

Fact Sheet

Low Birth Weight

Introduction

One key driver of infant mortality, and an indicator of a population's overall health, is the number of infants born weighing less than 2,500 grams (5 lbs., 8 ounces), commonly referred to as low birth weight (LBW). In the United States, 8.58% of all live births in 2023 were considered LBW, a relative 20% increase since the 1980s.¹

A mother's health during and prior to pregnancy can impact the risk of delivering a LBW infant.² These risk factors include chronic health conditions (e.g. high blood pressure or diabetes), infections (e.g. rubella), substance use before or during pregnancy, and maternal age (less than 15 or older than 35).³ Although many infants born LBW are otherwise healthy, some are at higher risk of developmental complications, issues eating or gaining weight, and infant mortality.⁴ Some may even experience higher chances of long-term health complications like diabetes or obesity.⁴

The highest risk of health complications occurs in infants born before 32 weeks of gestation, or those who are very low birth weight (less than 1,500 grams, or 3 lbs. and 3 ounces).⁴ Given the health risks associated with being born LBW, it is concerning that the state of North Carolina has the 12th highest rate (9.42%) of infants born weighing less than 2,500 g (9.42%) in the United States.⁵ In fact, LBW was one of the leading causes of infant death in North Carolina in 2023.⁶

In July 2021, NC Medicaid transitioned from a fee-for-service to a value-based care model called NC Medicaid Managed Care.⁷ In the new managed care model, members' services are coordinated through a health plan consisting of a network of providers, with a vast majority of members being enrolled in one of NC Medicaid's Standard Plans.⁷

The North Carolina Department of Health and Human Services wanted to understand how babies fared during this transition to managed care, and to monitor health plans' efforts to decrease rates of LBW. Thus, the Department created a home-grown *LBW* quality measure* that assesses rates of LBW (<2,500 grams) and very low birth weight LBW (<1,500 grams) births. Although this measure is traditionally assessed at the state level, NC Medicaid modified the measure to assess LBW at both the plan- and member-level. This modification allows the Department to identify trends and disparities in LBW among NC Medicaid Beneficiaries, while encouraging health plans to decrease plan-level rates of LBW.

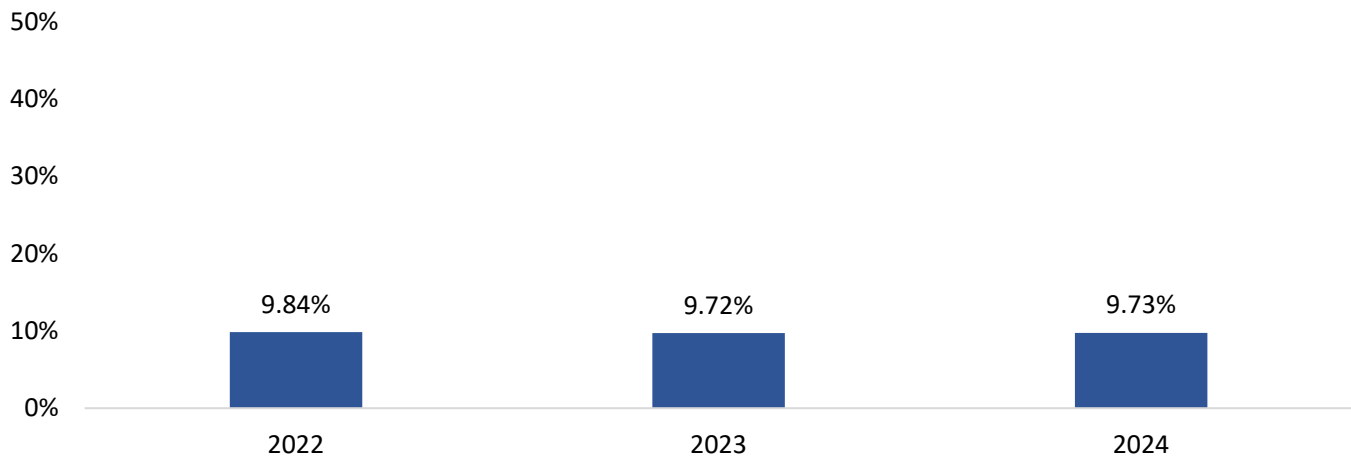
The following sections of this fact sheet outline rates of LBW and disparities in rates across NC Medicaid's Standard Plans, NC Medicaid's largest member population. For the purposes of this fact sheet, rates of very low birth weight were not included to avoid issues with small population sizes.

*Quality measures evaluate Medicaid members' access to quality and effective healthcare services. NC Medicaid's LBW measure is a modified version of the Centers for Medicare & Medicaid Services' (CMS) National Center for Health Statistics' *Live Births Weighing Less Than 2,500 Grams* quality measure. The measure only includes singleton, live birth deliveries. Refer to NC Medicaid's [Quality Measurement Technical Specifications Manual](#) to learn more.

NC MEDICAID STANDARD PLAN LBW PERFORMANCE

The Standard Plans provide integrated and comprehensive health services to a vast majority of NC Medicaid Beneficiaries (over 2.2 million), including those with low to moderate intensity behavioral health needs.⁸ As seen in Figure 1, the Standard Plan average for the LBW measure among single infant live births decreased from 9.84% in 2022 to 9.73% in 2024. While this decrease is an encouraging sign, the Standard Plan rate of LBW births remains higher than the North Carolina rate of 9.4% in 2024, and the national average in 2023 of 8.53%.^{9 10}

Figure 1: NC Medicaid Standard Plan Average, Low Birth Weight (2022-2024)*



*To ensure that the Standard Plans are only being held responsible for members who had adequate time to receive services prior to delivery, the LBW measure only considers deliveries where the mother had continuous coverage with the same health plan since at least 16 weeks gestation.

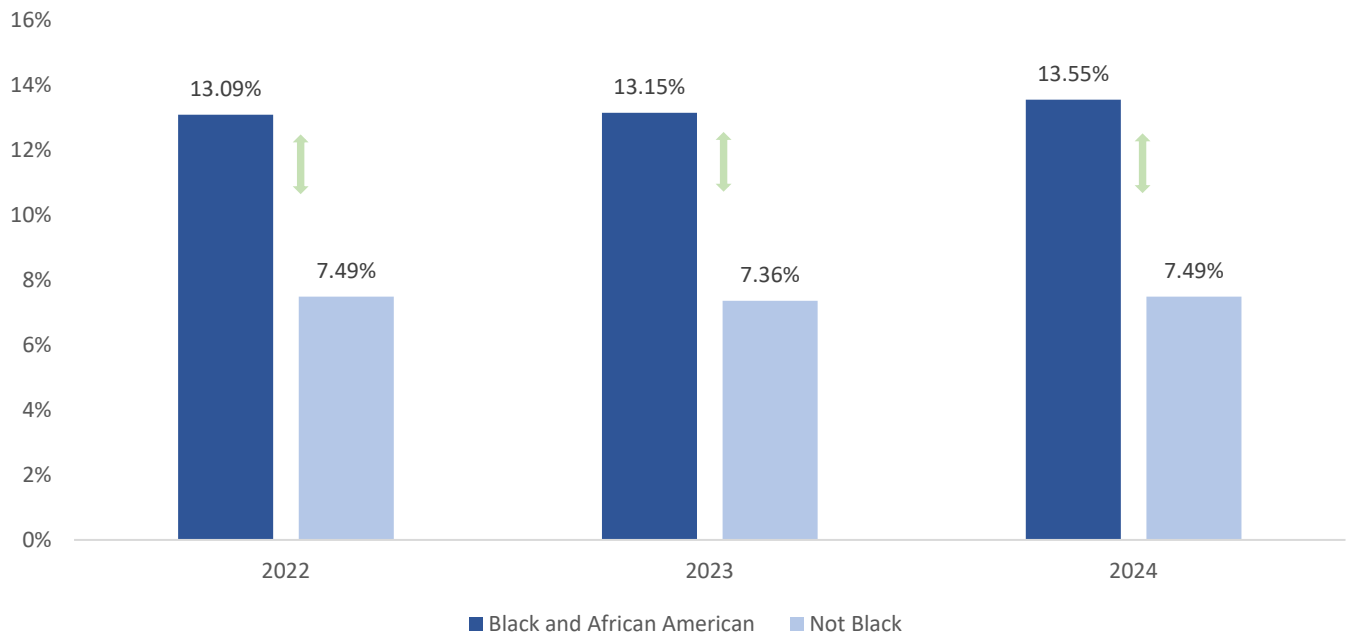
RACIAL DISPARITIES

In the United States, Black and African American infants are almost twice as likely to be born LBW compared to White infants.¹¹ There are numerous societal, systemic and environmental factors contributing to these disparities such as housing and food insecurity, income inequality, residential segregation and exposure to environmental pollutants.¹² Additionally, Black and African American mothers experience higher rates of psychosocial stress and discrimination over time, ultimately leading to higher rates of stress, mental health conditions and poorer health outcomes.¹² Even when controlling for external factors such as income, education and economic status, disparities in LBW persist, emphasizing the role systemic racism and discrimination play in driving these disparities.¹³

Across North Carolina, Black and African American mothers experience higher rates of LBW births.¹⁴ In 2023, 15.7% of infants born to non-Hispanic Black or African American mothers were LBW, a much higher rate compared to the state average of 9.4%.⁹

This same pattern is present among NC Medicaid Standard Plan members. As seen in Figure 2, rates of LBW are significantly higher among Black or African American members and have increased compared to those who are not Black and African American. These higher rates are concerning because they reflect a greater risk of adverse birth outcomes as well as long-term physical and mental health consequences for these children.¹⁵

Figure 2: NC Medicaid Standard Plan Average, Low Birth Weight Stratified by Black/Not Black (2022-2024)



↑ Indicates a disparity. NC Medicaid classifies a disparity as a relative difference of greater than or equal to 10% between the reference group (Not Black and African American) and the group of interest (Black and African American). Relative difference is calculated by dividing the absolute difference between groups by the rate for the reference group. The relative differences were 42.8% for 2022, 44.03% for 2023 and 47.16% for 2024.

STANDARD PLAN MATERNAL HEALTH INITIATIVES

NC Medicaid’s Standard Plans offer a range of maternal health benefits and value-added services that can help reduce the risk of LBW. These services include improving access to prenatal care services, addressing social and behavioral risk factors, and providing additional support. Although specific benefits vary by health plan and region, many Standard Plans offer similar approaches to supporting pregnant members. More information on plan-specific benefits is available on the [NC Medicaid Compare health plans webpage](#).

Some shared approaches among the Standard Plans include expanding prenatal and birthing supports to promote continuity of care and access to services. Across all plans, covered services include freestanding birth center care (when licensed or otherwise recognized by the Department). Freestanding birth centers are primarily for low-risk pregnant individuals who wish to deliver at a facility away from the hospital or their residence.

Delivering at a birth center has been associated with lower instances and disparities of LBW infants.¹⁶ Along with birth centers, many plans also offer varying access to and coverage of doula services. A large body of evidence supports that doula services and support during delivery improves birth outcomes and reduces both LBW along with the severity of health conditions associated with being born LBW.¹⁷

Many Standard Plans also provide enhanced maternity care management, including support from care managers or community health workers, and in some cases, in-home visits for high-risk pregnancies. These services help coordinate prenatal and postpartum care, connect members to clinical and social support systems, and promote early identification and management of pregnancy-related risk factors. Additionally, plans offer non-emergency medical transportation to prenatal, postpartum and related support services, helping to reduce barriers to prenatal appointments that could otherwise lead to delayed or missed care.¹⁸

Some Standard Plans also focus on maternal health reinvestments and all plans have performance improvement projects to improve and target maternal health. These initiatives include group prenatal care campaigns, quality improvement efforts and community-based programs. Other initiatives and reinvestments are targeted specifically on improving Black and American Indian/Alaskan Native maternal health outcomes and experiences. These include reinvestments such as [Queen City Cocoa Beans](#) and [SEEDS](#), which aim to address structural and social factors contributing to disparities in birth outcomes, such as LBW.

In addition to these Standard Plan initiatives, NC Medicaid has led maternal health initiatives to improve timely access to prenatal care. This includes holding plans financially accountable for meeting annual performance targets, such as the Prenatal and Postpartum Care (PPC) measure that assess whether prenatal and postpartum care were provided. More information about PPC performance among health plans in North Carolina is available on the [NC Medicaid Quality Measures Dashboard](#).

CONCLUSION

LBW remains a critical indicator of infant health and a challenge in North Carolina, particularly among NC Medicaid Beneficiaries. While rates among Standard Plan members have declined modestly since the implementation of managed care, they remain higher among members than the statewide average. Additionally, racial disparities in LBW infants persist.

NC Medicaid's LBW quality measure provides an important tool for monitoring trends, identifying disparities and assessing health plan performance. By evaluating LBW at both the plan and member level, the Department is better positioned to track progress over time and to encourage targeted, data-driven efforts to improve birth outcomes.

Standard Plans play a key role in reducing the risk of LBW through offering expanded prenatal support, care coordination and investments in maternal health initiatives. Continued use of this quality measure alongside ongoing plan-level efforts to address clinical, social and structural drivers of poor birth outcomes will be essential to improve infant health for pregnant NC Medicaid members across North Carolina.

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