

# Patient-reported Proposed Intervention and Prior Lung Cancer Screening Awareness

Jinho Jung BS<sup>1,2</sup>, Ali Rashidi MD<sup>2</sup>, Natalie Tran<sup>2</sup>, Axs C. Avenido<sup>2</sup>, Arsanyous Bernada<sup>2</sup>, Stephanie Jia<sup>2</sup>, Tan Nguyen MD<sup>3</sup>, Hari B Keshava MD, Gelerah Sadigh MD<sup>2</sup>

<sup>1</sup> School of Medicine, University of California, Irvine, Irvine, CA 92617, USA

<sup>2</sup> Department of Radiological Sciences, University of California, Irvine, Orange, CA 92868, USA

<sup>3</sup> Department of Family Medicine, University of California, Irvine, Orange, CA 92868, USA

<sup>4</sup> Division of Thoracic Surgery, University of California, Irvine, Orange CA 92868, USA

Contact info: jinhoj3@hs.uci.edu

## Background

The current U.S. Preventive Services Task Force (USPSTF) guideline recommends annual Low Dose CT (LDCT) scans for lung cancer screening (LCS) in individuals aged 50 to 80 with a smoking history of 20 pack-years, who are current smokers or have quit within the last 15 years<sup>1</sup>. However, despite the availability of screening methods, the screening rate remains low for lung cancer. In 2022, only 5.8% of high-risk individuals were screened for lung cancer<sup>2</sup>.

While there have been studies that investigated interventions to increase LCS, there is limited knowledge of patients' perspectives on what screening non-compliant high-risk patients would prefer as an intervention to increase LCS uptake.

## Objective

To investigate patient-reported interventions for improving LCS uptake

## Methods

Between May and November 2023, patients meeting USPSTF LCS criteria without a history of lung cancer and no previous LDCT scan in the last 12 months who had a primary care encounter in our institution during the past year were invited to complete a 15-minute survey either online or via phone. Questions included prior discussion of LCS with their primary care provider (PCP), history of LCS, and patient-proposed interventions to increase LCS uptake.

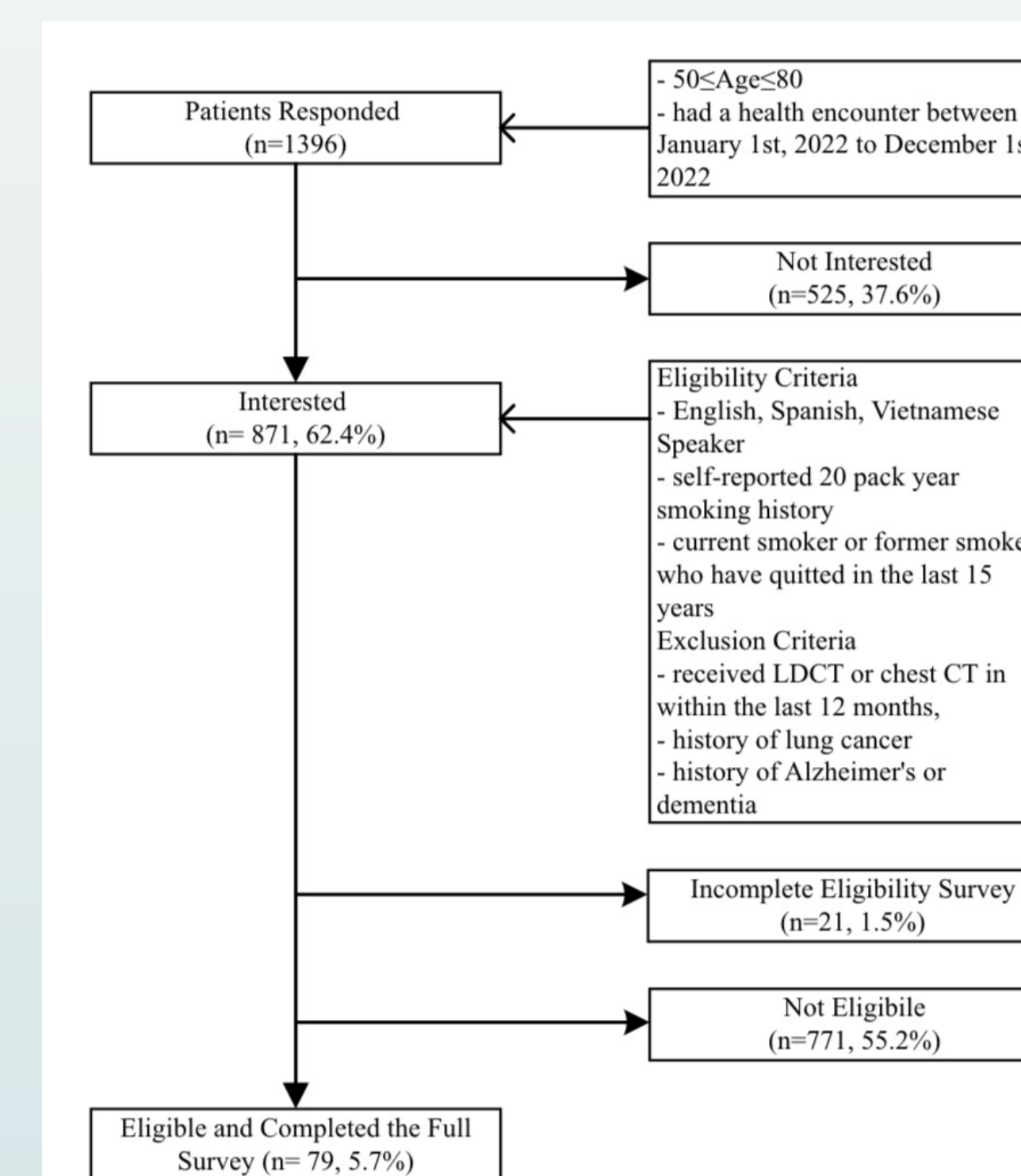
Patients were given multiple options such as educational materials on risks and benefits of LCS (in paper format and mailed to them/given to them during their primary care appointment or online educational videos/files shared via portal), reminders when patient will be due for exam (phone/text reminders), phone calls to help schedule LCS, notification to PCP for patient's eligibility, and referrals to social services to address concerns over finances, transportation, food, housing, utility, etc. We used STATA (version 10, Stata Corp.) for analysis and statistical significance was defined as p value < 0.05.

## Results

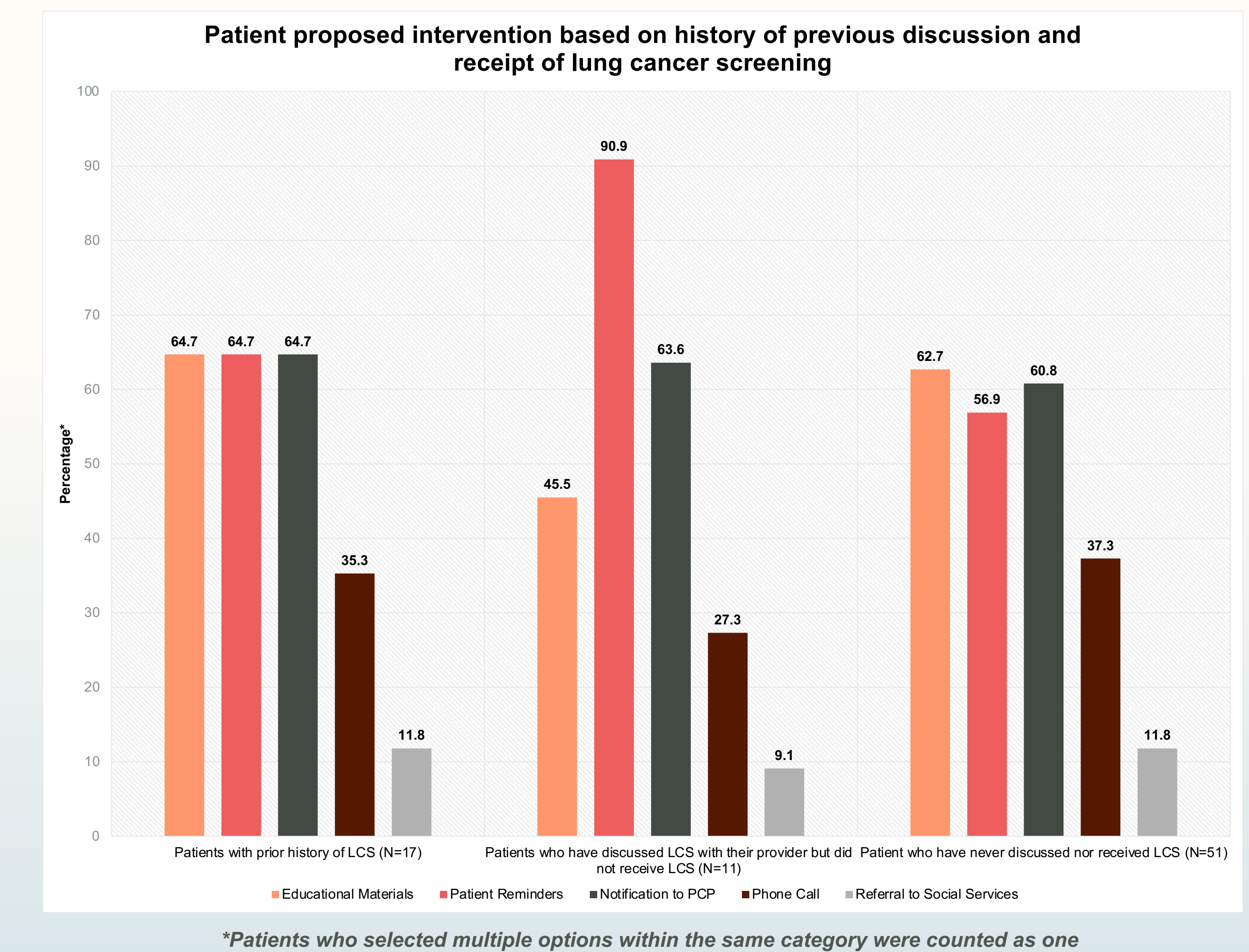
A total of 79 eligible patients (mean age: 62.4; 59.0% male; 78.5% White, 13.0% Hispanic, 5.1% Asian) participated, with 73.4% being former smokers. 20.3% had a personal history of cancer and 62.3% had a family history of cancer. Despite being eligible to receive LCS, 64.6% (51/79) never discussed LCS with their PCP nor received LCS. Among 30.4% (24/79) who did discuss, only 54.2% (13/24) had undergone prior screening. Patients with personal history of cancer had higher odds of preferring notification to PCP for patient eligibility (OR: 5.77, 95% CI: 1.04-31.96). Patients with family history of cancer had higher odds of preferring educational materials (OR: 3.23, 95% CI: 1.11-9.42).

Among patients with prior history of LCS (17/79), 64.7% preferred educational materials, patient reminders, and notifications to PCP for patient eligibility. Among patients who discussed LCS with their provider but were not screened (11/79), 90.9% suggested patient reminders are most beneficial, followed by notification to PCP for patient eligibility (63.6%). Among patients who never discussed nor received LCS (51/79), 62.8% recommended educational materials, 60.8% recommended notification to PCP for patient eligibility, and 56.9% recommended patient reminders. There were no specific patient-proposed interventions associated with patients' history of previous discussion and receipt of lung cancer screening.

### Study flowchart



## Results



## Conclusion

Annual LCS can be difficult to remember for both patients and providers. While there were no specific patient-proposed interventions associated with patients' history of previous discussion and receipt of lung cancer screening, notification to PCP for patient eligibility and educational materials were preferred by patients with personal and family history of cancer, respectively. Further studies are needed to compare the effectiveness of educational material and notification to PCP for patient eligibility in increasing LCS uptake.

## Funding

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## References

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