Exploring Disparities in Lung Cancer Screening in Massachusetts: Barriers Beyond Health Insurance

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Background

- Massachusetts is one of the few states in the U.S. with a legal mandate for health insurance, a policy that helps reduce disparities in health outcomes.
- Despite this, lung cancer remains the leading cause of cancer-related deaths in the state.
- Screening can lower lung cancer mortality by up to 20% by enabling early detection when the disease is more treatable.
- Massachusetts has the third highest lung cancer screening rates in the country. However, only 35% of lung cancer cases in Massachusetts are diagnosed at an early stage.
- Disparities in the implementation and access to lung cancer screening are well-documented and may further exacerbate existing inequities among racial and ethnic groups, individuals with lower income and education levels, and residents across Massachusetts' 14 counties.

Objectives

- To explore disparities in lung cancer screening uptake in Massachusetts, where health insurance coverage exceeds 98% and barriers associated with health insurance should be minimum
- To identify potential opportunities for action to increase lung cancer screening rates

Methodology

The data for this study came from three sources:

1. Behavioral Risk Factor Surveillance System (BRFSS), 2024,
2. North American Association of Central Cancer Registries (NAACCR), 2018-2022, and
3. State Cancer Profiles, 2017-2021.

We analyzed lung cancer screening disparities by measuring lung cancer screening rates, and stage of lung cancer diagnosis– early-stage and late-stage, and comparing them across different racial and ethnic groups, socioeconomic groups and geographical locations.

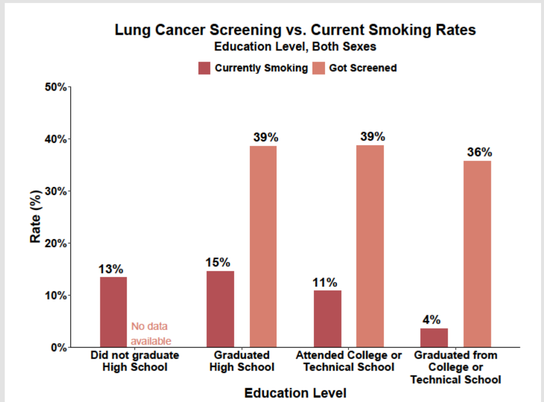
Results

Lung Cancer Screening in Massachusetts

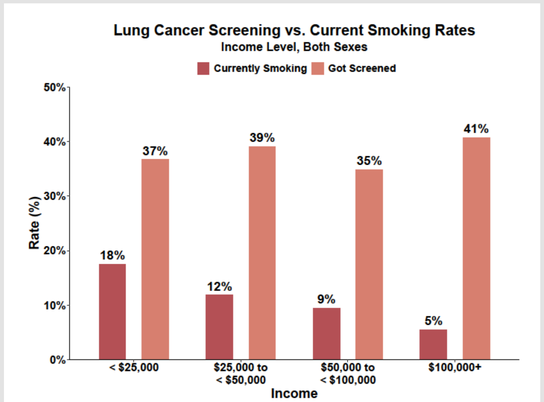
- Screening rates are low across all groups.
- Limited screening data are available for different race/ethnicity and education groups.
- Screening rates showed no clear patterns across income and education groups.

Lung Cancer Outcomes in Massachusetts

- People of color are less likely to be diagnosed at an early-stage compared to White individuals in Massachusetts.
- Asian/Pacific Islander and American Indian/Alaska Native communities have lower rates of early-stage diagnosis in Massachusetts compared to other groups.
- Counties in western Massachusetts having limited access to accredited lung cancer screening centers and higher lung cancer burden.



Source: BRFSS, 2024



Source: BRFSS, 2024

Source: NAACCR, 2018-2022

Source: State Cancer Profiles, 2017-2021

Conclusion

- Despite widespread health insurance coverage in Massachusetts, lung cancer screening rates remain low across socioeconomic and racial/ethnic groups.
- Disparities in early-stage diagnoses of lung cancer persist by race/ethnicity group, highlighting potential need to promote screening, especially among groups more likely to suffer these disparities.
- Identifying barriers beyond insurance coverage is crucial for developing targeted policies, interventions and communication strategies to improve screening uptake among the most affected populations.

What's next?

- We formed a **Lung Cancer Working Group** that brings together HCC physicians, researchers, and community partners to address the lung cancer burden in Massachusetts.
- **Working Group Goal**: Increase lung cancer screening rates

Key Activities:

- Host outreach events
- Host webinar for primary care providers
- Support legislation to promote lung cancer screening education

References

1. North American Association of Central Cancer Registries. www.naaccr.org/interactive-data-on-line/
2. Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2024
3. State Cancer Profiles. https://statecancerprofiles.cancer.gov/index.html