

## Public Preferences for Lung Cancer Screening in China: A Discrete Choice Experiment

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**Abstract :** Objectives: Few results from public attitudes for lung cancer screening are available both in China and abroad. This study aimed to identify preferred lung cancer screening modalities in a Chinese population and predict uptake rates of different modalities. Materials and Methods: A discrete choice experiment questionnaire was administered to 392 Chinese individuals aged 50–74 years who were at high risk for lung cancer. Each choice set had two lung screening options and an option to opt-out, and respondents were asked to choose the most preferred one. Both mixed logit analysis and stepwise logistic analysis were conducted to explore whether preferences were related to respondent characteristics and identify which kinds of respondents were more likely to opt out of any screening. Results: On mixed logit analysis, attributes that were predictive of choice at 1% level of statistical significance included the screening interval, screening venue, and out-of-pocket costs. The preferred screening modality seemed to be screening by low-dose computed tomography (LDCT) + blood test once a year in a general hospital at a cost of RMB 50; this could increase the uptake rate by 0.40 compared to the baseline setting. On stepwise logistic regression, those with no endowment insurance were more likely to opt out; those who were older and housewives/househusbands, and those with a health check habit and with commercial endowment insurance were less likely to opt out from a screening programme. Conclusions: There was considerable variance between real risk and self-perceived risk of lung cancer among respondents, and further research is required in this area. Lung cancer screening uptake can be increased by offering various screening modalities, so as to help policymakers further design the screening modality.

**Keywords :** lung cancer, screening, China, discrete choice experiment

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