



Lung Cancer Screening Stage of Adoption and Shared Decision-Making Process

Hermine Poghosyan¹, Elham Samami¹, Peiyuan Liu¹, Junlan Pu¹, Sayantani Sarkar²
¹Yale University, Orange/CT/USA, ²University of California, Berkeley, Berkeley/CA/USA
Correspondence: hermine.poghosyan@yale.edu



IASLC 2026 World
Conference on Lung Cancer
SEPTEMBER 12 - 15, 2026
SEOUL, REPUBLIC OF KOREA

INTRODUCTION

- Lung cancer screening (LCS) with low-dose computed tomography reduces lung cancer deaths by detecting disease early
- Despite this benefit, only up to 20% of LCS-eligible individuals undergo LCS
- Deciding to undergo LCS is complex and challenging, as it involves potential risks
- Involving patients in shared decision-making (SDM) is crucial to support informed healthcare choices
- This study examined the SDM process and its association with LCS participation among adults eligible for LCS.

DISCUSSION AND CONCLUSION

Conclusion

- LCS participation was low, and greater SDM was associated with LCS participation
- Many (~34%) individuals were unaware of LCS
- Novel strategies are needed to increase public awareness

Implication

Incorporating SDM through personalized decision aids, promoting workforce diversity, allocating dedicated time for SDM in clinical settings, and providing communication training for healthcare professionals may support informed, shared LCS decision-making, LCS participation, and adherence.

RESULTS

Study Sample Characteristics

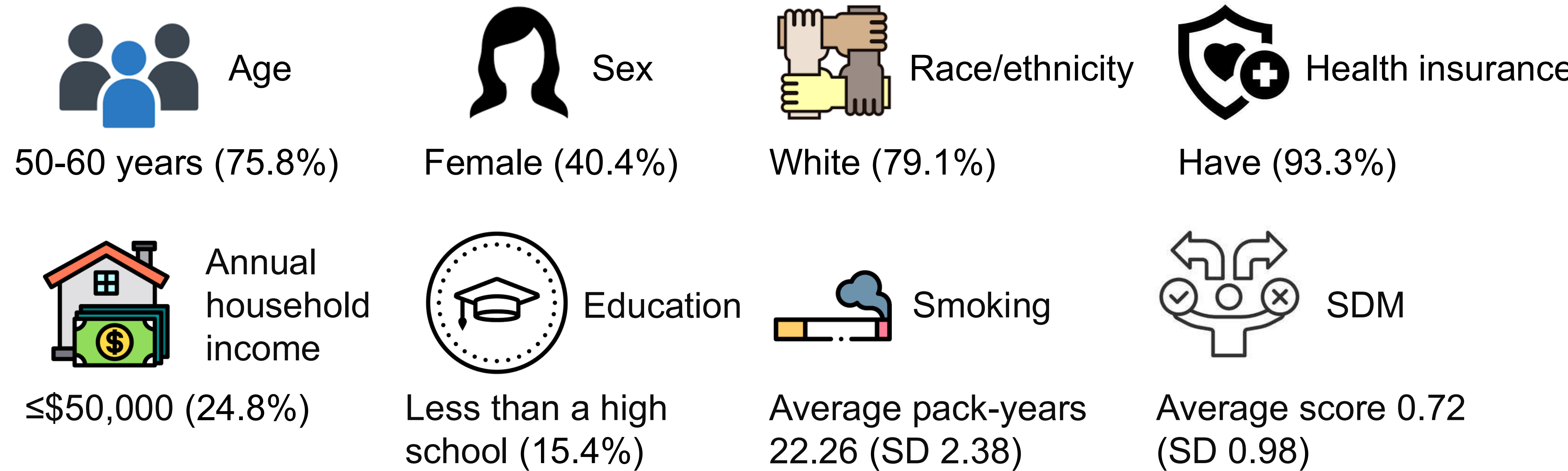


Table 1. Lung cancer screening (LCS) stage of adoption classification

LCS stage of adoption classification	Frequency (%)
Item #1. Have you ever heard of lung cancer screening with a lung scan (also commonly called a low-dose CAT scan)? (categories were yes, no=unaware)	
Stage 1: Unaware	156 (33.91)
Item #2. Have you ever thought about having a lung scan (low-dose CAT scan) to screen for lung cancer? (categories were yes, no=unengaged)	
Stage 2: Unengaged	146 (31.74)
Item #3. Do you plan to have a lung scan to screen for lung cancer? (categories were I don't know=undecided; no=decided not to act; and yes=decided to act)	
Stage 3: Undecided	4 (0.87)
Stage 4: Decided not to act	55 (11.96)
Stage 5: Decided to act	64 (13.91)
Item #4. Have you already made an appointment to have a lung scan? No=decided to act (this group included in Stage 5) and yes=action)	
Stage 6: Action	15 (3.26)
Item #5. Are you currently having lung scans on a yearly basis? (categories were no, and yes=maintenance)	
Stage 7: Maintenance	20 (4.35)

LCS

Participants: 21.5%
Non-participants: 78.5%

The provider discussed the reasons for:

- Undergoing LCS (70.65%)
- Not undergoing LCS (3.26%)
- Patients' preferences regarding participation in LCS (37.6%)

METHODS

Study Design

- An online cross-sectional survey in the US between October-December 2025

Population

- Adults aged 50-80 years with a smoking history of ≥ 20 pack-years who were either currently smoking or had quit within ≤15 years
- Sample size: n = 460

Outcome

- LCS participation was measured using the stage-of-adoption algorithm
- Non-participants: stages 1-4 (unaware, unengaged, undecided, decided not to act)
- Participants: stages 5-7 (decided to screen, recently screened, currently screening annually)

Key Independent Variable

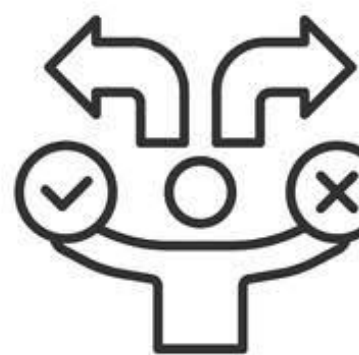
- The SDM predictor was measured using the 4-item SDM Process scale to assess the extent to which healthcare providers engage patients in SDM
- Total score ranges from 0 to 4, where higher scores indicate greater SDM

Statistical Analysis

- Descriptive statistics and multivariable logistic regression analyses

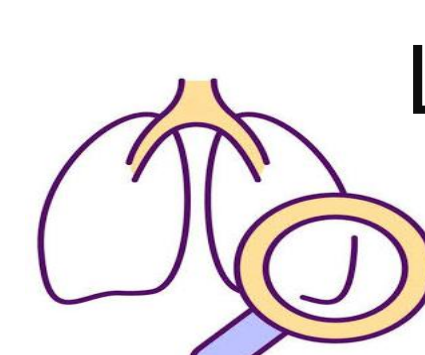
Regression Results

Those who were involved in shared decision-making had about 4 times the odds of LCS participation, adjusted for sociodemographic, behavioral, and health-related characteristics.



SDM

Adjusted odds ratio (AOR) = 3.98
95% CI: 2.87-5.52; p <0.001



LCS participation

FUNDING

Community Foundation for Greater New Haven/Yale School of Medicine (Project #20234931)