



# Smoking Prevalence and Lung Cancer Screening Eligibility from 2020-2060 for the Overall and the Non-Hispanic Black US Populations

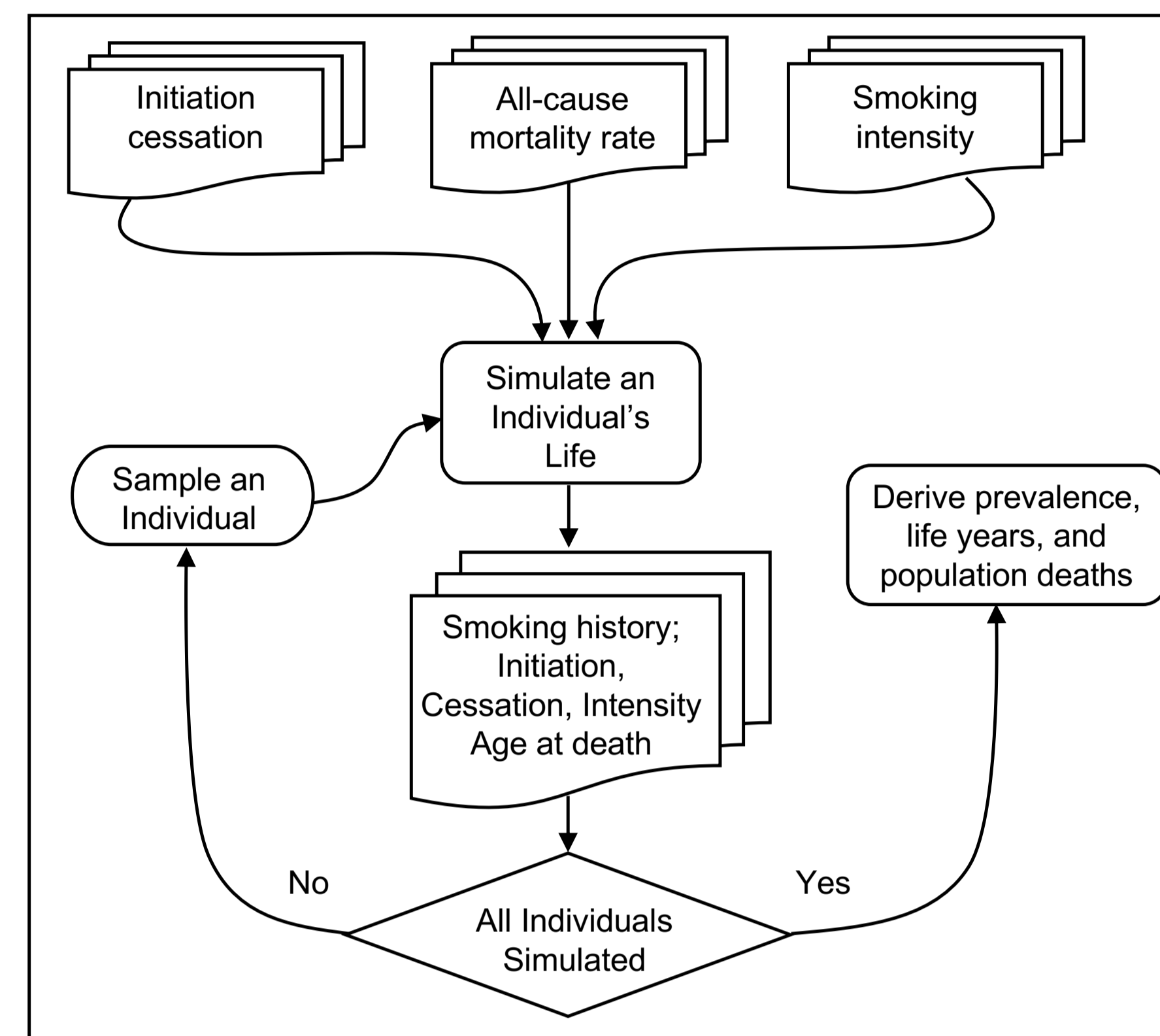
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## Introduction

- Due to inequities in lung cancer screening (LCS) eligibility, the United States Preventive Services Task Force (USPSTF) updated their screening recommendations to expand eligibility.
- However, concerns remain about whether these new criteria address unequal access to screening for key sociodemographic groups. Currently, the USPSTF recommends annual LCS for individuals aged 50-80 with  $\geq 20$  pack-years of exposure and  $\leq 15$  years since quitting.
- Smoking history-based screening criteria may not best fit all populations; Non-Hispanic Black (NHB) Americans have higher lung cancer rates despite smoking at a lower intensity (cigarettes per day) versus the general (All Races) American population.
- It is also unclear if differences in eligibility for screening between the NHB and All Races populations in the US will increase or decrease over time.

## Methods

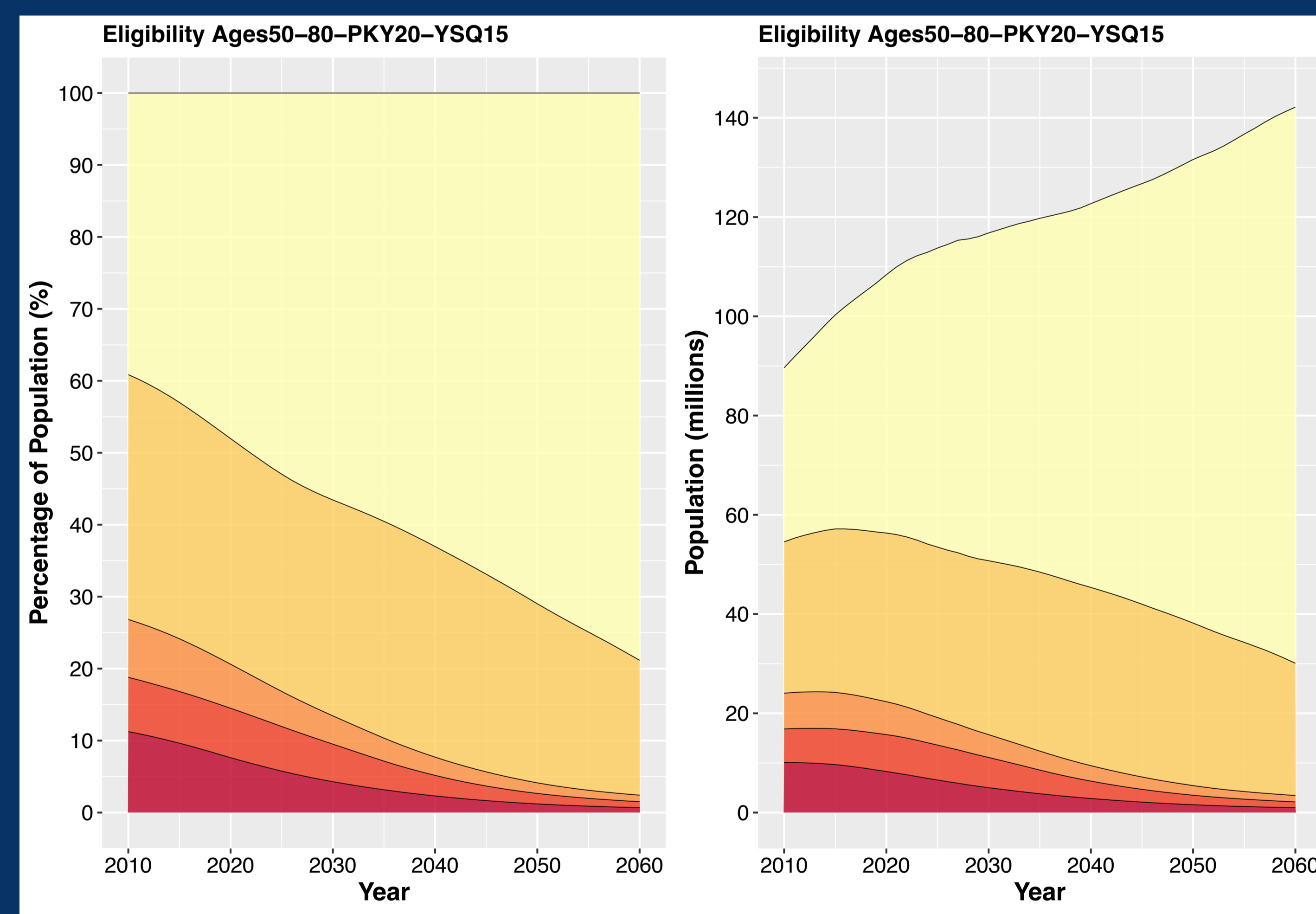
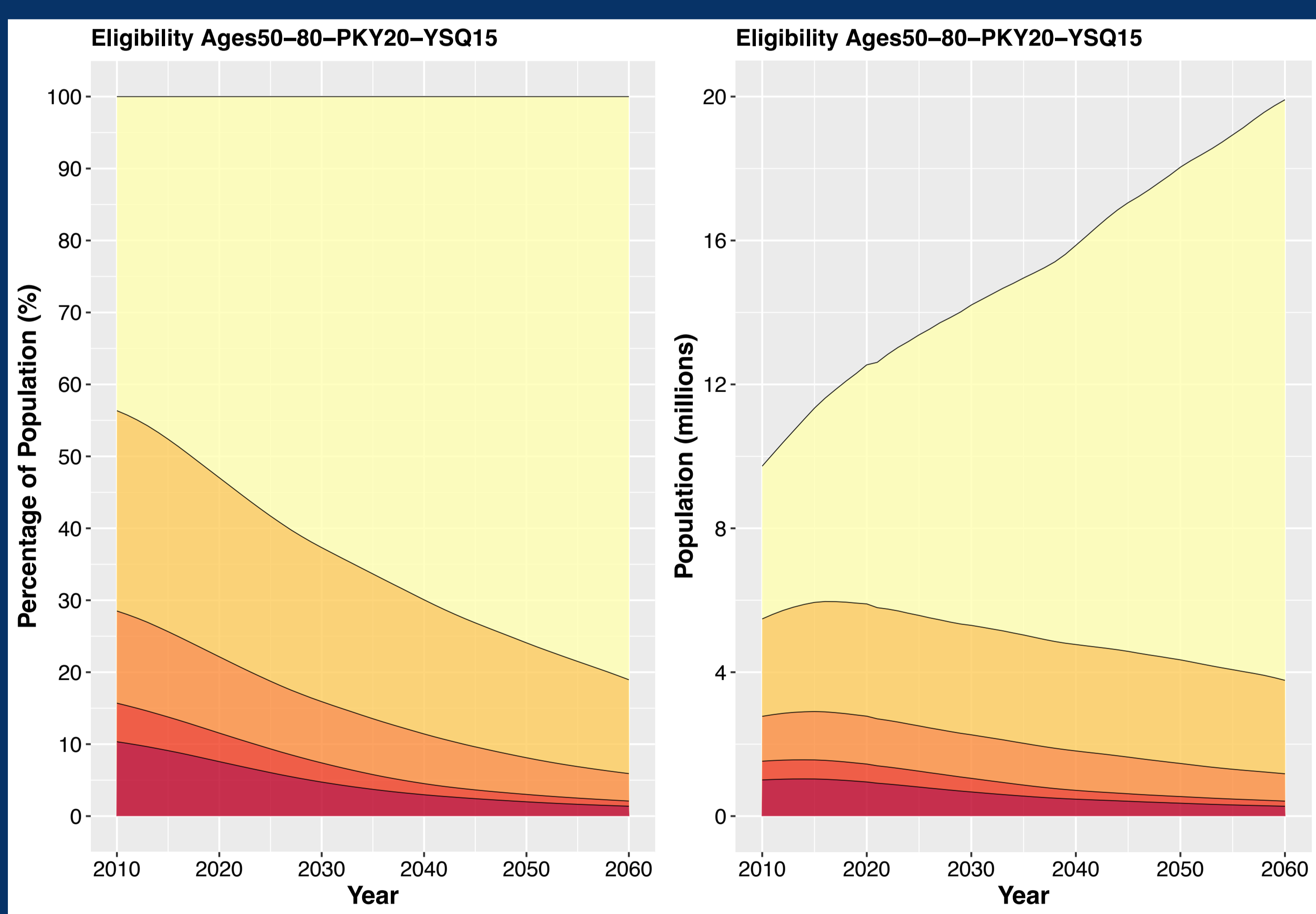
- We projected population and smoking rates by age (50-80) and sex, and the corresponding annual percentage and number of US LCS-eligible individuals from 2020-2060 using a validated simulator of US smoking histories, the CISNET Smoking History Generator.
- We then compared projected smoking prevalence and screening eligibility between the overall and the NHB populations.



## Results

### NHB US Population

### Overall US Population



## Results

- As smoking continues to decrease in the US, the number and percentage of LCS-eligible individuals will decrease progressively during the following decades, reaching under 10 million eligible by 2033 for the overall population and under 1 million by 2032 for the NHB population.
- In 2020, among individuals aged 50-80, 17.0% of overall men and 15.1% of NHB men were estimated to be eligible for screening. By 2040, 5.9% of overall men and 5.7% of NHB men were projected to be eligible. Similarly, the proportion of eligible women decreased from 12.3% (overall) and 8.6% (NHB) in 2020 to 4.5% (overall) and 3.5% (NHB) in 2040.

## Conclusions

- Differences in the LCS-eligible proportion by sociodemographic group will decrease considerably in the following decades in the US.
- Additionally, the number of LCS-eligible individuals will decrease for both the overall and the NHB populations. This will lessen the impact of LCS on lung cancer mortality differences by sociodemographic group, unless eligibility criteria evolves.

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Please add "yes" or "no" to each table cell. If "yes", please turn cell background color to yellow.	Tobacco Industry	E-cigarette & nicotine product industry (excluding pharma)	Pharma Industry
The work being presented has received funding (including consultancy from any of the following sources:	no	no	no
Any of the authors have received funding (including consultancy) from any of the following sources in the past 5 years:	no	no	no