

DISPARITIES IN CANCER SCREENING IN THE KENTUCKY MEDICAID POPULATION

Summary prepared by the Office of Data Analytics Division of Analytics

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What is Known on This Topic?

Screenings offer early cancer detection and can reduce poor outcomes such as migration of cancer to other parts of the body and, in the worst case, cancer-related mortality.¹⁻⁵

What Did this Project Do?

This analysis evaluated the screening patterns for breast, lung, and colorectal cancer among Kentucky Medicaid beneficiaries before and after Medicaid expansion.

What Could Medicaid Do with These Conclusions?

Medicaid could explore why some counties have higher screening utilization rates and implement changes in those regions. Lung and colorectal cancer screening-eligible beneficiaries would benefit from infrastructure improvements. Breast cancer screening-eligible beneficiaries would benefit from barrier reductions in personal factors that impede access to screenings, such as transportation assistance.

Introduction

Kentucky currently is the state with the highest number of new cases of colorectal and lung cancer. It is also a state with above national averages for breast cancer incidence and breast cancer-related death rates.² These three cancers are widespread, and have screening tests that can lead to early detection and options for earlier treatment intervention, which can lead to better outcomes such as disease cure or remission.¹⁻⁵ The Kentucky Medicaid population is vulnerable to elevated cancer risks and is less likely to utilize the cancer screening services available. Targeting Medicaid beneficiaries is an opportunity to offer care to those most in need and potentially improve Kentucky's colorectal, lung, and breast cancer incidence.

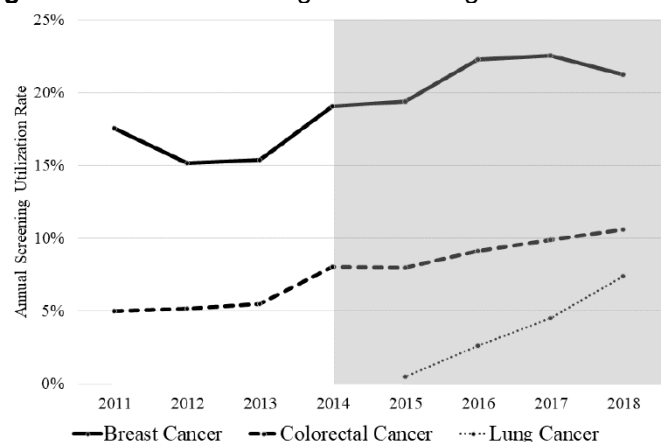
The study used data from the Medicaid beneficiary population of Kentucky from 2011 to 2018. This enables a pre- and post-expansion comparison. Additionally, the study investigated what role, if any, geographic, socioeconomic, and demographic factors play in cancer screening.

Project Methods & Results

To complete the study, Medicaid claims data from 2011-2018 was used to identify beneficiaries eligible for each respective screening. Area Development Districts (ADDs) and a county-level geographic analysis were used to describe patterns. The researchers also utilized the Area Deprivation Index (ADI) to rank associated socioeconomic factors in a geographic region.⁷

The absolute number of breast cancer screenings amongst Medicaid beneficiaries increased from 13,796 in 2013 to 32,406 in 2014, post-expansion. The overall breast cancer screening utilization rate increased from 15% pre-expansion to 20% post-expansion. This increase brought the utilization rate in Kentucky closer to utilization rates in comparable states' Medicaid beneficiaries.

Figure 1. Cancer Screening Rates for Eligible Patients



Note: Figure 1 appears as Figure 1 in the SUP report. Shaded area denotes the post-Medicaid expansion era.

The Northern Kentucky ADD had the lowest utilization rates of breast cancer screenings every year in all years studied. Additionally, in each year studied, new enrollees from the Medicaid expansion were more likely to utilize breast cancer screenings than existing enrollees.

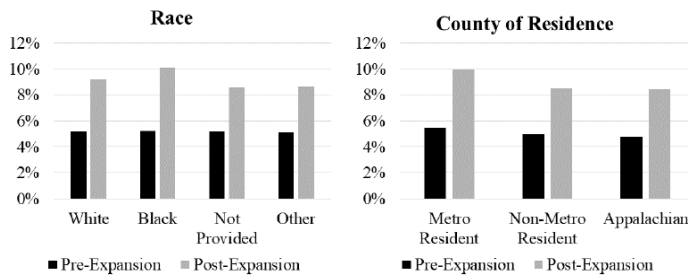
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The ADI rating illustrated lower breast cancer screening rates for Medicaid beneficiaries living in wealthier areas. Black beneficiaries and Hispanic beneficiaries had higher utilization rates of breast cancer screenings relative to white beneficiaries.

Following expansion, Medicaid beneficiaries in urban areas had higher utilization of colorectal cancer screenings. Increases in colorectal cancer screenings were distributed relatively equally amongst racial groups and geographic regions. Figure 2 displays these results.

Figure 2. Colorectal Cancer Screening, by Demographics

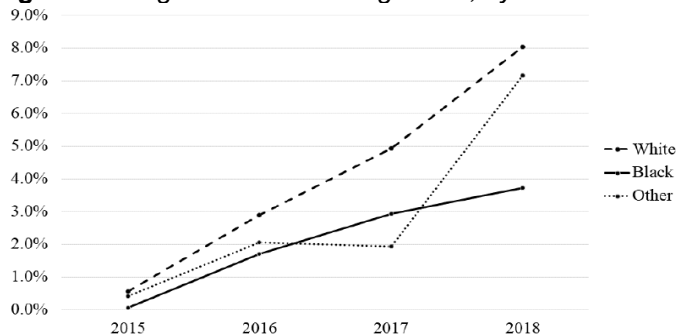


Note: Figure 2 appears as Figure 13 in the SUP report.

The ADI suggested that the resource-poor areas had lower rates of colorectal cancer screening relative to more infrastructure-robust areas. For colorectal cancer, the Northern Kentucky ADD consistently led the regions in Kentucky for the highest utilization rates. Post-expansion, gender differences in utilization shrank as more male beneficiaries increased utilization of the screenings.

Lung cancer screening could not be evaluated similarly to breast cancer and colorectal cancer, given the limited years of data. Lung cancer screening procedure codes were only created in 2015. Instead, lung cancer screening trends were analyzed. Lung cancer screening is on an upward trend, with Gateway and Northern Kentucky ADD regions leading the state. The gap in utilization between Black and white beneficiaries has worsened, signaling a need to focus on Black beneficiaries to improve their screening rates and reduce disparities. Counties with more robust screening rates tended to be more urban and with higher median incomes, mirroring trends in the other types of cancer screenings.

Figure 3. Lung Cancer Screening Rates, by Race



Note: Figure 3 appears as figure 12 in the SUP report.

Conclusion

This study investigated the impact of expansion on eligible Medicaid beneficiaries' breast, colorectal, and lung cancer screenings. Overall, the expansion appeared beneficial for increasing both the absolute number of screenings as well as improved utilization rates in the targeted population. The study finds that the drivers of breast cancer screening differ from colorectal and lung cancer screening. Breast cancer screening rates were lowest for those in high-income, urban counties. This implies that personal factors serve as barriers to care. For colorectal and lung cancer, poorer counties had the lowest screening rates. This suggests that improving screening may be best addressed by expanding the infrastructure needed to perform these cancer screenings. Enhanced transportation services may be a critical part of such a solution.

Kentucky has relatively low utilization rates for this set of cancer screenings, though the absolute number and rate of cancer screenings increased for breast and colorectal cancer after the 2014 expansion. Given the potential benefits of early detection, this is a possible area for targeted improvement. This study recommends identifying screening programs among top-performing geographic regions for replication in poorer-performing areas. Furthermore, the identification of personal factors and structural factors that create barriers for beneficiaries in seeking screening could be beneficial. Identifying these barriers is an opportunity to tailor outreach programs to address beneficiary needs.

Kentucky has several cancer screening initiatives, both public and private. The results of this study may be of particular use to the newly established Lung Cancer Screening and Prevention Program outlined under House Bill 219 during the 2022 legislative session.

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