

## public health

### 1380P Elicitation of public preferences for lung cancer screening using three screening modalities

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**Background:** Since early detection of lung cancer can substantially increase overall cancer survival, there is increasing attention for lung cancer screening. This study aims to identify public preferences for lung cancer screening and to identify subgroups with distinct preferences.

**Methods:** The study was designed as a multi-attribute elicitation experiment using swing weighting. Attributes were selected using interviews with three clinicians and a panel session with eight representative respondents. Included attributes were sensitivity, specificity, radiation load, duration of screening procedure, time until results, mode of screening (CT scan, breath or blood test) and location of screening

(GP or hospital). A hierarchical clustering method was used to identify subgroups in the preference weights.

**Results:** In total, 1034 respondents from a representative Dutch panel aged between 40 and 80 completed the questionnaire. Respondents preferred breath analysis (45%) to blood samples (31%) or the CT-scanner (24%). 59% would prefer to be screened at their GP instead of the hospital. The three most important attributes were location of screening (0.18, SD = 0.16), mode of screening (0.17, SD = 0.14), and sensitivity (0.16, SD = 0.13). There was a distinction between preferences of subgroups focusing on organization of the screening service and preferences of subgroups focusing on clinical benefits of screening. Respondents with a low education were more likely to belong to subgroups found organization of the services most important, while respondents with a higher education were more likely to find clinical benefit important ( $P < 0.01$ ). There were no significant between-cluster differences with regard to gender, age, smoke status, self-perceived risk, or 5-year lung cancer risk.

**Conclusions:** Our results indicate that there is great potential for new screening technologies that can be used at a primary care facility, and that a one-size-fits-all approach for lung cancer screening is unlikely to provide the best value for the screening population.

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