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National Lung Cancer Roundtable

# Updates and Preliminary Findings from the Population Based Research to Optimize the Screening Process (PROSPR) Lung Cancer Research Center

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# Background & Methods

This study is part of the 2018 NCI-funded Population-based Research to Optimize the Screening Process (PROSPR) consortium.

The Lung PROSPR Research Center (PRC) goal is to reduce lung cancer disparities by evaluating Lung Cancer Screening (LCS) utilization and outcomes across five diverse healthcare systems.

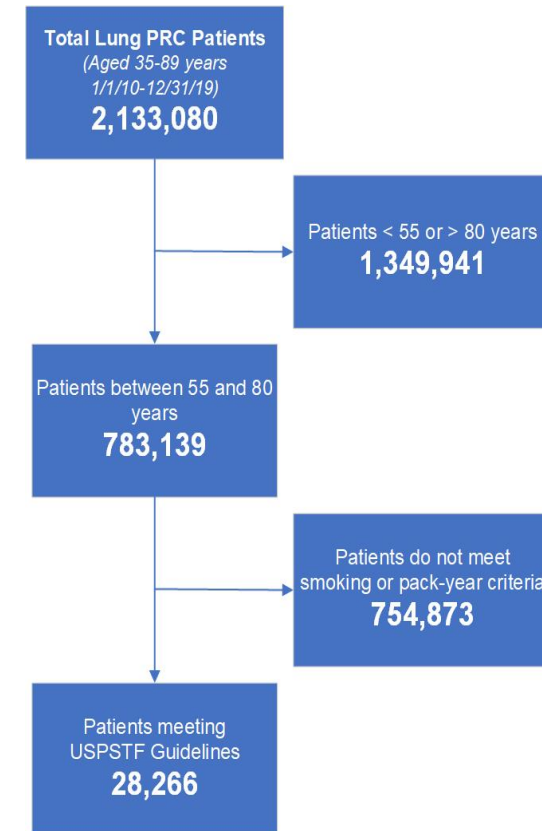
## Purpose of Study:

- ❑ Variation exists in uptake of LCS across community settings however little is known about how variation in implementation will affect screening outcomes
- ❑ We present preliminary findings from our Lung PRC studies

## Data Sources:

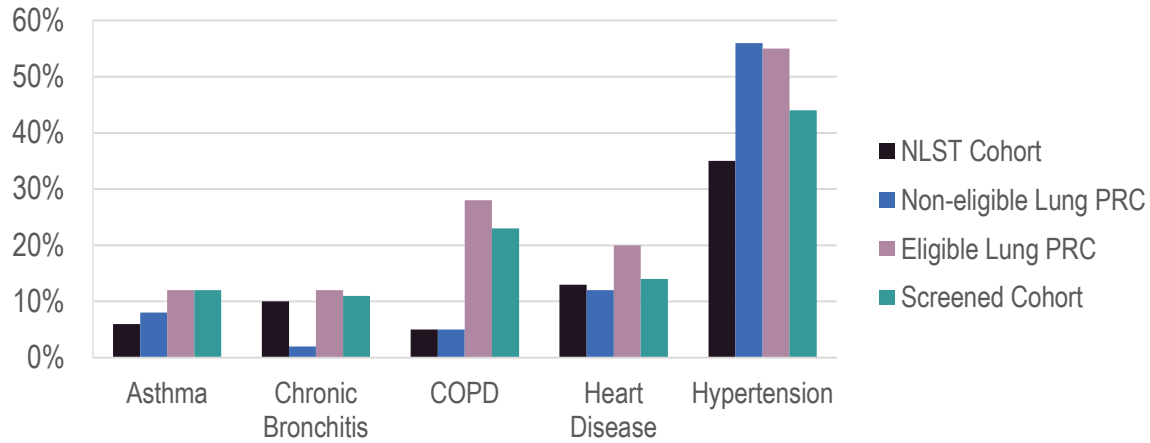
- EHR data collected, compiled, and harmonized across 5 healthcare systems into Common Data Model.
- Includes demographics, procedures, diagnoses, tumor registry, and census-based measures of socioeconomic status.

**Figure 1. Total number of Lung PRC screening eligible patients based on USPSTF guidelines 2014-2019**

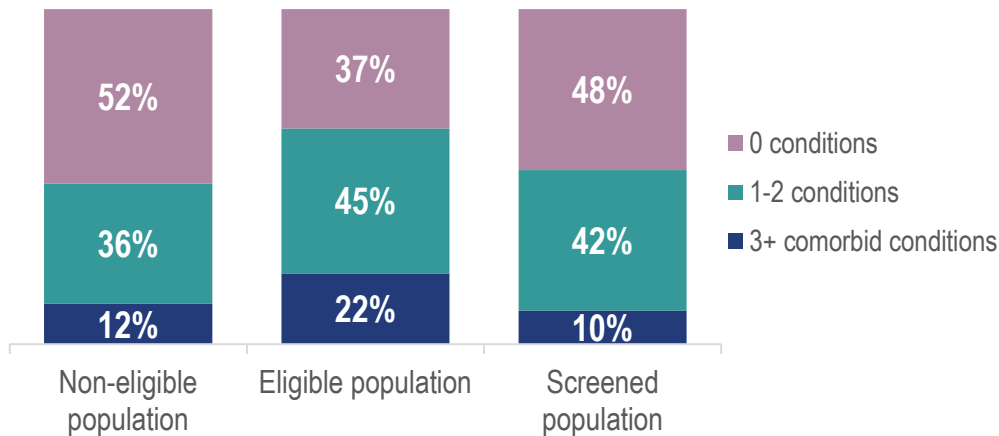


# Results

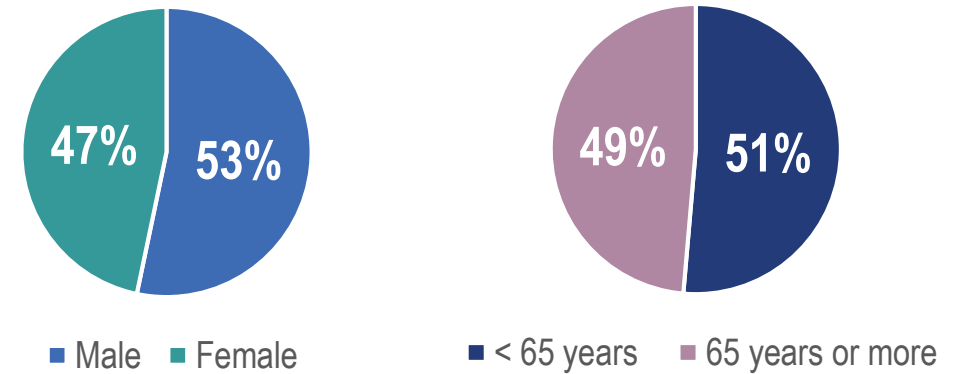
**Figure 2. Co-morbidity profile of Lung PRC cohort compared to NLST**



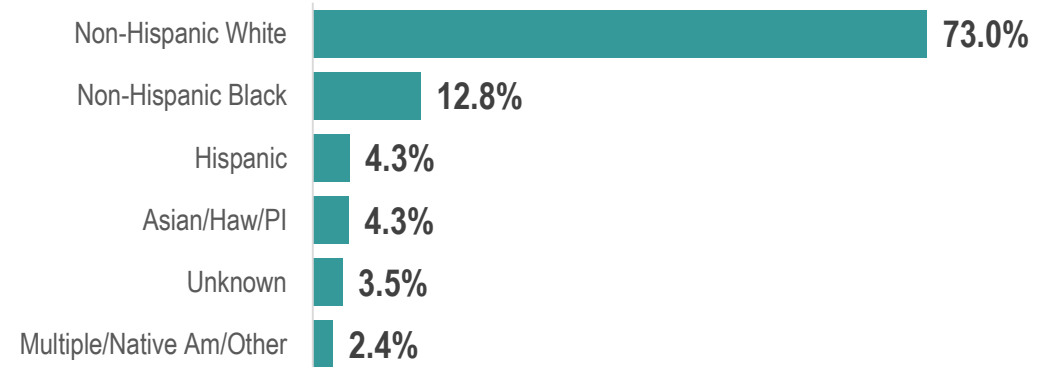
**Figure 3. Co-morbidity burden across Lung PRC cohort aged 55-80 yrs**



**Figure 4. Gender and Age Distribution of Patients receiving Lung Cancer Screening**



**Figure 5. Race/Ethnicity of Patients receiving Lung Cancer Screening**



# Results

Figure 6. Lung Cancer Screening Utilization, 2014 - 2019

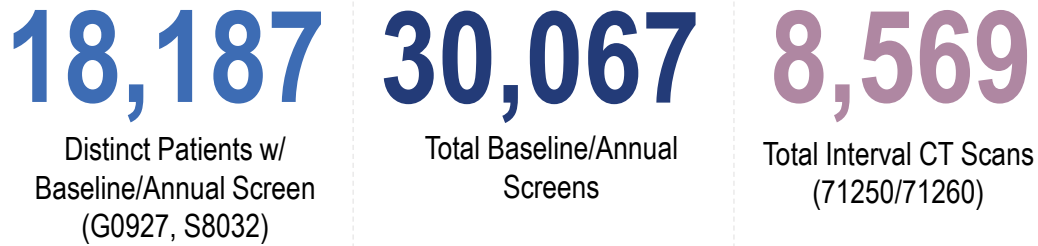
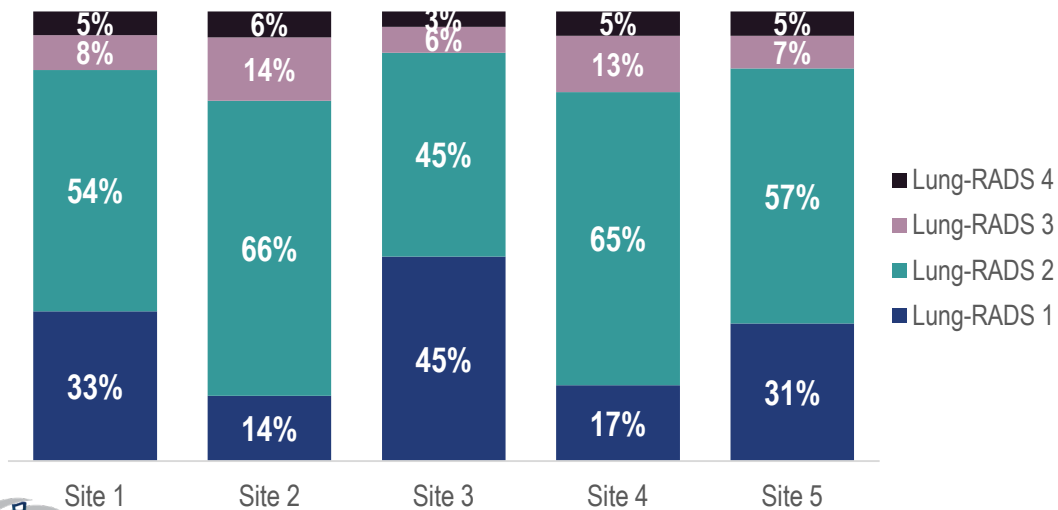


Figure 7. Distribution of Baseline Screen Lung-RADS\*



\*Baseline Screen Definition: First LCS screening code (G0297, S8032) detected between 1/1/2014 and 9/30/19

Figure 8. Screen Detected Lung Cancers by year of baseline screen

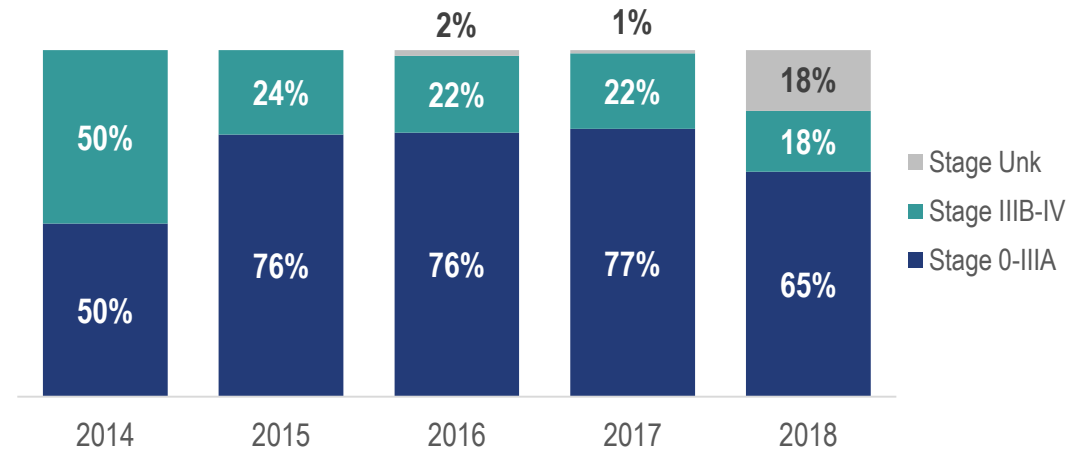
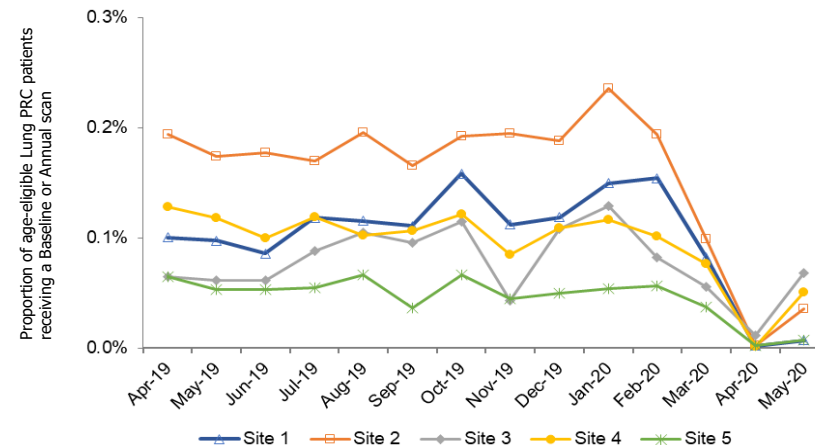


Figure 9. Lung Cancer Screening Rates\*



\* Corley DA, Sedki M, Ritzwoller DP, Greenlee RT, Neslund-Dudas C, Rendle KA, Honda SA, Schottinger JE, Udaltsova N, Vachani A, Kobrin S, Li CI, Haas JS. Cancer Screening during COVID-19: A Perspective from NCI's PROSPER consortium. Gastroenterology. 2020 Oct 21;S0016-5085(20)35317-8. doi: 10.1053/j.gastro.2020.10.030. Epub ahead of print. PMID: 33096099; PMCID: PMC7575503.

# Conclusions

- We've assembled one of the largest lung cancer screening cohorts derived from diverse community-based settings.
- We observed variation in the uptake of LCS and variation in the assignment of Lung-RADS.
- We are also observing a shift in stage of lung cancer diagnosis to earlier, more treatable stages.
- Additional multilevel analyses are currently underway that will help illuminate factors associated with these measures.
- Our current effort associated with data collection through 2021 will allow for additional evaluations regarding the impact of the COVID-19 pandemic on LCS.



# Author Affiliations and Acknowledgments

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