405. PMID: 26859801; PMCID: PMC6784822.
[95] Wood S, Min J, Tam V, Pickel J, Petsis D, Campbell K. Inequities in Chlamydia trachomatis Screening Between Black and White Adolescents in a Large Pediatric Primary Care Network, 2015-2019. Am J Public Health. 2022 Jan;112(1):135-143. doi: 10.2105/AJPH.2021.306498. PMID: 34936422; PMCID: PMC8713640.
[96] Centers for Disease Control and Prevention (CDC). Chlamydia-Rates of Reported Cases by Age Group and Sex, United States, 2022. https://www.cdc.gov/std/statistics/2022/overview.htm

FIGURE 28: Chlamydia Screening in Women (CHL), 2022 NC Medicaid Performance by Disability Status

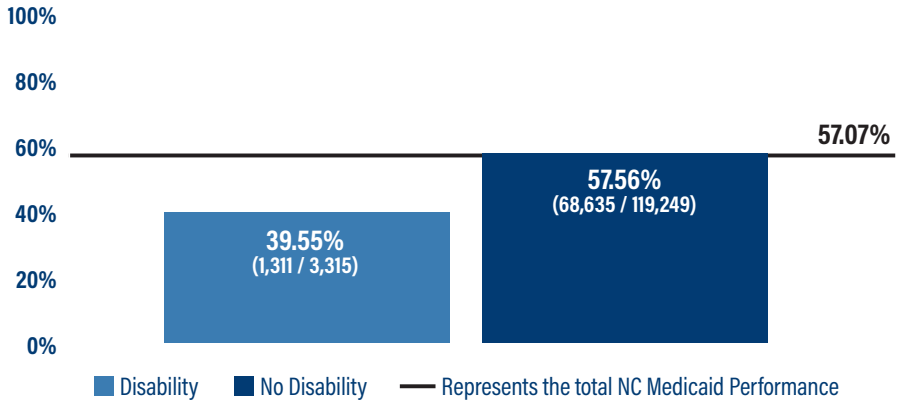
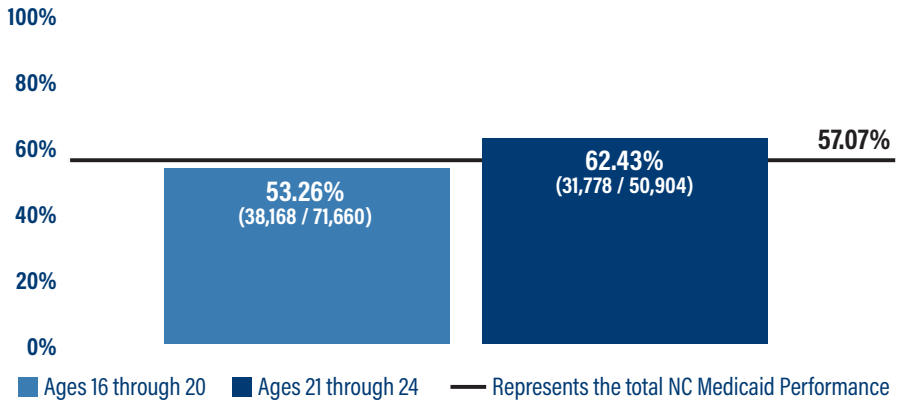


FIGURE 29: Chlamydia Screening in Women (CHL), 2022 NC Medicaid Performance by Age Group



Prenatal and Postpartum Care (PPC)

The Prenatal and Postpartum Care (PPC) measure has two sub measures, which assess:

- Timeliness of Prenatal Care: The percentage of deliveries in which women had a prenatal care visit in the first trimester, on or before enrollment start date or within 42 days of enrollment in the organization.
- Postpartum Care: The percentage of deliveries in which women had a postpartum visit on or between seven and 84 days after delivery.[97]

In 2022, around 3.6 million women in the U.S. gave birth. Of these women, around 800 died of pregnancy-related causes, with many more experiencing one or more complications during pregnancy, labor and delivery or the postpartum period.[98] These outcomes are not evenly distributed; American Indian, Alaskan Native and Black women are two to three times more likely to die of pregnancy-related causes than white women.[99] Structural racism and implicit bias can play a role in these disparities, as well as access to care and economic inequities.[100, 101] Studies indicate that around 80% of all pregnancy-

[97] Prenatal and Postpartum Care (PCC). National Committee for Quality Assurance (NCQA). (2023). https://www.ncqa.org/hedis/measures/prenatal-and-postpartum-care-ppc/
[98] Hamilton, Grady Ph.D. Martin, Joyce MPH. Osterman, Michelle MHS. Births: Provisional Data for 2022. (2023). Vital Statistics Rapid Release. Report No. 28. CDC. https://www.cdc.gov/nchs/data/vsrr/vsrr028.pdf
[99] Pregnancy Related Deaths in the United States. (2022). Centers for Disease Control and Prevention. Retrieved from https://www.cdc.gov/hearher/pregnancy-related-deaths/index.html
[100] Barfield,Wanda MD, MPH. Addressing Health Inequities Among Pregnant People. (2022). Hear Her Campaign. CDC. https://www.cdc.gov/hearher/resources/news-media/addressing-health-inequities.html#:~:text=American%20Indian%2FAlaska%20Native%2C%20and,a%20role%20in%20the%20disparity .
[101] Hill, Latoya. Artiga, Samantha. Ranji, Usha. Racial Disparities in Maternal and Infant Health: Current Status and Efforts to Address Them. (2022). KFF. https://www.kff.org/racial-equity-and-health-policy/issue-brief/racial-disparities-in-maternal-and-infant-health-current-status-and-efforts-to-address-them/#:~:text=Maternal%20and%20infant%20health%20disparities,outcomes%20for%20people%20of%20color.

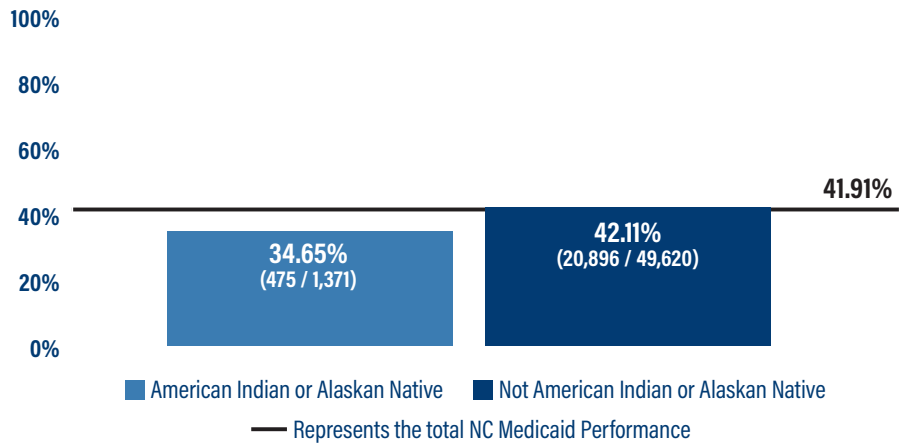
related deaths could be prevented if birthing people had better access to health care, received better quality of care and made changes in their health and lifestyle habits.[102]

Among birthing people in NC Medicaid, no disparities were identified based on LTSS needs status, primary language, ethnicity, geography, Black or African American binary race, or age for both sub measures of the PPC measure. However, disparities were identified based on American Indian/ Alaskan Native binary race for the prenatal sub measure, and American Indian/Alaskan Native binary race and disability status for the postpartum sub measure.

- Beneficiaries who identified as American Indian and Alaskan Native fared worse in prenatal care than those who did not, with a relative difference of 17.72% (See Figure 30).
- Beneficiaries who identified as American Indian and Alaskan Native fared worse in postpartum care than those who did not, with a relative difference of 12.33% (See Figure 31).
- Beneficiaries who identified as having a disability fared worse in postpartum care than those who did not, with a relative difference of 11.87% (See Figure 32).

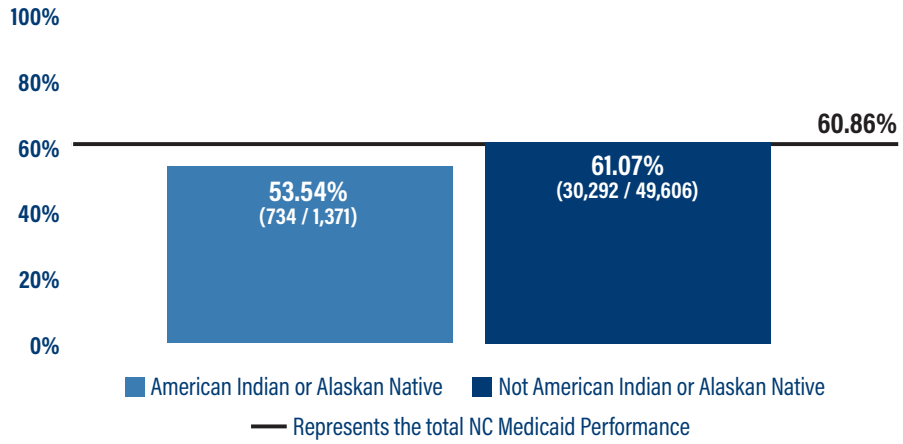
Birthing people with disabilities, particularly those with I/DD, are less likely to have a postpartum check-up and are at increased risk for postpartum depression.[103, 104] These trends highlight a need for clinicians, who treat pregnant women with disabilities, to be aware of the increased risk and to be intentional about high quality care for this population.

FIGURE 30: Prenatal and Postpartum Care (PPC), Timeliness of Prenatal Care, 2022 NC Medicaid Performance by American Indian/Alaskan Native Binary Race



[102] Four in 5 pregnancy-related deaths in the U.S. are preventable. (2022). Centers for Disease Control and Prevention. Retrieved from https://www.cdc.gov/media/releases/2022/p0919-pregnancy-related-deaths.html
[103] Mitra, M., Clements, K. M., Zhang, J., Iezzoni, L. I., Smeltzer, S. C., & Long-Bellil, L. M. (2015). Maternal characteristics, pregnancy complications, and adverse birth outcomes among women with disabilities. Medical Care, 53(12), 1027–1032.
[104] Alhusen, J. L., Hughes, R. B., Lyons, G., & Laughon, K. (2022). Depressive symptoms during the perinatal period by disability status: Findings from the United States pregnancy risk assessment monitoring system. Journal of Advanced Nursing., 79, 223–233

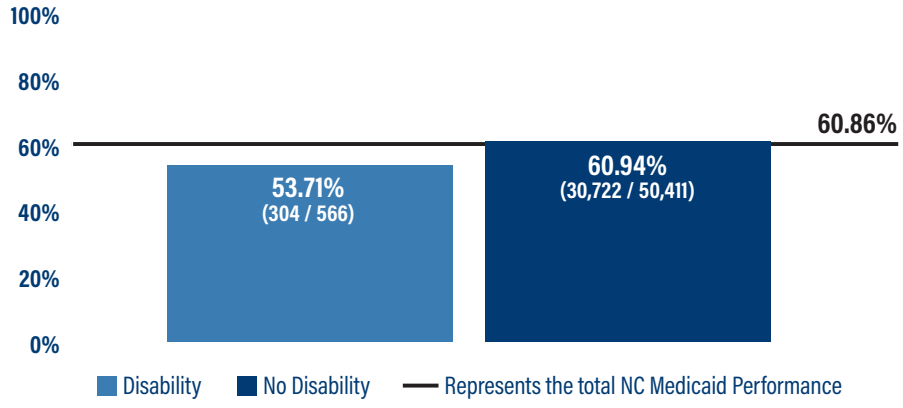
FIGURE 31: Prenatal and Postpartum Care (PPC), Postpartum Care, 2022 NC Medicaid Performance by American Indian/Alaskan Native Binary Race



Extension of Postpartum Coverage

NC Medicaid postpartum health care coverage increased from 60 days to 12 months for eligible beneficiaries in North Carolina on April 1, 2022. The benefit will provide 12 months of continuous postpartum coverage to eligible beneficiaries. This policy is designed to promote continuity of coverage during the period of elevated health risk that follows childbirth by ensuring beneficiaries receive 12 months of ongoing health care coverage beginning the date their pregnancy ends. Learn more by reading the NC Medicaid Provider bulletin.

FIGURE 32: PPC, Postpartum Care, 2022 NC Medicaid Performance by Disability Status



Mental Health Domain Findings

The Mental Health domain includes two measures related to follow-up visits for mental illness and two measures related to care for beneficiaries using antipsychotics. Ensuring beneficiaries receive timely follow-up care following ED visits or hospitalizations for mental illness allows providers to reassess treatment plans and medications, and connect beneficiaries with additional services, which may help prevent subsequent ED visits or hospitalizations.[105]

In the United States, people from racial, ethnic, gender, and sexual minoritized groups often suffer from worse mental health outcomes due to multiple factors including cultural stigma surrounding mental health care, discrimination, access to care and the impacts of low socioeconomic status.[106] In 2021, 20% of adults in the United States and 19% of adults in North Carolina had a diagnosed mental health condition.[107] Medicaid enrollees have a higher overall prevalence of moderate to severe mental illness or substance use disorders compared to the general population. As of 2020, an estimated 29% of Medicaid enrollees have a mental illness, relative to 21% of privately insured and 20% of uninsured people.[108]

Table 12 displays the statewide aggregates for the measures included in the Mental Health domain.

TABLE 12: Mental Health Domain NC Medicaid Aggregates

Mental Health Domain Measures	CY 2022 NC Medicaid Aggregate* Performance
Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA)	64.63%
Follow-Up After Hospitalization for Mental Illness 7-Day Follow-Up (FUH-7)	24.55%
Follow-Up After Hospitalization for Mental Illness 30-Day Follow-Up (FUH-30)	42.65%
Follow-Up After ED Visit for Mental Illness 7-Day Follow-Up (FUM-7)	42.64%
Follow-Up After ED Visit for Mental Illness 30-Day Follow-Up (FUM-30)	58.80%
Use of First Line Psychosocial Care for Children and Adolescents on Antipsychotics (APP)	44.23%

**CY 2022 NC Medicaid Aggregate rate represents the performance of NC Medicaid beneficiaries but excludes limited benefit members. Please see appendix A "Partial Benefit Group Exclusions" section for more information.*

See Appendix D for stratified results for all these measures.

[105] Beadles CA, Ellis AR, Lichstein JC, et al. First Outpatient Follow-Up After Psychiatric Hospitalization: Does One Size Fit All? Psychiatric Services. 2015; 66(4):364-372. Available at: https://ps.psychiatryonline.org/doi/10.1176/appi.ps.201400081. Accessed on: Jun 28, 2023.
[106] Mental health disparities: Diverse Populations. American Psychiatric Association. https://www.psychiatry.org/psychiatrists/diversity/education/mental-health-facts
[107] Adult Prevalence of Mental Illness (AMI). (2022). Mental Health America (MHA). https://mhanational.org/issues/2022/mental-health-america-adult-data#:~:text=Adult%20Prevalence%20of%20Mental%20Illness%20(AMI)%202022&text=19.86%25%20of%20adults%20are%20experiencing,experiencing%20a%20severe%20mental%20illness.
[108] Saunders, H., & Rudowitz, R. (2022, June 6). Demographics and health insurance coverage of nonelderly adults with mental illness and substance use disorders in 2020. KFF. https://www.kff.org/medicaid/issue-brief/demographics-and-health-insurance-coverage-of-nonelderly-adults-with-mental-illness-and-substance-use-disorders-in-2020

Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA)

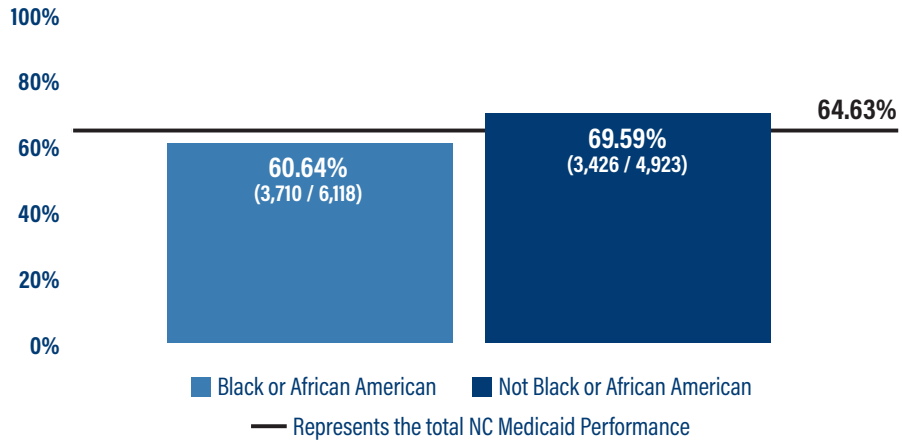
The Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA) measure assesses adults 18 years of age and older who have schizophrenia or schizoaffective disorder who were dispensed and remained on an antipsychotic medication for at least 80% of their treatment period.[109]

Antipsychotic medications have been effective at alleviating symptoms, preventing relapse, and improving life expectancy for those with schizophrenia; however, lack of medication adherence can cause many challenges.[110] Schizophrenia is a chronic and disabling psychiatric disorder that requires ongoing treatment and monitoring.[111] Antipsychotic medications have been effective at alleviating symptoms, preventing relapse and improving life expectancy for those with schizophrenia.[112] Medication non-adherence is common and a major concern in the treatment of schizophrenia. A study that looked at trends in Medicaid spending for patients diagnosed with schizophrenia found that individuals who identified as Black or African American and Hispanic or Latino experience health care disparities related to spending on psychotropic drugs, such as antipsychotics.[113]

Among beneficiaries in NC Medicaid, disparities were not identified based on gender, primary language, ethnicity, LTSS needs, disability status, American Indian/Alaskan Native binary race, age, or geography. However, disparities were identified based on Black or African American binary race for the *Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA)* measure:

- Beneficiaries who identified as Black and African American fared worse than those who do not, with a relative difference of 12.86% (See Figure 33).

FIGURE 33: Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA), 2022 NC Medicaid Performance by Black or African American Binary Race



[109] Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA). National Committee for Quality Assurance (NCQA). (2023). https://www.ncqa.org/hedis/measures/adherence-to-antipsychotic-medications-for-individuals-with-schizophrenia/

[110] Guo J, Lv X, Liu Y, et al. Influencing factors of medication adherence in schizophrenic patients: a meta-analysis. Schizophrenia. 2023. 9(31). Available at: https://www.nature.com/articles/s41537-023-00356-x. Accessed on: Jun 28, 2023.

[111] Mayo Clinic. Schizophrenia. Available at: https://www.mayoclinic.org/diseases-conditions/schizophrenia/diagnosis-treatment/drc-20354449. Accessed on: Jun 28, 2023.

[112] Guo J, Lv X, Liu Y, et al. Influencing factors of medication adherence in schizophrenic patients: a meta-analysis. Schizophrenia. 2023. 9(31). Available at: https://www.nature.com/articles/s41537-023-00356-x. Accessed on: Jun 28, 2023.

[113] Horvitz-Lennon M, McGuire TG, Alegria M, Frank RG. Racial and ethnic disparities in the treatment of a Medicaid population with schizophrenia. Health Serv Res. 2009 Dec;44(6):2106-22. doi: 10.1111/j.1475-6773.2009.01041.x. Epub 2009 Sep 24. PMID: 19780855; PMCID: PMC2796317.

Follow-Up After Hospitalization for Mental Illness (FUH)

The *Follow-Up After Hospitalization for Mental Illness* has two sub-measures:

1. *7-Day Follow-Up* (FUH–7) measure assesses the percentage of discharges for beneficiaries six years of age and older who were hospitalized for treatment of select mental illness or intentional self-harm diagnoses and who had a follow-up visit with a mental health provider within seven days of discharge.
2. *30-Day Follow-Up* (FUH–30) measure assesses the percentage of discharges for beneficiaries six years of age and older who were hospitalized for treatment of select mental illness or intentional self-harm diagnoses and who had a follow-up visit with a mental health provider within 30 days after discharge.[114]

When patients are hospitalized for mental health disorders, they often do not receive sufficient follow-up care. Providing follow-up care after psychiatric hospitalization can result in positive patient outcomes, lessen the likelihood of re-hospitalization and reduce the overall cost of outpatient care.[115] In North Carolina, along with the rest of the country, members of communities that have been historically marginalized face barriers in access to mental health care due to discrimination, cost, and mistrust in the mental health care system.[116]

Among beneficiaries in NC Medicaid, disparities were not identified based on gender, primary language, ethnicity, or geography. However, disparities were identified based on Black and American Indian/Alaskan Native binary race, LTSS needs status, disability status, and age for the *Follow-Up After Hospitalization for Mental Illness — 7-Day Follow-Up* (FUH–7) measure:

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 29.43% (See Figure 34).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 26.77% (See Figure 35).
- Beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 20.71% (See Figure 36).
- Beneficiaries who identified as American Indian and Alaskan Native fared worse than those who did not, with a relative difference of 23.77% (See Figure 37).
- Beneficiaries who are aged 18 through 64 years fared worse than those aged 6 through 17, with a relative difference of 39.99% (See Figure 38).

Gaps in the continuum of psychiatric care have led to many individuals not receiving proper follow-up care. One study found that Individuals who identified as Black or African American were less likely than those who identified as white to receive any treatment or begin adequate follow-up within 30-days of discharge.[122] Culturally appropriate interventions and more focus on continuity of care will be important in reducing racial-ethnic disparities in outpatient mental health treatment.

[114] Follow-Up After Hospitalization for Mental Illness (FUH). National Committee for Quality Assurance (NCQA). (2023). https://www.ncqa.org/hedis/measures/follow-up-after-hospitalization-for-mental-illness/

[115] The National Committee for Quality Assurance. Follow-Up After Hospitalization for Mental Illness (FUH). Available at: https://www.ncqa.org/hedis/measures/follow-up-after-hospitalization-for-mental-illness. Accessed on: Jun 28, 2023.

[116] Zabelski, S., Hollander, M. & Alexander, A. Addressing Inequities in Access to Mental Healthcare: A Policy Analysis of Community Mental Health Systems Serving Minoritized Populations in North Carolina. *Adm Policy Ment Health* (2024). https://doi.org/10.1007/s10488-024-01344-8

[117] Carson NJ, Vesper A, Chen CN, Lê Cook B. Quality of follow-up after hospitalization for mental illness among patients from racial-ethnic minority groups. Psychiatr Serv. 2014 Jul;65(7):888-96. doi: 10.1176/appi.ps.201300139. PMID: 24686538; PMCID: PMC4182296.

FIGURE 34: Follow-Up After Hospitalization for Mental Illness (FUH), 7-Day Follow-Up, 2022 NC Medicaid Performance by LTSS Needs Status

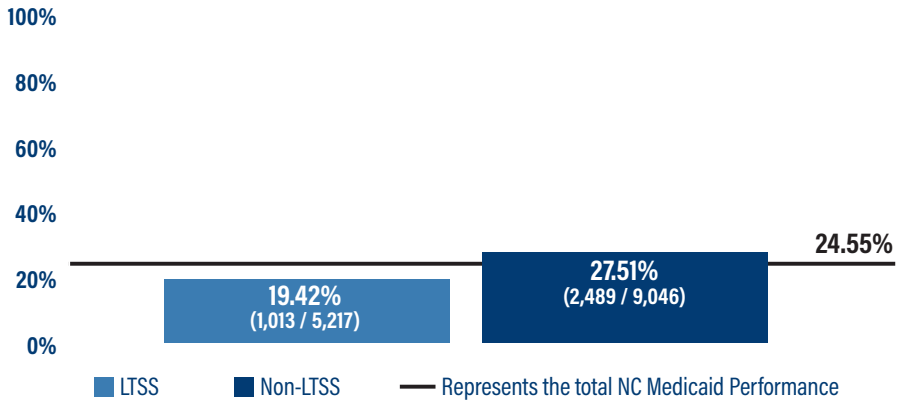


FIGURE 35: Follow-Up After Hospitalization for Mental Illness (FUH), 7-Day Follow-Up, 2022 NC Medicaid Performance by Disability Status

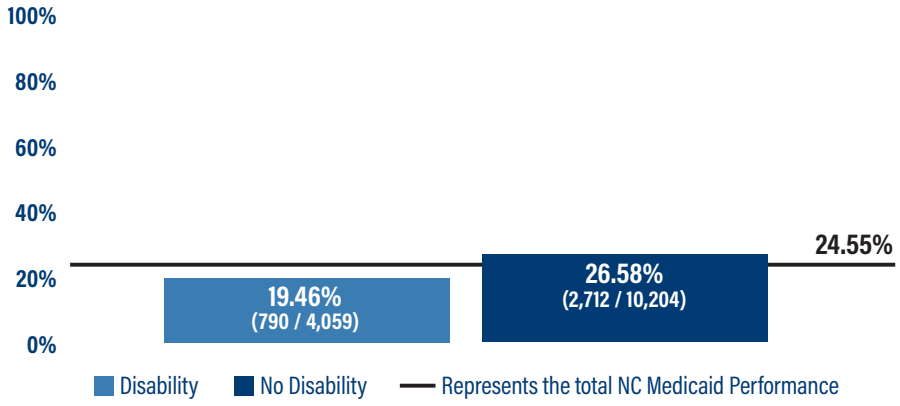


FIGURE 36: Follow-Up After Hospitalization for Mental Illness (FUH), 7-Day Follow-Up, 2022 NC Medicaid Performance by Black or African American Binary Race

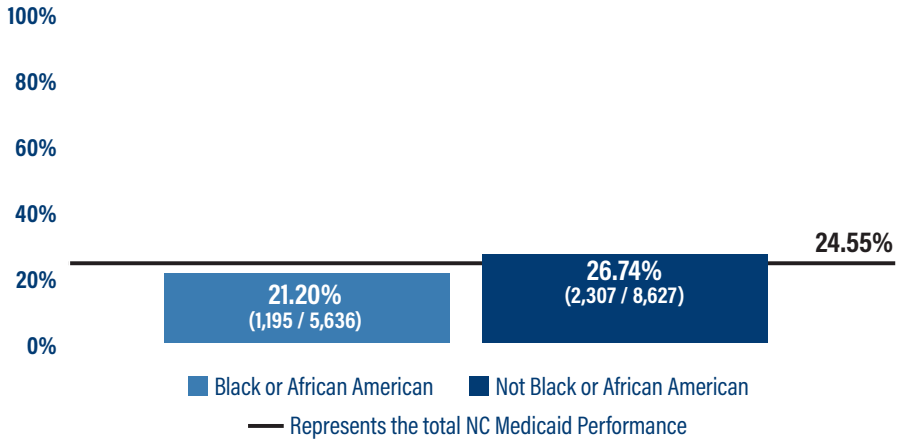


FIGURE 37: Follow-Up After Hospitalization for Mental Illness (FUH), 7-Day Follow-Up, 2022 NC Medicaid Performance by American Indian/Alaskan Native Binary Race

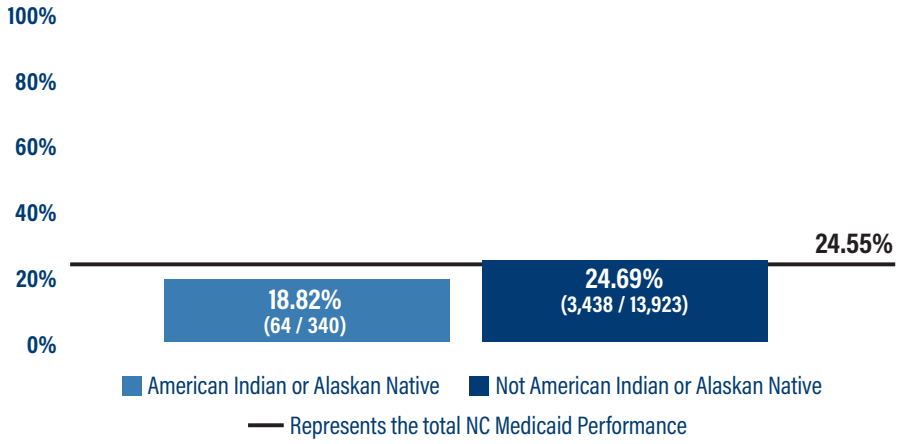
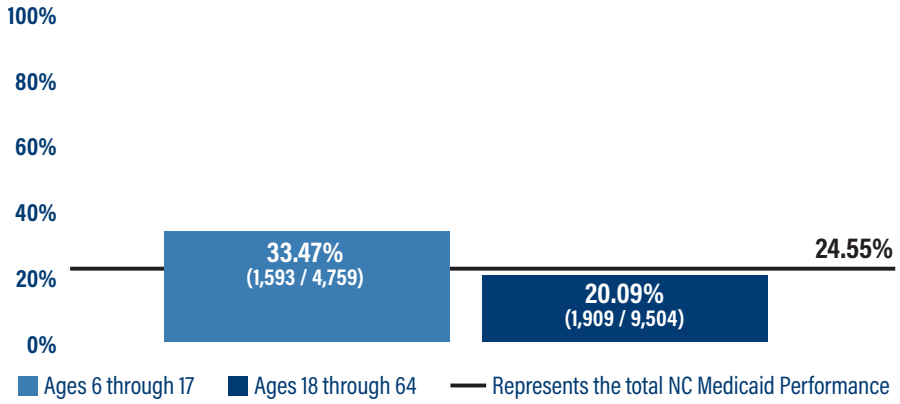


FIGURE 38: Follow-Up After Hospitalization for Mental Illness (FUH), 7-Day Follow-Up, 2022 NC Medicaid Performance by Age Group



For the second sub measure, *30-Day Follow-Up* (FUH–30), no disparities were identified based on geography, gender, ethnicity, or primary language. Disparities were identified based on both American Indian/Alaskan Native and Black or African American binary race, age, LTSS needs status, and disability status for the *Follow-Up After Hospitalization for Mental Illness — 30-Day Follow-Up* (FUH–30) measure:

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 26.38% (See Figure 39).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 22.46% (See Figure 40).
- Beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 14.20% (See Figure 41).
- Beneficiaries who identified as American Indian and Alaskan Native fared worse than those who did not, with a relative difference of 25.28% (See Figure 42).
- Beneficiaries who are aged 18 through 64 years fared worse than those aged 6 through 17, with a relative difference of 36.71% (See Figure 43).

FIGURE 39: Follow-Up After Hospitalization for Mental Illness (FUH), 30-Day Follow-Up, 2022 NC Medicaid Performance by LTSS Needs Status

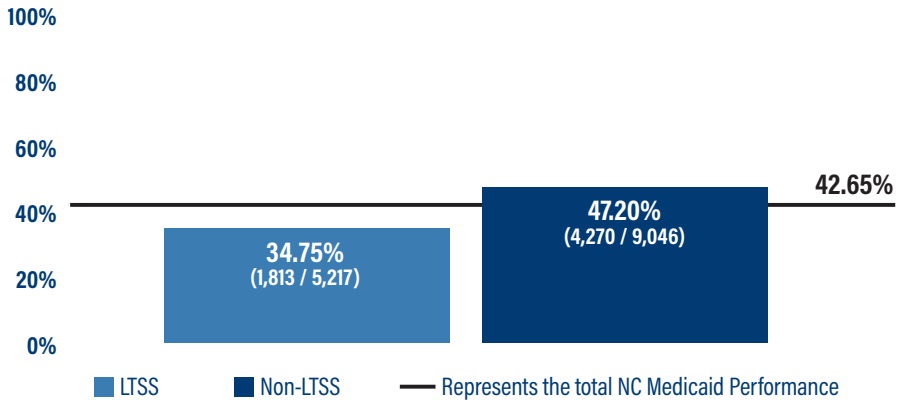


FIGURE 40: Follow-Up After Hospitalization for Mental Illness (FUH), 30-Day Follow-Up, 2022 NC Medicaid Performance by Disability Status

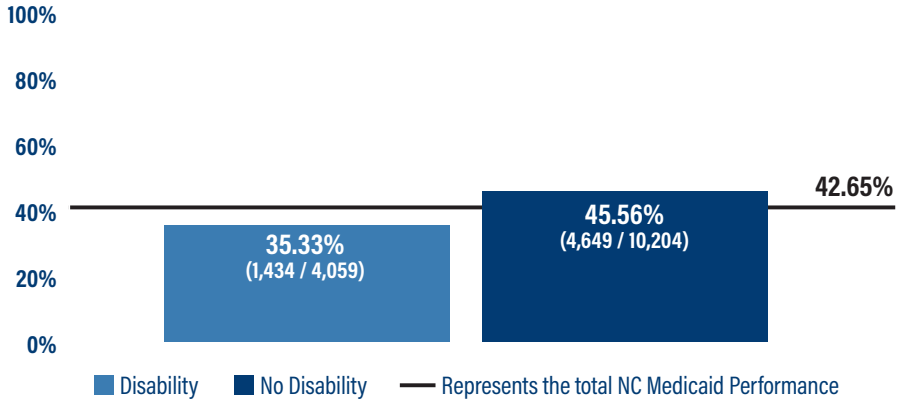


FIGURE 41: Follow-Up After Hospitalization for Mental Illness (FUH), 30-Day Follow-Up, 2022 NC Medicaid Performance by Black or African American Binary Race

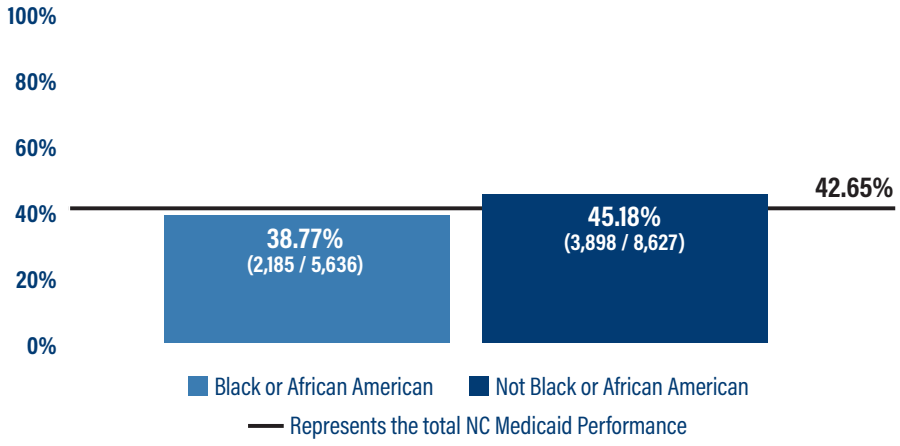


FIGURE 42: Follow-Up After Hospitalization for Mental Illness (FUH), 30-Day Follow-Up, 2022 NC Medicaid Performance by American Indian/Alaskan Native Binary Race

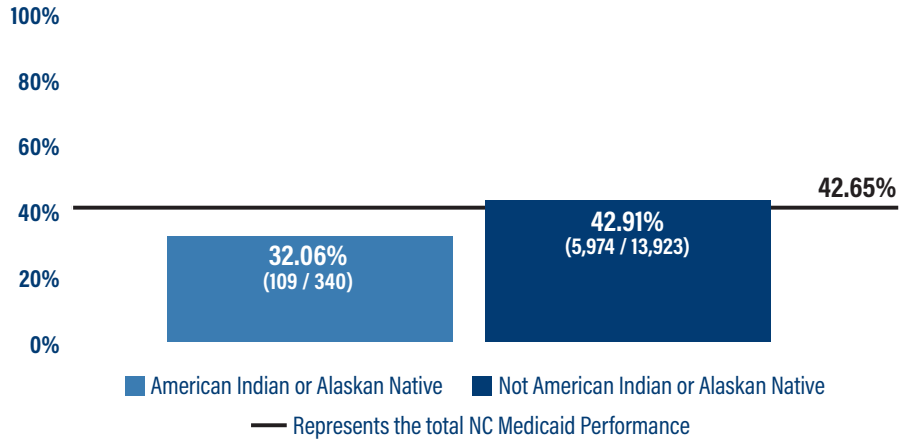
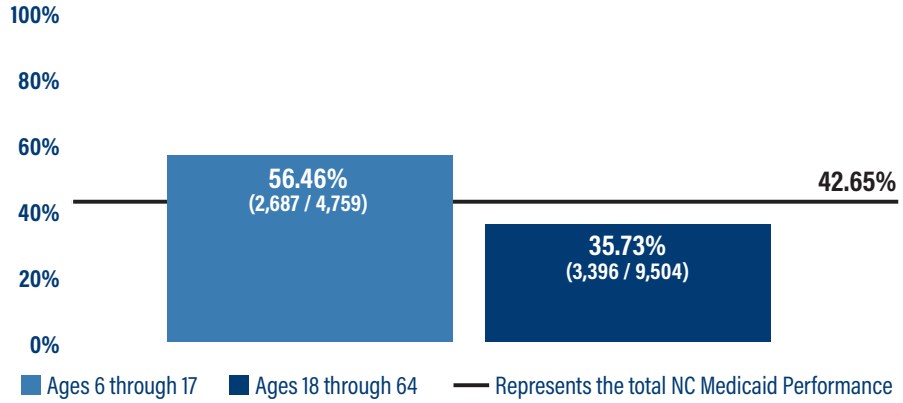


FIGURE 43: Follow-Up After Hospitalization for Mental Illness (FUH), 30-Day Follow-Up, 2022 NC Medicaid Performance by Age Group



Follow-Up After ED Visit for Mental Illness (FUM)

The *Follow-Up After ED Visit for Mental Illness* has two sub-measures:

1. *7-Day Follow-Up* (FUM–7) measure assesses the percentage of ED visits for beneficiaries six years of age and older for select mental illness or intentional self-harm diagnoses, who had a follow-up visit for mental illness within seven days of the ED visit.[118]
2. *30-Day Follow-Up* (FUM–30) measure assesses the percentage of ED visits for beneficiaries six years of age and older for select mental illness or intentional self-harm diagnoses, who had a follow-up visit for mental illness within 30 days of the ED visit.

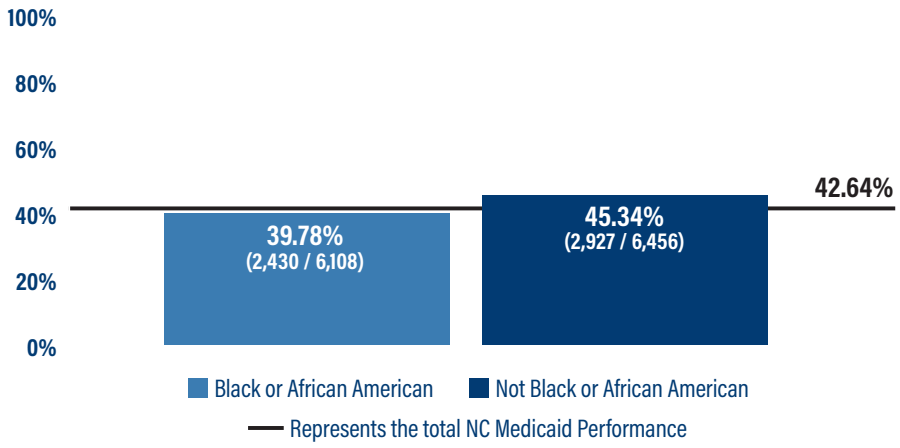
[118] Follow-Up After ED Visit for Mental Illness (FUM). National Committee for Quality Assurance (NCQA). (2023). https://www.ncqa.org/hedis/measures/follow-up-after-emergency-department-visit-for-mental-illness/

The CDC estimates that there is an average of approximately 13.2 million emergency department (ED) visits for mental illness each year, representing roughly 12.3% of all adult ED visits.[119] In 2022, there were 54,868 suicidal ideation-related and 122,336 depression-related ED visits in NC.[120] The period immediately after the ED visit is vital for ensuring patients are engaged in treatment and maintaining continuity of care. Receiving timely follow-up care after an ED visit for mental illness or intentional self-harm can help prevent future hospital visits, prevent hospital admissions, and improve health outcomes.[121] Adults with lower socioeconomic status are more likely to visit the ED for mental health, highlighting a need for increased access to affordable outpatient and telemedicine services.[122] A CDC report found that individuals who identified as Black or African American had the highest rates of mental health-related ED visits, longer ED wait times, and longer visits than their counterparts between 2018 and 2020.[123] These disparities are caused by systemic issues relating to access to care, cultural stigma around mental health and structural discrimination.[124]

Among beneficiaries in NC Medicaid, no disparities were identified based on gender, LTSS needs status, disability status, primary language, ethnicity, American Indian/Alaskan Native binary race, or geography for the *Follow-Up After ED Visit for Mental Illness — 7-Day Follow-Up* (FUM–7) measure. However, disparities were identified based on Black binary race and age:

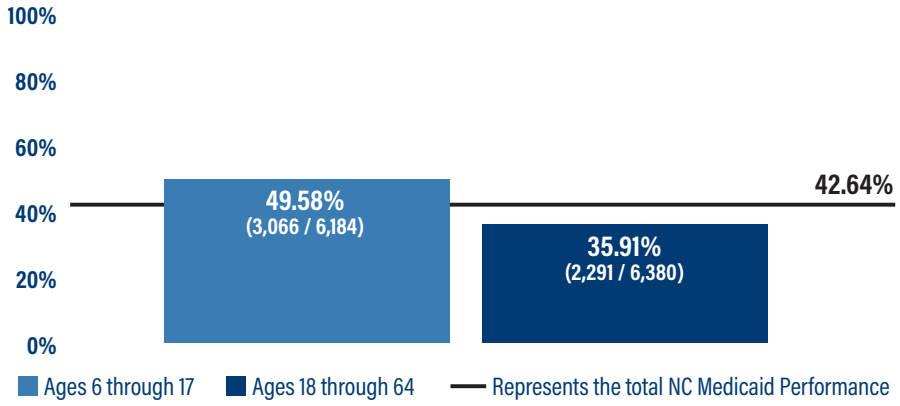
- Beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 12.25% (See Figure 44).
- Beneficiaries aged 18 through 64 fared worse than those aged 6 through 17, with a relative difference of 27.57% (See Figure 45).

FIGURE 44: Follow-Up After Emergency Department Visit for Mental Illness (FUM), 7-Day Follow-Up, 2022 NC Medicaid Performance by Black or African American Binary Race



[119] Centers for Disease Control and Prevention. Emergency Department Visits Among Adults with Mental Health Disorders: United States 2017–2019. Available at: https://www.cdc.gov/nchs/products/databriefs/db426.htm. Accessed on: Jun 28, 2023.
[120] Statewide Annual ED Trends for Depression. (2022). Mental Health Dashboard. NC DETECT. NCDHHS. Accessed on 6/12/2024. Available here: https://ncdetect.org/mental-health-dashboard/
[121] Centers for Medicare & Medicaid Services. Follow-Up After Emergency Department Visit for Mental Illness: Age 18 and Older. Available at: https://www.medicaid.gov/state-overviews/scorecard/follow-after-emergency-department-visit-for-mental-illness-age-18-and-older/index.html. Accessed on: Jun 28, 2023.
[122] Penner F, Rajesh A, Kinney KL, Mabus KL, Barajas KG, McKenna KR, Lim CS. Racial and demographic disparities in emergency department utilization for mental health concerns before and during the COVID-19 pandemic. Psychiatry Res. 2022 Apr;310:114442. doi: 10.1016/j.psychres.2022.114442. Epub 2022 Feb 12. PMID: 35219262; PMCID: PMC8840823.
[123] Peters ZJ, Santo L, Davis D, DeFrances CJ. Emergency Department Visits Related to Mental Health Disorders Among Adults, by Race and Hispanic Ethnicity: United States, 2018-2020. Natl Health Stat Report. 2023 Mar;(181):1-9. PMID: 36939656.
[124] Mental health disparities: Diverse Populations. American Psychiatric Association. https://www.psychiatry.org/psychiatrists/diversity/education/mental-health-facts

FIGURE 45: Follow-Up After Emergency Department Visit for Mental Illness (FUM), 7-Day Follow-Up, 2022 NC Medicaid Performance by Age Group



For the second sub measure, *30-Day Follow-Up* (FUM–30), no disparities were identified based on gender, LTSS needs status, disability status, primary language, ethnicity, or geography for the *Follow-Up After ED Visit for Mental Illness — 30-Day Follow-Up* (FUM–30) measure. However, disparities were identified based on Black or African American and American Indian/Alaskan Native binary race and age:

- Beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 11.93% (See Figure 46).
- Beneficiaries who identified as American Indian and Alaskan Native fared worse than those who did not, with a relative difference of 12.29% (See Figure 47).
- Beneficiaries aged 18-64 fared worse than those aged 6-17, with a relative difference of 26.67% (See Figure 48).

FIGURE 46: Follow-Up After Emergency Department Visit for Mental Illness (FUM), 30-Day Follow-Up, 2022 NC Medicaid Performance by Black or African American Binary Race

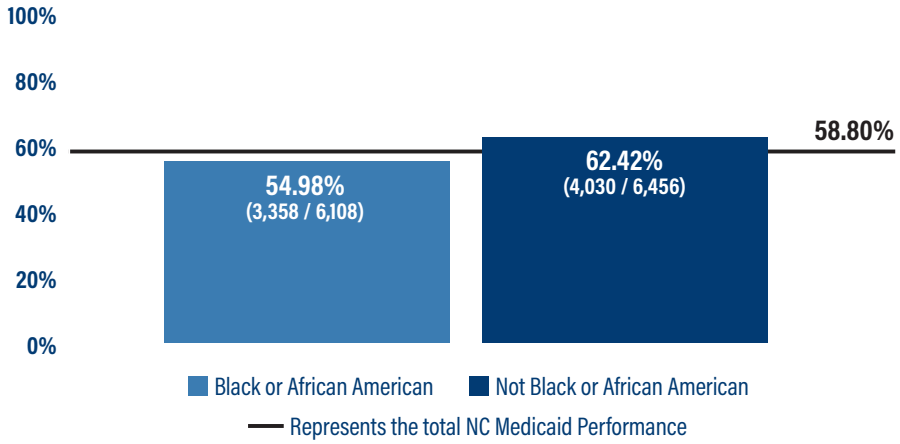


FIGURE 47: Follow-Up After Emergency Department Visit for Mental Illness (FUM), 30-Day Follow-Up, 2022 NC Medicaid Performance by American Indian/Alaskan Native Binary Race

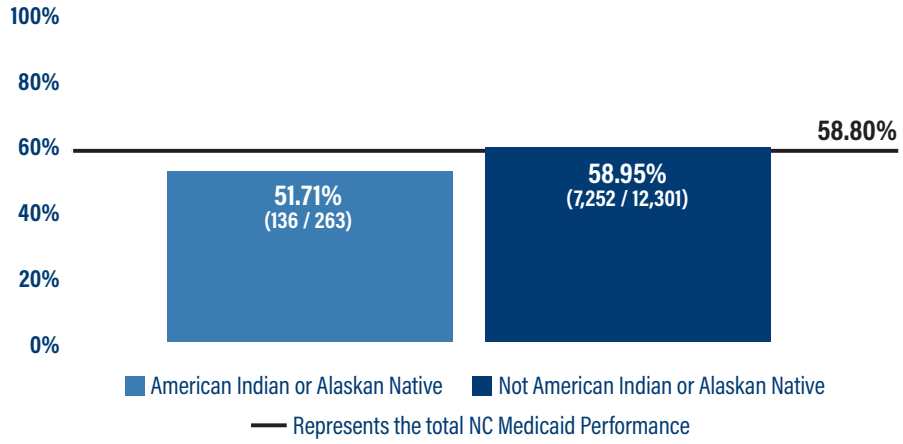
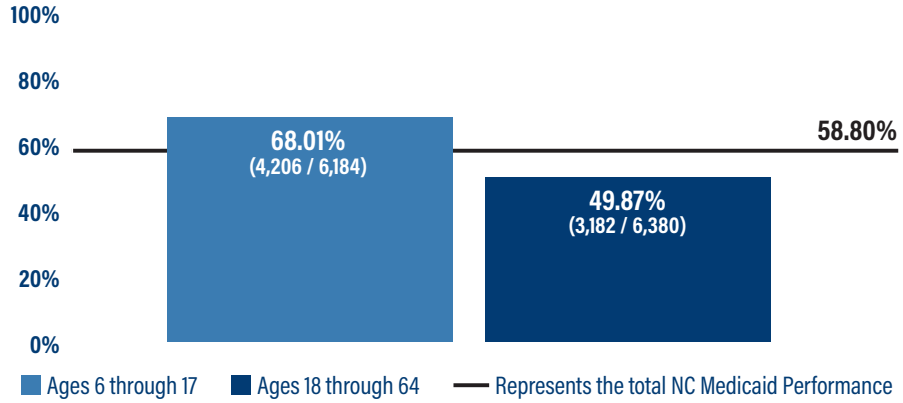


FIGURE 48: Follow-Up After Emergency Department Visit for Mental Illness (FUM), 30-Day Follow-Up, 2022 NC Medicaid Performance by Age Group



Use of First Line Psychosocial Care for Children and Adolescents on Antipsychotics (APP)

The *Use of First Line Psychosocial Care for Children and Adolescents on Antipsychotics* (APP) measure assesses the percentage of children and adolescents one to 17 years of age who had a new prescription for an antipsychotic medication and had documentation of psychosocial care as first-line treatment.[125] This measure excludes children for whom first-line antipsychotics may be appropriate (i.e., children with a diagnosis of schizophrenia, bipolar disorder, other psychotic disorders, autism, or other developmental disorders).

Given that very few antipsychotics are approved by the Food and Drug Administration (FDA) for use in children and adolescents and the risk factors (e.g., weight gain, diabetes, developmental effects) associated with the use of antipsychotics, clinical guidelines recommend the use of psychosocial care,

[125] Use of First Line Psychosocial Care for Children and Adolescents on Antipsychotics (APP). National Committee for Quality Assurance (NCQA). (2023). https://www.ncqa.org/hedis/measures/use-of-first-line-psychosocial-care-for-children-and-adolescents-on-anti-psychotics/

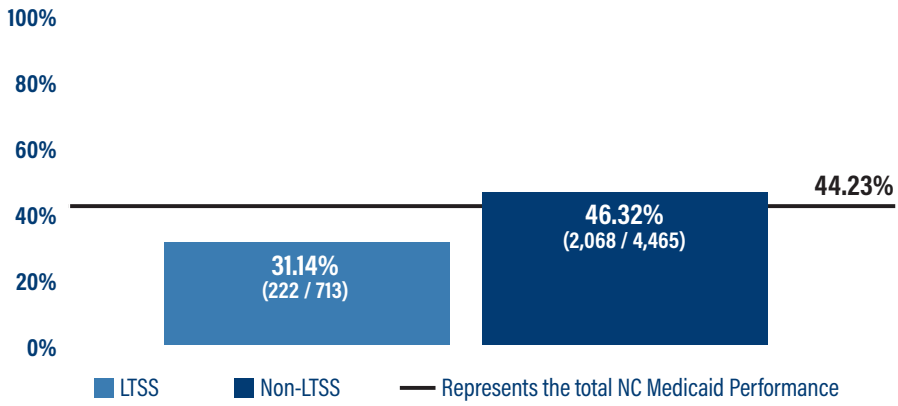
such as behavioral interventions and psychological therapies, as first-line treatment.[126] Therefore, it is important that children and adolescents receive psychosocial care prior to being prescribed an antipsychotic.[127] A study on Florida's Medicaid population found that 24% of children did not receive first-line psychosocial care prior to antipsychotic drug initiation, with older children, children who identified as white, and those living in rural areas having lower odds of receiving a behavioral intervention prior to antipsychotic drug use.[128]

In North Carolina, as in many other states, there are a limited number of mental health professionals available to provide these services. Almost 4 million people, or about two in five North Carolinians, live in a mental health professional shortage area.[129]

Among children in NC Medicaid, no disparities were identified based on gender, primary language, ethnicity, American Indian/Alaskan Native or Black or African American binary race, geography, or age for the *Use of First Line Psychosocial Care for Children and Adolescents on Antipsychotics* (APP) measure. However, disparities were identified based on LTSS needs status, and disability status:

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 32.77% (See Figure 49).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 27.52% (See Figure 50).

FIGURE 49: Use of First Line Psychosocial Care for Children and Adolescents on Antipsychotics (APP), 2022 NC Medicaid Performance by LTSS Needs Status



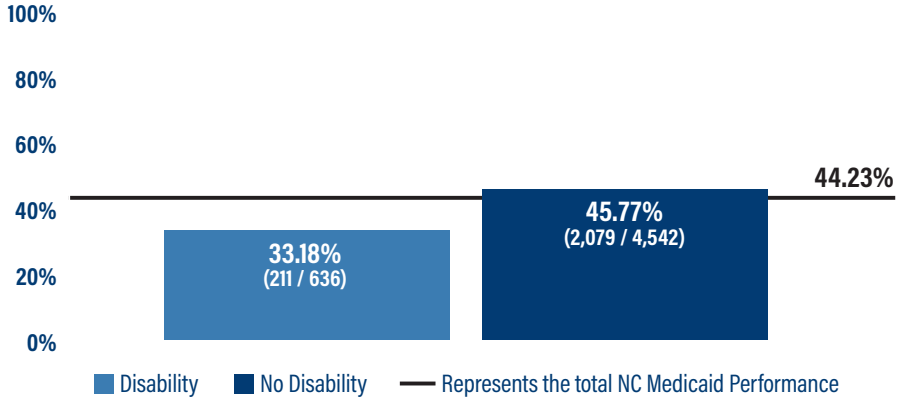
[126] Bushnell GA, Crystal S, Olfson, M. Trends in Antipsychotic Medication Use in Young Privately Insured Children. Journal of the American Academy of Child & Adolescent Psychiatry. 2020. 60(7): 877–886. Available at: https://www.jaacap.org/article/S0890-8567(20)31987-0/fulltext#articleInformation. Accessed on: Jun 28, 2023.

[127] The National Committee for Quality Assurance. Follow-Up Use of First-Line Psychosocial Care for Children and Adolescents on Antipsychotics (APP). Available at: https://www.ncqa.org/hedis/measures/use-of-first-line-psychosocial-care-for-children-and-adolescents-on-anti-psychotics. Accessed on: Jun 28, 2023.

[128] Shenkman EA, Huo T, Li Q, Bussing R, Forrest CB, Xu H, Woodard J, Muller KE. Florida Medicaid Children's Receipt of First-Line Psychosocial Care Prior to Antipsychotic Initiation. Acad Pediatr. 2022 Apr;22(3S):S100-S107. doi: 10.1016/j.acap.2021.11.014. PMID: 35339236.

[129] Lombardi, Brianna. Lanier, Paul. (2023). Responding to North Carolina's Behavioral Health Workforce Crisis. Carolina Across 100. Available here: https://carolinaacross100.unc.edu/responding-to-north-carolinas-behavioral-health-workforce-crisis/

FIGURE 50: Use of First Line Psychosocial Care for Children and Adolescents on Antipsychotics (APP), 2022 NC Medicaid Performance by Disability Status



Tailored Plans & Tailored Care Management

In 2024, NC Medicaid launched integrated health plans for individuals with behavioral health needs and I/DDs, also known as Tailored Plans. Tailored Plans will also serve other special populations including Innovations and TBI waiver enrollees and waitlist members and will be responsible for managing the state's non-Medicaid behavioral health, developmental disabilities and TBI services for uninsured and underinsured North Carolinians. More information on Tailored Plans is available on the Tailored Plan webpage.

Before the launch of Tailored Plans, NC Medicaid invested in the Tailored Care Management (TCM) model, which launched in December 2022. TCM is a community-based, provider driven model aimed at whole person care and driving toward better health outcomes. Through TCM, Tailored Plan beneficiaries will have a single designated care manager supported by a multidisciplinary care team to provide integrated care management that addresses all their needs including physical health, behavioral health, I/DD, TBI, pharmacy, LTSS and their unmet health-related resource needs. More information on TCM is available on the Tailored Care Management webpage.

Substance Use Domain Findings

The Substance Use domain includes two measures that assess follow-up care after an ED visit for substance use, two measures related to opioid use, and three measures related to utilization for beneficiaries with SUD. According to the Substance Abuse and Mental Health Services Administration (SAMHSA), 46.3 million Americans 12 years of age and older meet the criteria for SUD, and 94% of those who met the criteria for SUD did not receive any treatment because they did not think they needed treatment.[130] Ensuring beneficiaries receive the appropriate treatment for SUD is essential for improving all aspects of the patient's life.[131] Multiple studies have revealed that despite uniform rates of substance use among people from racial and ethnic populations in the United States, large treatment gaps persist.[132]

Table 13 displays the NC Medicaid aggregates for the measures included in the Substance Use domain.

TABLE 13: Substance Use Domain NC Medicaid Aggregates

Substance Use Domain Findings	CY 2022 NC Medicaid Aggregate*
Follow-Up After ED Visit for Substance Use — 7-Day Follow-Up (FUA-7)	23.49%
Follow-Up After ED Visit for Substance Use 30-Day Follow-Up (FUA-30)	33.49%
Use of Opioids at High Dosage in Persons Without Cancer (OHD)**	7.46%
Use of Pharmacotherapy for Opioid Use Disorder (OUD)	58.44%
ED Utilization for SUD per 1,000 Medicaid Beneficiaries**	16.01
Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries**	10.41
Readmissions Among Beneficiaries with SUD**	23.11%

***A lower rate indicates better performance for this measure.*

**CY 2022 NC Medicaid Aggregate rate represents the performance of NC Medicaid beneficiaries but excludes limited benefit members. Please see appendix A "Partial Benefit Group Exclusions" section for more information*

See Appendix D for stratified results for all these measures.

Follow-Up After ED Visit for Substance Use

The Follow-Up After ED Visit for Substance Use has two sub-measures:

1. *7-Day Follow-Up* (FUA–7) measure assesses the percentage of ED visits for beneficiaries 13 years of age and older with a principal diagnosis of a SUD, or any diagnosis of drug overdose, who had a Follow-Up visit for SUD within seven days of the ED visit.[133]
2. *30-Day Follow-Up* (FUA–30) measure assesses the percentage of ED visits for beneficiaries 13 years of age and older with a principal diagnosis of substance use disorder (SUD), or any diagnosis of drug overdose, who had a Follow-Up visit for SUD within 30 days of the ED visit.

[130] U.S. Department of Health and Human Services. SAMHSA Announces National Survey on Drug Use and Health (NSDUH) Results Detailing Mental Illness and Substance Use Levels in 2021. Jan. 4, 2023. Available at: https://www.hhs.gov/about/news/2023/01/04/samhsa-announces-national-survey-drug-use-health-results-detailing-mental-illness-substance-use-levels-2021.html. Accessed on: Jun 28, 2023.

[131] Centers for Disease Control and Prevention. Drug Overdose Recovery Is for Everyone: Understanding Treatment of Substance Use Disorders. Available at: https://www.cdc.gov/drugoverdose/featured-topics/recovery-SUD.html. Accessed on: Jun 28, 2023.

[132] Substance Abuse and Mental Health Service Administration. 2019 National Survey on Drug Use and Health: African Americans. https://www.samhsa.gov/data/sites/default/files/reports/rpt31099/2019NSDUH-AA/AfricanAmerican%202019%20NSDUH.pdf . Published Sept 2020. Accessed April 7,2021.

[133] Follow-Up After ED Visit for AOD Abuse or Dependence (FUA). National Committee for Quality Assurance (NCQA). (2023). https://www.ncqa.org/hedis/measures/follow-up-after-emergency-department-visit-for-alcohol-and-other-drug-abuse-or-dependence/

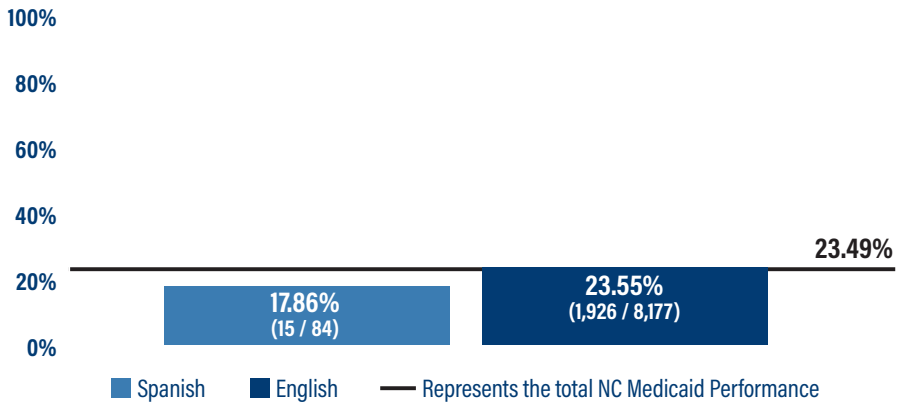
Providing timely follow-up care for people with SUD after an ED visit can help reduce substance use, future ED use, hospitalization, and length of hospital stay.[134] Individuals from the Black or African American and Hispanic/Latino community tend to have more unmet needs for SUD treatment services, and experience worse outcomes when they are able to access those services.[135, 136] These disparities can be tied to structural racism, socioeconomic marginalization, differential access to health care, and structural inequities within substance use policies and treatment resource distribution.[137]

Among beneficiaries in NC Medicaid, no disparities were identified based on LTSS needs status, disability status, gender, American Indian/Alaskan Native binary race, or geography for the *Follow-Up After ED Visit for Substance Use — 7-Day Follow-Up* (FUA–7) measure. However, disparities were identified based on primary language, ethnicity, Black or African American binary race and age.

- Beneficiaries whose primary language is Spanish fared worse than those whose primary language is English, with a relative difference of 24.19% (See Figure 51).
- Beneficiaries who identified as Hispanic and Latino fared worse than those who did not, with a relative difference of 19.47% (See Figure 52).
- Beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 27.82% (See Figure 53).
- Beneficiaries aged 13 through 17 fared worse than those aged 18+, with a relative difference of 16.69% (See Figure 54).

Note: Caution should be exercised when interpreting these findings, given that the small size of the eligible population for some demographic stratifications.

FIGURE 51: Follow-Up After Emergency Department Visit for Substance Use (FUA),7-Day Follow-Up 2022 NC Medicaid Performance by Primary Language



[134] BlueCross BlueShield of Montana. Follow-Up After Emergency Department Visit for Substance Use. Available at: https://www.bcbsmt.com/docs/provider/mt/clinical/tipsheets/hedis-fua-tip-sheet.pdf. Accessed on: Jun 28, 2023.
[135] Pinedo M. A current re-examination of racial/ethnic disparities in the use of substance abuse treatment: Do disparities persist? Drug Alcohol Depend. 2019 Sep 1;202:162-167. doi: 10.1016/j.drugalcdep.2019.05.017. Epub 2019 Jul 19. PMID: 31352305; PMCID: PMC10676029.
[136] Guerrero, E.G., Marsh, J.C., Duan, L., Oh, C., Perron, B. and Lee, B. (2013), Disparities in Completion of Substance Abuse Treatment between and within Racial and Ethnic Groups. Health Serv Res, 48: 1450-1467. https://doi.org/10.1111/1475-6773.12031
[137] Farahman, Pantea MD,MA. Arshed, Arslaan MD, MS, MHA. Bradley, Mark MD, MS. Systemic Racism and Substance Use Disorders. (2020). Psychiatric Annals. Vol. 50, no. 11. https://www.marylandmacs.org/media/som/microsites/macs/documents/Systemic-Racism-and-SUDs.pdf

FIGURE 52: Follow-Up After Emergency Department Visit for Substance Use (FUA),7-Day Follow-Up 2022 NC Medicaid Performance by Ethnicity

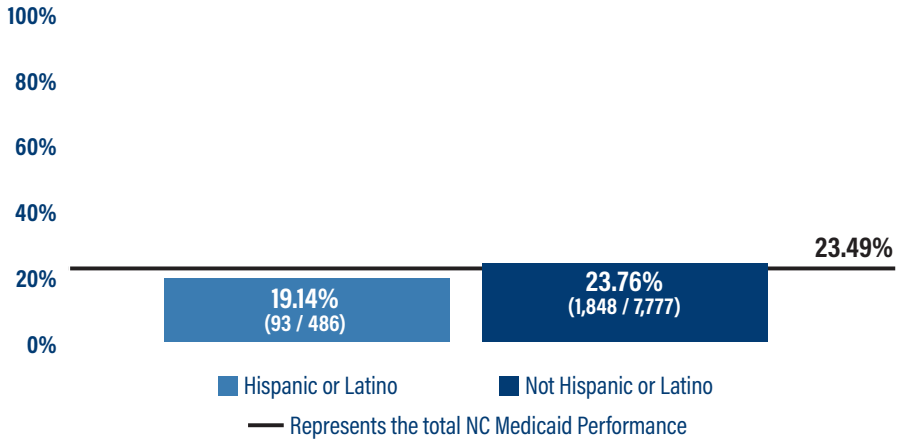


FIGURE 53: Follow-Up After Emergency Department Visit for Substance Use (FUA),7-Day Follow-Up 2022 NC Medicaid Performance by Black or African American Binary Race

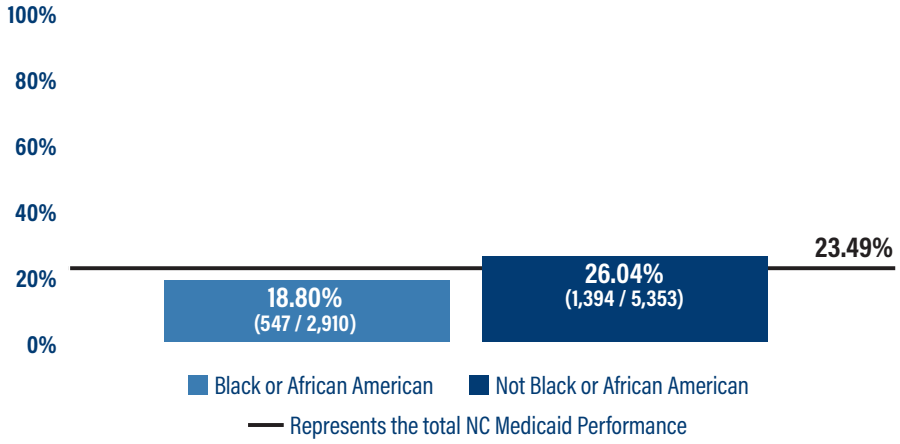
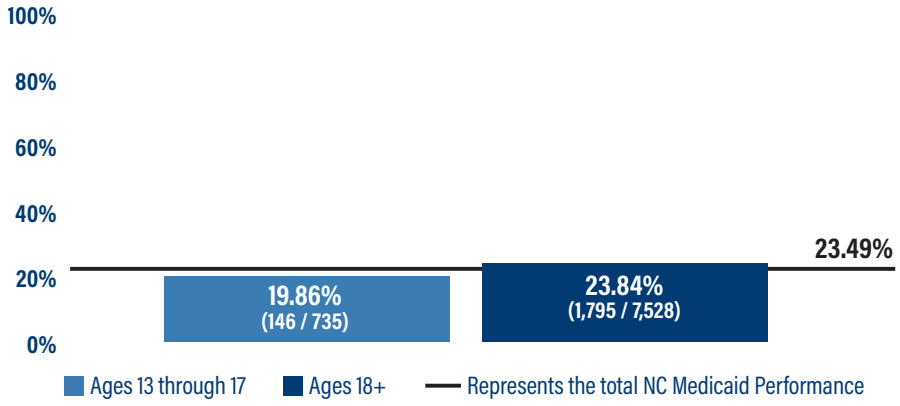


FIGURE 54: Follow-Up After Emergency Department Visit for Substance Use (FUA),7-Day Follow-Up 2022 NC Medicaid Performance by Age Group



For the second sub-measure, *FUA 30-Day Follow-Up*, no disparities were identified based on LTSS needs status, disability status, gender, or geography for the *Follow-Up After ED Visit for Substance Use — 30-Day Follow-Up* (FUA–30) measure. However, disparities were identified based on primary language, ethnicity, Black binary race, and age. Please exercise caution when interpreting disparities findings given that some demographic stratifications are based on small numerators and/or denominators.

- Beneficiaries whose primary language is Spanish fared worse than those whose primary language is English, with a relative difference of 29.13% (See Figure 55).
- Beneficiaries who identified as Hispanic and Latino fared worse than those who did not, with a relative difference of 26.19% (See Figure 56).
- Beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 25.97% (See Figure 57).
- Beneficiaries aged 13 through 17 fared worse than those aged 18+, with a relative difference of 18.05% (See Figure 58).

FIGURE 55: Follow-Up After Emergency Department Visit for Substance Use (FUA),30-Day Follow-Up 2022 NC Medicaid Performance by Primary Language

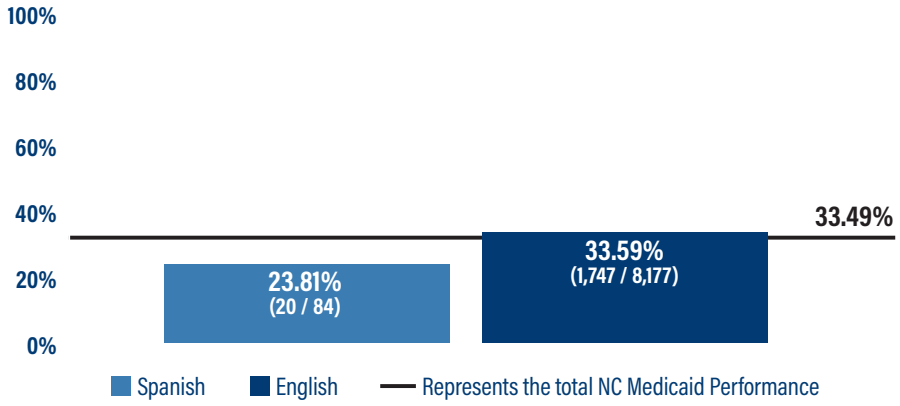


FIGURE 56: Follow-Up After Emergency Department Visit for Substance Use (FUA),30-Day Follow-Up 2022 NC Medicaid Performance by Ethnicity

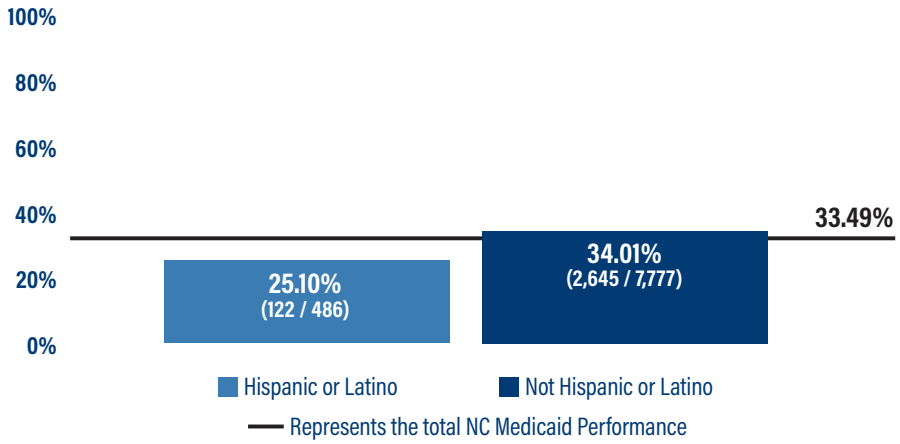


FIGURE 57: Follow-Up After Emergency Department Visit for Substance Use (FUA),30-Day Follow-Up 2022 NC Medicaid Performance by Black or African American Binary Race

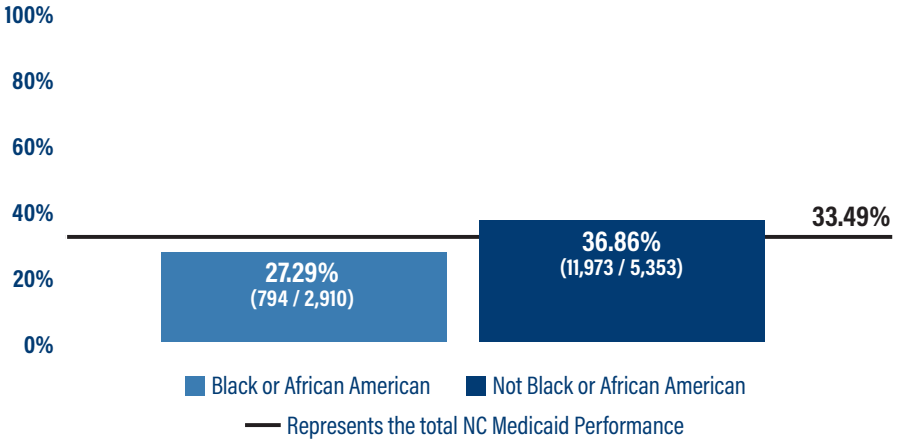
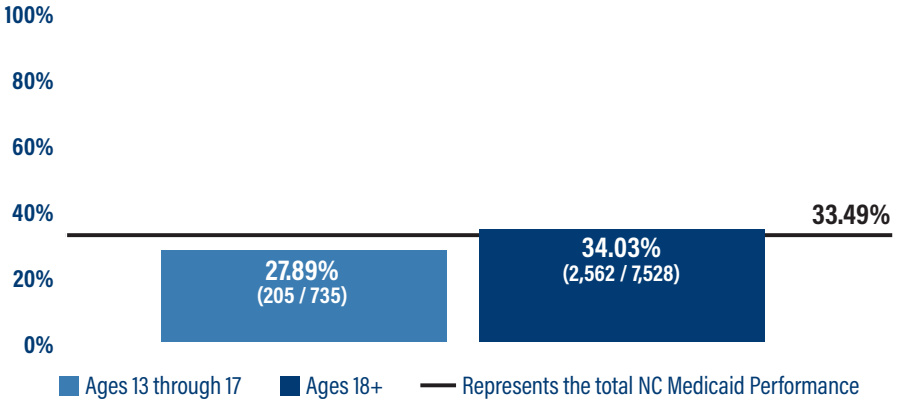


FIGURE 58: Follow-Up After Emergency Department Visit Substance Use (FUA),30-Day Follow-Up 2022 NC Medicaid Performance by Age Group



Use of Opioids at High Dosage in Persons Without Cancer (OHD)

The *Use of Opioids at High Dosage in Persons Without Cancer* (OHD) measure assesses the percentage of beneficiaries 18 years of age and older who received prescriptions of opioids with an average daily dosage greater than or equal to 90 morphine milligram equivalents (MME) over a period of 90 days or more. A lower rate indicates better performance for this measure.

In 2022, opioid-related overdoses accounted for approximately 81,289 deaths in the United States.[138] This ongoing opioid epidemic has emphasized the importance of preventing improper prescription of opioids. Excessive use of opioids by individuals without qualifying medical conditions, such as cancer or sickle cell disease, can be a sign of overuse which can result in higher likelihood of serious illness or death.[139] Communities who identify as Black or African American and American Indian or Alaskan Native tend to have higher rates of opioid overdose deaths.[140] In a multivariable analysis looking at

[138] Centers for Disease Control and Prevention. CDC Wonder. Number of Drug Overdose Deaths by Opioids, United States. Available at: https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm Accessed on: June 12, 2024.
[139] Medicaid.gov. Use of Opioids at High Dosage in Persons Without Cancer: Age 18 and Older. Available at: https://www.medicaid.gov/state-overviews/scorecard/opioid-use-at-high-dosage-without-cancer/index.html. Accessed on: Jun 28, 2023.
[140] Kariisa M, Davis NL, Kumar S, et al. Vital Signs: Drug Overdose Deaths, by Selected Sociodemographic and Social Determinants of Health Characteristics — 25 States and the District of Columbia, 2019–2020. MMWR Morb Mortal Wkly Rep 2022;71:940–947. DOI: http://dx.doi.org/10.15585/mmwr.mm7129e2.

opioid overdose deaths, men were more at risk than women, people who had identified disabilities were more at risk than those who did not, and people who were unemployed were more at risk those who were employed.[141] These disparities are likely driven by social determinants of health such as work and housing instability, food insecurity, racism, class discrimination, immigration status, and stigma and it's important to understand their role in shaping risks and treatment outcomes for addiction related conditions.[142]

Among adults in NC Medicaid, no disparities were identified based on gender, primary language, ethnicity, American Indian/Alaskan Native or Black and African American binary race, geography, or age for the *Use of Opioids at High Dosage in Persons Without Cancer* (OHD) measure. However, disparities were identified based on LTSS needs status and disability status.

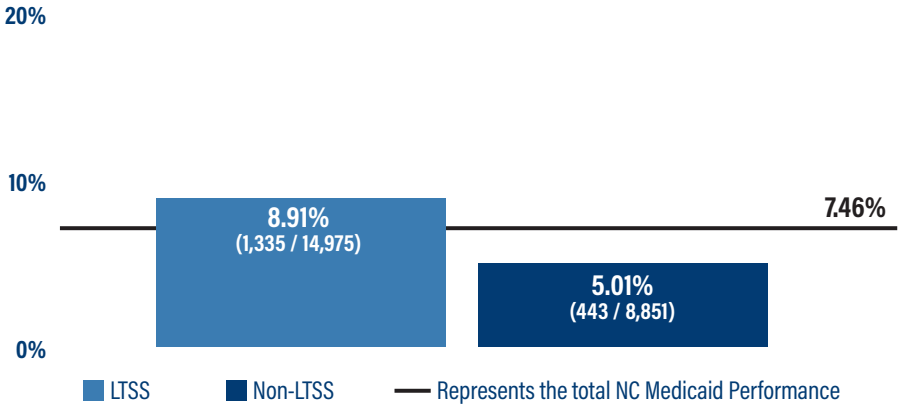
- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 78.12% (See Figure 59).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 81.25% (See Figure 60).

Note: Please exercise caution when interpreting disparities findings given that some demographic stratifications are based on small numerators and/or denominators.

Opioid use in the population with LTSS needs could be a symptom of post-acute rehabilitative needs, as long-term care patients who were discharged were more likely to have opioid use prior to long-term care admission.[143]

A Lower Rate Indicates Better Performance for This Measure

FIGURE 59: Use of Opioids at High Dosage in Persons Without Cancer (OHD-AD), 2022 NC Medicaid Performance by LTSS Needs Status

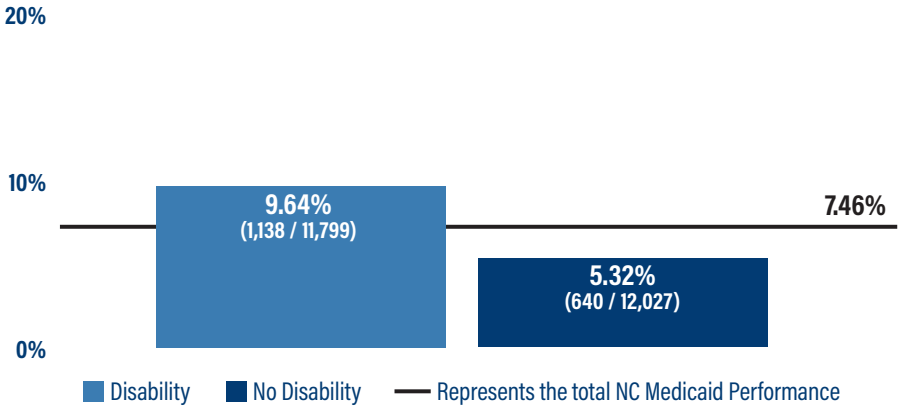


[141] Altekruse SF, Cosgrove CM, Altekruse WC, Jenkins RA, Blanco C. Socioeconomic risk factors for fatal opioid overdoses in the United States: Findings from the Mortality Disparities in American Communities Study (MDAC). PLoS One. 2020 Jan 17;15(1):e0227966. doi: 10.1371/journal.pone.0227966. PMID: 31951640; PMCID: PMC6968850.

[142] NIDA. 2023, April 27. Social Determinants of Health Can't Be Extricated from Addiction Science. Retrieved from https://nida.nih.gov/about-nida/noras-blog/2023/04/social-determinants-health-cant-be-extricated-addiction-science on 2024, March

[143] Opioid Use in Long0Term Care Settings: Final Report. The Office of the Assistant Secretary for Planning and Evaluation (ASPE). US Department pf Health & Human Services. (2022). https://aspe.hhs.gov/sites/default/files/documents/68687c9e1d32acf7e6b63d1255c307b0/ltc-settings-opioid-use.pdf

FIGURE 60: Use of Opioids at High Dosage in Persons Without Cancer (OHD-AD), 2022 NC Medicaid Performance by Disability Status



Use of Pharmacotherapy for Opioid Use Disorder (OUD) Total Rate

The *Use of Pharmacotherapy for Opioid Use Disorder* (OUD) measure assesses the percentage of Medicaid beneficiaries 18 to 64 years of age with an OUD who filled a prescription for or were administered or dispensed any FDA-approved medication for the disorder during the measurement year.

The 2022 National Survey on Drug Use and Health found that 6.1 million, or one in five people, had an OUD.[144] Pharmacotherapy, which is the treatment of health conditions by using drugs as medications, has been identified as a critical component of treating OUD. Patients who use pharmacotherapy are less likely to exhibit withdrawal or craving symptoms and use illicit opioids and are more likely to continue their treatment and participate in mental health therapy.[145] After an opioid related event, white patients received medication for OUD up to 80% more frequently than Black patients and up to 25% more frequently than Hispanic patients.[146] Factors such as stigma, health care access, socioeconomic status, discrimination and access to social supports act as meaningful barriers to successful OUD treatment.[147]

Among adults in NC Medicaid, no disparities were identified based on gender, geography, American Indian/Alaskan Native binary race, or age for the *Use of Pharmacotherapy for Opioid Use Disorder* (OUD) measure. However, disparities were identified based on Black or African American binary race, primary language, ethnicity, LTSS needs status and disability status:

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 49.64% (See Figure 61).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 31.08% (See Figure 62).
- Beneficiaries whose primary language is Spanish fared worse than those whose primary language is English, with a relative difference of 69.60%.
    - Even though a disparity was identified for beneficiaries who identify as speaking Spanish as their primary language, this figure was suppressed due to small population size.

[144] Results from the 2022 National Survey on Drug Use and Health. (2022). Substance Abuse and Mental Health Services Administration (SAMHSA). https://www.samhsa.gov/data/sites/default/files/reports/rpt42730/2022-nsduh-infographic-report.pdf

[145] The National Committee for Quality Assurance. Pharmacotherapy for Opioid Use Disorder (POD). Available at: https://www.ncqa.org/hedis/measures/pharmacotherapy-for-opioid-use-disorder/. Accessed on: Jun 28, 2023

[146] "Racial inequality in receipt of medications for opioid use disorder," Michael L. Barnett, Ellen Meara, Terri Lewinson, Brianna Hardy, Deanna Chyn, Moraa Onsando, Haiden A. Huskamp, Ateev Mehrotra, Nancy E. Morden, New England Journal of Medicine, May 11, 2023, doi: 10.1056/NEJMsa2212412

[147] National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Health Sciences Policy; Committee on Medication-Assisted Treatment for Opioid Use Disorder; Mancher M, Leshner AI, editors. Medications for Opioid Use Disorder Save Lives. Washington (DC): National Academies Press (US); 2019 Mar 30. 5, Barriers to Broader Use of Medications to Treat Opioid Use Disorder. Available from: https://www.ncbi.nlm.nih.gov/books/NBK541389/

- Beneficiaries who identified as Hispanic and Latino fared worse than those who did not, with a relative difference of 17.17% (See Figure 63).
- Beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 50.54% (See Figure 64).

FIGURE 61: Use of Pharmacotherapy for Opioid Use Disorder (OUD-AD), Total Rate, 2022 NC Medicaid Performance by LTSS Needs Status

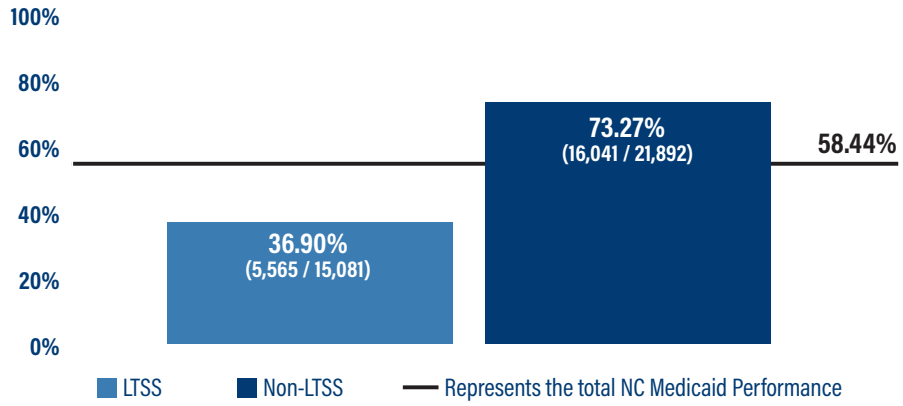


FIGURE 62: Use of Pharmacotherapy for Opioid Use Disorder (OUD-AD), Total Rate, 2022 NC Medicaid Performance by Disability Status

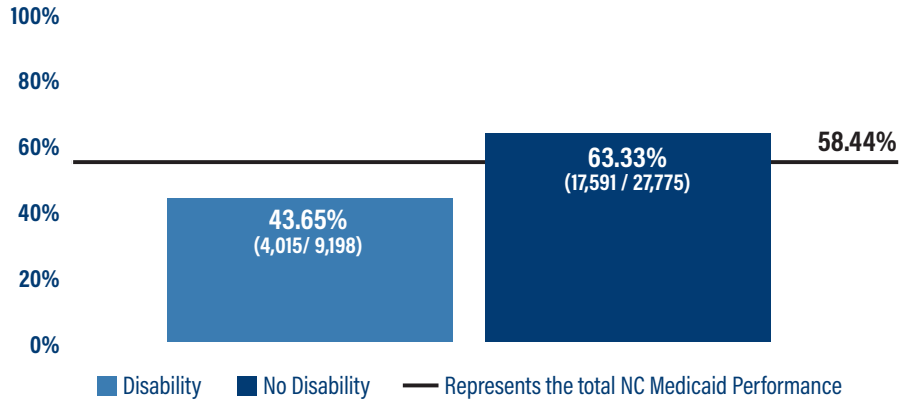


FIGURE 63: Use of Pharmacotherapy for Opioid Use Disorder (OUD-AD), Total Rate, 2022 NC Medicaid Performance by Ethnicity

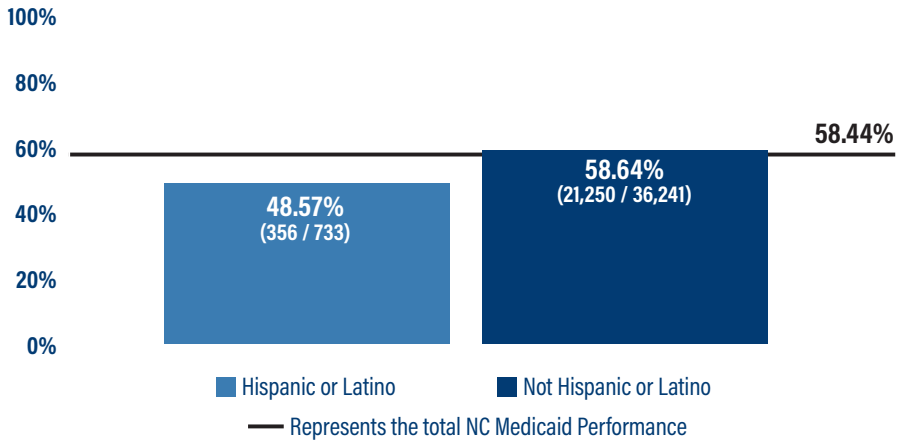
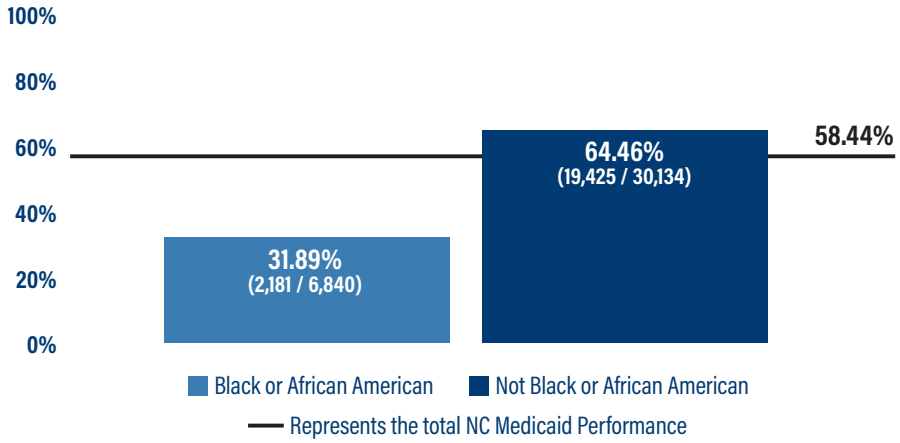


FIGURE 64: Use of Pharmacotherapy for Opioid Use Disorder (OUD-AD), Total Rate, 2022 NC Medicaid Performance by Black or African American Binary Race



ED Utilization for SUD per 1,000 Medicaid Beneficiaries

The *ED Utilization for SUD per 1,000 Medicaid Beneficiaries* measure assesses the total number of ED visits for SUD per 1,000 beneficiaries in the measurement period.[148] A lower rate indicates better performance for this measure. Due to the data source for this measure, NC Medicaid was not able to assess disparities based on primary language.

The negative effects associated with substance use are substantial, ranging from mental health disorders to infectious disease and even death. The rate of emergency department visits with a primary diagnosis of SUD among adults increased from 74.4 per 10,000 population during 2018–2019 to 103.8 during 2020–2021.[149] These types of ED visits have been linked to longer stays, higher costs, and increased

[148] This measure is a Demonstration Year metric (Nov 2021 – Oct 2022), not a calendar year metric.
[149] National Center for Health Statistics, National Hospital Ambulatory Medical Care Survey, 2018–2021. https://www.cdc.gov/nchs/ahcd/index.htm

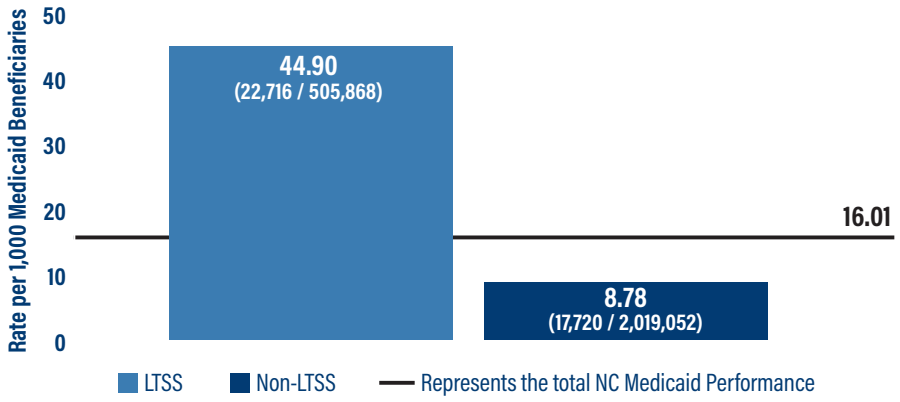
hospital admissions.[150] Despite a higher prevalence of SUD among white individuals, research has found that the rate for ED visits related to SUD is higher among individuals who identify as Non-Hispanic Black.[151] The same study found that the rate of SUD-related ED visits is also higher among men and those living in the most socially vulnerable communities.[152] These disparities could be linked to barriers in access to and cost of care, stigma surrounding SUD and limited social support.

Among adults in NC Medicaid, no disparities were identified based on gender, primary language, ethnicity, or age for the *ED Utilization for SUD per 1,000 Medicaid Beneficiaries* measure. However, disparities were identified based on LTSS needs status, disability status, geography, and both American Indian/Alaskan Native and Black or African American binary race.

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 411.39% (See Figure 65).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 591.76% (See Figure 66).
- Beneficiaries who lived in rural communities fared worse than those who lived in urban communities, with a relative difference of 17.14% (See Figure 67).
- Beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 11.69% (See Figure 68).
- Beneficiaries who identified as American Indian and Alaskan Native fared worse than those who did not, with a relative difference of 130.48% (See Figure 69).

A Lower Rate Indicates Better Performance for This Measure

FIGURE 65: ED Utilization for SUD per 1,000 Medicaid Beneficiaries, 2022 NC Medicaid Performance by LTSS Needs Status



[150] Beckerleg W, and Hudgins J. Substance Use-related Emergency Department Visits and Resource Utilization. Western Journal of Emergency Medicine, vol. 23, no. 2. Feb 2022; 28;23(2):166–173. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8967472. Accessed on: Jun 28, 2023.

[151] Owens PL, Moore BJ. Racial and Ethnic Differences in Emergency Department Visits Related to Substance Use Disorders, 2019. 2022 Dec 8. In: Healthcare Cost and Utilization Project (HCUP) Statistical Briefs [Internet]. Rockville (MD): Agency for Healthcare Research and Quality (US); 2006 Feb-. Statistical Brief #301. Available from: https://www.ncbi.nlm.nih.gov/books/NBK588378/

[152] This study assigned community social vulnerability based on patient county of residence. All rates are based on the U.S. population specific to each racial and ethnic group and social vulnerability group. Patient residence counties were classified as most vulnerable (counties with social vulnerability index values in the fourth quartile) versus less vulnerable (counties with social vulnerability index values in the lower three quartiles).

FIGURE 66: ED Utilization for SUD per 1,000 Medicaid Beneficiaries, 2022 NC Medicaid Performance by Disability Status

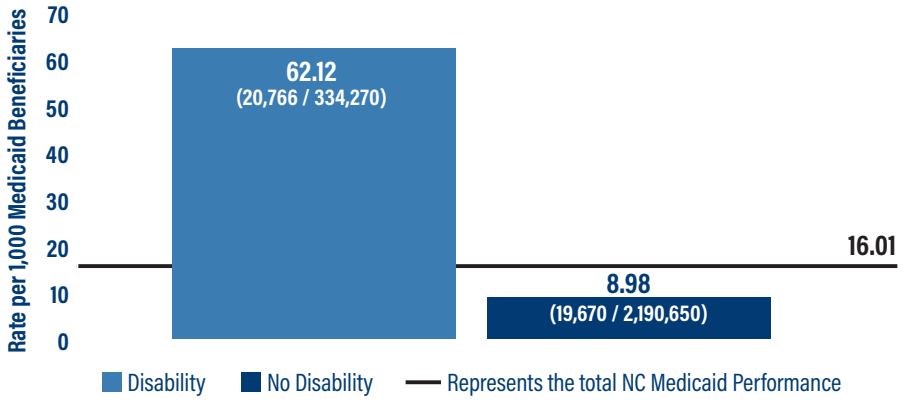


FIGURE 67: ED Utilization for SUD per 1,000 Medicaid Beneficiaries, 2022 NC Medicaid Performance by Geography

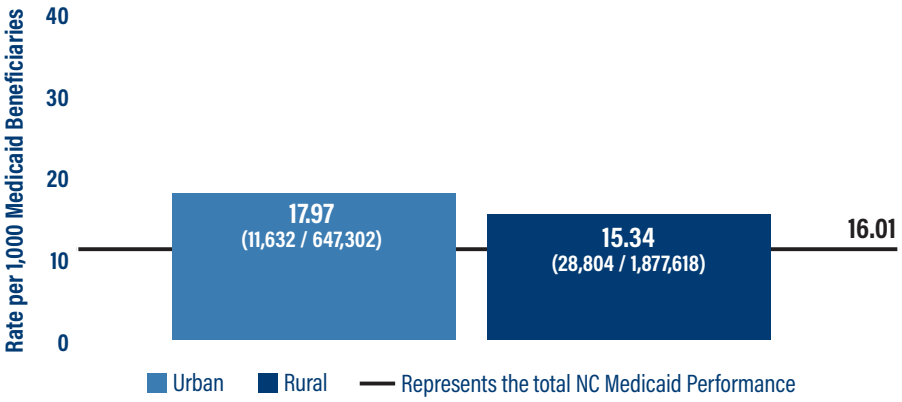


FIGURE 68: ED Utilization for SUD per 1,000 Medicaid Beneficiaries, 2022 NC Medicaid Performance by Black or African American Binary Race

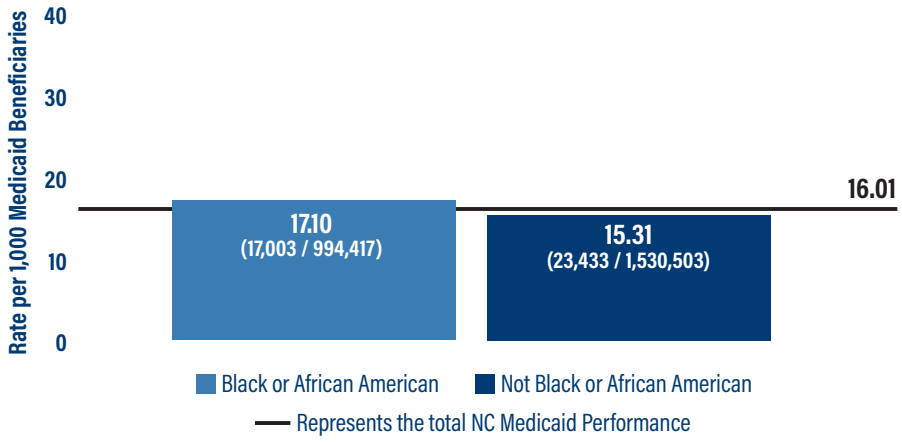
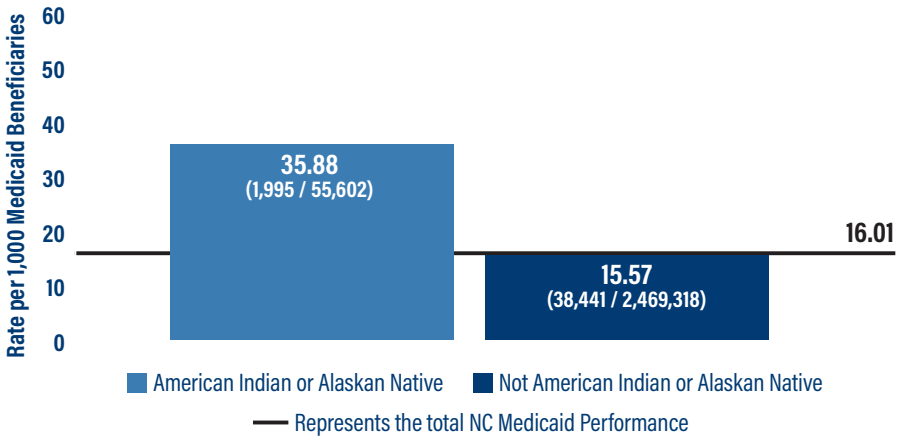


FIGURE 69: ED Utilization for SUD per 1,000 Medicaid Beneficiaries, 2022 NC Medicaid Performance by American Indian/Alaskan Native Binary Race



Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries

The *Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries* measure assesses the total number of inpatient stays for SUD per 1,000 beneficiaries during the measurement period.[153] A lower rate indicates better performance for this measure. Due to the data source for this measure, NC Medicaid was not able to assess disparities based on primary language.

SUD treatment programs are generally classified as inpatient or outpatient. Inpatient, also known as residential treatment, often offers intensive 24-hour medical and emotional support. This type of treatment ensures beneficiaries are able to transition through less or more intensive levels of care throughout the treatment (e.g., inpatient care, intensive outpatient treatment, medication assisted treatment [MAT]) in response to the changing needs and goals. Inpatient stays can result in lower rates of relapse and better health outcomes and reduced inpatient utilization.[154]

Among adults in NC Medicaid, no disparities were identified based on gender, primary language, ethnicity, Black and African American binary race ,or geography for the *Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries* measure. However, disparities were identified based on LTSS needs status, American Indian/Alaskan Native binary race, disability status and age.

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 587.45% (See Figure 70).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 716.10% (See Figure 71).

People who identify as having disabilities are more likely to suffer from SUD than the general population, and they are also less likely to receive appropriate treatment.[155] People with disabilities also face barriers in SUD treatment, such as finding treatment facilities that are accessible, lack of staff training, stigma and prejudices around particular disabilities.[156]

[153] This measure is a Demonstration Year metric (Nov 2021 – Oct 2022), not a calendar year metric.
[154] Medicaid Innovation Accelerator Program. Overview of Substance Use Disorder (SUD) Care Clinical Guidelines: A Resource for States Developing SUD Delivery System Reforms. Apr 2017. Available at: https://www.medicaid.gov/state-resource-center/innovation-accelerator-program/iap-downloads/reducing-substance-use-disorders/asam-resource-guide.pdf. Accessed on: Jun 28, 2023.
[155] The Relationship Between Disability and Addiction.2023. Addition Center. SAMHSA. Available here: https://www.addictioncenter.com/addiction/disability/#:~:text=People%20with%20physical%20disabilities%20experience,in%20life%2C%20creating%20depressing%20states.
[156] Substance Use Disorders in People with Physical and Sensory Disabilities. Substance Abuse and Mental Health Services Administration (SAMHSA), In Brief. August 2011. Volume 6, Issue 1. Available here: https://store.samhsa.gov/sites/default/files/sma11-4648.pdf

- Beneficiaries aged 45 through 64 years old fared worse than those 21 years old and younger, with a relative difference of 2,777.03% (See Figure 72).
- Beneficiaries aged 22 through 44 years old fared worse than those 21 years old and younger, with a relative difference of 1,377.03% (See Figure 73).
- Beneficiaries who identified as American Indian and Alaskan Native fared worse than those who did not, with a relative difference of 67.14% (See Figure 74).

A Lower Rate Indicates Better Performance for This Measure

FIGURE 70: Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries, 2022 NC Medicaid Performance by LTSS Needs Status

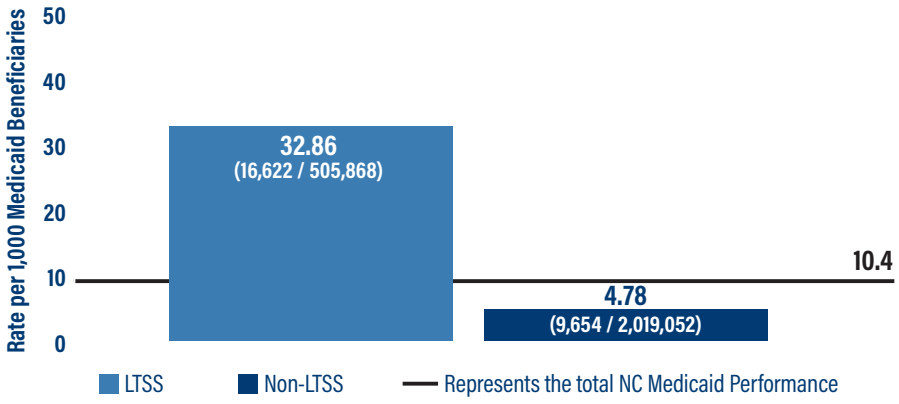


FIGURE 71: Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries, 2022 NC Medicaid Performance by Disability Status

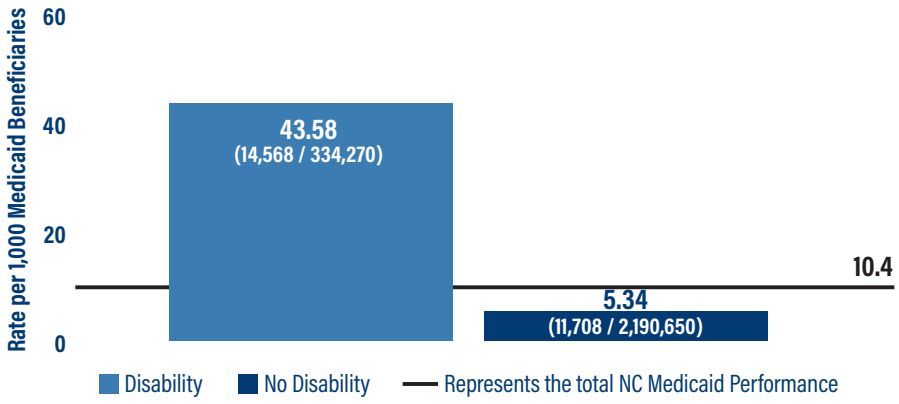


FIGURE 72: Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries, 2022 NC Medicaid Performance by Age Group

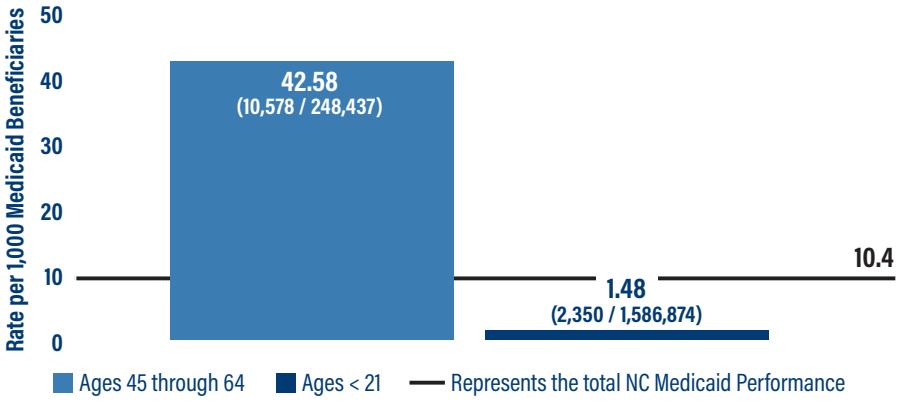


FIGURE 73: Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries, 2022 NC Medicaid Performance by Age Group

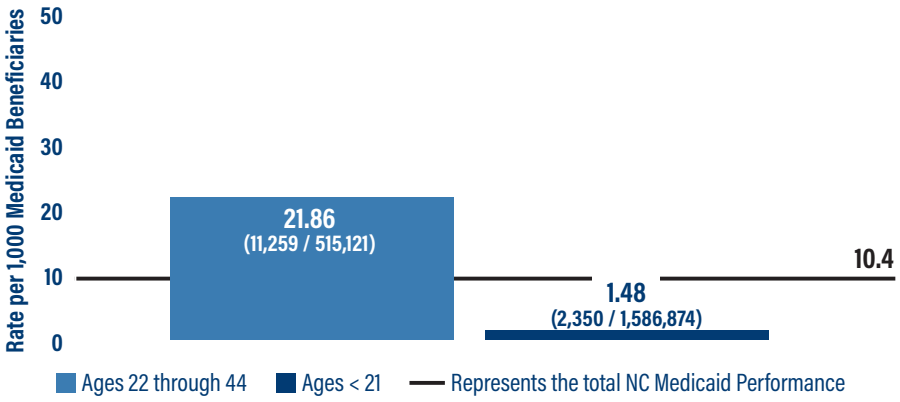
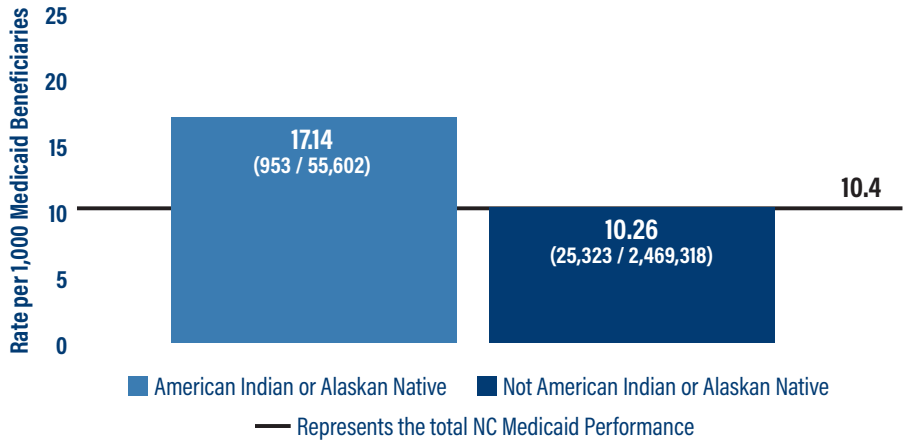


FIGURE 74: Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries, 2022 NC Medicaid Performance by American Indian/Alaskan Native Binary Race



Readmissions Among Beneficiaries with SUD

The *Readmissions Among Beneficiaries with SUD* measure assesses the rate of all-cause readmissions within 30 days among beneficiaries with SUD during the measurement period.[157] A lower rate indicates better performance for this measure. Due to the data source for this measure, NC Medicaid was not able to assess disparities based on primary language.

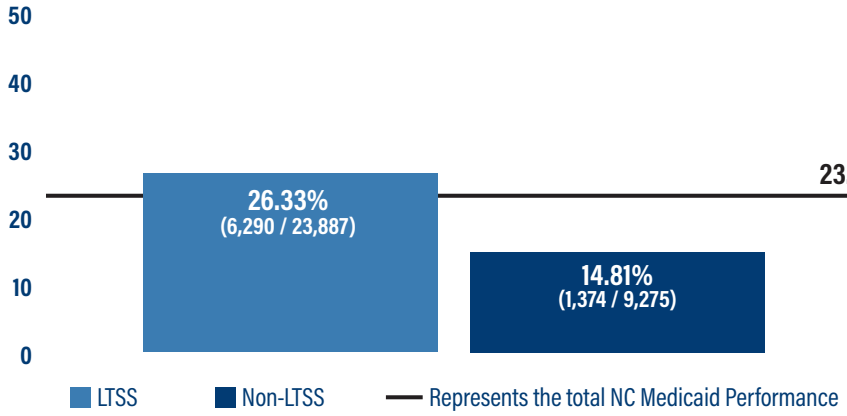
In the United States, readmission rates for individuals with SUD are between 18% and 26%, and SUD is one of the top ten conditions for readmissions among the Medicaid population.[158] Further, individuals with SUD have an increased risk of hospital readmissions related to other medical problems (e.g., heart failure), especially with less follow-up care after the admission than ideal.[159] Therefore, to prevent readmissions for individuals with SUD, prompt treatment services or MAT should be used after an inpatient stay to help reduce readmission rates.[160]

Among adults in NC Medicaid, no disparities were identified based on gender, primary language, ethnicity, American Indian/Alaskan Native binary race, or geography for the *Readmissions Among Beneficiaries with SUD* measure. However, disparities were identified based on LTSS needs status, disability status, age, and Black binary race.

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 77.75% (See Figure 75).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 85.627% (See Figure 76).
- Beneficiaries aged 45 through 64 years old fared worse than those 21 years old and younger, with a relative difference of 75.10% (See Figure 77).
- Beneficiaries aged 22 through 44 years old fared worse than those 21 years old and younger, with a relative difference of 68.41% (See Figure 78).
- Beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 17.24% (See Figure 79).

A Lower Rate Indicates Better Performance for This Measure

FIGURE 75: Readmissions Among Beneficiaries with SUD, 2022 NC Medicaid Performance by LTSS Needs Status



[157] This measure is a Demonstration Year metric (Nov 2021 – Oct 2022), not a calendar year metric.
[158] Reif S, Acevedo A, Garnick DW, et al. Reducing Behavioral Inpatient Readmissions for People with Substance Use Disorders: Do Follow-up Services Matter? Psychiatr Serv. 2017. 68(8): 810–818. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5895963/. Accessed on: Jun 28, 2023.
[159] Nordeck CD, Welsh C, Schwartz RP, et al. Rehospitalization and substance use disorder (SUD) treatment entry among patients seen by a hospital SUD consultation-liaison service. Drug Alcohol Depend. 2018.186:23–28. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5922267/. Accessed on: Jun 28, 2023.
[160] Reif S, Acevedo A, Garnick DW, et al. Reducing Behavioral Inpatient Readmissions for People with Substance Use Disorders: Do Follow-up Services Matter? Psychiatr Serv. 2017. 68(8): 810–818. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5895963/. Accessed on: Jun 28, 2023.

NC Medicaid's 1115 Waiver

In 2018, North Carolina's 1115 Demonstration Waiver was approved by CMS. The State's overarching goal for the demonstration was to improve health and well-being for all North Carolinians through a whole-person, well-coordinated system of care that addresses medical and non-medical drivers of health and advances health access by reducing disparities for groups that have been economically and socially marginalized. A key piece of this demonstration waiver was securing federal Medicaid matching funds for individuals obtaining SUD treatment in institutions for mental diseases (IMDs). This expansion of coverage aims to reduce SUD, decreasing long-term use of opioids, and improving quality and outcomes for patients with SUD. This waiver is being renewed in 2024, to learn more visit NC Medicaid's Section 1115 Demonstration Waiver page.

FIGURE 76: Readmissions Among Beneficiaries with SUD, 2022 NC Medicaid Performance by Disability Status

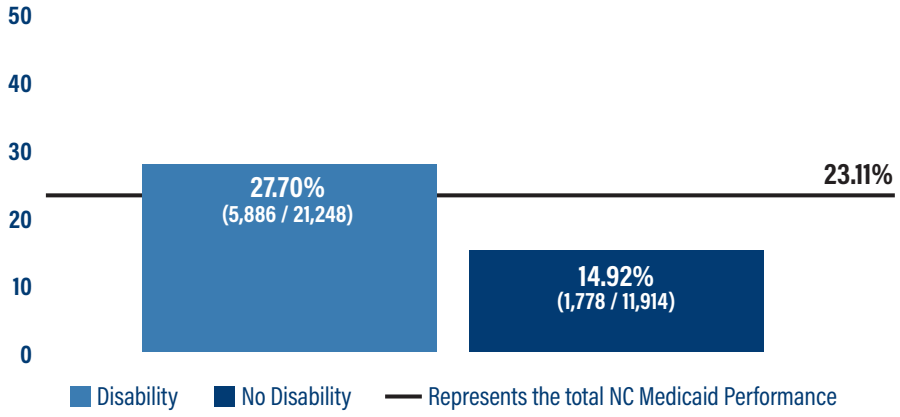


FIGURE 77: Readmissions Among Beneficiaries with SUD, 2022 NC Medicaid Performance by Age Group

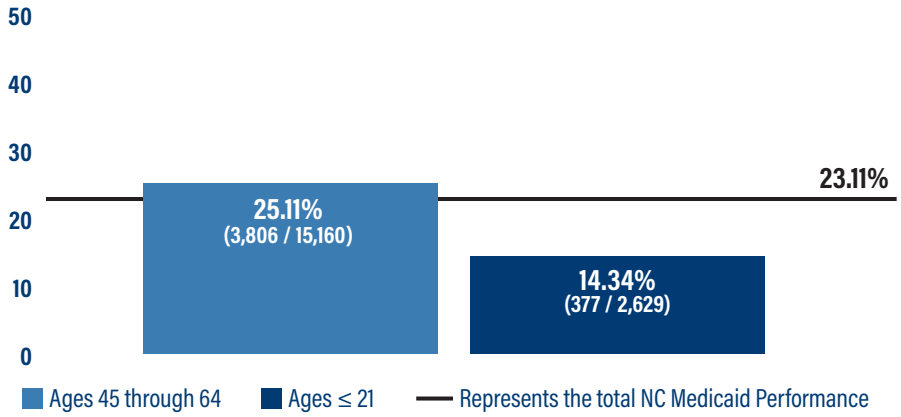


FIGURE 78: Readmissions Among Beneficiaries with SUD, 2022 NC Medicaid Performance by Age Group

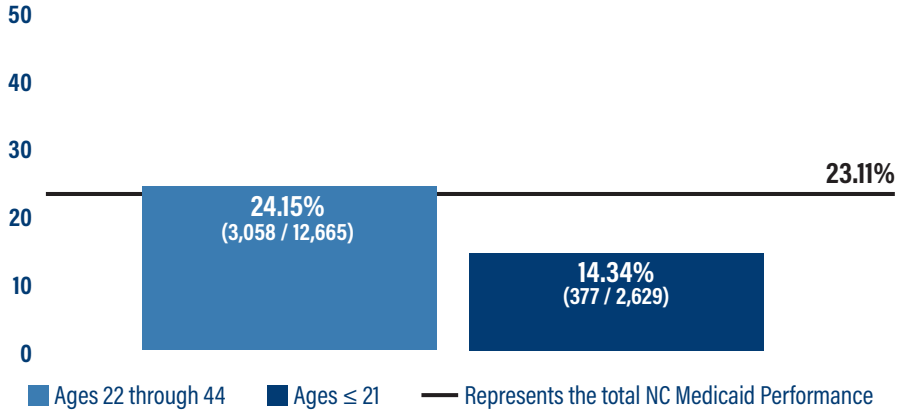
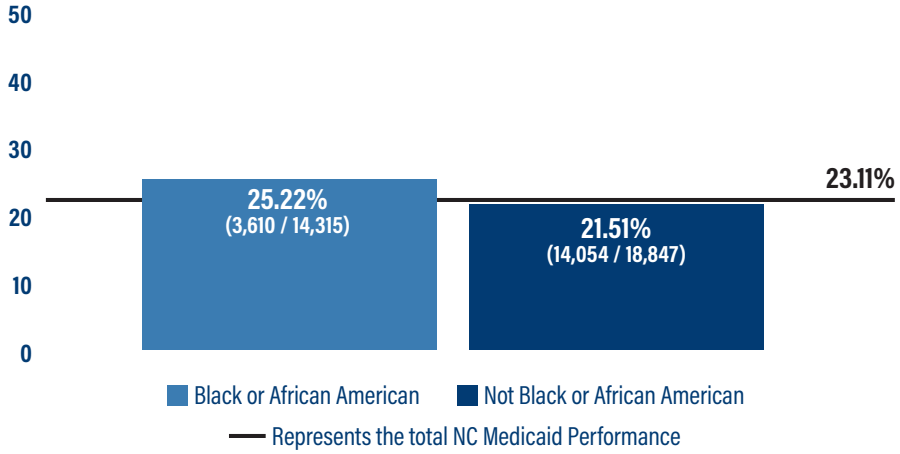


FIGURE 79: Readmissions Among Beneficiaries with SUD, 2022 NC Medicaid Performance by Black or African American Binary Race



Health Care Utilization Domain Findings

The Health Care Utilization domain includes eight measures related to adult and child condition-specific admissions. In 2020, 131.3 million individuals went to the ED in the United States, with 18.6 million ED visits resulting in a hospital admission.[161] ED utilization varies by race and ethnicity; non-Hispanic Black patients are twice as likely to visit an ED than their white or Hispanic counterparts.[162]

In 2018, there were nearly 3.8 million readmissions within 30 days of discharge in the United States with an average cost of $15,200 per readmission; and while some readmissions may be expected, most of them are not. For the 3.8 million readmissions, the top four primary diagnoses for the admissions were septicemia, heart failure, diabetes and COPD.[163] Given the cost associated with these types of visits and to ensure care is being provided to beneficiaries in appropriate settings, it is important to understand the reasons why beneficiaries are showing up in the ED for care, especially when it results in an admission (e.g., lack of access to a PCP, untreated or unmanaged conditions).

Table 14 displays the total NC Medicaid performance for the measures included in the Health Care Utilization domain.

TABLE 14: Health Care Utilization Domain NC Medicaid Aggregates

Health Care Utilization Domain Findings	CY 2022 NC Medicaid Aggregate
PQI 01: Diabetes Short-Term Complications Admission Rate Per 100,000 Member Months*	14.64
PQI 15: Asthma in Younger Adults Admission Rate Per 100,000 Member Months*	2.26
PQI 05: COPD or Asthma in Older Adults Admission Rate Per 100,000 Member Months*	33.71
PQI 08: Heart Failure Admission Rate Per 100,000 Member Months*	36.43
PDI 14: Pediatric Asthma Admission Rate Per 100,000 Member Months*	5.17
PDI 15: Pediatric Diabetes Short-Term Complications Admission Rate Per 100,000 Member Months*	2.61
PDI 16: Pediatric Gastroenteritis Admission Rate Per 100,000 Member Months*	1.66
PDI 18: Pediatric Urinary Tract Infection Admission Rate Per 100,000 Member Months*	1.03

**A lower rate indicates better performance for this measure.*

See Appendix D for stratified results for all these measures.

PQI 01: Diabetes Short-Term Complications Admission Rate per 100,000 Member Months

The PQI 01: *Diabetes Short-Term Complications Admission Rate per 100,000 Member Months* measure assesses the number of hospitalizations for a principal diagnosis of diabetes with short-term complications (ketoacidosis, hyperosmolarity, or coma) per 100,000 member months for beneficiaries 18 years of age and older. A lower rate indicates better performance for this measure.

[161] Centers for Disease Control and Prevention. National Center for Health Statistics: Emergency Department Visits. Available at: https://www.cdc.gov/nchs/fastats/emergency-department.htm. Accessed on: Jun 28, 2023.
[162] National Hospital Ambulatory Medical Care Survey: 2016 Emergency Department Summary Tables. https://www.cdc.gov/nchs/data/nhamcs/web_tables/2016_ed_web_tables.pdf
[163] Weiss AJ and Jiang HJ. Statistical Brief #278: Overview of Clinical Conditions with Frequent and Costly Hospital Readmissions by Payer, 2018. Available at: https://hcup-us.ahrq.gov/reports/statbriefs/sb278-Conditions-Frequent-Readmissions-By-Payer-2018.jsp. Accessed on: Jun 28, 2023.

If individuals with diabetes do not have access to high-quality outpatient care to properly manage their diabetes, they could become at risk for life-threatening diabetes complications. This can lead to expensive and unnecessary inpatient hospital admissions.[164] These outcomes are not evenly distributed. In 2019, people who identified as non-Hispanic Black were 2.5 times as likely to be hospitalized with diabetes and associated long-term complications than those who identify as non-Hispanic white.[165] These populations are more likely to live in under-resourced neighborhoods and face barriers such as poverty, lack of access to healthy food, restrictions on safe physical activity, inadequate employment and limited health education opportunities.[166] These social determinants of health are deeply rooted in a history of economic, environmental, social, and structural discrimination.

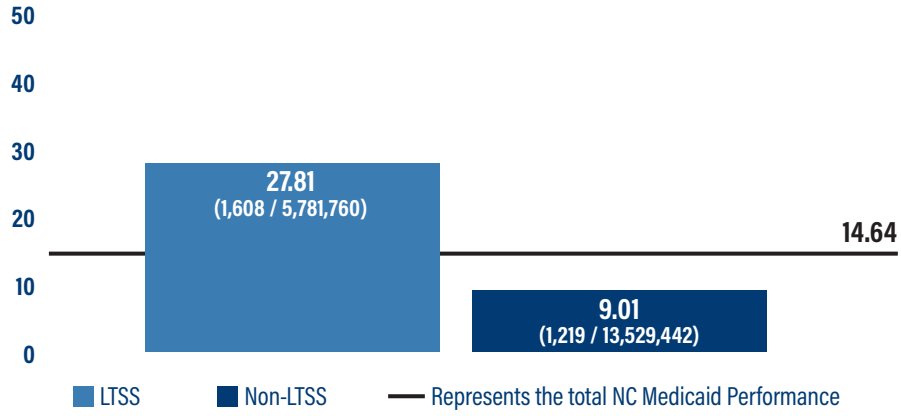
Among adults in NC Medicaid, no disparities were identified based on ethnicity, age, gender, primary language, or geography. However, disparities were identified based on Black and American Indian/ Alaskan Native binary race, LTSS needs status and disability status for the *PQI 01: Diabetes Short-Term Complications Admission Rate per 100,000 Member Months* measure:

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 208.68% (See Figure 80).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 322.26% (See Figure 81).
- Beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 70.24% (See Figure 82).
- Beneficiaries who identified as American Indian and Alaskan Native fare worse than those who do not, with a relative difference of 33.47% (See Figure 83).

Note: Please exercise caution when interpreting disparities findings given that some demographic stratifications are based on small numerators and/or denominators.

A Lower Rate Indicates Better Performance for This Measure

FIGURE 80: Diabetes Short-Term Complications Admission Rate (PQI01), 2022 NC Medicaid Performance by LTSS Needs Status (per 100,000 member months)



[164] Medicaid. PQI 01: Diabetes Short-Term Complications Admission Rate: Age 18 and Older. Available at: https://www.medicaid.gov/state-overviews/scorecard/diabetes-short-term-complications-admission-rate/index.html. Accessed on: Jun 28, 2023.

[165] Diabetes and African Americans.(2019). US Department of Health and Human Services. Office of Minority Health. Available at: https://minorityhealth.hhs.gov/diabetes-and-african-americans#:~:text=In%202019%2C%20non%2DHispanic%20blacks%20were%202.5%20times%20likely%20to,compared%20to%20non%2DHispanic%20whites.

[166] Diabetes in Black Communities. Understanding Health Inequity. (July 2022). Northwestern Medicine. Accessed on 6/5/2024. Available here: https://www.nm.org/healthbeat/healthy-tips/nutrition/diabetes-in-the-black-community#:~:text=Why%20Black%20People%20Are%20at,to%20be%20diagnosed%20with%20diabetes.

FIGURE 81: Diabetes Short-Term Complications Admission Rate (PQI01), 2022 NC Medicaid Performance by Disability Status(per 100,000 member months)

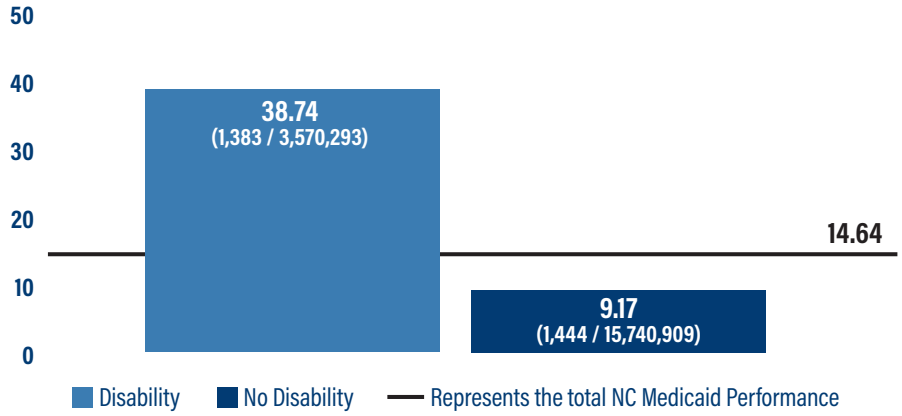


FIGURE 82: Diabetes Short-Term Complications Admission Rate (PQI01), 2022 NC Medicaid Performance by Black or African American Binary Race (per 100,000 member months)

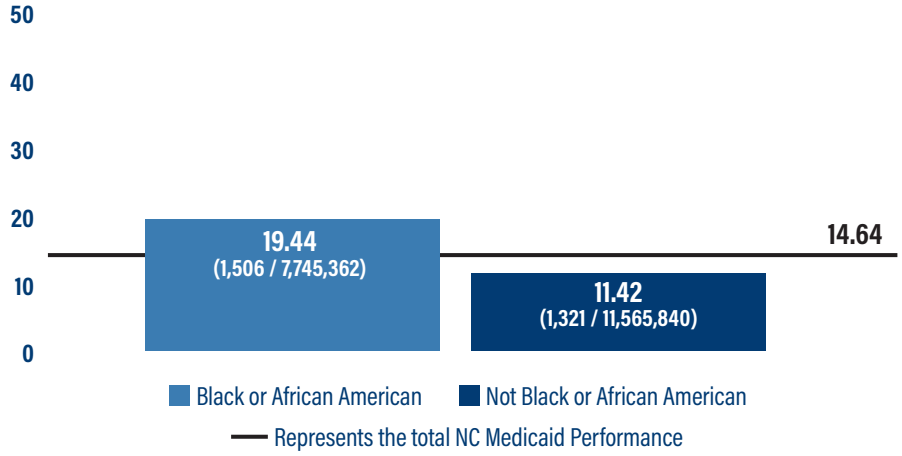
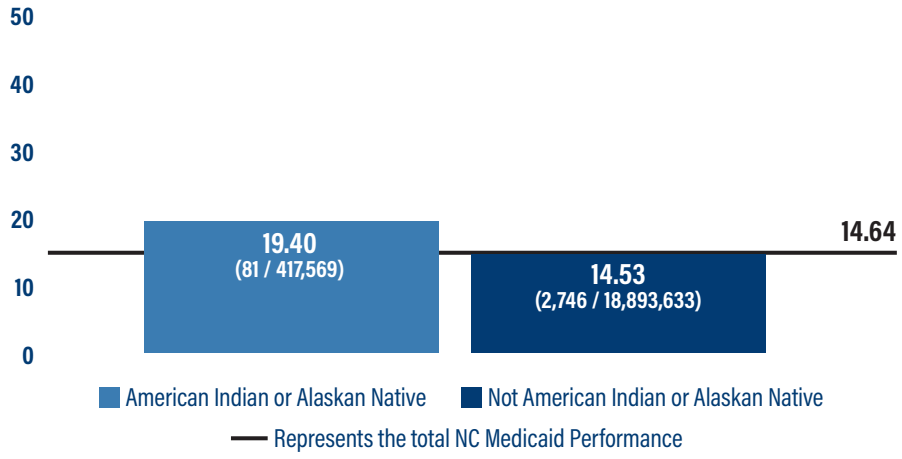


FIGURE 83: Diabetes Short-Term Complications Admission Rate (PQI01), 2022 NC Medicaid Performance by American Indian/Alaskan Native Binary Race (per 100,000 member months)



PQI 15: Asthma in Younger Adults Admission Rate per 100,000 Member Months

The *PQI 15: Asthma in Younger Adults Admission Rate per 100,000 Member Months* measure assesses the number of hospitalizations for a principal diagnosis of asthma per 100,000 member months for beneficiaries 18 to 39 years of age. A lower rate indicates better performance for this measure.

Around 25 million people in the United States are affected by asthma, a condition that can often be managed and treated effectively.[167] Asthma affects all ages and genders within the United States, but individuals who identify as Black or African American are disproportionately burdened by this disease.[168] These disparities can partially be explained by these population's increased exposure to asthma triggers, like mold and allergens, which is due to structural issues such as systemic racism, segregation, and discriminatory housing policies.[169]

In younger adults, asthma is one of the most common reasons for hospital admissions and emergency room visits; this is considered preventable with proper observation and treatment in outpatient settings.[170] Studies have found that asthma was more common among children who identified as male, Black or African American, whose parents' education level was less than a bachelor's degree, and who had public health insurance.[171]

Among adults in NC Medicaid, no disparities were identified based on age, ethnicity, geography, or primary language for the *PQI 15: Asthma in Younger Adults Admission Rate per 100,000 Member Months*. However, disparities were identified based on American Indian/Alaskan Native and Black or African American binary race, gender, LTSS needs status, and disability status:

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 257.29% (See Figure 84).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 261.35% (See Figure 85).
- Beneficiaries who identified as American Indian and Alaskan Native fared worse than those who did not, with a relative difference of 18.89% (See Figure 86).
- Beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 105.08% (See Figure 87).
- Beneficiaries who identified as Female fared worse than those who identified as Male, with a relative difference of 113.89% (See Figure 88).

Note: Please exercise caution when interpreting disparities findings given that some demographic stratifications are based on small numerators and/or denominators.

Clinical algorithms are used across medical specialties to assist in decisions such as diagnosis, medical management, and risk stratification. Some of these algorithms use race as a variable, which can lead to biased results. Once such clinical algorithm is used in pulmonary function tests. For example, spirometers, which are a tool for measuring the volume of air inspired and expired by the lungs, can sometimes use correction factors for patients who identify as Black or Asian. These race-based variables lead to inaccurate estimates of lung function and can lead to the misclassification of disease severity for these racial groups.

[167] Centers for Disease Control and Prevention (CDC). 2021. "Most Recent National Asthma Data" Available here: https://www.cdc.gov/asthma/most_recent_national_asthma_data.htm
[168] Perez MF, Coutinho MT. An Overview of Health Disparities in Asthma. Yale J Biol Med. 2021 Sep 30;94(3):497-507. PMID: 34602887; PMCID: PMC8461584.
[169] Asthma and Allergy Foundation of America, (2020). [Asthma Disparities in America: A Roadmap to Reducing Burden on Racial and Ethnic Minorities]. Retrieved from aafa.org/asthmadisparities
[170] Centers for Medicare & Medicaid Services. Medicaid/CHIP: Health Care Quality Measures. Quality of Care for Adults in Medicaid: Findings from the 2017 Adult Core Set. Dec 2018. Available at: https://www.medicaid.gov/medicaid/quality-of-care/downloads/performance-measurement/2018-adult-chart-pack.pdf. Accessed on: Jun 28, 2023.
[171] Pate CA, Qin X, Johnson C, Zahran HS. Asthma disparities among U.S. children and adults. J Asthma. 2023 Dec;60(12):2214-2223. doi: 10.1080/02770903.2023.2228915. Epub 2023 Jul 10. PMID: 37366607; PMCID: PMC10760409.

A Lower Rate Indicates Better Performance for This Measure

FIGURE 84: Asthma in Younger Adults Admission Rate (PQI15), 2022 NC Medicaid Performance by LTSS Needs Status (per 100,000 member months)

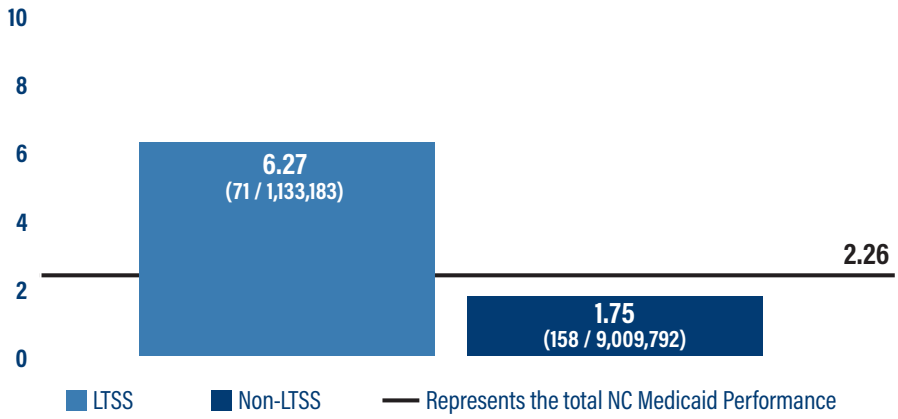


FIGURE 85: Asthma in Younger Adults Admission Rate (PQI15), 2022 NC Medicaid Performance by Disability Status (per 100,000 member months)

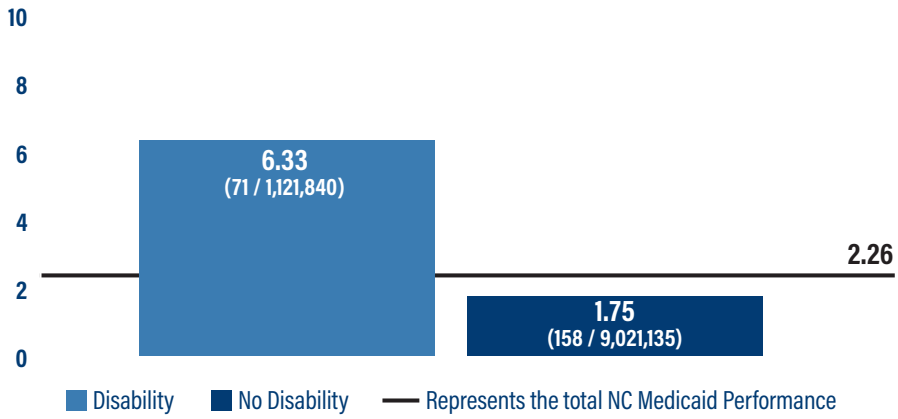


FIGURE 86: Asthma in Younger Adults Admission Rate (PQI15), 2022 NC Medicaid Performance by American Indian/Alaskan Native Binary Race(per 100,000 member months)

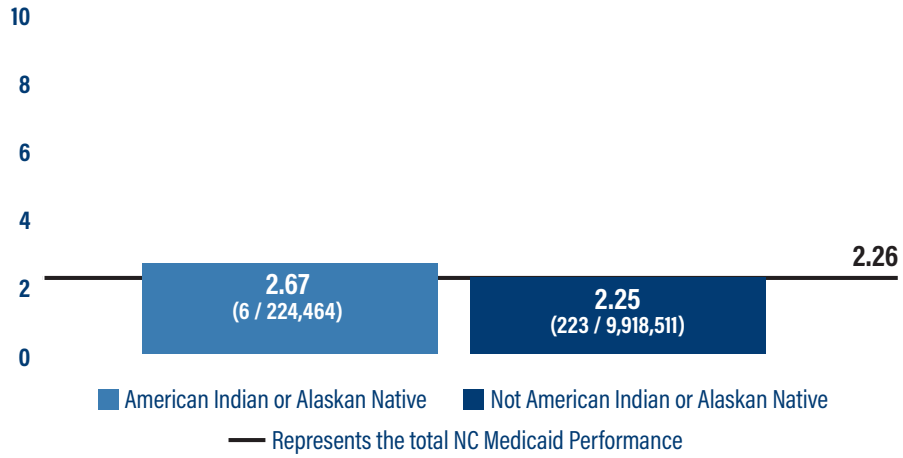


FIGURE 87: Asthma in Younger Adults Admission Rate (PQI15), 2022 NC Medicaid Performance by Black or African American Binary Race(per 100,000 member months)

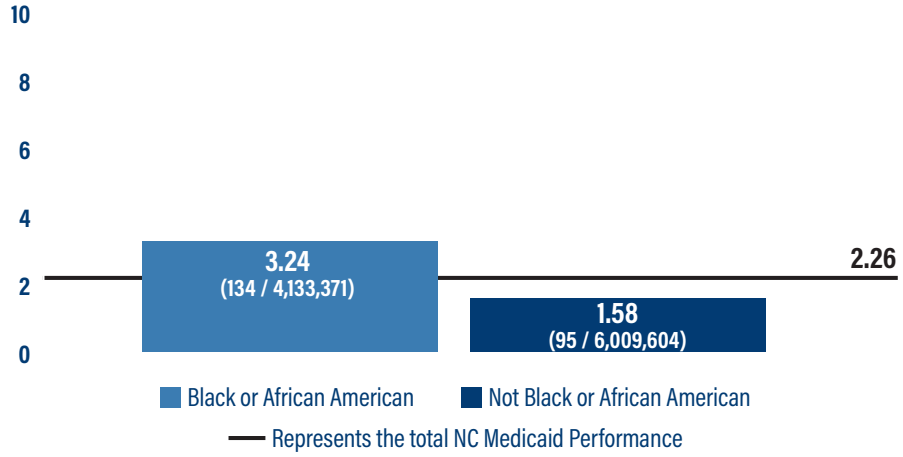
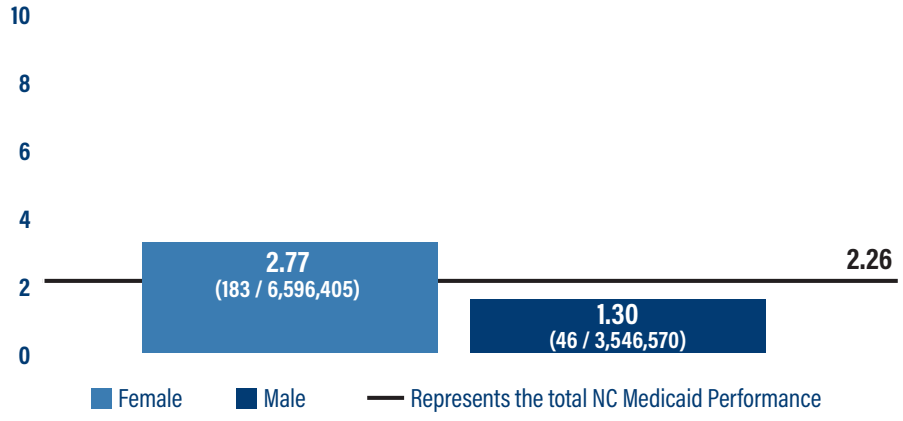


FIGURE 88: Asthma in Younger Adults Admission Rate (PQI15), 2022 NC Medicaid Performance by Gender(per 100,000 member months)



PQI 05: COPD or Asthma in Older Adults Admission Rate per 100,000 Member Months

The *PQI 05: COPD or Asthma in Older Adults Admission Rate per 100,000 Member Months* measure assesses the number of hospitalizations with a principal diagnosis of COPD or asthma per 100,000 member months for beneficiaries 40 years of age and older. A lower rate indicates better performance for this measure.

COPD is one of the most prevalent chronic diseases in the United States and ranked as the sixth overall leading cause of death in the United States in 2021.[172] Hospital admissions for COPD and asthma could be prevented with proper management in an outpatient setting.[173] People who identify as Black and African American and American Indian or Alaskan Natives have the highest current asthma rates compared to other races and ethnicities. In 2018, people who identified as Black (10.9%) were 42% more likely than those who identify as white (7.7%) to still have asthma.[174]

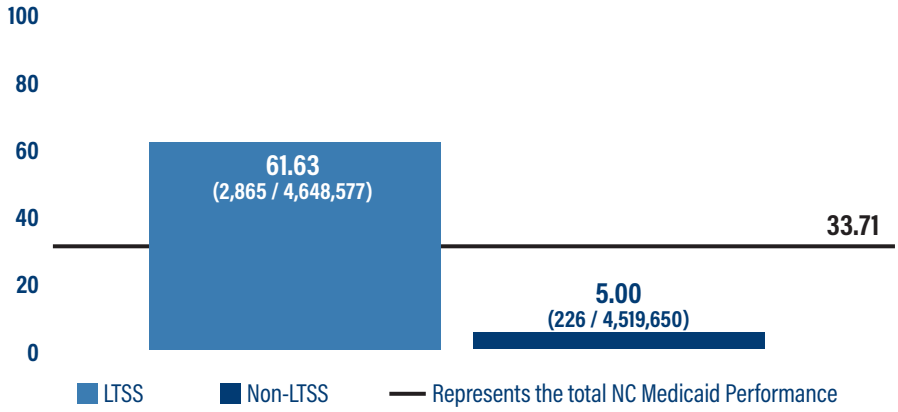
Among adults in NC Medicaid, no disparities were identified based on primary language, age, gender, Black or African American binary race, or geography for the *PQI 05: COPD or Asthma in Older Adults Admission Rate per 100,000 Member Months* measure. However, disparities were identified based on American Indian/Alaskan Native binary race, LTSS needs status, and disability status:

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 1,132.54% (See Figure 89).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 174.45% (See Figure 90).
- Beneficiaries who identified as American Indian and Alaskan Native fare worse than those who did not, with a relative difference of 128.76% (See Figure 91).

Note: Please exercise caution when interpreting disparities findings given that some demographic stratifications are based on small numerators and/or denominators.

A Lower Rate Indicates Better Performance for This Measure

FIGURE 89: COPD or Asthma in Older Adults Admission Rates (PQI05), 2022 NC Medicaid Performance by LTSS Needs Status (per 100,000 member months)



[172] COPD Trends Brief: Mortality. (2021) American Lunch Association. Accessed on 12/22/2023. https://www.lung.org/research/trends-in-lung-disease/copd-trends-brief/copd-mortality#:~:text=Age-,Leading%20Causes,19%2C%20accidents%2C%20and%20stroke.

[173] Bindman AB, Grumbach K, Osmond D, et al. Preventable hospitalizations, and access to health care. JAMA 1995;274(4):305–11.

[174] Current Asthma Rates by Race/Ethnicity. CDC. NIHS 2018. Analysis by the American Lung Association. Available here: https://www.lung.org/research/trends-in-lung-disease/asthma-trends-brief/current-demographics#raceEthnicity

FIGURE 90: COPD or Asthma in Older Adults Admission Rates (PQI05), 2022 NC Medicaid Performance by Disability Status(per 100,000 member months)

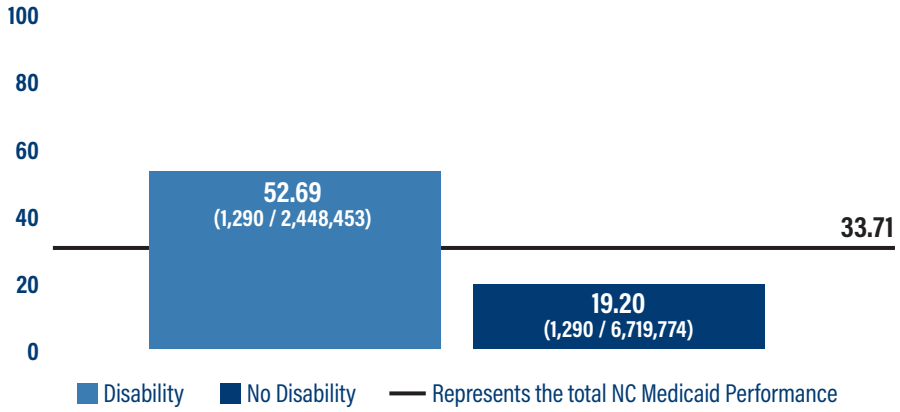
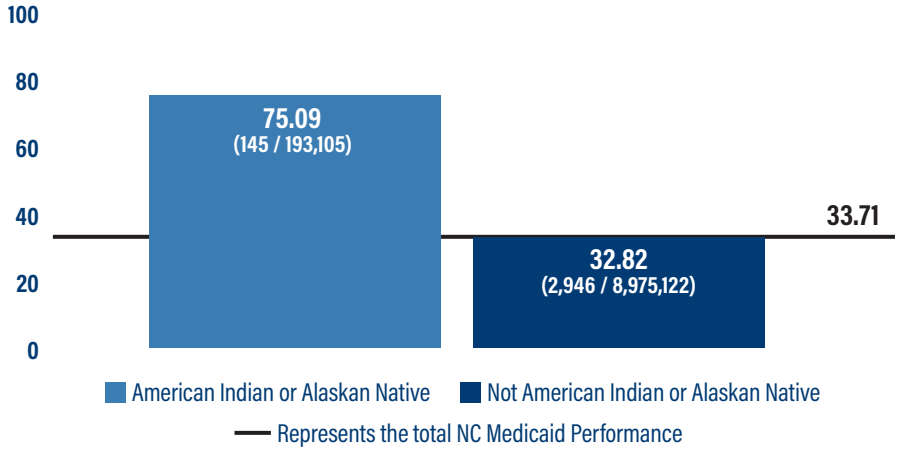


FIGURE 91: COPD or Asthma in Older Adults Admission Rates (PQI05), 2022 NC Medicaid Performance by American Indian/Alaskan Native Binary Race (per 100,000 member months)



PQI 08: Heart Failure Admission Rate per 100,000 Member Months

The *PQI 08: Heart Failure Admission Rate per 100,000 Member Months* measure assesses the number of hospitalizations with a principal diagnosis of heart failure per 100,000 member months for beneficiaries 18 years of age and older. A lower rate indicates better performance for this measure.

Approximately 6.2 million people in the United States suffer from congestive heart failure (CHF), with coronary artery disease, high blood pressure, and diabetes being the most common causes. These underlying conditions can be treated, controlled, and monitored effectively in outpatient settings. In cases where CHF patients are hospitalized, it could be due to the lack of proper prevention and management of these conditions.[175] Racial and ethnic minoritized groups have the highest incidence, prevalence and hospitalization rates from heart failure.[176] Research has found that overall heart failure survival has

[175] Centers for Disease Control and Prevention. Heart Disease. Available at: https://www.cdc.gov/heartdisease/heart_failure.htm. Accessed on: Jun 28, 2023.
[176] Lewsey SC, Breathett K. Racial and ethnic disparities in heart failure: current state and future directions. Curr Opin Cardiol. 2021 May 1;36(3):320-328. doi: 10.1097/HCO.0000000000000855. PMID: 33741769; PMCID: PMC8130651.

improved, and some racial and ethnic disparities have narrowed, but some disparities in heart failure outcomes, access to advanced therapies and utilization of therapies had persisted or worsened.

Among adults in NC Medicaid, no disparities were identified based on ethnicity, age, gender, primary language, American Indian/Alaskan Native binary race, or geography. However, disparities were identified based on Black or African American binary race, LTSS needs status, and disability status for the *PQI 08: Heart Failure Admission Rate per 100,000 Member Months* measure:

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 2,246.62% (See Figure 92).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 468.57% (See Figure 93).
- Beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 105.15% (See Figure 94).

Note: Please exercise caution when interpreting disparities findings given that some demographic stratifications are based on small numerators and/or denominators.

A Lower Rate Indicates Better Performance for This Measure

FIGURE 92: Heart Failure Admission Rates (PQI08), 2022 NC Medicaid Performance by LTSS Needs Status (per 100,000 member months)

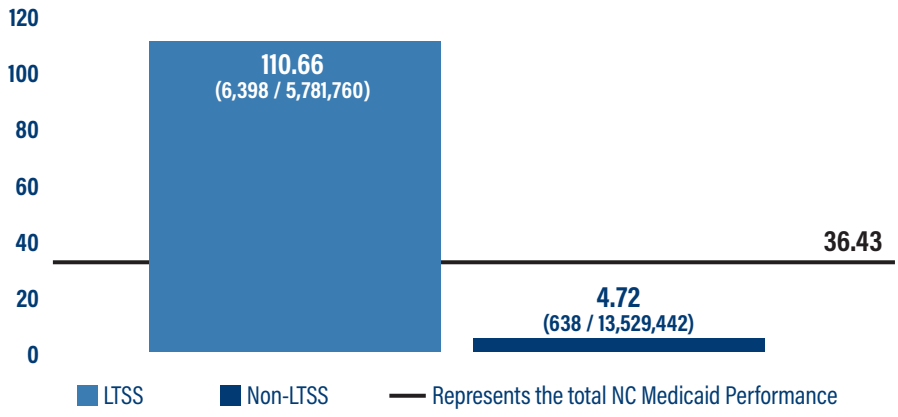


FIGURE 93: Heart Failure Admission Rates (PQI08), 2022 NC Medicaid Performance by Disability Status (per 100,000 member months)

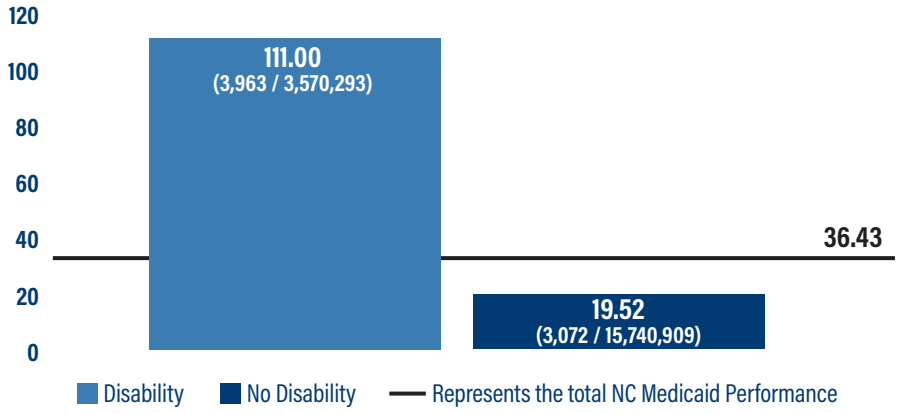
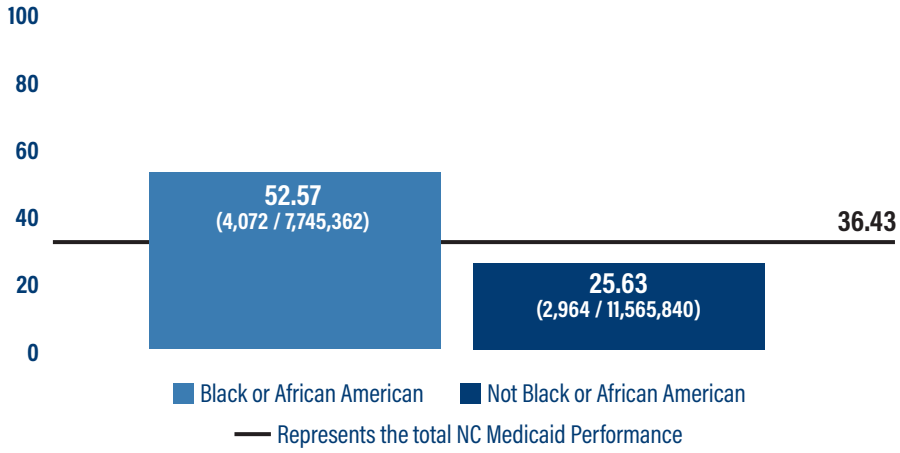


FIGURE 94: Heart Failure Admission Rates (PQI08), 2022 NC Medicaid Performance by Black or African American Binary Race (per 100,000 member months)



PDI 14: Pediatric Asthma Admission Rate per 100,000 Member Months

The *PDI 14: Pediatric Asthma Admission Rate per 100,000 Member Months* measure assesses the number of hospitalizations with a principal diagnosis of asthma per 100,000 member months for beneficiaries two to 17 years of age. A lower rate indicates better performance for this measure.

Asthma is the most prevalent chronic illness among children, currently affecting more than 4.5 million children in the United States.[177] Proper management of asthma is crucial to prevent it from becoming more severe and debilitating. Poorly controlled asthma can increase the risk of ED visits, hospitalization, and school absences, causing a significant burden on the patients, families and health care systems.[178]

[177] National Center for Health Statistics. (2022). 2021 NHIS Child Summary Health Statistics. U.S. Department of Health and Human Services. https://data.cdc.gov/d/wxz7-ekz9

[178] Pu C, Tseng YC, Tang GJ, et al. Perception and Willingness to Maintain Continuity of Care by Parents of Children with Asthma in Taiwan. Int J Environ Res Public Health. Mar 30, 2021; 18(7):3600. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8037309. Accessed on: Jun 28, 2023.

Disparities in asthma outcomes have been documented since the 1980s, showing that children who identify as Black or African American face higher morbidity and mortality due to asthma when compared with children who identify as white.[179] More recent research has found that these disparities in pediatric asthma are lessened after controlling for material hardship, which was defined as parent-reported poor housing quality, housing crowding, lack of amenities and no vehicle access.[180] Poor housing quality in particular is strongly associated with asthma morbidity.

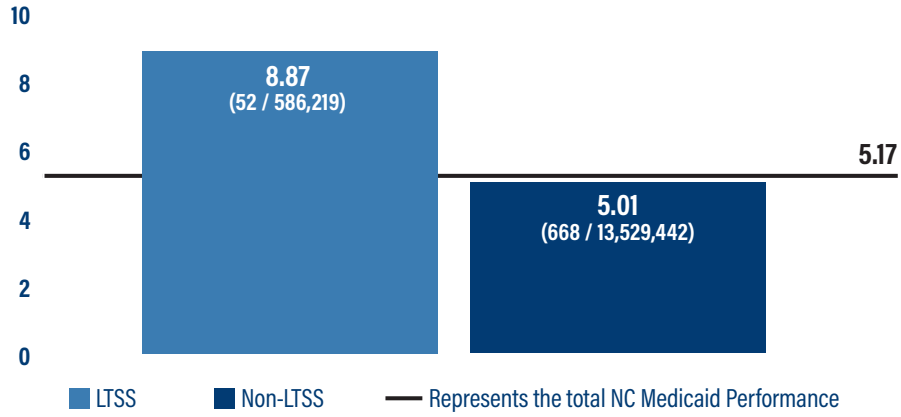
Among children in NC Medicaid, no disparities were identified based on ethnicity, age, gender, geography, or primary language. However, disparities were identified based on both Black and American Indian/Alaskan Native binary race, LTSS needs status, and disability status for the *PDI 14: Pediatric Asthma Admission Rate per 100,000 Member Months* measure:

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 77.02% (See Figure 95).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 78.27% (See Figure 96).
- Beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 168.21% (See Figure 97).
- Beneficiaries who identified as American Indian and Alaskan Native fare worse than those who do not, with a relative difference of 17.31% (See Figure 98).

Note: Please exercise caution when interpreting disparities findings given that some demographic stratifications are based on small numerators and/or denominators.

A Lower Rate Indicates Better Performance for This Measure

FIGURE 95: Pediatric Asthma Admission Rate (PDI 14), 2022 NC Medicaid Performance by LTSS Needs Status (per 100,000 member months)



[179] Anna Volerman, Marshall H. Chin, Valerie G. Press; Solutions for Asthma Disparities. Pediatrics March 2017; 139 (3): e20162546. 10.1542/peds.2016-2546

[180] Hughes HK, Matsui EC, Tschudy MM, Pollack CE, Keet CA. Pediatric Asthma Health Disparities: Race, Hardship, Housing, and Asthma in a National Survey. Acad Pediatr. 2017 Mar;17(2):127-134. doi: 10.1016/j.acap.2016.11.011. Epub 2016 Nov 19. PMID: 27876585; PMCID: PMC5337434.

FIGURE 96: Pediatric Asthma Admission Rate (PDI 14), 2022 NC Medicaid Performance by Disability Status (per 100,000 member months)

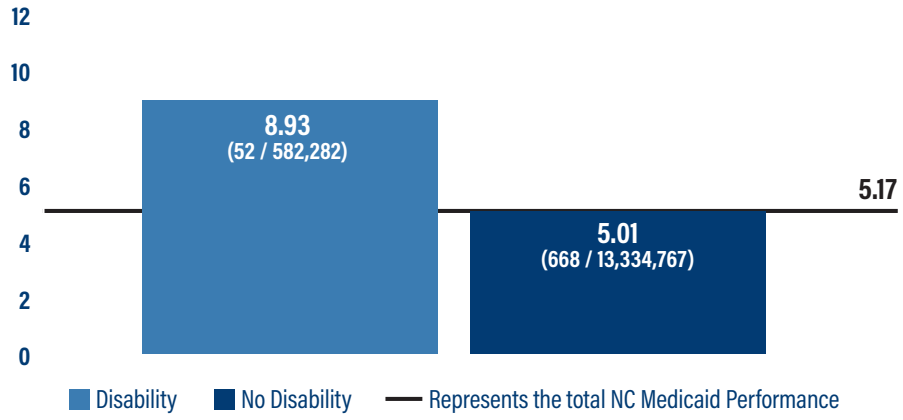


FIGURE 97: Pediatric Asthma Admission Rate (PDI 14), 2022 NC Medicaid Performance by Black or African American Binary Race (per 100,000 member months)

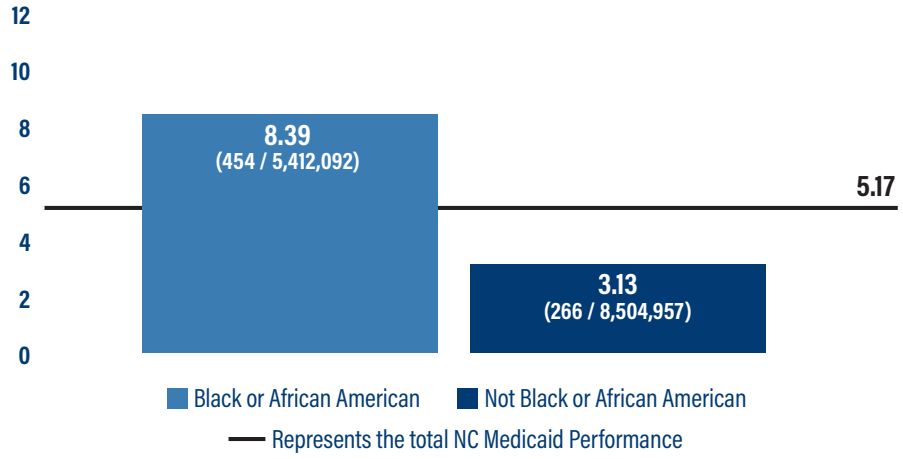
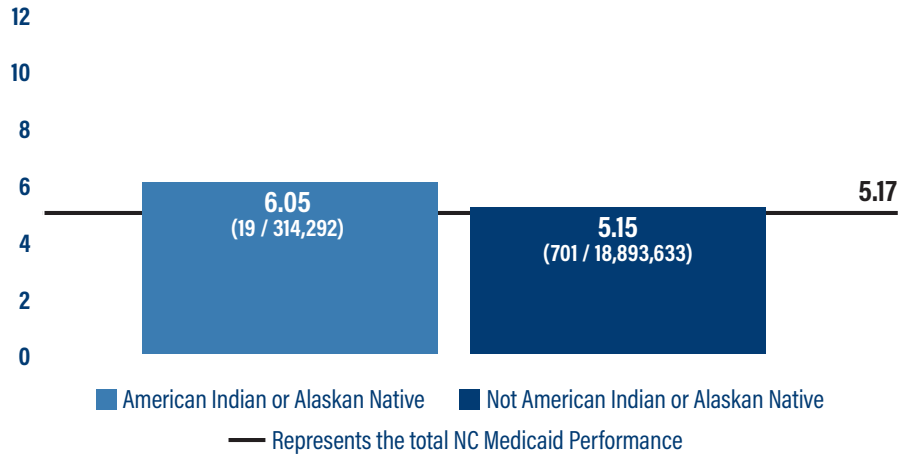


FIGURE 98: Pediatric Asthma Admission Rate (PDI 14), 2022 NC Medicaid Performance by American Indian or Alaskan Native Binary Race (per 100,000 member months)



PDI 15: Diabetes Short-Term Complications Admission Rate per 100,000 Member Months

The *PDI 15: Pediatric Diabetes Short-Term Complications Admission Rate per 100,000 Member Months* measure assesses the number of hospitalizations with a principal diagnosis of diabetes with short-term complications (ketoacidosis, hyperosmolarity, or coma) per 100,000 member months for beneficiaries six to 17 years of age. A lower rate indicates better performance for this measure.

While the prevalence of type 2 diabetes is on the rise in the pediatric population, type 1 diabetes is still the most prevalent form diagnosed in children in the United States.[181] Providers should work with families in an outpatient setting to develop age-appropriate treatment goals that include nutrition, physical activity, and medication treatment, in order to appropriately manage diabetes and prevent complications.[182] The same risk factors seen in adults, such as family history, obesity, and lack of physical activity, can also increase the chance of a child developing diabetes. Children with any type of diabetes are at a higher risk of complications related to the disease. It is crucial to identify, screen and treat children with type 2 diabetes early to prevent long-term complications from the disease.[183]

Among children in NC Medicaid, no disparities were identified based on ethnicity, age, gender, primary language, American Indian/Alaskan Native binary race, or geography. However, disparities were identified based on Black or African American binary race, LTSS needs status, and disability status for the *PDI 15: Pediatric Diabetes Short-Term Complications Admission Rate per 100,000 Member Months* measure:

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 190.80% (See Figure 99).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 192.94% (See Figure 100).
- Beneficiaries who identified as Black and African American fared worse than those who did not, with a relative difference of 43.86% (See Figure 101).

Note: Please exercise caution when interpreting disparities findings given that some demographic stratifications are based on small numerators and/or denominators.

[181] National Diabetes Statistics Report. (2021). Centers for Disease Control and Prevention (CDC). Available at: https://www.cdc.gov/diabetes/data/statistics-report/index.html. Accessed on March 19,2023.
[182] Beck JK and Cogen FR. Outpatient Management of Pediatric Type 1 Diabetes. Sep–Oct 2015. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4596120. Accessed on: Jun 28, 2023.
[183] Tillotson CV, Bowden SA, Boktor SW. Pediatric Type 2 Diabetes Mellitus. StatPearls. Jul 18, 2022. Available at: https://www.ncbi.nlm.nih.gov/books/NBK431046. Accessed on: Jun 28, 2023.

A Lower Rate Indicates Better Performance for This Measure

FIGURE 99: Diabetes Admission Rate (PDI 15), 2022 NC Medicaid Performance by LTSS Needs Status (per 100,000 member months)

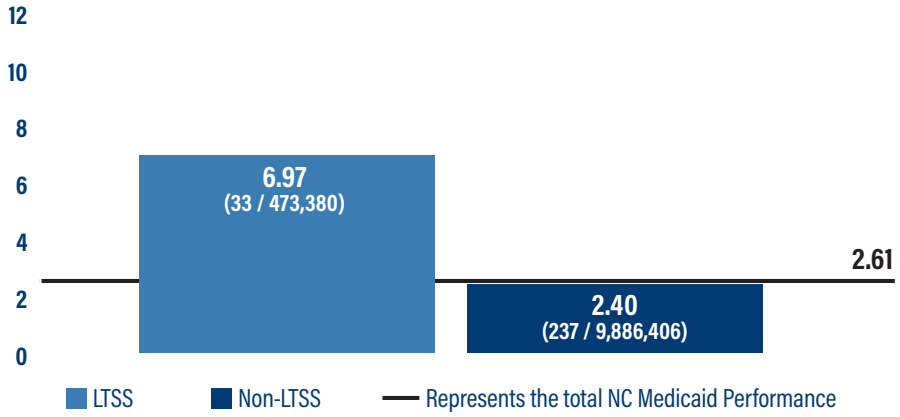


FIGURE 100: Diabetes Admission Rate (PDI 15), 2022 NC Medicaid Performance by Disability Status (per 100,000 member months)

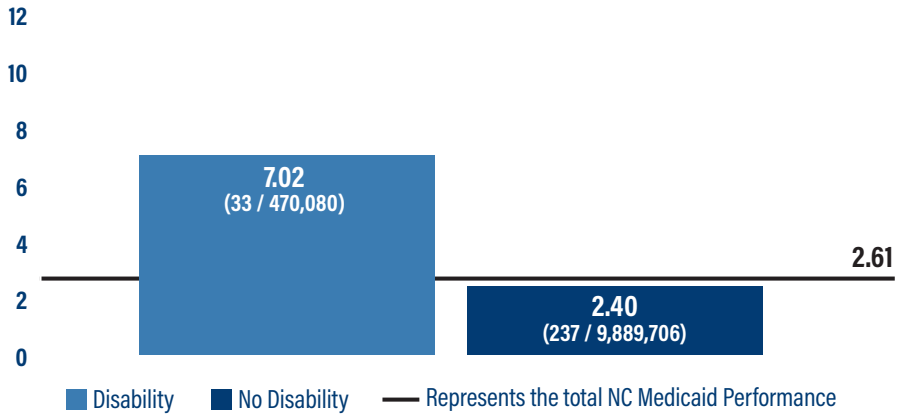
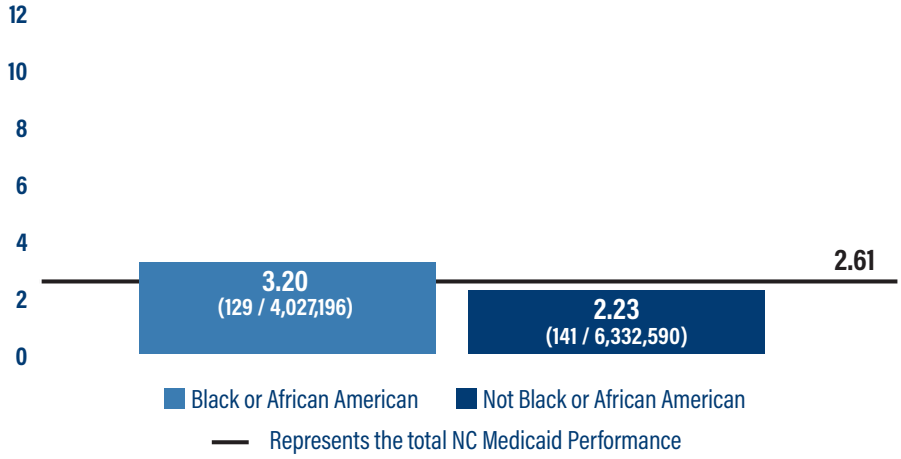


FIGURE 101: Diabetes Short-Term Complications Admission Rate (PDI 15), 2022 NC Medicaid Performance by Black or African American Binary Race (per 100,000 member months)



PDI 16: Pediatric Gastroenteritis Admission Rate per 100,000 Member Months

The *PDI 16: Pediatric Gastroenteritis Admission Rate per 100,000 Member Months* measure assesses the number of hospitalizations with a principal diagnosis of gastroenteritis or with a principal diagnosis of dehydration plus a secondary diagnosis of gastroenteritis per 100,000 member months for beneficiaries three months to 17 years of age. A lower rate indicates better performance for this measure.

Gastroenteritis in children is most commonly caused by viruses, bacteria and intestinal parasites. Inflammation of the stomach and intestine due to gastroenteritis can result in symptoms of stomach upset (e.g., vomiting, diarrhea).[184] In the United States as of 2019, acute gastroenteritis was responsible for, on average, approximately 1.5 million office visits, 200,000 hospitalizations, and 300 deaths in children annually.[185] Some research has found slight racial and ethnic differences in the use of diagnostic modalities and therapeutic interventions for pediatric acute gastroenteritis ED patients.[186]

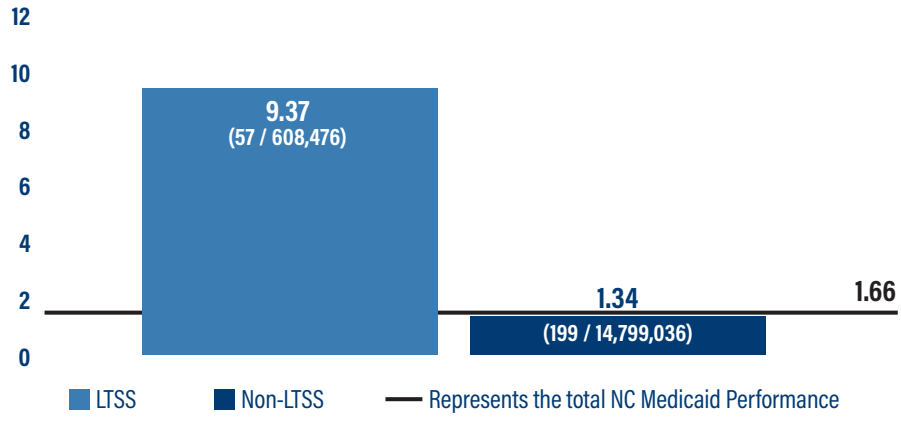
Among children in NC Medicaid, no disparities were identified based on gender, age, Black or African American or American Indian/Alaskan Native binary race, geography, or primary language for the *PDI 16: Pediatric Gastroenteritis Admission Rate per 100,000 Member Months* measure. However, disparities were identified based on ethnicity, LTSS needs status, and disability status:

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 596.65% (See Figure 102).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 601.44% (See Figure 103).
- Beneficiaries who identified as Hispanic and Latino fared worse than those who did not, with a relative difference of 25.26% (See Figure 104).

Note: Please exercise caution when interpreting disparities findings given that some demographic stratifications are based on small numerators and/or denominators.

A Lower Rate Indicates Better Performance for This Measure

FIGURE 102: Pediatric Gastroenteritis Admission Rate (PDI 16), 2022 NC Medicaid Performance by LTSS Needs Status (per 100,000 member months)



[184] Harvard Medical School. Gastroenteritis In Children. *Harvard Health Publishing*. Mar 1, 2020. Available at: https://www.health.harvard.edu/a_to_z/gastroenteritis-in-children-a-to-z. Accessed on: Jun 28, 2023.
[185] Hartman S, Brown E, Loomis E, et al. Gastroenteritis in Children. *American Family Physician*. 2019. Available at: https://www.aafp.org/pubs/afp/issues/2019/0201/p159.html. Accessed on: Jun 28, 2023.
[186] Jones NK, Badolato GM, Boyle MD, Goyal MK. Racial/ethnic disparities in management of acute gastroenteritis in a pediatric emergency department. Acad Emerg Med. 2021 Sep;28(9):1067-1069. doi: 10.1111/acem.14315. PMID: 34533263.

FIGURE 103: Pediatric Gastroenteritis Admission Rate (PDI 16), 2022 NC Medicaid Performance by Disability Status

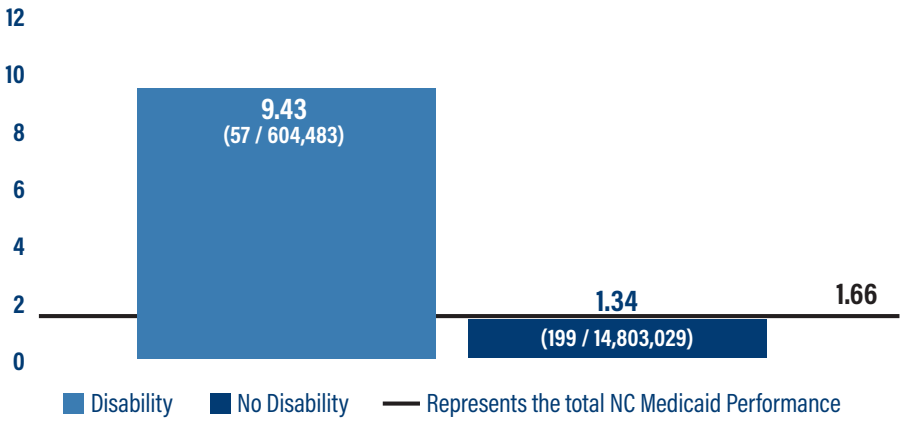
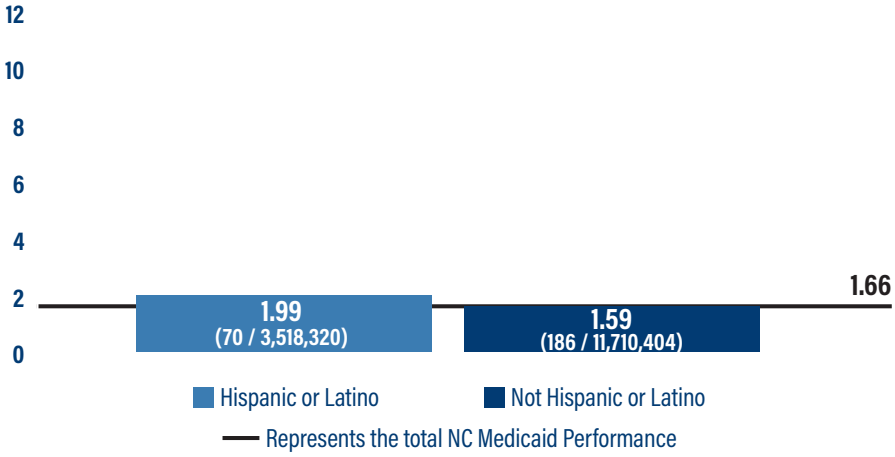


FIGURE 104: Pediatric Gastroenteritis Admission Rate (PDI 16), 2022 NC Medicaid Performance by Ethnicity (per 100,000 member months)



PDI 18: Pediatric Urinary Tract Infection Admission Rate per 100,000 Member Months

The *PDI 18: Pediatric Urinary Tract Infection Admission Rate per 100,000 Member Months* measure assesses the number of hospitalizations with a principal diagnosis of UTI per 100,000 member months for beneficiaries three months to 17 years of age. A lower rate indicates better performance for this measure.

UTIs are common in children, with 8% of girls and 2% of boys being diagnosed with at least one infection by age seven.[187] Rates of infection increase drastically in adolescent girls due to physiological and behavioral factors. UTIs can be treated in an outpatient setting with proper diagnosis and, if confirmed through testing, with a short course of oral antibiotics.[188, 189]

[187] Williams GJ, Wei L, Lee A, Craig JC. Long-term antibiotics for preventing recurrent urinary tract infection in children. Cochrane Database Syst Rev. 2006;3:CD001534.
[188] White B. Diagnosis and Treatment of Urinary Tract Infections in Children. *Am Fam Physician*. 2011;83(4):409–415. Available at: https://www.aafp.org/pubs/afp/issues/2011/0215/p409.html. Accessed on: Jun 28, 2023.
[189] Medina M and Castillo-Pino E. An introduction to the epidemiology and burden of urinary tract infections. *Ther Adv Urol*. 2019. 11. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6502976/#bibr3-1756287219832172. Accessed on: Jun 28, 2023.

Among children in NC Medicaid, no disparities were identified based on Black or African American or American Indian/Alaskan Native binary race, geography, primary language, or age. However, disparities were identified based on ethnicity, gender, LTSS needs status, and disability status for the *PDI 18: Pediatric Urinary Tract Infection Admission Rate per 100,000 Member Months* measure:

- Beneficiaries who identified as having LTSS needs fared worse than those who did not, with a relative difference of 592.07% (See Figure 105).
- Beneficiaries who identified as having a disability fared worse than those who did not, with a relative difference of 571.47% (See Figure 106).
- Beneficiaries who identified as Hispanic and Latino fared worse than those who did not, with a relative difference of 50.72% (See Figure 107).
- Beneficiaries who identified as Female fared worse than those who identified as Male, with a relative difference of 153.71% (See Figure 108).

Note: Please exercise caution when interpreting disparities findings given that some demographic stratifications are based on small numerators and/or denominators.

Clinical algorithms are used across medical specialties to assist in decisions such as diagnosis, medical management, and risk stratification. Some of these algorithms use race as a variable, which can lead to discriminatory decision making in a clinical setting. An example is the urinary tract infection (UTI) calculator which estimates the risk of UTI in children 2-23 months of age to guide decisions about when to pursue urine testing for definitive diagnosis. This tool uses race as an input variable and could impact the screening rates for the Black or African American population.

A Lower Rate Indicates Better Performance for This Measure

FIGURE 105: Pediatric Urinary Tract Infection Admission Rate (PDI 18), 2022 NC Medicaid Performance by LTSS Needs Status (per 100,000 member months)

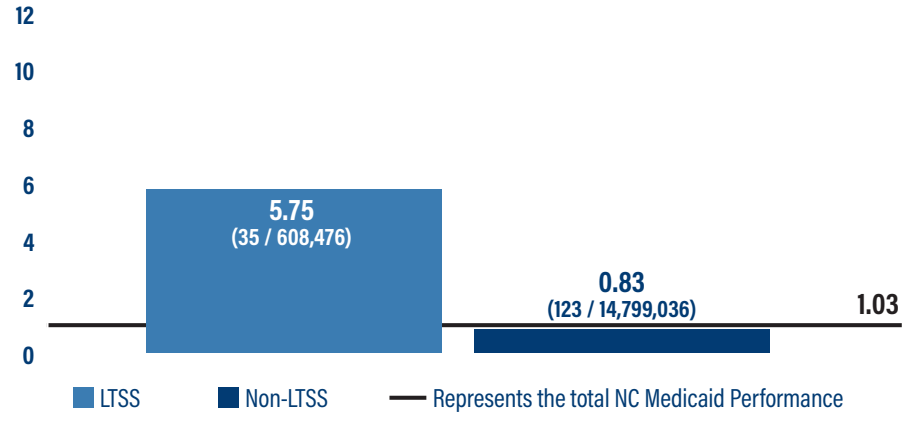


FIGURE 106: Pediatric Urinary Tract Infection Admission Rate (PDI 18), 2022 NC Medicaid Performance by Disability Status (per 100,000 member months)

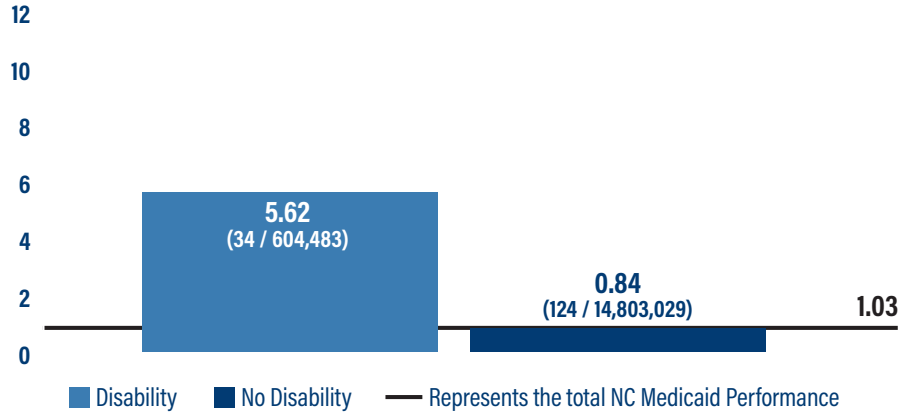


FIGURE 107: Pediatric Urinary Tract Infection Admission Rate (PDI 18), 2022 NC Medicaid Performance by Ethnicity (per 100,000 member months)

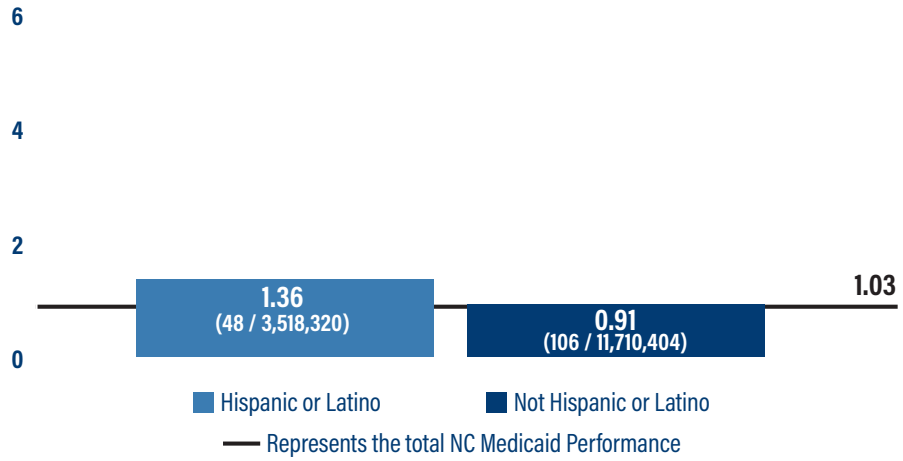
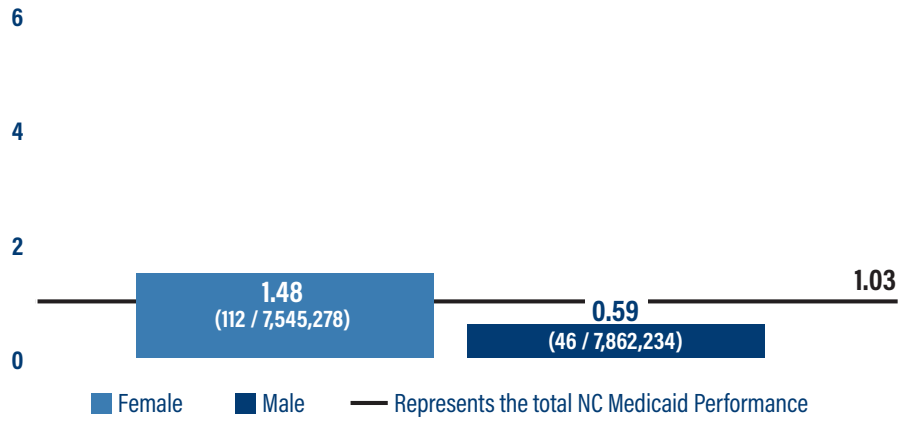


FIGURE 108: Pediatric Urinary Tract Infection Admission Rate (PDI 18), 2022 NC Medicaid Performance by Gender (per 100,000 member months)



Addressing Health Inequities

How Does NC Medicaid Promote Health Equity?

NC Medicaid is constantly working toward an innovative, whole-person, well-coordinated system of care that addresses both medical and nonmedical drivers of health. This report is just one tool that NC Medicaid is using to enhance focus on promoting health equity. After identifying and reflecting on health disparities within its beneficiary population, the next step is to think through ways in which NC Medicaid can have a meaningful impact on reducing or eliminating them.

The Department has implemented various health equity efforts to ensure that beneficiaries are receiving equitable access to quality health care, which can be organized into four key areas:[190]

1. Financial Incentives
2. Quality
3. Access to Care
4. Programmatic Interventions

NCDHHS Health Equity Portfolio FY 2022-2023 Year-in-Review

NCDHHS established a Health Equity Portfolio in 2021, which is comprised of three offices: the office of rural health, the office of diversity, equity and inclusion, and the office of health equity. The Health Equity Portfolio developed a Year-in-Review Report that highlights the Health Equity Portfolio's key accomplishments in Fiscal Year (FY) 22-23, discusses lessons learned, and provides insight into what's coming next in FY 23-24 to build sustainable equity efforts and for the Portfolio to continue growing its outreach, infrastructure, operations, and partnerships to achieve workforce belonging and health equity outcomes in NC.

Financial Incentives

NC Medicaid has implemented a series of financial incentives with PHPs and Carolina Access primary care practices that incentivize a focus on health equity and quality improvement. This section will explore three examples of financial incentives.

Health Equity Payments

To support the Department's goals to achieve health equity, NC Medicaid introduced a health equity payment to Carolina Access primary care practices serving beneficiaries from areas of the State with high poverty rates.

The initiative ultimately aimed to improve access to primary care and preventive services for NC Medicaid and NC Health Choice beneficiaries at a time when populations that have been historically marginalized (i.e., Black, or African American, Hispanic/Latino, and American Indian or Alaskan Native) faced challenges highlighted by the COVID-19 public health emergency. These payments were available for three months as a limited initiative from April through June 2021.

To be eligible for these payments, the practices had to be Carolina Access Tier I or II and meet a minimum beneficiary poverty score, determined by the average poverty rate for the census tracts of the beneficiaries assigned to each practice's location. To learn more about the specific enhanced per member per month (PMPM) health equity payments you can visit the Health Equity Payment Initiative website.

[190] The health equity related initiatives listed in this report are not meant to be comprehensive, but simply a summary snapshot of the programs and projects at NC Medicaid.

Health equity payments for eligible practices were automatically added to monthly Carolina Access payments (and Advanced Medical Home Glidepath payments for qualifying practices) for April through June 2021.

Practices were directed to use these funds to enhance primary care medical home services to support beneficiaries and ultimately address health equity through initiatives such as:

- Staff training on implicit bias, trauma informed care and health equity.
- Recruitment of key staff to reduce health inequity such as clinical pharmacists, dieticians, community health workers (CHWs), health coaches and doulas.
- Improving the practice infrastructure to address non-medical drivers of health.
- Investing in behavioral health supports and enhancing integration of behavioral and physical health.

All Carolina Access providers who received health equity payments were asked to complete a practice survey following the health equity initiative that was released on June 24, 2021, and due by July 30, 2021. The survey sought to understand how the payments advanced health equity for the practice and will inform future initiatives. The information gathered from this initiative will assist with more targeted investments in programs that have been shown to improve beneficiary access to care in key areas where health disparities and disparities in care exist.

NC Medicaid received 543 survey responses from Carolina Access providers about their experience with the health equity payments. Of the respondents, 93% were aware of the payments and 85% received the payments. Most survey responses came from practices whose beneficiaries are primarily from populations that have been historically marginalized (i.e., Black, or African American, Hispanic/Latino, and American Indian or Alaskan Native). A majority of the practices spent the payments on prevention measures to close care gaps, improve quality and clinical data analysis, and implement efforts related to addressing the COVID-19 pandemic. Less common uses of the payments included telemedicine enhancements to increase access, development of quality and clinical data action plans, and staff training on implicit bias and informed care, among others.

While most respondents reported successful investments in advancing health equity in large part due to the health equity payments, the survey also asked practices to report any barriers they encountered in spending the payments. One practice stated that the most significant barrier it encountered in spending the dollars to address health equity was “mistrust of the vaccine by our patients who are mostly underserved populations.” Another practice cited “difficulty recruiting and retaining additional staff to assist with tasks required to address health equity issues” as its primary barrier. The most frequent barriers among all practices were personnel shortages, challenges related to vaccine hesitancy and general limitations in what could be implemented given the effects of the COVID-19 pandemic.

Respondents were asked to explain which investments were most effective at advancing health equity via narrative and anecdotal responses. Some examples of common successful investment included expanding team-based models of care through hiring a variety of health care professionals (e.g., therapists, pharmacists, dieticians, nurses and social workers) and integrating behavioral health care into primary care.

These few examples, among the many positive stories submitted, reveal the variety of ways in which these payments significantly impacted the health of these practices’ patients. The Health Equity Payment Initiative was successful in providing the funding necessary for providers and practices to better serve the needs of their patients from populations that have been systemically discriminated against and improve health equity.

Standard Plan Quality Withholds to Support Health Equity

NC Medicaid strongly encourages Standard Plans to improve their performance in priority areas, especially those related to addressing health disparities. One tool to foster health equity in collaboration with health plans is the Standard Plan Quality Withhold Program. This program is a key component of North Carolina’s overarching Quality Strategy.

Beginning with 2024, the Department will withhold a percentage of each Standard Plan's total risk-adjusted capitation payment. To receive these withheld funds, Standard Plans must meet reasonable and achievable performance targets on quality measures following the defined performance period and quality measurement cycle.

The withhold program is designed to align with NC Medicaid's Quality Aims, Goals and Objectives, particularly focusing on:

1. Promoting child health, development, and wellness,
2. Enhancing women's health,
3. Addressing unmet health-related resource needs, and
4. Advancing health equity.

In alignment with these objectives, the Standard Plan Quality Withhold Program focuses on areas where quality measure performance is declining, or disparities have been identified among priority populations who are medically underserved. By doing so, it aims to raise awareness and provide incentives for continuous improvement in these vital areas.

NC Medicaid's Standard Plan Withhold Program will be based on three measures in 2024:

1. *Childhood Immunization Status — Combination 10*,
2. *Prenatal and Postpartum Care (PCC) — Timeliness of Prenatal Care and Postpartum Care*, and
3. *Rate of Screening for Health-Related Resource Needs (HRRN)*

Children in NC Medicaid continue to perform below NCQA's Quality Compass national Medicaid HMO average (henceforth referred to as "national average") for the *Childhood Immunization Status — Combination 10* measure.[191] This measure assesses the percentage of children two years of age that received a combination of 10 recommended vaccines by their second birthday. In addition to overall low performance, the Department identified a significant disparity for this measure when comparing performance of the Black or African American population to the Non-Black or -African American population. Therefore, the Childhood Immunization Status — Combination 10 measure will be used for two withhold measures: an overall performance improvement measure and a priority population improvement measure (focused on performance improvement for the Black or African American population).

NC Medicaid has also performed below the national average in measures of infant and maternal health, specifically when looking at antenatal and postnatal care. The Prenatal and Postpartum Care measure has two indicators: (1) *Timeliness of Prenatal Care*, which assesses the percentage of deliveries in which women had a prenatal care visit in the first trimester, on or before the enrollment start date, or within 42 days of enrollment in the organization; and (2) *Postpartum Care*, which assesses the percentage of deliveries in which women had a postpartum visit on or between seven and 84 days after delivery. In 2022, the Department identified that NC Medicaid rates were 41% lower than national averages for *Timeliness of Prenatal Care* (41.86 %) and 16% lower for *Postpartum Care* (60.79%). Timely access to prenatal and postpartum care is important, as studies have shown that as many as 60% of all pregnancy-related deaths could be prevented if women had better access to or received better quality of care. Further, Black, or African American and American Indian or Alaskan Native women experience pregnancy-related deaths at a higher rate than white women. The prenatal and postpartum care measure will be used as a performance improvement withhold measure.

The Rate of Screening for Health-Related Resource Needs (HRRN) is a homegrown measure specific to NC Medicaid that looks at the percentage of enrollees who received a screening for health-related resource needs. This measure has three sub-measures: percent of screenings attempts within 90 days of enrollment, percent of successful screening within 90 days of enrollment and percent of successful screening within the calendar year.[192] Health plans are contractually required to make at least three attempts to screen their

[191] Quality Compass® is a registered trademark of the NCQA. Please refer to the 2022 Quality Compass benchmarks (representing CY 2021 data) for exact benchmark values.
[192] More information on the HRRN measure, and all other measures mentioned in this report, can be found in North Carolina's Quality Measurement Technical Specifications Manual

members for health-related resource needs; however, this data is currently being recorded and reported inconsistently. In the first year of the Withhold Program, this measure will be used as a pay for reporting measure, with a focus on screening for health-related resource needs during the calendar year. In future years, the Department aims to transition this to a performance-based measure.

Using the *Childhood Immunization Status — Combination 10* and *Prenatal and Postpartum Care* measures as a part of the Withhold Program is a tool to address the inequities seen in vaccination rates, and to improve rates of timely prenatal and postpartum care. Using the Rate of Screening for Health-Related Resource Needs measure aligns with state quality aims of healthier people, healthier communities and provides an opportunity to improve screening rates, and to improve information collected on screenings performed by plans. In future years, NC Medicaid may consider other withhold measures that focus on improving health equity and reducing disparities. Each year, the Department will assess performance across withhold areas to modify the program to continually advance its goals, focus on new targets that foster continuous quality improvement, and assess opportunities to tie the Withhold Program to evolving priorities.

PHP Health Equity and Healthy Opportunities Reinvestment Activities

The PHP Health Equity/Healthy Opportunities Reinvestment Initiative encourages health plans to redirect certain financial resources toward advancing public health, promoting health equity and addressing unmet resource needs. The initiative incentivizes investments in programs that promote the cost-effective delivery of care, reflect engagement in local communities and improve health outcomes. Health plans that make meaningful voluntary contributions, as determined by the Department, may qualify for certain benefits as a result.

The PHP investment activities promoted by this initiative are intended to be data-driven and based on community needs. Health plans may support community-based organizations in addressing unmet resource needs, such as housing, food, interpersonal safety, transportation, or employment. Alternatively, investments may focus on programs that outreach or address specific health needs of populations that have been systemically discriminated against, with the goal of reducing health disparities. For the first round, 10 health equity related investments were approved. These investments focused on topics such as federally qualified health center (FQHC) workforce development, foster care system support, postnatal and well-child visits, food distribution, and community paramedic programs.

Quality

As stated in the NC Medicaid Managed Care Quality Strategy, the Department works with different health plans and product lines to develop a data-driven, outcomes-based continuous quality improvement process that promotes equity through reduction or elimination of health disparities. This section will describe different areas of quality work where NC Medicaid hopes to impact health inequities.

Quality Reporting

To ensure delivery of high-quality care under the managed care delivery system, the Department has developed the NC Medicaid Managed Care Quality Strategy and identified a set of quality metrics that it will use to assess health plans' performance across their populations. Standard Plans and Tailored Plans are directed to report select measures and stratify them by a variety of elements, including age, race, ethnicity, sex, primary language, and disability status and by key population groups (e.g., LTSS) and geography, where feasible. In evaluating plan performance on these measures, the Department will assess whether identified disparities have narrowed through improving performance specifically for the subpopulation experiencing the disparity, in addition to considering overall performance improvement for each plan's

respective enrolled population compared to its Standard Plan or Tailored Plan peers. The Department requires Standard Plans, Tailored Plans and Prepaid Inpatient Health Plans (PIHPs), in compliance with 42 CFR 438.330, to establish and implement an ongoing and comprehensive Quality Assessment and Performance Improvement program (QAPI). The QAPI includes mechanisms to assess and address health disparities based on the results of this Annual Health Disparities Report. The Department also expects plans to embed continuous quality improvement efforts to improve outcomes and promote health equity.

Health Equity Targeting Methodology

Through required quality reporting the Department identifies measures with significant disparities, defined as greater than a 10% relative difference in performance between the group of interest and the reference group. Upon identification, priority population improvement targets are set for the group of interest at a 10% relative improvement in performance. In the evaluation of plan performance on these measures, the Department assesses whether disparities have narrowed through performance improvement, specifically for the subpopulation experiencing the disparity. Additionally, the Department will consider overall performance improvement for each plan's respective enrolled population as compared to its Standard Plan or Tailored Plan peers. Performance in 2022 and the priority population improvement targets for NC Medicaid and Standard Plans can be found in the Quality Measure Performance and Targets for the AMH Measure Set. For more information on the Department's approach to analyzing performance improvement for quality measures, see the NC Medicaid Quality Measurement Technical Specifications Manual.[193]

Standard Plan Performance Improvement Projects (PIPs)

Performance improvement projects, or PIPs, are long-term quality improvement projects that aim to improve a specific measure for managed care plans. They can be clinical, related to the treatment or management of conditions, or non-clinical, focused on policies and procedures. Standard Plans are required to conduct PIPs that are designed to achieve significant improvement, sustained over time, in health outcomes and enrollee satisfaction. The PIP's life cycle is three years. Current Standard Plan PIP topics include childhood immunization status, prenatal and postpartum care, diabetes management and health related resource needs screening. PIPs must measure performance using objective quality indicators, assessment of barriers, implementation of interventions to achieve improvement in access and quality of care, and evaluation of effectiveness of the interventions. Standard Plans are required to conduct at least two PIPs annually, which must be approved by the Department. The state may also mandate PIPs to support statewide priorities. For more information on 2022 performance please visit the Annual Summary Report for Performance Improvement Projects.

[193] North Carolina's Medicaid Quality Measurement Technical Specifications Manual for Standard Plans and Behavioral Health Intellectual/Developmental Disability Tailored Plans, Version 1.5, January 31, 2023. Available at: https://medicaid.ncdhhs.gov/medicaid-managed-care-quality-measurement-technical-specifications-manual/open. Accessed on: Jun 28, 2023.

Access To Care

Access to care has many different dimensions, including provider availability, beneficiary utilization, and beneficiary perceptions and experiences. This section describes areas of work related to access where NC Medicaid hopes to impact health inequities.

EBCI Tribal Option

The Department and the Eastern Band of Cherokee Indians (EBCI), North Carolina's only federally recognized Tribe, are working together to address the health needs of Medicaid-eligible Tribal members. The EBCI Tribal Option, a first-in-the nation Indian Managed Care Entity, provides care coordination for approximately 4,500 federally recognized Tribal members and other individuals eligible to receive care through the Indian Health Service. Launched in July 2021, the EBCI Tribal Option is primarily offered in five NC counties: Cherokee, Graham, Haywood, Jackson and Swain.

The EBCI Tribal Option manages primary care needs (e.g., immunizations, well visits, sick visits, holistic health care, integrated care). Members receive care coordination and complex case management, including care coordination for mental health disorders, SUDs, I/DDs, or TBIs, LTSS. The EBCI Tribal Option assists with coordinating services and resources, such as transportation, housing, food and interpersonal violence interventions, as well as specialty care, services and referrals. They also offer added services, such as wellness programs and education vouchers. EBCI Tribal Option members have the opportunity to receive services from any NC Medicaid provider.

This unique partnership aims to eliminate barriers to care and reduce health disparities among the American Indian or Alaskan Native population while promoting tribal sovereignty.[194]

NC Integrated Care for Kids (NC InCK) Model

The NC Integrated Care for Kids Model (NC InCK) is a health equity-driven, child-centered local service delivery and State payment model aimed at improving the quality of care and reducing expenditures for children insured by NC Medicaid in five North Carolina counties: Alamance, Orange, Durham, Granville and Vance. NC InCK aims to integrate services for children, including physical and behavioral health, food, housing, early care and education, Title V (maternal and child health needs assessment), child welfare, mobile crisis response services, juvenile justice and legal aid. Three clinically integrated networks across the participating counties, Duke Connected Care, UNC Health Alliance, and Community Care Physician Network, coordinate care for pilot-eligible children across the continuum of child core services, including health care, schools, foster care and juvenile justice systems and social services. NC InCK is funded through a grant from CMS and will operate during a seven-year model period that began in January 2020 with a two-year planning period (2020 and 2021) and a five-year implementation period (2022 through 2026).

InCK believes that all children and families deserve opportunities to thrive regardless of their race, color, national origin, disability, age, sex and religion. NC InCK aims to achieve its goal through three sets of activities, all of which are informed by the InCK Family Council and Youth Council, which are made up of NC InCK members and their caregivers, to ensure that program activities are family-centered and promote equity.

[194] More information on the EBCI Tribal Option available at: https://ebcitribaloption.com/

NC InCK is working to integrate care for children across core child service areas to improve their well-being. NC InCK aims to achieve this goal through three sets of activities.

- NC InCK more holistically assesses the needs of children using a novel stratification approach that integrates data from NC Medicaid, the Department of Public Instruction, and the Department of Public Safety to assign children to one of three service integration levels (SILs).
- NC InCK employs integration consultants and family navigators to integrate services across sectors for children who could benefit from additional support.
- NC InCK has developed and implemented a novel alternative payment model (APM) to incentivize provider actions that improve the holistic well-being of children and close crucial disparities. In this APM, quality of care is measured and improved using standard health care measures (e.g., proportion of children receiving well-child checks) and novel cross-sector, well-being measures (e.g., kindergarten readiness, food insecurity and housing stability).

NC InCK's stratification process evaluates factors outside the traditional health care system. For example, factors that determine a child's SIL include positive screens for housing or transportation needs, Temporary Assistance for Needy Families (TANF) eligibility, a high Social Deprivation Index, risk of out-of-home placement, juvenile justice residential placement, foster care involvement, chronic school absenteeism, frequent short-term suspensions, expulsion from school, and guardian challenges like substance use during pregnancy or a recent psychiatric admission. Children with these flags receive increasingly intensive care management services. This process facilitates the provision of more intensive services to children and families whom the health care system has historically marginalized, and those whose needs have historically gone unmet by the health care system. NC InCK will continuously evaluate the SIL algorithm to ensure that all children in need of services are being elevated for care management.

In designing its care management services, the NC InCK team strived to design a family-led, strengths-based model that provides necessary, convenient care to children and families. NC InCK's integration consultants and family navigators are trained explicitly in how to ensure equitable implementation of the service model including in how to support family navigators in effectively communicating with families and creating family-centered goals. Children, youth, and families have the opportunity to co-create Shared Action Plans with their Family Navigator that outline goals and strengths of the child in the family's own words. In encouraging the family to drive its own care goals, this process helps promote more equitable health outcomes by ensuring families are given the opportunities and resources that are most useful to them.

The external workgroup that designed the NC InCK APM named an explicit goal of embedding equity into the model. One of the six performance measures linked to incentive payments is focused on closing the disparity between Black/African American and white patients in the number of well-child visits provided in the first 30 days of life. In addition to this explicitly equity-focused measure, all performance measures shared with plans and providers as part of the APM are stratified by race, ethnicity and county. With access to these data, providers are able to facilitate equity-focused quality improvement processes within their own systems.

Tailored Care Management

The Behavioral Health I/DD Tailored Care Management (TCM) model reflects the goal of whole-person care management in NC Medicaid Managed Care. Provider-based care management promotes integrated care and offers beneficiaries a choice in how they receive care management. Through TCM, beneficiaries have a single designated care manager supported by a multidisciplinary care team to provide whole-person care management that addresses all their needs, including physical health, behavioral health, I/DD, TBI, pharmacy, LTSS, and unmet health-related resource needs. As part of its commitment to advancing health equity, the Department has also developed a supplement to the TCM

Certification Application that gives organizations the option to identify as a Historically Underutilized Provider (HUP). This information will be used to advance health equity in the TCM program by, for example, informing fund distribution for capacity building services and ensuring the TCM program certification process is conducted equitably.[195]

Telemedicine

During the COVID-19 pandemic, telemedicine was a key tool in providing continued access to care for NC Medicaid beneficiaries. NC Medicaid beneficiaries quickly began utilizing telemedicine services in March 2020 when policies were adopted to support social distancing at the outset of the COVID-19 Public Health Emergency. The proportion of beneficiaries receiving care via telemedicine climbed as high as 16% during the stay-at-home order initiated on March 27, 2020, when in-person claims were at historic lows.

COVID-19 policies allowing telemedicine for certain outpatient behavioral health services, such as diagnostic assessments and psychotherapy, have been made permanent. Other clinical coverage policies made permanent allow for physician assessments or supervision of staff to be conducted virtually, potentially reducing the impact of provider shortages.

Research has found that telemedicine has the potential to play a significant role in expanding access to health care services, however, if not executed equitably, it can contribute to the digital divide and exacerbate existing inequities.[196]

Network Adequacy Activities

NC Medicaid has a variety of tools for tracking and reporting network adequacy. Network adequacy helps ensure that all beneficiaries, whether they live in urban or rural areas, can access covered services in a timely manner. To measure compliance with time/distance standards, the Department uses "geo-mapping" software to calculate the distance in travel time and travel miles from a beneficiary's residence to provider locations. Health plans must demonstrate that at least 95% of their members in a county live within the contractually required time/distance standard. In addition, appointment wait time standards are monitored through secrete-shopper analysis, provider surveys and analysis of member complaints. To learn more about network adequacy and how NC Medicaid tracks it visit the Health Plan Network Adequacy page.

Programmatic Interventions

NC Medicaid manages a variety of innovative programs that provide unique services to populations that have been systemically discriminated against. This section will describe different programmatic interventions focused on addressing health inequities.

Healthy Opportunities Pilots (HOP)

The Healthy Opportunities Pilots (HOP) is the nation's first comprehensive program to test and evaluate the impact of providing select evidence-based, non-medical interventions related to housing, food, transportation, and interpersonal safety/toxic stress on high-needs Medicaid enrollees' health outcomes and health care costs. The federal government authorized up to $650 million in Medicaid funding for HOP over five years.[197] Access to high-quality medical care is critical; however, research shows up to 80%

[195] NCDHHS. Behavioral Health and Intellectual/Developmental Disability Tailored Plan. Available at: https://files.nc.gov/ncdma/Updated-Guidance-on-Tailored-Care-Management-vF.pdf. Accessed on: Jun 28, 2023.
[196] Kuziemsky C, Hunter I, Udayasankaran JG, Ranatunga P, Kulatunga G, John S, John O, Flórez-Arango JF, Ito M, Ho K, Gogia SB, Araujo K, Rajput VK, Meijer WJ, Basu A. Telehealth as a Means of Enabling Health Equity. Yearb Med Inform. 2022 Aug;31(1):60-66. doi: 10.1055/s-0042-1742500. Epub 2022 Jun 2. PMID: 35654429; PMCID: PMC9719760.

of health is determined by social and environmental factors and the behaviors that emerge as a result.[198]

Launched in March 2022 in three regions of North Carolina, the goals of HOP are to:

- Integrate evidence-based, non-medical services into Medicaid to improve health outcomes for Medicaid beneficiaries, promote health equity and reduce costs in NC Medicaid.
- Leverage rapid-cycle assessments to evaluate which services are of highest value and impact.
- Create an accountable infrastructure, sustainable partnerships, and payment vehicles that support integrating the highest value non-medical services into the Medicaid program sustainability at scale.

Pilot entities — including health plans, Care Management Entities, Human Service Organizations (HSOs) (i.e., community-based organizations and social service agencies), and Network Leads (i.e., organizations that build and manage a network of HSOs) — all play coordinated but distinct roles to provide whole-person care to HOP enrollees.

Through HOP, the Department is dedicated to demonstrating equity across all aspects of HOP—including through ensuring diverse and equitable participation in HOPs for Medicaid beneficiaries and HSOs. Below are some examples of how equity is built into different aspects of the HOP program.

- Network leads must create governing bodies that reflect the demographics of the communities served in their local HOP region, demonstrate a meaningful understanding of the communities served and aim to address health equity through HOP.
- Network leads must develop a non-discrimination policy that must also be adopted by HSOs.
- HSOs must have a meaningful understanding of the communities they serve, including community needs, language proficiency, cultural humility and staff that reflect the Medicaid population in that region.
- HSOs must use reasonable efforts to recruit and employ staff who reflect the HOP region's Medicaid population.
- PHPs will make member-facing language services available to HSOs to support serving HOP enrollees in a culturally competent, linguistically appropriate manner.
- PHPs will develop an "Enrollment of High Priority Pilot Populations Plan" outlining strategies and methods for identifying and enrolling members residing in HOP regions to ensure inclusive representation and that populations and communities that have been historically marginalized in the HOP region are well-represented among HOP enrollees and service expenditures.

Community Health Workers (CHWs)

The American Public Health Association defines a CHW as *"a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the worker to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural humility of service delivery."*[199] Section 5313 of the Patient Protection and Affordable Care Act authorizes the CDC to provide grants promoting the CHW workforce. This allowed NC to start an NC CHW initiative aimed at identifying CHWs who may participate in statewide training for certification.[200]

[197] CMS Approved North Carolina DHHS Medicaid Reform 1115 Demonstration Waiver. Available at: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/nc/nc-medicaid-reform-ca.pdf. Accessed on: Feb 1, 2023

[198] Hood CM, Gennuso KP, Swain GR, et al. County Health Rankings: Relationships Between Determinant Factors and Health Outcomes. *American Journal of Preventive Medicine 50* (2) (2016): 129–135. Available at https://pubmed.ncbi.nlm.nih.gov/26526164/. Accessed on: Feb 1, 2023

[199] American Public Health Association. Community Health Workers. Available at: https://www.apha.org/apha-communities/member-sections/community-health-workers. Accessed on: Jun 28, 2023.

[200] NCDHHS. About the NC Community Health Worker Initiative. Available at: https://www.ncdhhs.gov/divisions/office-rural-health/community-health-workers/about-nc-community-health-worker-initiative. Accessed on: Jun 28, 2023.

The Department is working to determine how its CHW infrastructure can be integrated into population health programs, such as HOP, Advanced Medical Home Tier 3 care management, Tailored Care Management, and other programs to improve health outcomes by addressing social determinants of health and disparities in access to services.

NC Reach Out and Read (ROR) Program

As part of the NC Early Childhood Action Plan, the Department partnered with the national early childhood program, Reach Out and Read (ROR), to launch the ROR Carolinas program in February 2019. The Department's partnership with ROR is one of the first in the country among Medicaid programs. ROR partners with pediatric primary care locations to incorporate ROR's evidence-based model into regular pediatric checkups. The three-part model focuses on:

1. Training primary care clinicians to encourage parents to read aloud to their children and understand the importance of early childhood literacy development.
2. Providing pediatric primary care clinicians with developmentally appropriate books to "prescribe" to children to take home and keep, resulting in each child receiving 10 to 15 new books before starting kindergarten.
3. Creating a literacy-rich environment in the waiting room with gently used books and volunteer readers, where possible.[201]

In a 2023 State Plan Amendment, NC Medicaid committed to expanding and improving the ROR program over the next three years, including the addition of 40 new clinic sites, increasing the number of children served, and training roughly 120 new pediatric primary care providers.[202] The ROR Carolinas program continues to identify specific opportunities to promote health equity and address systemic racism experienced by populations that have been systemically discriminated against. One example is the Books and Diversity project, which is focused on building the ROR library to include books that reflect cultural diversity and provide affirmation for all children.

Transitions to Community Living (TCL)

Transitions to Community Living (TCL) provides eligible adults living with serious mental illnesses the opportunity to choose where they live, work, and play in North Carolina. This initiative promotes recovery through providing long-term housing, community-based services, supported employment and community integration. The six pillars of TCL are community-based supported housing, community-based mental health services, supported employment, discharge and transition process, pre-admission screening and diversion, and quality assurance and performance improvement. As of October 2023 there were over 3,500 individuals in supportive housing, over 4,800 people had been diverted from institutional care, and over 2,500 individuals were receiving supported enrollments services. For more information visit the TCL DHHS homepage.

Advanced Medical Homes (AMH) — Tier 3

The Department developed the AMH model as the primary vehicle for care management as the state transitioned to Medicaid Managed Care. High-quality primary care with the capacity to manage population health is foundational to the success of North Carolina's Medicaid Transformation, supporting the delivery of timely care in the appropriate setting to meet each member's needs. The AMH model supports the Department's transformation vision by maintaining the strengths of North Carolina's legacy

[201] Reach Out and Read. Mission, Vision, and Model. Available at: https://www.rorcarolinas.org/about-us/vision-mission-model/. Accessed on: Jun 28, 2023.
[202] State of North Carolina DHHS State Plan Amendment. (2023). https://medicaid.ncdhhs.gov/spa-23-0043-proposed-amendment-cms-chip-optional-fmap-allotment/download?attachment

care management structure and promoting delivery of care management in the community. The AMH program requires PHPs to delegate certain care management functions to AMHs who meet the criteria. AMH Tier 3 practices are expected to provide high-need care management and produce a practice-wide view of risk and patient need, allowing the delivery of person-centered care management. This focus on performing high-quality primary care and localized care management, which defines the AMH program, is important in supporting health outcomes and facilitating reductions in disparities.

The Department has identified a subset of quality measures for health plans to use to monitor and incentivize Advanced Medical Home (AMH) performance. The AMH measure set is posted annually; it shares PHPs performance across years and sets benchmark targets for performance improvement. The AMH measure set is also stratified using the Black or African American binary, the American Indian or Alaskan Native binary, and ethnicity and performance improvement targets are set when a disparity is identified (greater than a 10% relative difference). This comparison and target setting methodology reinforces NC Medicaid's commitment to working toward improving priority population's quality of care.

To learn more please visit the Advanced Medical Home Manual.

Conclusion

NC Medicaid's goal is to support every single beneficiary in achieving their highest level of health and wellbeing. A crucial component of reaching this goal is identifying and addressing the health disparities presented in this report.

The 2022 Annual Health Disparities Report reviewed 50 measures across nine stratification elements, identifying areas where groups of interest fared worse than reference groups. Table 15, below, summarizes the number of disparities identified by stratification element. Across demographic stratifications, the 2022 Annual Health Disparities Report found that the population who identified as having a disability and those who require LTSS had the largest count of identified disparities. When discussing ways to address disparities in this population, it is critical to focus on the issues that impact quality of life, including accessible transportation, housing, affordable health care, employment opportunities, and protection against discrimination. Because of this, NC Medicaid continues to innovate care delivery and services for these populations. For example, the NC Medicaid LTSS Care Management Program is intended to guide PHP development of care management practices for beneficiaries with LTSS needs to foster high-quality, accessible services that enhance well-being and facilitate engagement in community life.

Additionally, there are a multitude of disparities among those who identified as Black or African American and NC Medicaid has a variety of initiatives aimed at improving health outcomes for this population. The Standard Plan Withhold Program has intentionally centered the performance improvement for the Black or African American population in areas with identified disparities. Expanding access to care through NC Medicaid expansion will have broad impacts across populations. As of June 2024, 36% of all newly enrolled expansion beneficiaries were Black or African American.[203] The disparities identified in this report mirror national trends, which are rooted in a long history of racist U.S. policies and events that shape systemic and structural inequities.[204] Delving deeper into the history that shapes these disparities will inform NC Medicaid's efforts to address them.

TABLE 15: Count and Percentage of Disparities Identified by Demographic Strata

Demographic Strata	Percent of Measures with Disparities Identified in 2022 Analysis
Long Term Services and Supports (LTSS) Needs	65.63% (21/32)
Disability Status	65.63% (21/32)
Black or African American Binary	40.00% (20/50)
American Indian or Alaskan Native Binary	24.00% (12/50)
Ethnicity	12.00% (6/50)
Primary Language	6.00% (3/50)
Gender	4.44% (2/45)
People who live in Urban vs. Rural areas	4.00% (2/50)
Age Group	69.23% (9/13)

[203] NC Medicaid Expansion Enrollment Dashboard. NCDHHS. (accessed on 6/10/2024). Available here: https://medicaid.ncdhhs.gov/reports/medicaid-expansion-dashboard
[204] (KFF) How History Has Shaped Racial and Ethnic Health Disparities. A timeline of policies and events. Accessed on 6/10/2024. Available here: https://www.kff.org/how-history-has-shaped-racial-and-ethnic-health-disparities-a-timeline-of-policies-and-events/?entry=1808-to-1890-medical-exploitation-of-enslaved-black-women

TABLE 16: Count of Disparities Identified by Health Domain

Health Domain	Total Number of Measures in Domain	Count of Identified Disparities Across Measures
Beneficiary Experience	18	2
Child & Adolescent Health	6	14
Women's Health	5	8
Mental Health	6	18
Substance Use	7	30
Health Care Utilization	8	29

Across domains, the largest count of identified disparities is within the substance use domain. The U.S. Department of Health and Human Services has recognized disparities in substance use disorder treatment services and outcomes as a major problem across the country.[205] Literature reveals structural racism, poverty, differential access to health care, and the inequitable nature of substance use policies and treatment resource distribution as some of the causes of these disparities.[206, 207, 208, 209] NC Medicaid will continue to focus on this service area through existing programs, such as the 14 state-operated treatment centers and available crisis services, and new innovative programs like the new behavioral health and I/DD tailored plans.

When looking at these disparities over time it is important to track the performance of our priority populations. Measures such as *Follow-Up After ED visit for Substance Use (FUA)*, *Postpartum Care (PPC)* sub measure, and *Child and Adolescent Well-Care Visits (WCV)* saw improvements across every single priority population from 2021 to 2022 (see Appendix E). Other measures, such as *Use of First Line Psychosocial Care for Children on Antipsychotics (APP)*, *Follow-Up after Hospitalization for Mental Illness (FUH)* and *Follow-Up after ED Visit for Mental Illness (FUM)* saw worse performance across almost every priority population from 2021 to 2022 (See Appendix E). We will continue to track these trends and focus our efforts on bringing improvements to the areas where we see continued disparities or worsening performance.

There is a unique opportunity to innovate around how, as a state, North Carolina can translate what is presented in this analysis to create positive change. To achieve successful translational research, NC Medicaid needs to work alongside a variety of stakeholders, including advocacy groups, community organizations, and providers, to identify how the findings of this report can be used as a catalyst for change within communities. NC Medicaid is working to find ways to be responsive to the issues identified in this report, while remaining aware that these deeply rooted and systemic issues cannot be addressed by one institution alone. Real change will occur with initiatives, within NC Medicaid and beyond, that acknowledge historical context, center the importance of community and function in ways that are sustainable long-term. NC Medicaid can only move at the speed of trust, and that requires time, planning, resources and diligence across the state.

[205] Bui, Juliet. Waters, Annette. Ghertner, Robin. Allen, Eva. Et al. (Nov. 2022). US DHHS. OMH. ASPE. Addressing Substance Use and Social Needs of People of Color with Substance Use Disorders. Available here: https://aspe.hhs.gov/sites/default/files/documents/0a15be5c88dacf7c8dccc046a3f4025e/Addressing-Substance-Use-and-Social-Needs-of-People-of-Color.pdf

[206] Weinstein, James N., Amy Geller, Yamrot Negussie, and Alina Baciu (eds.). "Communities in Action: Pathways to Health Equity." Washington, DC: The National Academies Press, 2017. https://doi.org/10.17226/24624.

[207] Government Accountability Office. "Nonviolent Drug Convictions: Stakeholders' Views on Potential Actions to Address Collateral Consequences." No. GAO-17-691. Washington, DC: U.S. Government Accountability Office, 2017. https://www.gao.gov/products/gao-17-691.

[208] U.S. Commission on Civil Rights. "Collateral Consequences: The Crossroads of Punishment, Redemption, and the Effects on Communities." Washington, DC: U.S. Commission on Civil Rights, 2019. chromeextension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.usccr.gov/files/pubs/2019/06-13-CollateralConsequences.pdf.

[209] Farahmand, P., A. Arshed, and M.V. Bradley. "Systemic Racism and Substance Use Disorders." Psychiatric Annals, vol. 50, no. 11, 2020, pp. 494–98. https://doi.org/10.3928/00485713-20201008-01.

Looking Ahead

NC Medicaid wants to emphasize that the Annual Health Disparities Report is an iterative and evolving effort. To improve this process in future years, NC Medicaid will strive for a more community-driven process to align this report and beneficiary communities toward a common set of measurable goals. This will require a co-creation process, root cause analysis, and a holistic and comprehensive view of communities that highlights assets and historical context.[210]

For future iterations, NC Medicaid aims to:

1. Convene community organizations across the state who work with NC Medicaid beneficiaries to solicit feedback on and refine the measure set.
2. Bring the Annual Health Disparities Report to the AMH and TCM Technical Advisory Groups to hear from providers on ways to make this report more useful for the provider community.
3. Incorporate health related resource needs into the report through additional measures and resources.
4. Pair and align these results with other critical reports, such as the Access to Care Report, the Annual Quality Report and the Access Monitoring Review Plan.
5. Seek collective wisdom/expertise and engage with receptive communities whenever possible, acknowledging the rich diversity, history and perceptions of health present within each community.

Additional Resources

Federal, state and local groups are working to overcome health disparities and have developed many resources. These resources are thorough and provide analysis frameworks, disseminate shared definitions, increase capacity, share vital data and track indicators. NC Medicaid hopes the NC 2022 Annual Health Disparities Report is a helpful tool; however, it must be paired with other resources to be truly impactful. This section of the report contains just some of these critical resources.

One important local and national resource is the Behavioral Risk Factor Surveillance System (BRFSS). BRFSS is the nation's premier system of health-related telephone surveys that collect state data about U.S. residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services. BRFSS results are stratified by gender, race, ethnicity, age, education level, veteran status, household income, housing status and more.

- National BRFSS Information
- NC 2022 BRFSS Results

Additional NC Resources

NCDHHS, Office of Health Equity works to eliminate health disparities for all individuals and keeps communities healthy, safe, and connected to needed resources and services.

- Health Equity Resources
- Community and Partner Engagement Guide

NCDHHS, Office of Rural Health supports equitable access to health in rural and underserved communities.

- Office of Rural Health Programs
- Community Health Workers

The Office of Health Equity's 2024 Health Disparities Data Report and Guide

NCDHHS Office of Health Equity recently released an analysis of health disparities across North Carolina. To find out more about the most pressing health needs across the state, not just within NC Medicaid's population, visit their report linked here.

[210] Hilliard-Boone T, Firminger K, Dutta T, Cowans T, DePatie H, Maurer M, Schultz E, Castro-Reyes P, Richmond A, Muhammad M, Pathak-Sen E, Powell W. Stakeholder-driven principles for advancing equity through shared measurement. Health Serv Res. 2022 Dec;57 Suppl 2(Suppl 2):291-303. doi: 10.1111/1475-6773.14031. Epub 2022 Jul 22. PMID: 35802002; PMCID: PMC9660421.

Additional National Resources

There are many nationwide organizations working toward improving the health of populations that have been systemically discriminated against. This section highlights some of these groups and their resources.

The American Medical Association (AMA) Center for Health Equity works to embed health equity across the AMA organization so that health equity becomes part of the practice, process, action, innovation, and organizational performance and outcomes.

- Advancing Health Equity: A Guide to Language, Narrative and Concepts
  - A tool to provide some guidance on equity-focused, person-first language, narratives, and concepts. This tool is meant to give physicians, health care workers and others a valuable foundational toolkit for health equity.
- Embedding Equity in Crisis Preparedness and Response in Health Systems
  - A guide for anyone who has a role within a health system, but especially critical for senior leaders who have the power to make health equity a strategic organizational priority.

The Office of Minority Health (OMH) at the U.S. Department of Health and Human Services (HHS) develops health policies and programs with the goal of eliminating health disparities.

- Health Literacy and Limited English Proficiency: 2023 reading list
  - This brief bibliography contains a variety of resources focused on health literacy and limited English proficiency (LEP).
- Health Disparities Bibliography
  - The Health Disparities Bibliography provides an overview of pivotal past and present books, documents, journal articles and federal reports that define health disparities issues in the United States.
- Minority Health SVI
  - The CDC and U.S. Department of Health and Human Services (HHS) Office of Minority Health developed the Minority Health Social Vulnerability Index (SVI) to enhance existing resources to support the identification of racial and ethnic minority communities at greatest risk for disproportionate impact and adverse outcomes.

Additional National Resources

- CDC Health Equity Resources
- Health Equity Language Guide for State Officials
- Understanding and Mitigating Environment Health Disparities and Risks, EPA
- CMS Framework for Health Equity
- Rural Health Disparities. Rural Health Information Hub
- Urban Institute's Report on Supporting NC's Immigrant Families

Appendix

Appendix A: Partial Benefit Group Exclusions

Partial benefit groups receive only select coverage for services due to different eligibility status. This section describes six different partial benefit groups, their covered services, and whether they were excluded from quality measurement calculations in this Plan.

Family Planning

Managed Care Status Code: MCS018

Description: Family planning, reproductive health and contraceptive services are provided to eligible men and women, whose income is at or below 195% of the federal poverty level, with no age restrictions. (Link to More Information)

Partial Dual Eligible

Managed Care Status Code: MCS020

Description: Partial dual eligibles receive Medicare financial support from Medicaid but no Medicaid services such as LTSS. These partial dual aid categories include comprehensive Medicare Aid (MQB-Q), limited Medicare aid (MQB-B), Medicaid working disabled (MWB), and limited Medicare-Aid capped enrollment (MQB-E). (Link to More Information)

Emergency Services Only

Managed Care Status Code: MCS021

Description: Emergency services include labor and delivery, including cesarean section. It can also include any treatment after the sudden onset of a medical condition manifesting itself by acute symptoms of sufficient severity, such that the absence of immediate medical attention could reasonably be expected to result in placing the patient's life at jeopardy.

Incarcerated

Managed Care Status Code: MCS023

Description: The only services that are covered while a beneficiary's Medicaid is in suspension for incarceration are medical services received during an inpatient stay. Inpatient stay services include the care of patients whose condition requires admission to a hospital.

Presumptive Eligibility

Managed Care Status Code: MCS024

Description: Presumptive eligibility for pregnant women covers only ambulatory prenatal care, defined as outpatient services related to pregnancy, including prenatal care services and services related to other conditions that may complicate the pregnancy. To receive this eligibility the patient must attest to pregnancy, income level, and NC residency. The patient does not have to attest to U.S. citizenship.

COVID-19

Managed Care Status Code: MCS043

Description: NC Medicaid reimbursed COVID-19 testing, treatment, and vaccination costs for individuals without insurance who enroll in the NC Medicaid Optional COVID-19 Testing, Treatment and Vaccination (MCV) program.

Appendix B: Data Sources

NC Medicaid used a combination of Department-calculated and vendor-calculated data sources to identify disparities among the NC Medicaid population. Table 17 displays all data sources used for disparity identification.

TABLE 17: Data Sources for Disparity Identification

Measure Sets	Description	Time Period	Responsible for Data Collection	Data Source
Healthcare Effectiveness Data and Information Set (HEDIS®)[211] Measures	A set of standardized performance measures developed and maintained by the National Committee for Quality Assurance (NCQA)	CY 2022	Department	Administrative (claims/ encounters)
Consumer Assessment of Healthcare Providers and Systems (CAHPS®)[212] Measures	A national standard for assessing beneficiary experience for accessing care and the quality of care provided by physicians. The CAHPS questionnaires were developed under cooperative agreements among the Agency for Healthcare Research and Quality (AHRQ), Harvard Medical School, RAND Corporation, and the Research Triangle Institute (RTI).	CY 2022	Health Services Advisory Group (HSAG)	Survey
Non-HEDIS Measures	Quality measures developed and maintained by measure stewards other than NCQA (such as the Dental Quality Alliance (DQA), the Pharmacy Quality Alliance (PQA), or CMS) or home-grown measures that are specific to the Department. More information on these metrics can be found in NC Medicaid's Quality Measurement Technical Specifications Manual.	CY 2022	Department	Administrative (claims/ encounters)
Utilization Metrics	AHRQ Quality Indicator Measures that focus on potentially preventable hospitalizations for the pediatric and adult populations.	CY 2022	Department	Administrative (claims/ encounters)
Substance Use Disorder (SUD) Metrics	SUD metrics reported as part of NC's 1115 SUD Demonstration Waiver.[213]	CY 2022	Sheps center for health services research	Administrative (claims/ encounters)

[211] HEDIS® is a registered trademark of the NCQA.
[212] CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).
[213] For more information on the 1115 SUD demonstration waiver and its measures visit the SUD Waiver Extension Application. (2023)

Appendix C: NC Medicaid Performance Compared to National Averages

This Appendix presents a table of all the NC Medicaid aggregate performance for all the measures in this analysis and the national Medicaid HMO average, when available.

TABLE 18: NC Medicaid performance compared to national Medicaid HMO average, MY 2022

Count	Measure	Total NC Medicaid Performance	Medicaid HMO National Average[214]
1	Rating of Health Plan — Adult	73.8%	60%
2	Rating of Health Plan — Child	83.5%	69%
3	Rating of All Health Care — Adult	76.1%	54%
4	Rating of All Health Care — Child	87.3%	66%
5	Customer Service — Adult	93.3%	68%
6	Customer Service — Child	88.8%	67%
7	How Well Doctors Communicate — Adult	93.3%	75%
8	How Well Doctors Communicate — Child	96.5%	77%
9	Rating of Personal Doctor — Adult	84.2%	67%
10	Rating of Personal Doctor — Child	90.9%	75%
11	Rating of Specialist Seen Most Often — Adult	84.3%	66%
12	Rating of Specialist Seen Most Often — Child	86.5%	71%
13	Getting Needed Care — Adult	81.9%	50%
14	Getting Needed Care — Child	86.7%	56%
15	Getting Care Quickly — Adult	83.6%	54%
16	Getting Care Quickly — Child	89.6%	67%
17	Flu Vaccinations for Adults (FVA)	40.1%	40%
18	Medical Assistance with Smoking and Tobacco Use Cessation (MSC) — Discussing Cessation Medication	32.6%	N/A
19	Child and Adolescent Well-Care Visits (WCV)	49.47%	48.6%
20	Childhood Immunization Status — Combination 10 (CIS)	28.65%	31.9%
21	Immunizations for Adolescents — Combination 2 (IMA-2)	29.69%	35.6%
22	Well-Child Visits in the First 30 Months of Life — Well-Child Visits in the First 15 Months — Six or More Well-Child Visits (W30-6+)	61.72%	56.8%
23	Well-Child Visits in the First 30 Months of Life — Well-Child Visits for Age 15 Months to 30 Months — Two or More Well-Child Visits (W30-2+)	66.90%	66.7%
24	Oral Evaluation (OEV-CH)	48.49%	N/A
25	Breast Cancer Screening (BCS)	46.36%	52.4%
26	Cervical Cancer Screening (CCS)	50.80%	55.9%

[214] Consumer Assessment of Healthcare Providers and Systems (CAHPS) Health Plan Survey Database. Available here: https://datatools.ahrq.gov/cahps/?type=tab&tab=cahpscarhps&_gl=1%2Aus3hwl%2A_ga%2AMTMyODEzMjI0Mi4xNjg1OTc2NDYz%2A_ga_1NPT56LE7J%2AMTcwODQ1NzkyMC4yMC4xLjE3MDg0NTgxODEuMC4wLjA

Count	Measure	Total NC Medicaid Performance	Medicaid HMO National Average[214]
27	Chlamydia Screening in Women (CHL)	57.07%	55.8%
28	Prenatal and Postpartum Care (PPC) — Timeliness of Prenatal Care	41.91%	83%
29	Prenatal and Postpartum Care (PPC) — Postpartum Care	60.86%	77%
30	Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA)	64.63%	59.8%
31	Follow-Up After Hospitalization for Mental Illness — 7-Day Follow-Up (FUH)	24.55%	36.6%
32	Follow-Up After Hospitalization for Mental Illness — 30-Day Follow-Up (FUH)	42.65%	57.1%
33	Follow-Up After ED Visit for Mental Illness — 7-Day Follow-Up (FUM)	42.64%	41.5%
34	Follow-Up After ED Visit for Mental Illness — 30-Day Follow-Up (FUM)	58.80%	55.2%
35	Use of First Line Psychosocial Care for Children and Adolescents on Antipsychotics (APP)	44.23%	57.3%
36	Follow-Up After ED Visit for Alcohol and Other Drug (AOD) Abuse or Dependence — 7-Day Follow-Up (FUA)	23.49%	25%
37	Follow-Up After ED Visit for Alcohol and Other Drug (AOD) Abuse or Dependence — 30-Day Follow-Up (FUA)	33.49%	36.4%
38	Use of Opioids at High Dosage in Persons Without Cancer (OHD)	7.46%	6.6%
39	Use of Pharmacotherapy for Opioid Use Disorder (OUD) Total Rate	58.44%	59.5%
40	ED Utilization for SUD per 1,000 Medicaid Beneficiaries	16.01	N/A
41	Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries	10.4	N/A
42	Readmissions Among Beneficiaries with SUD	23.11%	N/A
43	PQI 01: Diabetes Short-Term Complications Admission Rate Per 100,000 Member Months	14.64	N/A*
44	PQI 15: Asthma in Younger Adults Admission Rate Per 100,000 Member Months	2.26	N/A*
45	PQI 05: COPD or Asthma in Older Adults Admission Rate Per 100,000 Member Months	33.71	N/A*
46	PQI 08: Heart Failure Admission Rate Per 100,000 Member Months	36.43	N/A*
47	PDI 14: Pediatric Asthma Admission Rate Per 100,000 Member Months	5.17	N/A*
48	PDI 15: Pediatric Diabetes Short-Term Complications Admission Rate Per 100,000 Member Months	2.61	N/A*
49	PDI 16: Pediatric Gastroenteritis Admission Rate Per 100,000 Member Months	1.66	N/A*
50	PDI 18: Pediatric Urinary Tract Infection Admission Rate Per 100,000 Member Months	1.03	N/A*

**PDI/PQI rates are calculated differently, as per 100,000 population, at the Medicaid HMO National level*

Appendix D: Summary Disparity Analysis Tables

This Appendix presents a table of all the measures in this analysis and whether a disparity was identified for each stratification element and its relative difference.

$$\text{Relative Difference} = \frac{\text{(Reference Group Performance Rate-Group of Interest Performance Rate)}}{\text{Reference Group Performance Rate}}$$

How to read this table:

- Group of interest marked by an asterisk (*).
- Negative relative difference signifies group of interest* fared better than reference group.

TABLE 19: Relative difference of reference group vs. group of interest for MY2022, HEDIS measures

Measures	**LTSS Needs** (Non-LTSS* vs. LTSS)	**Disability** (Disability* vs. Not)	**Gender** (Male vs. Female*)	**Primary Language** (English vs. Spanish*)	**Ethnicity** (Hispanic/Latino* vs. Not)	**Black Binary** (Black or African American* vs. Not)	**American Indian/ Alaskan Native Binary** (American Indian or Alaskan Native* vs. Not)	**Urban vs. Rural** (Urban vs. Rural*)
Use of First Line Psychosocial Care for Children and Adolescents on Antipsychotics	32.77%	27.52%	-21.39%	-11.39%	-7.38%	9.13%	1.52%	-0.92%
Breast Cancer Screening	-0.85%	-5.54%	N/A	-19.75%	-11.71%	-15.40%	0.39%	-2.76%
Cervical Cancer Screening	18.66%	12.40%	N/A	-0.72%	-6.57%	-12.25%	-5.68%	-2.67%
Chlamydia Screening in Women	25.86%	31.29%	N/A	-4.98%	-5.29%	-24.36%	-2.96%	6.04%
Childhood Immunizations Status — Combo 10	21.38%	24.47%	2.06%	-75.86%	-68.10%	41.24%	5.00%	15.04%
ED Utilization for SUD per 1,000 Medicaid Beneficiaries	411.39%	591.76%	-27.96%	N/A	-81.06%	11.69%	130.48%	17.14%
Follow-Up After ED Visit for Substance Use — 7-Day	-6.76%	-8.56%	7.08%	24.19%	19.47%	27.82%	-98.84%	-10.59%
Follow-Up After ED Visit for Substance Use — 30-Day	-12.51%	-15.19%	2.75%	29.13%	26.19%	25.97%	-68.86%	-7.51%
Follow-Up After Hospitalization for Mental Illness — 7-Day Follow-up	29.43%	26.77%	-24.31%	-51.38%	-41.50%	20.71%	23.77%	-1.46%
Follow-Up After Hospitalization for Mental Illness- 30-Day Follow-up	26.38%	22.46%	-20.07%	-44.35%	-27.63%	14.20%	25.28%	0.10%
Follow-Up After ED Visit for Mental Illness — 7-Day Follow-up	5.48%	0.37%	-1.87%	-16.48%	-13.11%	12.25%	5.58%	3.13%
Follow-Up After ED Visit for Mental Illness — 30-Day Follow-up	1.44%	-3.60%	2.61%	-15.56%	-12.92%	11.93%	12.29%	1.77%

Measures	**LTSS Needs** (Non-LTSS* vs. LTSS)	**Disability** (Disability* vs. Not)	**Gender** (Male vs. Female*)	**Primary Language** (English vs. Spanish*)	**Ethnicity** (Hispanic/Latino* vs. Not)	**Black Binary** (Black or African American* vs. Not)	**American Indian/ Alaskan Native Binary** (American Indian or Alaskan Native* vs. Not)	**Urban vs. Rural** (Urban vs. Rural*)
Immunizations for Adolescents — Combo 2	7.49%	2.36%	-10.61%	-58.00%	-55.72%	14.51%	-56.14%	-10.71%
Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries	587.45%	716.10%	-25.27%	N/A	-86.40%	-1.04%	67.14%	6.05%
Oral evaluation, dental services	10.09%	5.23%	-5.04%	-35.26%	-37.01%	12.45%	6.66%	8.23%
OHD-AD: Avg. Daily Dosage >= 90 MME for 90+ days*	78.12%	81.25%	-21.43%	-47.53%	-33.88%	-43.41%	-49.96%	-9.48%
OUD-AD: Total Rate	49.64%	31.08%	-14.17%	69.60%	17.17%	50.54%	-4.16%	-6.91%
Pediatric Asthma Admission Rate PDI 14*	77.02%	78.27%	-21.24%	N/A	-35.79%	168.21%	17.31%	-38.81%
Pediatric Diabetes Short-Term Complications Admission Rate PDI15*	190.80%	192.94%	-3.25%	N/A	-35.55%	43.86%	-84.38%	-26.35%
Pediatric Gastroenteritis Admission Rate PDI16*	596.65%	601.44%	-12.29	N/A	25.26%	0.80%	-13.07%	-16.75%
Pediatric Urinary Tract Infection Admission Rate PDI18*	592.07%	571.47%	153.71%	N/A	50.72%	-44.90%	-15.54%	-2.50%
Diabetes Short Term Complications Admission Rate PQI01_AD*	208.68%	322.26%	-4.97%	N/A	-62.00%	70.24%	33.47%	4.18%
COPD or Asthma in Older Adults Admission Rates PQI05_AD*	1,132.54%	174.45%	0.61%	N/A	-63.20%	-10.61%	128.76%	-4.73%
Heart Failure Admission Rates PQI08_AD*	2,246.62%	468.57%	-42.24%	N/A	-66.34%	105.15%	-22.16%	7.43%
Asthma in Younger Adults Admission Rate PQI15_AD*	257.29%	261.35%	113.89%	N/A	-74.24%	105.08%	18.89%	4.72%
PPC: Timeliness of Prenatal Care	-15.48%	-18.29%	N/A	-7.37%	-8.87%	4.56%	17.72%	-6.67%
PPC: Postpartum Care	9.74%	11.87%	N/A	-20.50%	-16.09%	5.72%	12.33%	7.50%
Readmissions Among Beneficiaries with SUD	77.75%	85.62%	-3.60%	N/A	-24.08%	17.24%	1.34%	-13.76%
Adherence to Antipsychotic Medications for People with Schizophrenia	-39.74%	-31.77%	0.62%	-23.89%	-3.13%	12.86%	4.40%	-2.46%
Well-Child Visits, 30 First 15 Months	71.47%	66.49%	-0.33%	-8.45%	-10.76%	12.16%	-1.25%	-5.02%
Well Child Visits, 15-30 Months	6.30%	-3.24%	0.77%	-17.00%	-16.41%	13.17%	0.14%	-0.61%
Child and Adolescent Well-Care Visits	3.03%	-3.76%	-3.91%	-22.57%	-22.30%	7.19%	2.20%	3.18%

TABLE 20: Relative difference of reference group vs. group of interest for MY2022, CAHPS Measures

CAHPS Measures	**Gender** (Male vs. Female*)	**Primary Language** (English vs. Spanish*)	**Ethnicity** (Hispanic/Latino* vs. Not)	**Black Binary** (Black or African American* vs. Not)	**American Indian/ Alaskan Native Binary** (American Indian or Alaskan Native* vs. Not)	**Urban vs. Rural** (Urban vs. Rural*)
Rating of Health Plan — Adult	0.26%	-12.61%	-4.81%	-1.07%	3.17%	-1.63%
Rating of Health Plan — Child	0.24%	-15.37%	-3.25%	1.07%	2.26%	0.72%
Rating of All Health Care — Adult	0.26%	-18.85%	-7.96%	2.43%	10.77%	-0.13%
Rating of All Health Care — Child	0.11%	-13.16%	0.68%	1.36%	-0.11%	1.94%
Customer Service — Adult	1.56%	-9.12%	3.43%	-5.10%	2.88%	-1.36%
Customer Service — Child	-0.45%	-18.84%	1.69%	-2.74%	0.11%	-3.06%
How Well Doctors Communicate — Adult	2.22%	-1.63%	0.32%	-0.11%	3.53%	0.85%
How Well Doctors Communicate — Child	-0.21%	3.56%	2.98%	-1.04%	0.31%	-0.21%
Rating of Personal Doctor — Adult	3.25%	-16.45%	-1.65%	-2.73%	9.11%	3.76%
Rating of Personal Doctor — Child	0.55%	-4.14%	-1.75%	0.11%	8.90%	0.44%
Rating of Specialist Most Seen — Adult	0.24%	-2.21%	-3.39%	-3.09%	8.90%	-0.59%
Rating of Specialist Most Seen-Child	3.41%	-6.15%	-2.19%	1.14%	-1.95%	-2.44%
Getting Needed Care — Adult	2.10%	-9.59%	1.91%	-0.96%	2.86%	0.59%
Getting Needed Care — Child	1.60%	-3.23%	5.02%	-2.45%	-1.85%	-4.46%
Getting Care Quickly — Adult	2.35%	-15.87%	4.06%	0.24%	3.34%	0.95%
Getting Care Quickly — Child	1.00%	-2.00%	7.28%	-2.95%	-3.72%	-1.13%
Flu Vaccination for Adults	-1.77%	-12.61%	0.74%	-0.25%	-13.28%	2.97%
Medical Assistance with Smoking and Tobacco Use Cessation — Discussing Cessation Medication	-0.62%	N/A	37.78%	-4.44%	-14.49%	0.31%

TABLE 21: Relative difference of reference group vs. group of interest for MY2022, age stratification results

Measure Acronyms	Age Group	Relative Difference
Use of First Line Psychosocial Care for Children and Adolescents on Antipsychotics	Ages 1-11* vs. Ages 12-17	5.74%
Chlamydia Screening in Women	Ages 16-20* vs. Ages 21-24	14.68%
Follow-Up After ED Visit for Substance Use — 7-Day	Ages 13-17* vs. Ages 18+	16.69%
Follow-Up After ED Visit for Substance Use — 30-Day	Ages 13-17* vs. Ages 18+	18.05%
Follow-Up After Hospitalization for Mental Illness — 7-Day	Ages 6-17 vs. Ages 18-64*	39.99%
Follow-Up After Hospitalization for Mental Illness — 30-Day	Ages 6-17 vs. Ages 18-64*	36.71%
Follow-Up After ED Visit for Mental Illness — 7-Day	Ages 6-17 vs. Ages 18-64*	27.57%
Follow-Up After ED Visit for Mental Illness — 30-Day	Ages 6-17 vs. Ages 18-64*	26.67%
Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries	Ages 45-64 vs. Ages <21*	2,777.03%
	Ages 22-44 vs. Ages <21*	1,377.03%
Oral evaluation, dental services	Ages 10-11 vs. Ages 19-20*	54.71%
Readmissions Among Beneficiaries with SUD	Ages ≤21 vs. Ages 22-44	68.41%
	Ages ≤21 vs. Ages 45-64	75.10%
Child and Adolescent Well-Care Visits	Ages 3-11 vs. Ages 18-21*	58.58%
	Ages 12-17 vs. Ages 18-21*	52.28%

**Group of Interest. Group of interest and group of reference is dependent upon measure specifications.*

TABLE 22: Quality measure performance by individual race, MY2022

Measures	White	Black or African American	American Indian or Alaskan Native	Asian	Native Hawaiian or Pacific Islander	Multiracial
Use of First Line Psychosocial Care for Children and Adolescents on Antipsychotics	45.80%	41.04%	43.04%	53.85%	*	44.34%
Cervical Cancer Screening	48.06%	53.79%	52.97%	49.07%	48.08%	57.02%
Chlamydia Screening in Women	51.67%	64.91%	58.15%	50.54%	56.78%	59.76%
Childhood Immunizations Status — Combo 10	34.0%	19.2%	26.8%	50.4%	27.8%	27.9%
ED Utilization for SUD per 1,000 Medicaid Beneficiaries	15.19	17.1	31.25	N/A	N/A	11.1
Follow-Up After ED Visit for Substance Use — 7-Day	24.65%	18.55%	46.43%	3.70%	*	28.61%
Follow-Up After ED Visit for Substance Use — 30-Day	35.62%	27.08%	56.07%	18.52%	*	36.94%
Follow-Up After Hospitalization for Mental Illness — 7-Day Follow-up	27.01%	20.69%	16.06%	26.37%	*	25.41%
Follow-Up After Hospitalization for Mental Illness — 30-Day Follow-up	45.57%	38.29%	29.53%	45.05%	*	42.97%

Measures	White	Black or African American	American Indian or Alaskan Native	Asian	Native Hawaiian or Pacific Islander	Multiracial
Follow-Up After ED Visit for Mental Illness — 7-Day Follow-up	45.64%	39.23%	36.55%	38.46%	*	44.98%
Follow-Up After ED Visit for Mental Illness — 30-Day Follow-up	62.87%	54.13%	48.97%	60.00%	*	62.30%
Immunizations for Adolescents — Combo 2	30.92%	26.32%	47.82%	28.46%	30.14%	34.20%
Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries	10.51	10.34	14.79	N/A	N/A	6.44
Oral evaluation, dental services	51.18%	43.97%	39.91%	52.55%	38.75%	51.12%
OHD-AD: Avg. Daily Dosage >= 90 MME for 90+ days*	9.19%	4.94%	3.99%	4.76%	*	4.80%
OUD-AD: Total Rate	64.71%	29.79%	61.89%	42.86%	91.67%	54.33%
Pediatric Asthma Admission Rate PDI 14*	N/A	N/A	N/A	N/A	N/A	N/A
Pediatric Diabetes Short-Term Complications Admission Rate PDI15*	N/A	N/A	N/A	N/A	N/A	N/A
Pediatric Gastroenteritis Admission Rate PDI16*	N/A	N/A	N/A	N/A	N/A	N/A
Pediatric Urinary Tract Infection Admission Rate PDI18*	N/A	N/A	N/A	N/A	N/A	N/A
Diabetes Short Term Complications Admission Rate PQI01_AD*	N/A	N/A	N/A	N/A	N/A	N/A
COPD or Asthma in Older Adults Admission Rates PQI05_AD*	N/A	N/A	N/A	N/A	N/A	N/A
Heart Failure Admission Rates PQI08_AD*	N/A	N/A	N/A	N/A	N/A	N/A
Asthma in Younger Adults Admission Rate PQI15_AD*	N/A	N/A	N/A	N/A	N/A	N/A
PPC: Timeliness of Prenatal Care	43.45%	40.55%	33.66%	34.93%	34.21%	41.09%
PPC: Postpartum Care	62.54%	58.66%	51.47%	66.24%	61.84%	59.61%
Readmissions Among Beneficiaries with SUD	21.59%	25.22%	26.88%	N/A	N/A	22.81%
Adherence to Antipsychotic Medications for People with Schizophrenia	69.80%	60.81%	62.79%	73.39%	*	59.43%
Well-Child Visits, 30 First 15 Months	65.17%	56.26%	63.27%	69.55%	55.36%	61.11%
Well Child Visits, 15-30 Months	70.83%	60.35%	65.35%	74.44%	60.83%	68.47%
Child and Adolescent Well-Care Visits	51.04%	46.62%	45.77%	52.04%	42.21%	52.21%

**Small Cell Suppression*

TABLE 23: CAHPS Measures by Individual Race, MY 2022

CAHPS Measures	White	Black or African American	American Indian or Alaskan Native	Asian	Multiracial	Other
Rating of Health Plan — Adult	75.0%	76.3%	71.3%	N/A	72.9%	61.7%
Rating of Health Plan — Child	83.6%	82.7%	79.9%	79.7%	87.2%	87.1%
Rating of All Health Care — Adult	78.3%	76.4%	68%	N/A	75.0%	82.2%
Rating of All Health Care — Child	88.3%	86.3%	90.4%	87.2%	88.8%	87.6%
Customer Service — Adult*	88.4%	93.4	87.8%	N/A	87.8%	87.9%
Customer Service — Child*	88.7%	89.7%	85.7%	80.3%	92.7%	93.3%
How Well Doctors Communicate — Adult*	94.3%	93.5%	94.6%	N/A	89.8%	91.0%
How Well Doctors Communicate — Child*	97.3%	97.4%	97.7%	90.9%	96.6%	97.1%
Rating of Personal Doctor — Adult	85.4%	86.5%	77.0%	N/A	81.0%	83.6%
Rating of Personal Doctor — Child	92.4%	91.4%	84.1%	81.3%	92.8%	93.4%
Rating of Specialist Most Seen — Adult	84.8%	86.9%	73.7%	N/A	83.6%	85.0%
Rating of Specialist Most Seen — Child	86.5%	86.7%	87.1%	96.0%	88.3%	88.6%
Getting Needed Care — Adult*	84.7%	84.1%	79.0%	N/A	84.7%	80.0%
Getting Needed Care — Child*	87.3%	88.3%	87.0%	74.2%	85.5%	77.8%
Getting Care Quickly — Adult*	85.0%	83.1%	80.0%	N/A	84.7%	78.4%
Getting Care Quickly — Child*	89.8%	90.4%	93.2%	67.0%	92.1%	79.8%
Flu Vaccination for Adults	38.2%	42.6%	45.2%	N/A	35.7%	41.0%
Medical Assistance with Smoking and Tobacco Use Cessation	48.8%	51.9%	56.9%	N/A	53.6%	47.8%

**N/D will likely not match the percentage presented as these items are composite measures. Composite measures are calculated by taking the average of all positive ratings for each sub-measure. The N/D are representative of the total positive rating responses across all sub-measures, and thus may not match the percentage.*

Appendix E: Change in Priority Population Performance Over Time

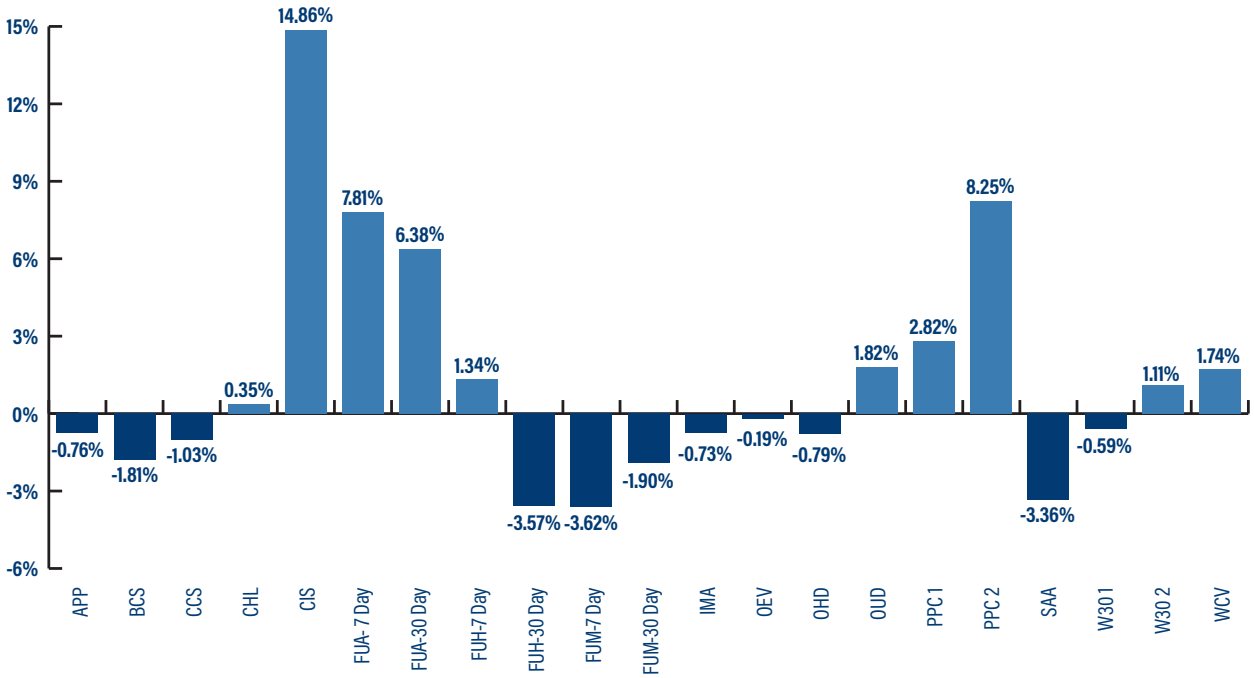
Tracking quality measure performance for populations that have been systemically discriminated against is an important way of identifying areas of improvement in health and health care access and areas of further need. This section will display a series of figures showing the change in performance for each priority demographic stratification group (e.g., those who identify as Black or African American, and those who have LTSS needs).

If a measure's bar is light purple and above the 0.00% line, the rate improved, from 2021 to 2022. If the measure's bar is dark purple and below the 0.00% line, the rate went down, worsened, from 2021 to 2022.

Acronym	HEDIS Measure Name
APP	Use of First Line Psychosocial Care on Children and Adolescents on Antipsychotics
BCS	Breast Cancer Screening
CCS	Cervical Cancer Screening
CHL	Chlamydia Screening in Women
CIS	Childhood Immunization Status- Combo 10
FUA 7-Day	Follow-Up After ED Visit for Alcohol or Other Drug Abuse or Dependence 7-Days
FUA 30-Day	Follow-Up After ED Visit for Alcohol or Other Drug Abuse or Dependence 30-Days
FUH 7-Day	Follow-Up After Hospitalization for Mental Illness 7-Days
FUH 30-Day	Follow-Up After Hospitalization for Mental Illness 30-Days
FUM 7-Day	Follow-Up After ED Visit for Mental Illness 7-Days
FUM 30-Day	Follow-Up After ED Visit for Mental Illness 30-Days
IMA	Immunizations for Adolescents
OEV	Oral Evaluation, Dental Services
OHD	Use of Opioids at High Dosage in Persons Without Cancer
OUD	Use of Pharmacotherapy for Opioid Use Disorder
PPC 1	Timeliness of Prenatal Care
PPC 2	Postpartum Care
SAA	Adherence to Antipsychotic Medications for Individuals with Schizophrenia
W30 1	Well-Child Visits in the First 30 Months of Life- First 15 Months
W30 2	Well-Child Visits in the First 30 Months of Life-15 to 30 Months
WCV	Child and Adolescent Well-Care Visits

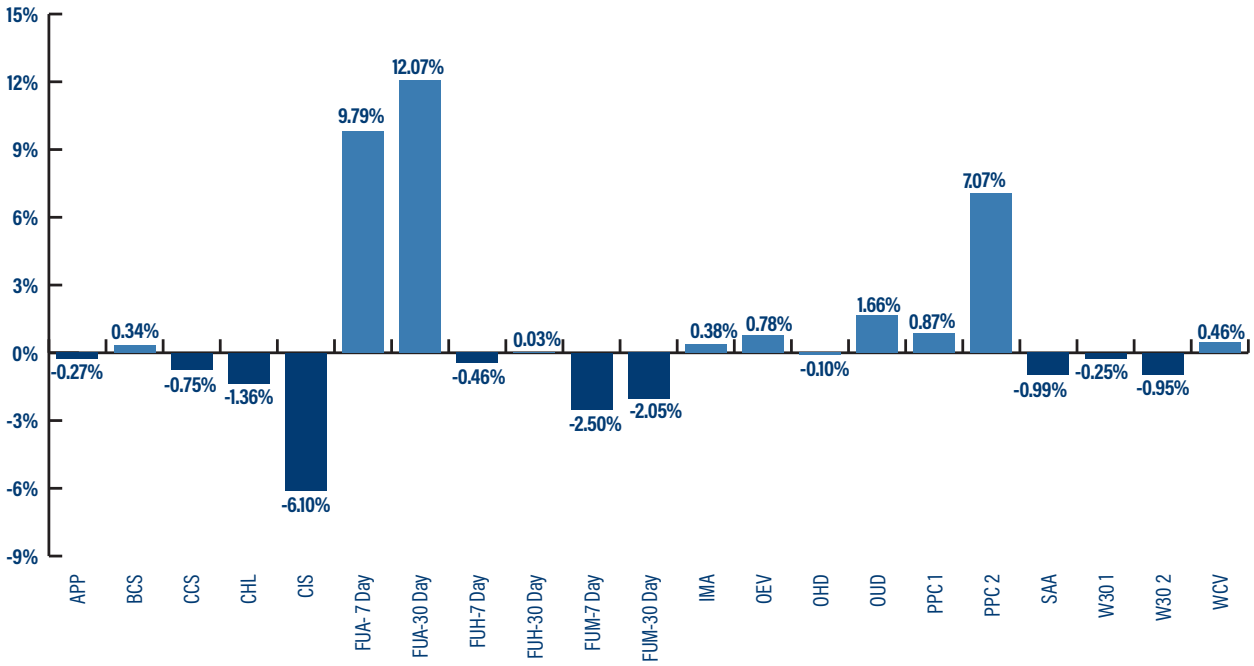
Note: Unable to do this comparison with some measures (e.g., PDI/PQIs, and CAHPS measures) due to differences in calculation methods between 2021 and 2022.

FIGURE 109: Change in Hispanic or Latino Population Performance for HEDIS Measures, 2021-2022



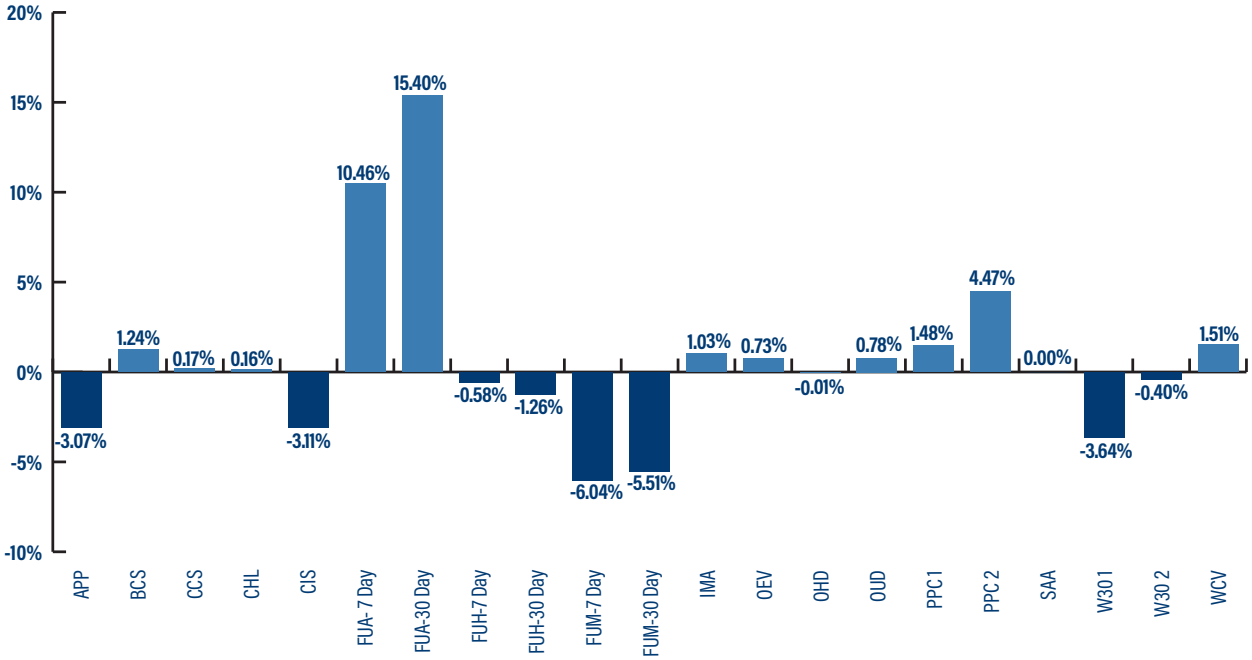
Note: If a measure's bar is light purple and above the 0.00% line, the rate improved, from 2021 to 2022. If the measure's bar is dark purple and below the 0.00% line, the rate went down, worsened, from 2021 to 2022.

FIGURE 110: Change in Rural Population Performance for HEDIS Measures, 2021-2022



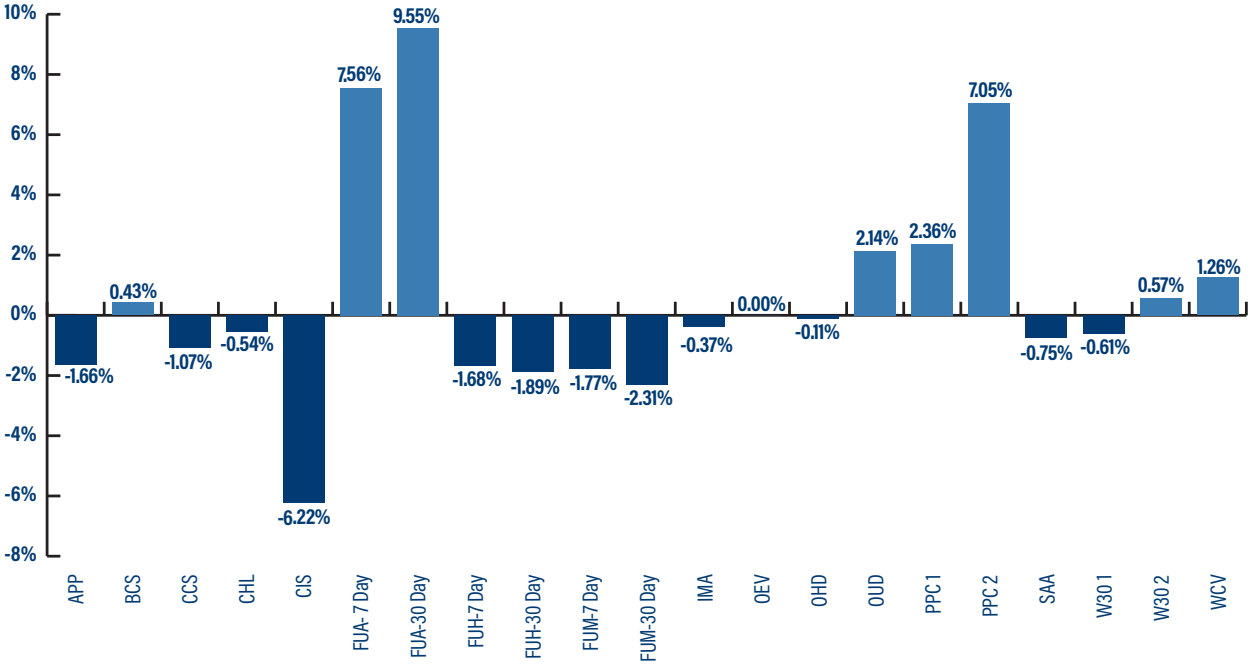
Note: If a measure's bar is light purple and above the 0.00% line, the rate improved, from 2021 to 2022. If the measure's bar is dark purple and below the 0.00% line, the rate went down, worsened, from 2021 to 2022.

FIGURE 111: Change in Population with Identified Disability Performance for HEDIS Measures, 2021-2022



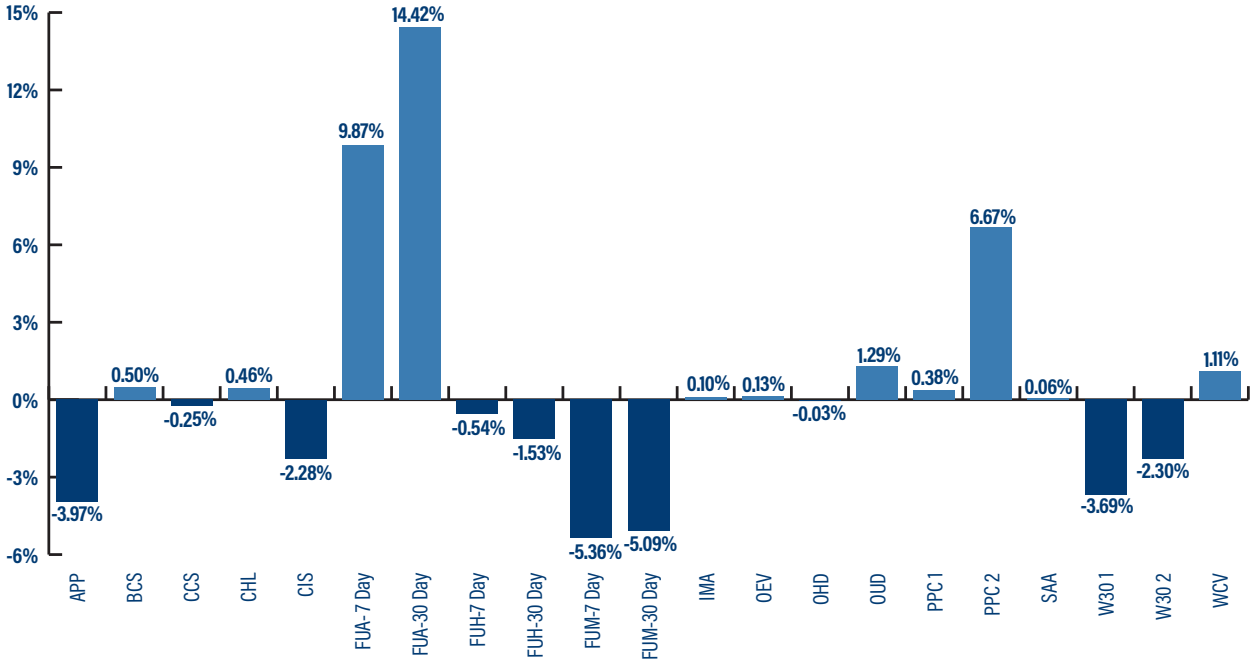
Note: If a measure's bar is light purple and above the 0.00% line, the rate improved, from 2021 to 2022. If the measure's bar is dark purple and below the 0.00% line, the rate went down, worsened, from 2021 to 2022.

FIGURE 112: Change in the LTSS-Needs Population Performance for HEDIS Measures, 2021-2022



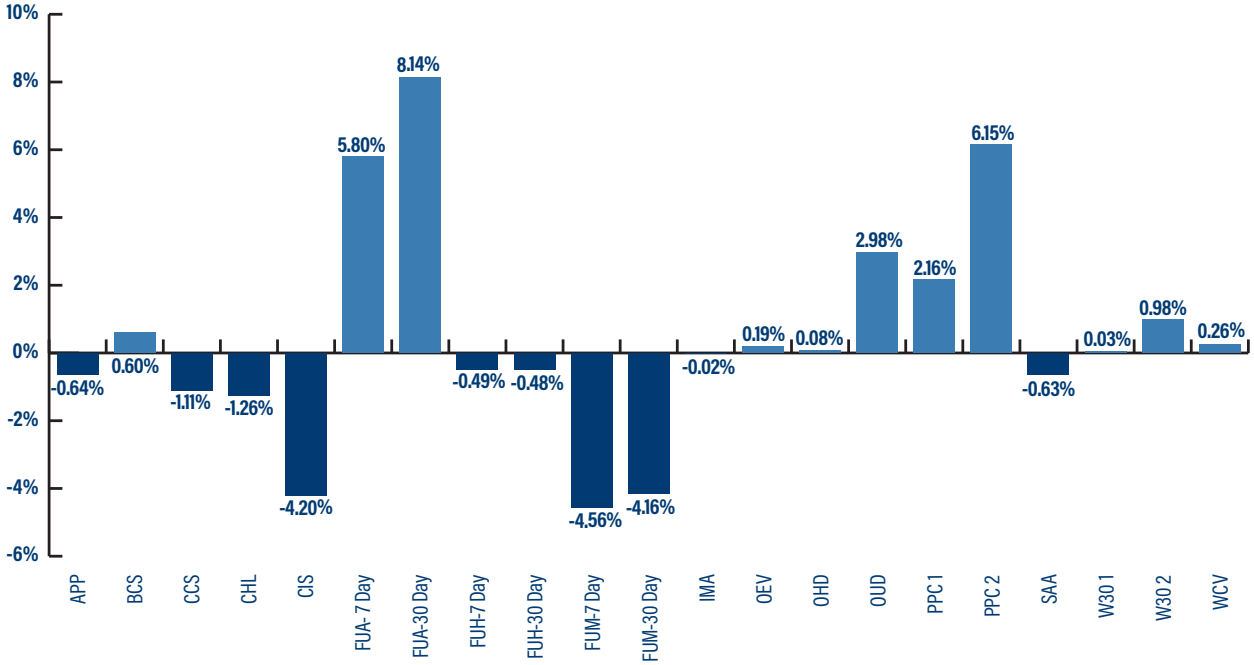
Note: If a measure's bar is light purple and above the 0.00% line, the rate improved, from 2021 to 2022. If the measure's bar is dark purple and below the 0.00% line, the rate went down, worsened, from 2021 to 2022.

FIGURE 113: Change in NC Medicaid Female Population Performance for HEDIS Measures, 2021-2022



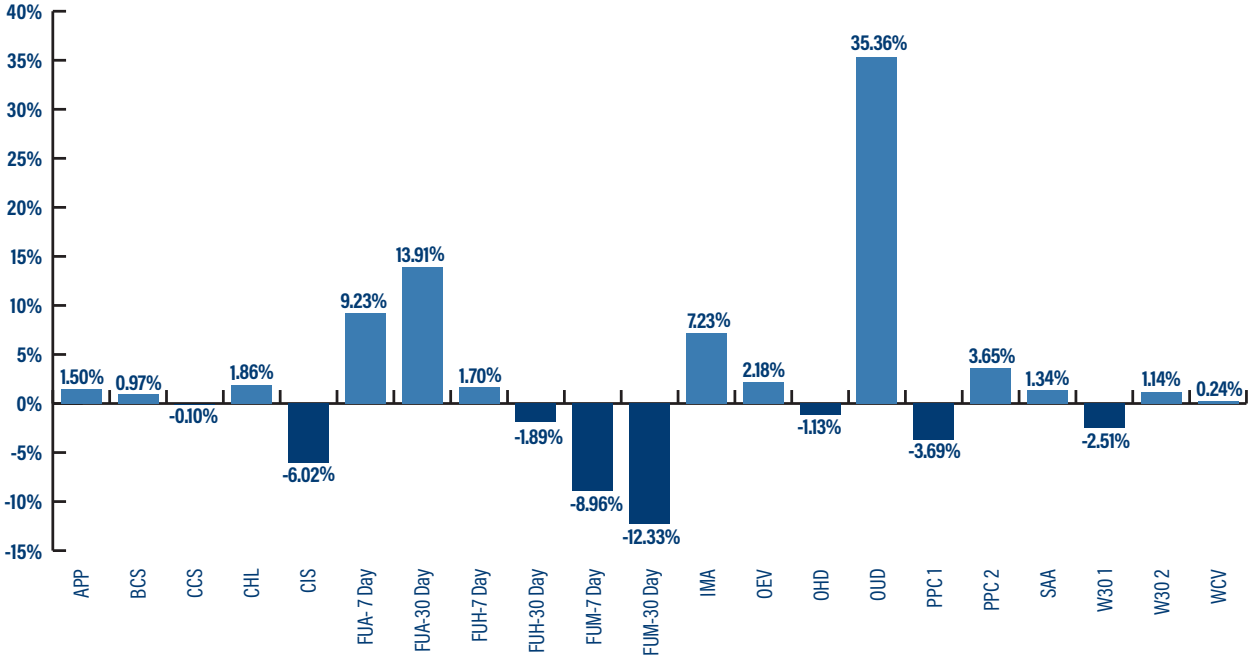
Note: If a measure's bar is light purple and above the 0.00% line, the rate improved, from 2021 to 2022. If the measure's bar is dark purple and below the 0.00% line, the rate went down, worsened, from 2021 to 2022.

FIGURE 114: Change in Black or African American Population Performance for HEDIS Measures, 2021-2022



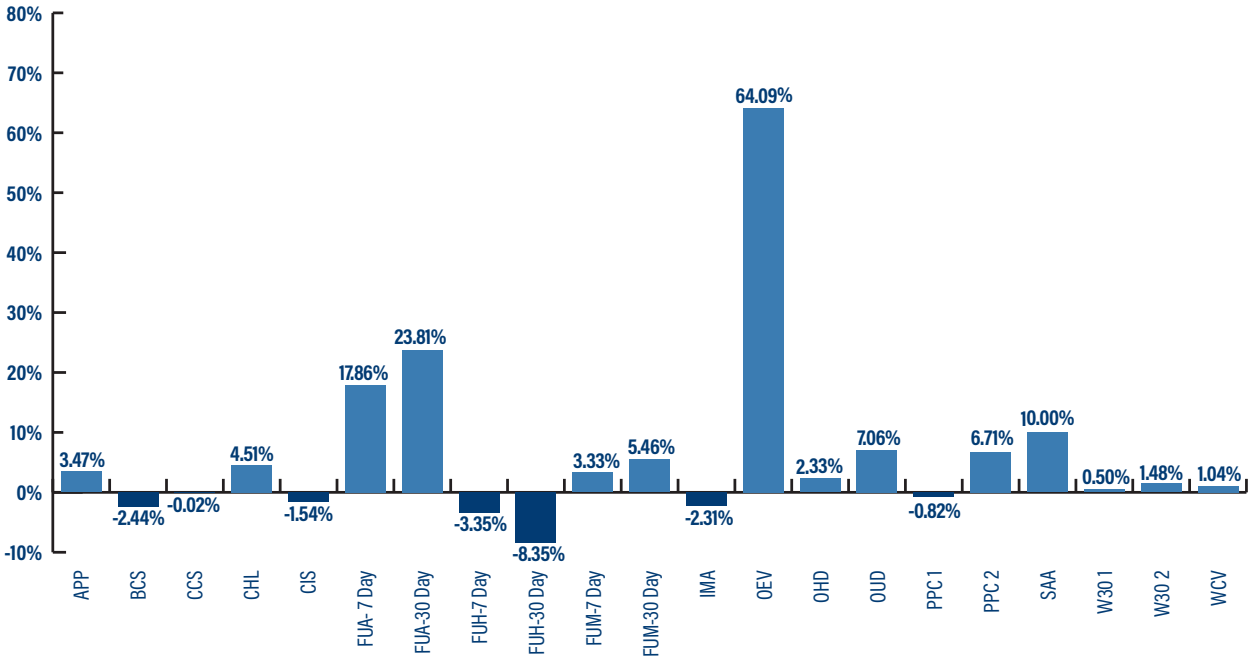
Note: If a measure's bar is light purple and above the 0.00% line, the rate improved, from 2021 to 2022. If the measure's bar is dark purple and below the 0.00% line, the rate went down, worsened, from 2021 to 2022.

FIGURE 115: Change in American Indian or Alaskan Native Population Performance for HEDIS Measures, 2021-2022

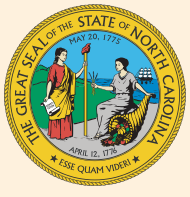


Note: If a measure's bar is light purple and above the 0.00% line, the rate improved, from 2021 to 2022. If the measure's bar is dark purple and below the 0.00% line, the rate went down, worsened, from 2021 to 2022.

FIGURE 116: Change in Spanish Speaking Population Performance for HEDIS Measures, 2021-2022



Note: If a measure's bar is light purple and above the 0.00% line, the rate improved, from 2021 to 2022. If the measure's bar is dark purple and below the 0.00% line, the rate went down, worsened, from 2021 to 2022.



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