



BACKGROUND

In 2010, the National Lung Screening Trial was halted after showing a 20% reduction in mortality for high risk individuals when three years of annual lung cancer screening was performed by low dose computed tomography (NEJM, 2011). Many questions remained about whether screening could be properly implemented in non-academic, community settings. Lung Cancer Alliance developed a National Framework for Excellence in Lung Cancer Screening and Continuum of Care in 2012 and began a nationwide network dedicated to responsible lung cancer screening. The Screening Center of Excellence (SCOE) designation requires a center to ensure shared decision-making, comply with best practice standards, work with a multidisciplinary care team, deliver or refer for smoking cessation, provide results in a timely manner, and meet technical specifications set by the American College of Radiology. Our aim is to promote high-quality, responsible lung cancer screening throughout the United States, including in community settings where most lung cancer is diagnosed.

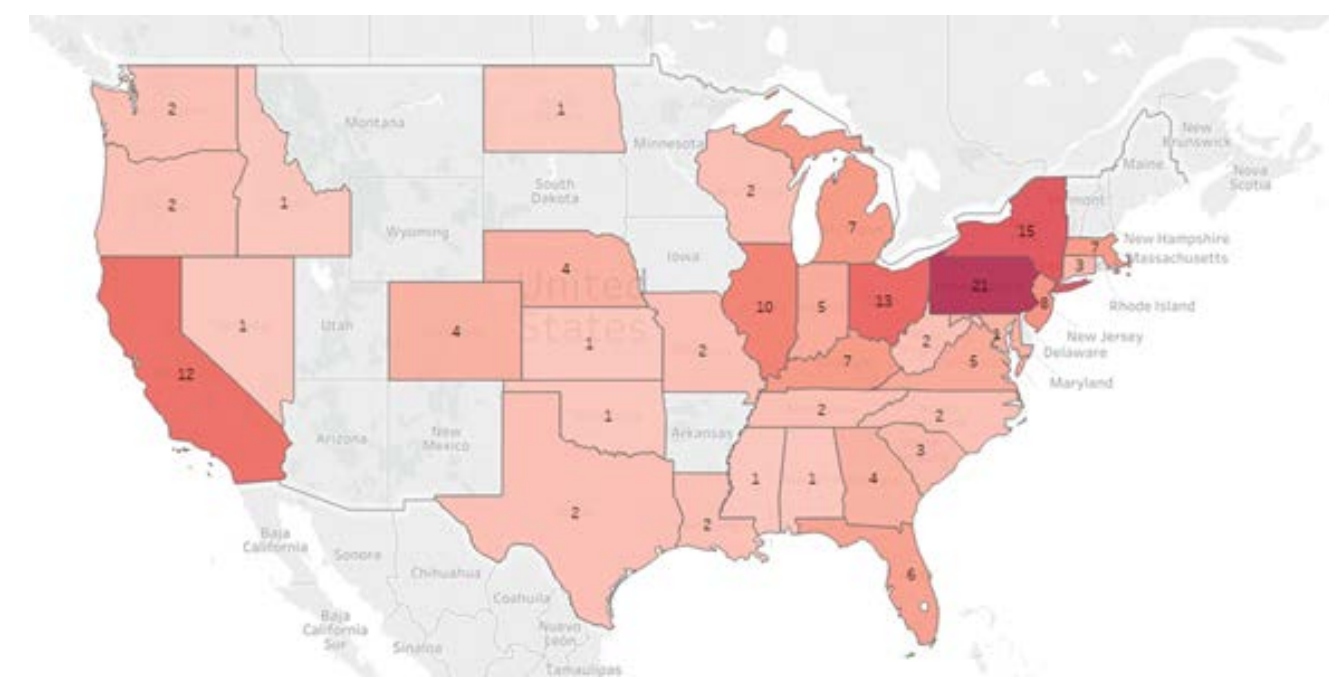
METHODS

Lung Cancer Alliance Screening Centers of Excellence are requested to provide data on their screening program by responding to a data collection survey when applying for initial SCOE designation and then annually thereafter. They are also required to do an annual application update to maintain their designation.

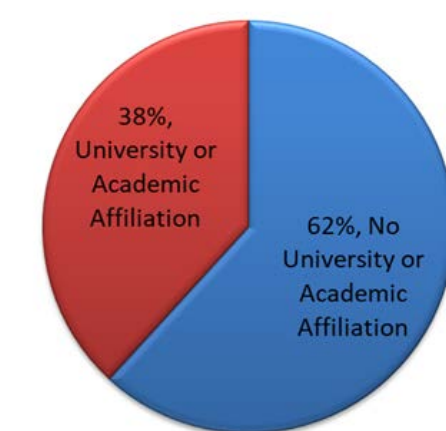
The 2016 survey was designed with 21 closed and open-ended quantitative and qualitative questions using SurveyMonkey and pretested with 10 members of the SCOE network to be sure that the survey questions were feasible and not overly burdensome.

The survey was distributed in waves to lung cancer screening contacts at 527 SCOE facilities, who provided responses between February 24 and August 15, 2017. In some cases, the designated screening center contact represented a single lung cancer screening site for the SCOE and in other cases, they represented multiple screening sites. Only the 165 screening programs that completed both the annual application update and the annual survey were included in this analysis. 56 programs were removed from the SCOE list for not completing the annual application update.

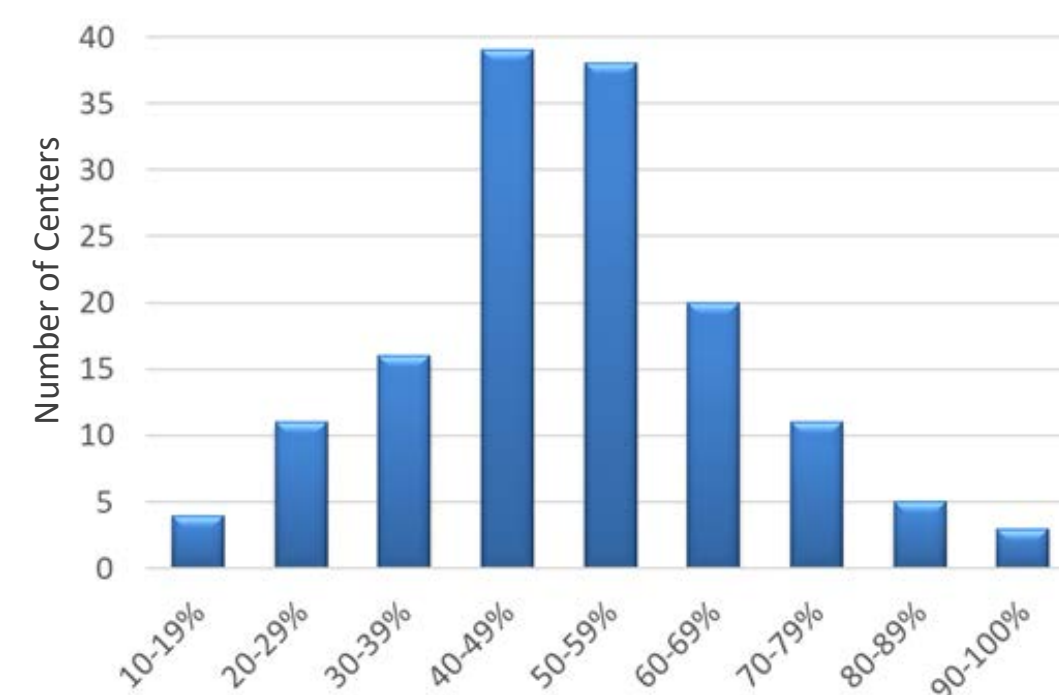
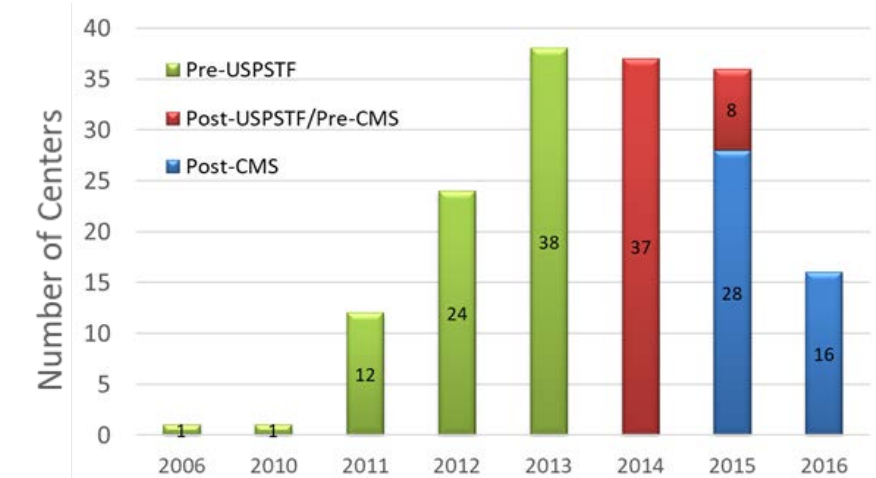
SCREENING CENTER DEMOGRAPHICS



Geographic Distribution of the 165 Screening Centers of Excellence respondents

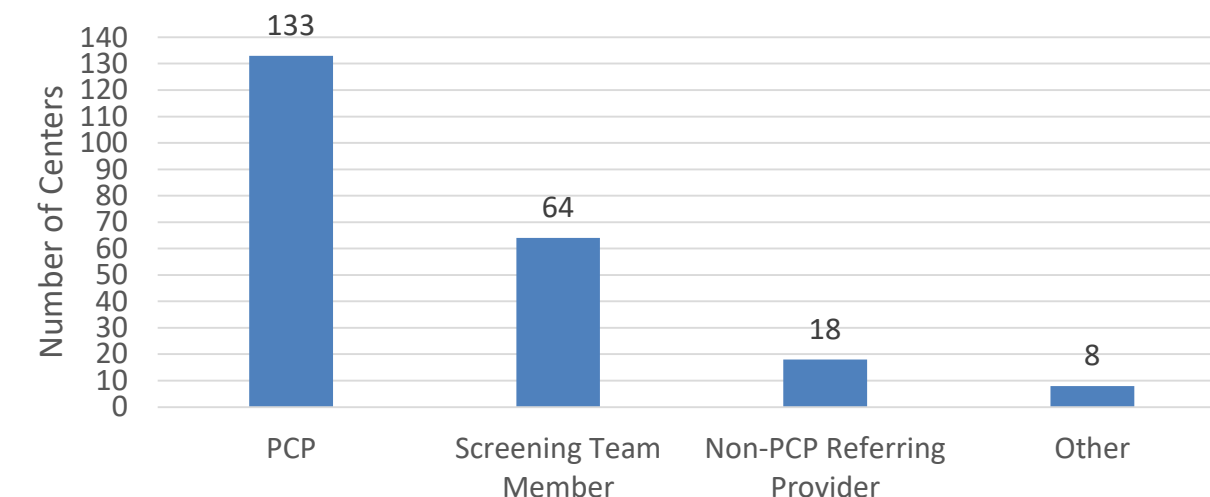


(Left) Screening Centers of Excellence reported if they had an academic or university affiliation (Right) Time of initiation of each screening program and relationship to USPSTF recommendation and CMS coverage decision (n=165).

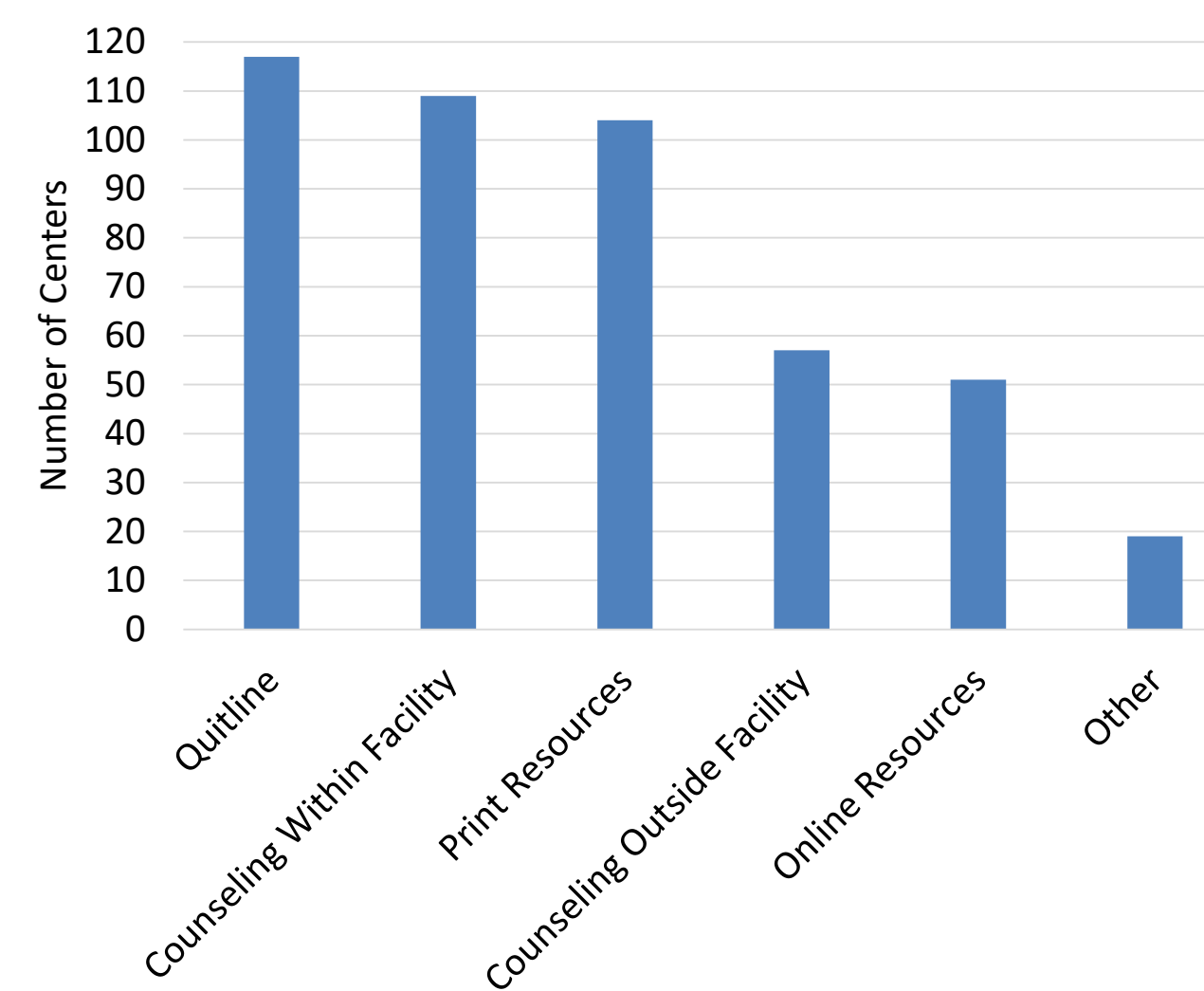


Estimates of the percentage of screened patients who are covered by Medicare for each lung cancer screening program (n=147 question respondents).

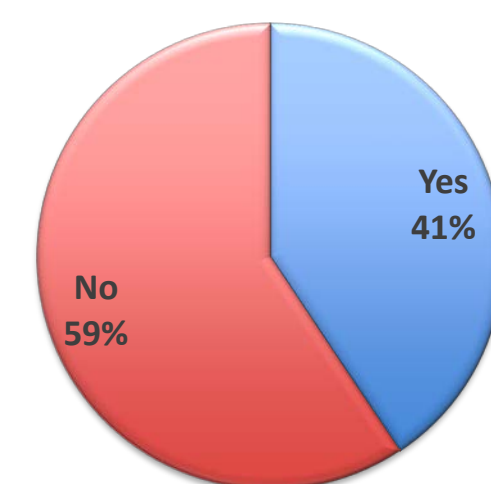
ADDRESSING CMS REQUIREMENTS



Entity that was reported by SCOE as leading Shared Decision Making (SDM) making visits for Medicare beneficiaries being screened in their program. Centers could indicate multiple responses.

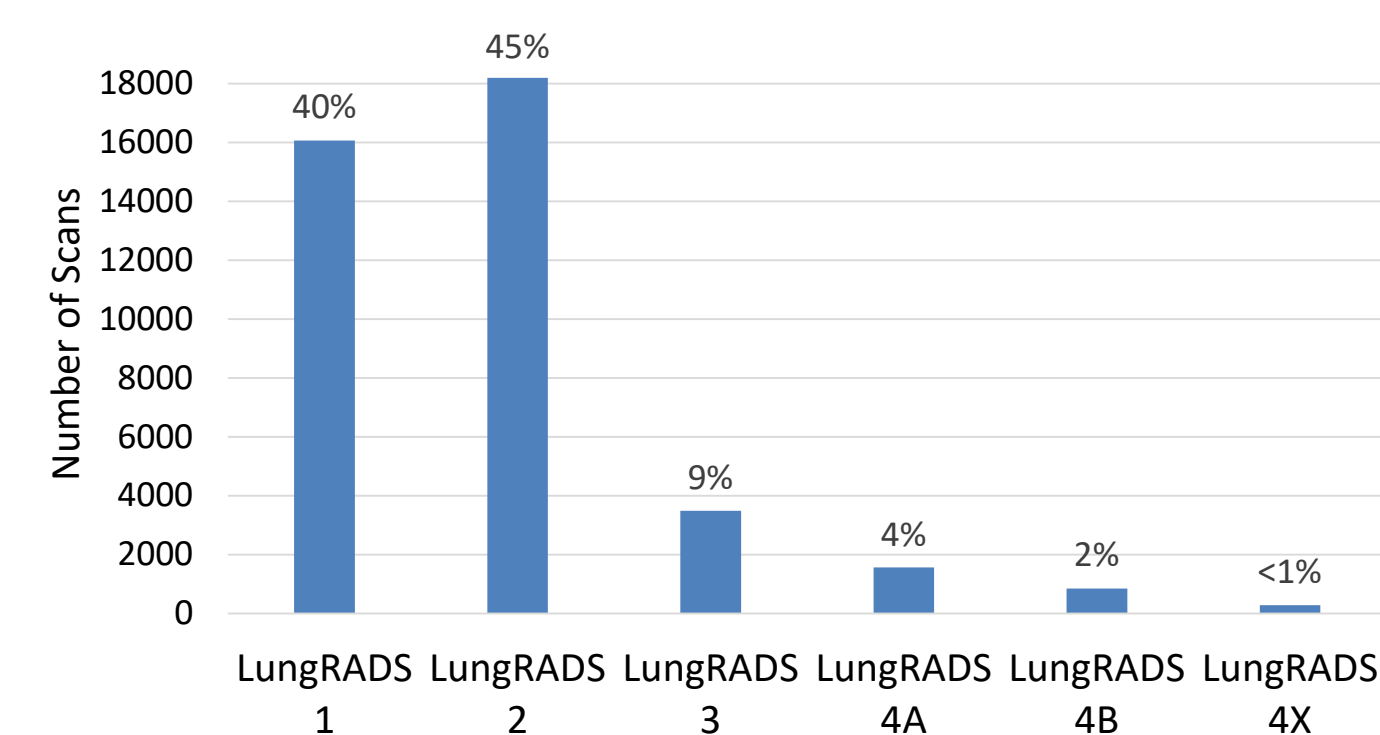


(Above) Smoking cessation services reported by SCOE as being offered to patients seeking screening within their program. Centers could indicate multiple services.



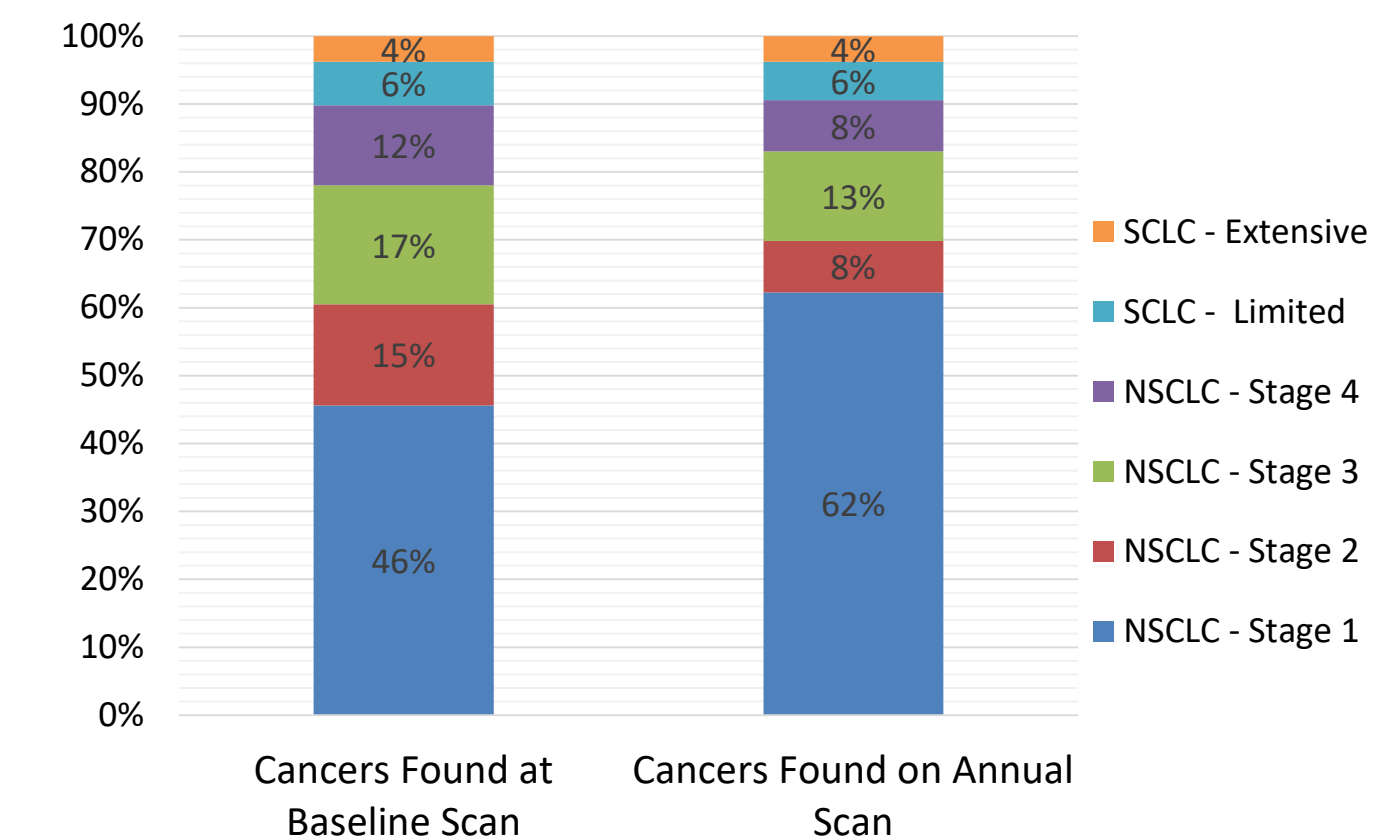
(Left) Proportion of SCOE that reported doing active follow up of patients referred to smoking cessation services through their screening program.

SCREENING RESULTS



Number of LDCT scans (both baseline and annual follow up) with an indicated LungRADS finding performed in 2016 by SCOE (n=99 respondents).

In total, SCOE reported 621 lung cancers diagnosed from 45423 scans for a rate of 1.4%.

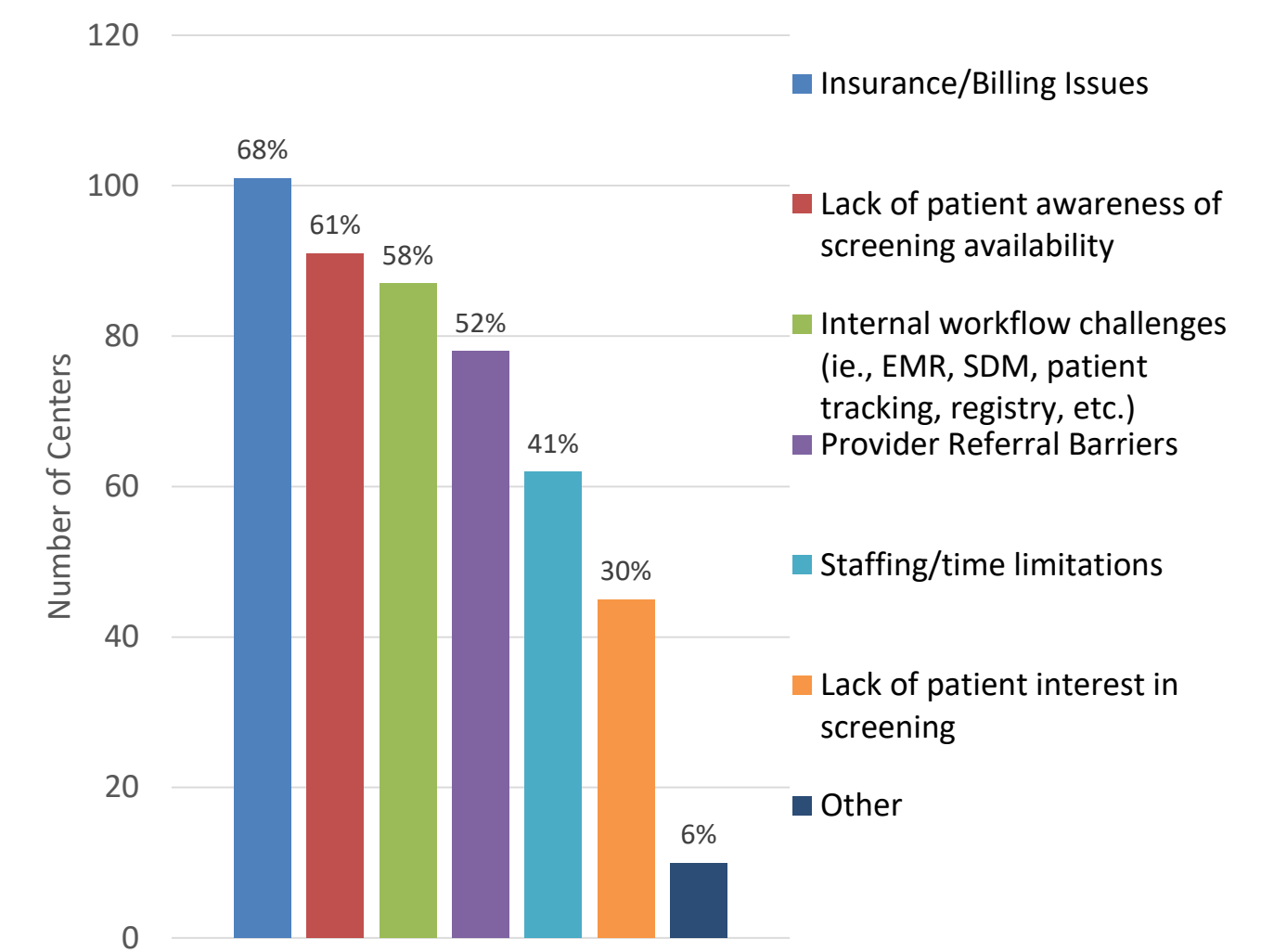


Percentage of lung cancers that were diagnosed of the given type and stage on baseline vs. annual scans (n=529 cancers reported)

	Found at Baseline Scan	% of Baseline	Found at Annual Scan	% of Annual	Total	% of Total
Stage 1 NSCLC	193	45.63%	66	62.26%	259	48.96%
Stage 2 NSCLC	63	14.89%	8	7.55%	71	13.42%
Stage 3 NSCLC	74	17.49%	14	13.21%	88	16.64%
Stage 4 NSCLC	50	11.82%	8	7.55%	58	10.96%
Limited SCLC	27	6.38%	6	5.66%	33	6.24%
Extensive SCLC	16	3.78%	4	3.77%	20	3.78%

Stages of Lung Cancer at Diagnosis when found by Lung Cancer Screening. Data from all centers who were able to report diagnosis stage by type of scan (n=120 respondents)

BARRIERS



Barriers to optimal lung cancer screening implementation reported by SCOE (n=147 respondents.) Centers could indicate more than one response.

CONCLUSIONS

We have shown that a patient advocacy group working with medical professionals can help deliver high quality care to a broad population. Data collection from the SCOEs provides a snapshot of the state of lung cancer screening in the United States that underscores the success of screening and the importance of early detection but also identifies barriers in implementation that still need to be addressed.

CONTACTS

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