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# Implementation Barriers in US-based Lung Cancer Screening Programs

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### DISCLOSURES

Commercial Interest	Relationship(s)
Novartis	Consultant, Advisory Board
Daiichi Sankyo	Advisory Board
AstraZeneca	Advisory Board
GRAIL, Inc.	Consultant



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## Background

- Both the National Lung Screening Trial and the Dutch-Belgian Randomized Lung Cancer Screening Trial (NELSON) demonstrate that screening by low-dose computed tomography (LDCT) leads to a reduction in lung cancer mortality underscoring the importance of implementing effective LDCT screening programs.
- The GO<sub>2</sub> Foundation for Lung Cancer's Screening Centers of Excellence (SCOE) Network is comprised of US-based LDCT screening programs committed to responsible, high quality screening practices.
  Membership is based on adherence to defined screening program standards and offers members robust peer-to-peer support resources.
- To better understand implementation barriers that programs face, the SCOE network was surveyed to assess barriers in US-based screening programs related to patients, workflow and reimbursement.



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### **Methods**

- Representatives of SCOE network programs were asked to complete an online survey drawing upon data from calendar year 2018, with items focusing on LDCT screening program aspects including: program structure, implementation barriers, capacity, screening rates, and workflow.
- 100 SCOE programs responded to the survey, between 7/1/2019 and 9/5/2019, representing 87,753 patients screened.
- The survey is designed to baseline participants by collecting both quantitative and qualitative data and will be deployed annually to allow for longitudinal analysis. Data analysis facilitates comparison of different program sub-groups.
- The survey was deployed and analyzed by ZoomRx, a strategic health consulting firm.



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Figure 1: Characteristics of Screening Programs as self-reported by survey respondents. A) Number of screening programs that are academic (affiliated with an Academic Medical Centers or Academic Teaching Hospital) or community based (affiliated with a community-based hospital). B) Number of patients screened annually by program.



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Figure 1: Characteristics of Screening Programs as self-reported by survey respondents. C) Number of individual screening locations that are a part of the screening program.



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Figure 2: Location of Screening Programs. US states that had a screening program that responded to the survey are colored. The number of individual screening programs providing a response from that state are indicated by the number.



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Figure 3: Top screening implementation barrier category reported by programs. Respondents were asked to rank the top three screening implementation barriers, in order of significance, experienced by their program in 2018, from a list of categories provided. Graph is showing the top, most significant, category indicated by a respondent. Results are shown as divided by academic and community-based screening programs. Bars indicate the percent of respondents within the indicated group providing a response.



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Figure 4: Top specific implementation barriers reported by programs. Respondents were asked which implementation barriers among a list of choices were experienced by their program in 2018. Programs could indicate more then one choice; "other" was included as a choice. Only selected, top responses are shown. Results are shown as divided by academic and community-based screening programs. Bars indicate the percent of respondents within the indicated group providing a response.



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### Conclusions

- Academic programs found patient and volume related issues more challenging while community programs found workflow and institutional issues more challenging.
- Lack of patient adherence to normal annual return screening is frequently encountered by all types of programs.
- Community-based programs reported issues with staffing or lack of support from referring providers at a much higher level then academic programs.



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### **Discussion & Future Directions**

- Initiatives to improve screening implementation must address both common barriers and programtype specific issues.
- The SCOE network represents a unique opportunity to study screening implementation at scale and across settings and implement potential solutions to address barriers.
- The SCOE network survey will be repeated annually to allow for longitudinal analysis of LDCT screening in the US.