

## Fact Sheet

# Cancer Screening

### *Introduction*

Screening for cancer is one of the best ways to reduce cancer-related deaths and promote early treatment.<sup>1</sup> There are screening tests and tools for common cancer types including breast, cervical, colorectal, head and neck, lung, prostate, and skin cancers.<sup>1</sup> Most screenings detect abnormalities that are indicators for a possible cancer, and providers often follow these screening tests with a series of additional diagnostics.<sup>2</sup> These screening tests aim to detect cancer in its earlier stages, when it is typically easier to treat or cure.<sup>2</sup>

Individuals may be at a higher risk of developing certain cancers due to factors like personal and family history of cancer, genetic mutations, and exposure to cancer-causing products like tobacco.<sup>2</sup> Based on one's history and risk factors, a provider may decide to screen an individual more often or starting at an earlier age.<sup>2</sup> If an individual is not identified as being high risk, screenings for different types of cancers will typically start once they hit a certain age and continue on a regular basis as they get older.<sup>2</sup>

Because cancer screenings are such an important component of timely care, NC Medicaid uses three quality measures\* to assess rates of cancer screening for cervical, colorectal, and breast cancer. This fact sheet provides more information on which quality measures are used to measure rates of cancer screening across the state, why these measures are important, what they measure, and how NC Medicaid is performing on these measures. Measure topics covered in this fact sheet include cervical cancer screening, colorectal cancer screening, and breast cancer screening.

\*Quality measures evaluate Medicaid members' access to quality and effective healthcare services. NC Medicaid uses a combination of quality measures created and endorsed by external measure stewards (such as the Centers for Medicare and Medicaid Services (CMS) or National Committee for Quality Assurance (NCQA) as well as internal measures specific to the NC Medicaid population (developed by NC Medicaid). Check out NC Medicaid's [Quality Measurement Technical Specifications Manual](#) for more information!

## **CERVICAL CANCER SCREENING (CCS)**

Cervical cancer occurs when there is excessive cell growth in the cervix.<sup>3</sup> Located at the lower end of the uterus, the cervix is a component of the female reproductive system.<sup>3</sup> While rates of cervical cancer have steadily decreased over the last two decades, it is still one of the most common causes of cancer-related death among American women, predominantly affecting women above the age of 30.<sup>3,4,5</sup> Although family history of cervical cancer can put someone at an increased risk, long-term infection with human papillomavirus (HPV), a common sexually-transmitted virus, is the most common cause of cervical cancer.<sup>3</sup> While the HPV vaccine is an effective way to prevent cervical cancer, screening tests for cervical cancer are also effective at promoting early identification and treatment.<sup>3</sup>

There are two types of screening tests for cervical cancer that can be easily completed in a doctor's office or clinic: cervical high-risk human papillomavirus (hrHPV) testing and cervical cytology, also known as a Pap test or Pap smear.<sup>6</sup> These tests look for cell changes on the cervix and precancers.<sup>6</sup>

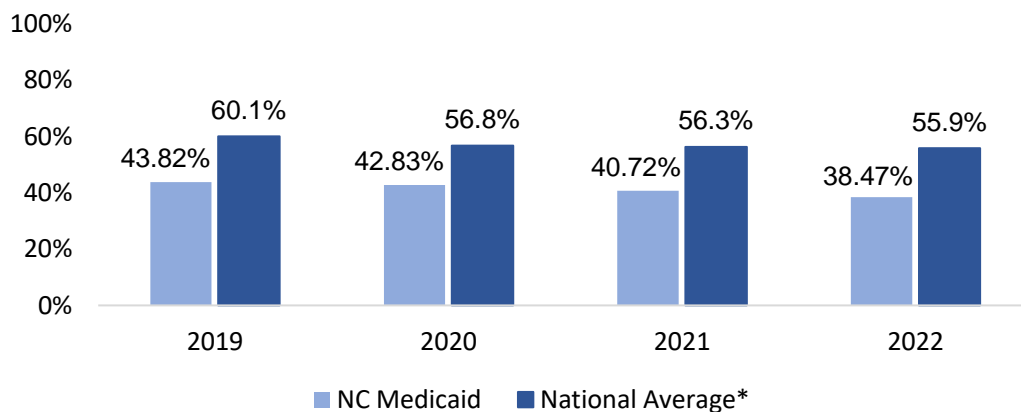
While women generally should start receiving these tests at age 21, patients may receive Pap tests and hrHPV testing at differing frequencies depending on age and other risk factors.<sup>6</sup>

As effective screening and early detection are important to reduce rates of cervical cancer-related death, NC Medicaid uses the *Cervical Cancer Screening (CCS)* quality measure to assess the percentage of women who were appropriately screened for cervical cancer.<sup>5</sup> In order for a NC Medicaid member to be counted toward the CCS measure, they must meet one of the criteria listed below.<sup>5,6</sup> These criteria align with screening recommendations set by the American Cancer Society.<sup>7</sup>

1. Women 21-64 years of age who had cervical cytology performed within the last 3 years.
2. Women 30-64 years of age who had cervical high-risk human papillomavirus (hrHPV) testing performed within the last 5 years.
3. Women 30-64 years of age who had cervical cytology/high-risk human papillomavirus (hrHPV) cotesting within the last 5 years.

As reflected in Figure 1, rates of cervical cancer screening in North Carolina have historically been significantly lower than the national average. Concerningly, rates of cervical cancer screening among NC Medicaid members have been steadily decreasing since 2019.

**Figure 1: Cervical Cancer Screening Performance (2019-2022)**



\*National averages for Medicaid Health Maintenance Organizations (HMOs) provided by [The National Committee for Quality Assurance \(NCQA\)](#).

These lower rates identify a need for increased awareness about the importance of cervical cancer screening. Increasing this awareness is especially crucial as NC Medicaid has low rates of HPV vaccine uptake, one of the primary methods of cervical cancer prevention. In fact, in 2022, only 30.60% of eligible NC Medicaid members had completed the HPV vaccine series by their 13th birthday.

## COLORECTAL CANCER SCREENING (COL)

Colorectal cancer encompasses cancer of the colon or rectum, two of the three key parts of the large intestine.<sup>8</sup> Connected to the small intestine, the large intestine plays an integral role in digestion and is



the final stage of the digestive system.<sup>8</sup> While colon and rectal cancer are different, they are commonly referred to together as colorectal cancer.

Colon cancer is an excess growth of cells, also known as a polyp, in the first and longest section of the large intestine known as the colon.<sup>9</sup> While polyps typically begin as harmless growths with no associated symptoms, they can become cancerous overtime, emphasizing the urgency of early detection and screening.<sup>9</sup> If a screening identifies a polyp, it is often removed to prevent future cancer growth.<sup>9</sup> Rectal cancer, which develops when healthy cells develop DNA mutations, occurs in the final few inches of the large intestine known as the rectum.<sup>10</sup> For most types of rectal cancers, it is unclear what causes the initial cell mutations.<sup>10</sup>

Like many other cancers, there are a variety of factors that may increase one's risk for developing colorectal cancer including older age, a personal or family history of colon or rectal cancer, having inflammatory bowel disease, being obese, having diabetes, and smoking, among others.<sup>9</sup>

Thankfully, treating colorectal cancer in its earliest stage can lead to a 5-year, 90% survival rate. With more advanced stages of colorectal cancer, one's chances of survival decrease significantly.<sup>10</sup> Still, one-third of eligible adults in the United States have never received a screening.<sup>10</sup> Because early detection and treatment drastically improves health outcomes for someone with colorectal cancer, NC Medicaid uses the *Colorectal Cancer Screening (COL)* quality measure to assess the percentage of members, ages 50-75, that have received appropriate screening for colorectal cancer.<sup>9,12</sup> Note that the age range for this measure was expanded to include individuals ages 45-75, to align with updated guidance from the US Preventive Services Task Force (USPSTF), in Measurement Year 2022.<sup>12</sup> The appropriate methods of screening are listed below.<sup>12</sup>

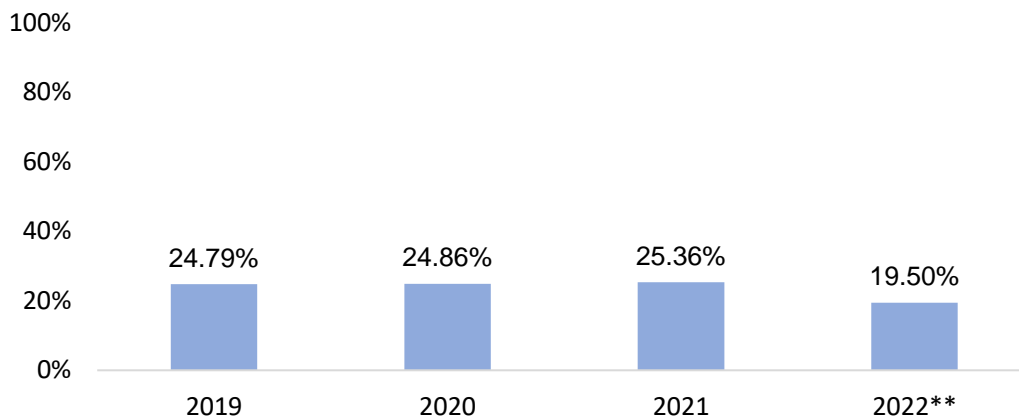
1. Annual fecal occult blood test;
2. Flexible sigmoidoscopy every 5 years;
3. Colonoscopy every 10 years;
4. Computed tomography colonography every 5 years; or,
5. Stool DNA test every 3 years.

If a member has completed one of the five screenings listed above, they are identified as compliant for this measure.<sup>12</sup>

As seen in Figure 2, rates of colorectal cancer screening have been low among NC Medicaid members. While national rates cannot be displayed because the COL measure was recently added as a nationally reported metric for Medicaid, only about 25% of eligible NC Medicaid members received proper colorectal cancer screenings between 2019 and 2021.<sup>12</sup> This number decreased to only 20% in 2022.



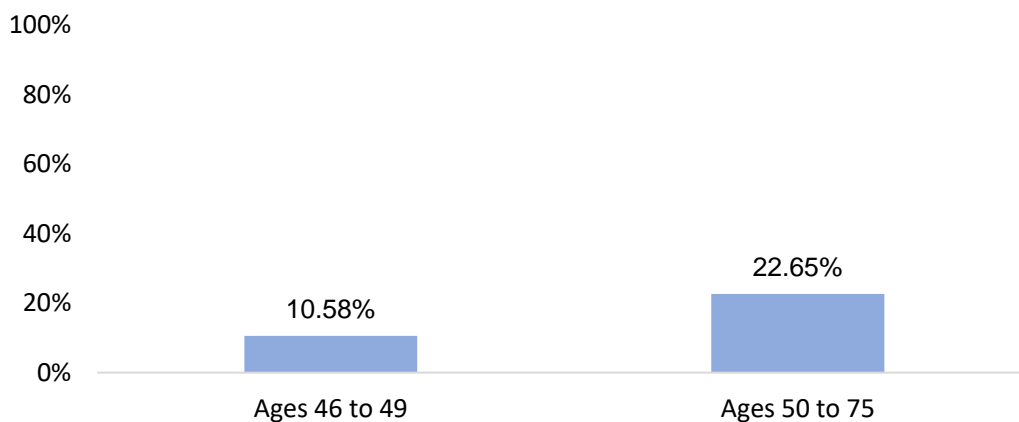
**Figure 2: NC Medicaid Colorectal Cancer Screening Performance (2019-2022)**



\*\*In Measurement Year 2022, the age range for the COL measure changed to 45-75.<sup>12</sup>

The significant drop in NC Medicaid’s performance in 2022 may be partially explained by the expanded age range for recommended colorectal screenings. When broken out by age range, those newly eligible for the measure (ages 46-49) exhibited substantially lower screening rates compared to those ages 50-75 (see Figure 3).

**Figure 3: NC Medicaid Colorectal Cancer Screening Performance Stratified by Age (2022)**



The updated recommendation from the USPSTF and lower screening rates seen among this younger age group call for increased awareness of these updated screening recommendations among the population of members who should now receive screenings.

## BREAST CANCER SCREENING (BCS)

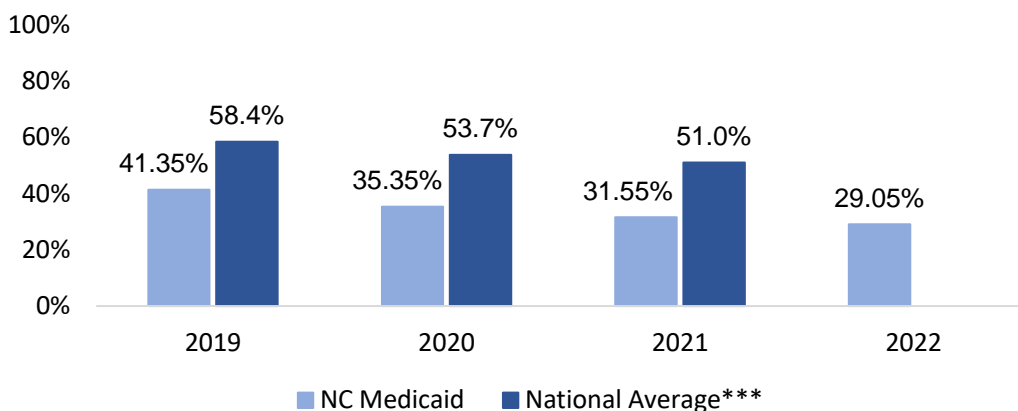
Breast cancer is a type of cancer that develops in the cells of the breast tissue.<sup>13</sup> While this cancer can occur in men and women, it is much more common in women.<sup>13</sup> In the United States, it is the second most commonly diagnosed cancer in women behind skin cancer.<sup>13</sup>



While there are multiple types of breast cancer, breast cancer occurs when breast cells begin to develop abnormally.<sup>13</sup> These abnormal cells divide more rapidly than normal cells, eventually leading to the formation of a cancerous lump or mass.<sup>13</sup> While those with no risk factors can still develop breast cancer, there are certain risk factors that increase one's risk for developing the disease including being biologically female, increasing age, beginning menstruation at an early age, history of pregnancy, a personal or family history of breast cancer and other conditions, and obesity, among others.

One of the primary ways to promote early identification breast cancer, and reduce breast cancer related deaths, is to undergo routine screenings. These screenings include clinical breast exams and mammograms, an x-ray image of the breast tissue.<sup>13,14</sup> To ensure that members receive proper breast cancer screening, NC Medicaid uses the *Breast Cancer Screening (BCS)* quality measure.<sup>15</sup> This measure assesses the percentage of female NC Medicaid members, between the ages of 50 and 74, who have had a least one mammogram to screen for breast cancer in the past two years.<sup>15</sup> As seen in Figure 4, NC Medicaid has historically underperformed on the BCS measure compared to the national average.

**Figure 4: Breast Cancer Screening Performance (2019-2022)**



\*\*\*National averages for Medicaid HMOs provided by [The National Committee for Quality Assurance \(NCQA\)](#).

NC Medicaid's low performance on this measure may be attributable to these services not being covered for members receiving limited Medicaid benefits via Family Planning Medicaid. In 2022, the BCS rate for this population was only 2.82%, compared to 45.99% when this population was excluded from overall NC Medicaid performance. More information on how NC Medicaid intends to improve care for this population can be found in the section below.

## NC MEDICAID'S WORK TO IMPROVE THESE RATES

In December of 2023 the state of North Carolina launched Medicaid Expansion, with an estimated 600,000 North Carolinians newly eligible to receive full Medicaid benefits and extending coverage of services for members who were already enrolled with limited benefits.<sup>16</sup> One of the largest populations to benefit from extended coverage are those that were enrolled in NC Medicaid's Family Planning Population, formerly known as "Be Smart." Approximately 300,000 North Carolinians in this



program were automatically enrolled to receive full healthcare coverage through NC Medicaid Expansion on December 1, 2023.

Family Planning Medicaid provides family planning, reproductive health, and contraceptive services to eligible men and women whose income is at or below 195% of the federal poverty level, with no age restrictions.<sup>17</sup> Prior to Medicaid Expansion, Family Planning Medicaid members were only covered to receive a very limited set of low- or no-cost services under the program.<sup>18</sup> While Family Planning Medicaid covers Pap tests, which are a form of cervical cancer screening, it does not cover colorectal or breast cancer screenings.<sup>18</sup> Even though the program does not cover these screenings, any individual who meets the criteria for the CCS, COL, or BCS measures are included as part of the eligible population when calculating NC Medicaid's performance across these measures. This is a partial explanation as to why NC Medicaid's performance on COL and BCS measures is lower than expected.

Following Medicaid Expansion, many of the individuals who previously only qualified to receive Medicaid benefits through Family Planning Medicaid will now receive full Medicaid coverage, which includes screenings for breast, cervical, and colorectal cancers.<sup>16</sup> Coverage of these services will hopefully encourage members to adhere to the clinical recommendations for these cancer screenings. While the impacts of expansion will reach far beyond these measures, NC Medicaid anticipates seeing an increase in performance across the CCS, COL, and BCS quality measures which will ultimately improve the health and well-being of North Carolinians.

Additionally, the COL measure was recently added to the Advanced Medical Home (AMH) Measure Set. AMHs are NC Medicaid's primary form of care coordination and management, providing members with a primary care medical home and integrated local care management.<sup>19</sup> Under the AMH program, NC Medicaid's Health Plans, also known as Prepaid Health Plans (PHPs), are required to delegate care management functions to AMHs who meet the necessary requirements.<sup>19</sup> The AMH Measure Set outlines 13 quality measures that PHPs can use to offer opportunities for performance incentive payments to their AMHs. PHPs are not required to use all 13 AMH measures for such payments, but any quality measures they choose must be drawn from this set list. While the CCS measure is already included in the AMH Measure Set, adding the COL measure will allow for PHPs to offer performance incentives for reaching certain benchmarks and improving rates of colorectal cancer screening.

## ADDITIONAL INFORMATION

The **quality measures** displayed in this fact sheet include:

- Cervical Cancer Screening (CCS)
- Colorectal Cancer Screening (COL)
- Breast Cancer Screening (BCS)

For more technical information on these measures, please visit North Carolina's Medicaid Quality Measurement Technical Specifications found [here](#).



## CITATIONS

1. "Cancer Screening." *Cancer.Net*, 29 Aug. 2022, [www.cancer.net/navigating-cancer-care/prevention-and-healthy-living/cancer-screening](http://www.cancer.net/navigating-cancer-care/prevention-and-healthy-living/cancer-screening).
2. "Cancer Screening Overview," *National Cancer Institute*, 20 Oct. 2023, [www.cancer.gov/about-cancer/screening/patient-screening-overview-pdq#:~:text=Screening%20tests%20can%20help%20find,may%20have%20grown%20and%20spread](http://www.cancer.gov/about-cancer/screening/patient-screening-overview-pdq#:~:text=Screening%20tests%20can%20help%20find,may%20have%20grown%20and%20spread).
3. "Basic Information about Cervical Cancer," Centers for Disease Control and Prevention, 21 Aug. 2023, [www.cdc.gov/cancer/cervical/basic\\_info/index.htm](http://www.cdc.gov/cancer/cervical/basic_info/index.htm).
4. "United States Cancer Statistics Data Visualizations," Centers for Disease Control and Prevention, Nov. 2023, [gis.cdc.gov/Cancer/USCS/#/Trends/](https://gis.cdc.gov/Cancer/USCS/#/Trends/).
5. "Cervical Cancer Screening," NCQA, 18 Jan. 2023, [www.ncqa.org/hedis/measures/cervical-cancer-screening/](http://www.ncqa.org/hedis/measures/cervical-cancer-screening/).
6. "What Should I Know about Cervical Cancer Screening?," Centers for Disease Control and Prevention, 21 Aug. 2023, [www.cdc.gov/cancer/cervical/basic\\_info/screening.htm](http://www.cdc.gov/cancer/cervical/basic_info/screening.htm).
7. "The American Cancer Society Guidelines for the Prevention and Early Detection of Cervical Cancer," American Cancer Society, Apr. 2021, [www.cancer.org/cancer/types/cervical-cancer/detection-diagnosis-staging/cervical-cancer-screening-guidelines.html#:~:text=Cervical%20cancer%20testing%20\(screening\)%20should,test%20alone%20every%203%20years](http://www.cancer.org/cancer/types/cervical-cancer/detection-diagnosis-staging/cervical-cancer-screening-guidelines.html#:~:text=Cervical%20cancer%20testing%20(screening)%20should,test%20alone%20every%203%20years).
8. "Large Intestine (Colon)," Cleveland Clinic, Dec. 2021, [my.clevelandclinic.org/health/body/22134-colon-large-intestine](https://my.clevelandclinic.org/health/body/22134-colon-large-intestine).
9. "Colon Cancer," Mayo Clinic, Mayo Foundation for Medical Education and Research, 27 July 2023, [www.mayoclinic.org/diseases-conditions/colon-cancer/symptoms-causes/syc-20353669](http://www.mayoclinic.org/diseases-conditions/colon-cancer/symptoms-causes/syc-20353669).
10. "Colorectal Cancer Facts & Figures 2017-2019." American Cancer Society, 2017, [www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/colorectal-cancer-facts-and-figures/colorectal-cancer-facts-and-figures-2017-2019.pdf](http://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/colorectal-cancer-facts-and-figures/colorectal-cancer-facts-and-figures-2017-2019.pdf).
11. "Rectal Cancer," Mayo Clinic, Mayo Foundation for Medical Education and Research, 18 May 2022, [www.mayoclinic.org/diseases-conditions/rectal-cancer/symptoms-causes/syc-20352884](http://www.mayoclinic.org/diseases-conditions/rectal-cancer/symptoms-causes/syc-20352884).
12. "Colorectal Cancer Screening," NCQA, 23 Mar. 2023, [www.ncqa.org/hedis/measures/colorectal-cancer-screening/](http://www.ncqa.org/hedis/measures/colorectal-cancer-screening/).
13. "Breast Cancer," Mayo Clinic, Mayo Foundation for Medical Education and Research, 14 Dec. 2022, [www.mayoclinic.org/diseases-conditions/breast-cancer/symptoms-causes/syc-20352470](http://www.mayoclinic.org/diseases-conditions/breast-cancer/symptoms-causes/syc-20352470).
14. "What Is a Mammogram?," Centers for Disease Control and Prevention, 25 July 2023, [www.cdc.gov/cancer/breast/basic\\_info/mammograms.htm](http://www.cdc.gov/cancer/breast/basic_info/mammograms.htm).
15. "Breast Cancer Screening," NCQA, 18 Jan. 2023, [www.ncqa.org/hedis/measures/breast-cancer-screening/](http://www.ncqa.org/hedis/measures/breast-cancer-screening/).
16. "Medicaid Expansion Launches in North Carolina, over 600,000 North Carolinians Newly Eligible with Nearly 300,000 Automatically Enrolled," NCDHHS, 1 Dec. 2023, [www.ncdhhs.gov/news/press-releases/2023/12/01/medicaid-expansion-launches-north-carolina-over-600000-north-carolinians-newly-eligible-nearly](http://www.ncdhhs.gov/news/press-releases/2023/12/01/medicaid-expansion-launches-north-carolina-over-600000-north-carolinians-newly-eligible-nearly).
17. "NC Medicaid Division of Health Benefits," NC Medicaid, 7 Dec. 2023, [medicaid.ncdhhs.gov/providers/programs-and-services/family-planning-and-maternity/family-planning-medicaid-or-be-smart#:~:text=Family%20planning%2C%20reproductive%20health%20and,level%2C%20with%20no%20age%20restrictions](https://medicaid.ncdhhs.gov/providers/programs-and-services/family-planning-and-maternity/family-planning-medicaid-or-be-smart#:~:text=Family%20planning%2C%20reproductive%20health%20and,level%2C%20with%20no%20age%20restrictions).
18. "Be Smart. Be Ready," NC DHHS, June 2016, [files.nc.gov/ncdma/documents/Medicaid/BeSmart/BeSmart\\_Brochure\\_2017.pdf](https://files.nc.gov/ncdma/documents/Medicaid/BeSmart/BeSmart_Brochure_2017.pdf).
19. "Programmatic Guidance." NC Medicaid, 13 Feb. 2024, [medicaid.ncdhhs.gov/advanced-medical-home](https://medicaid.ncdhhs.gov/advanced-medical-home).

