Who is Being Screened for Lung Cancer in the United States?

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Disclosures

• None
Where is the Data from the ACR-LCSR?

Collaboration between

Data is from 2016 through October 2019
All Data fields are not required by registry
LCSR Registry

• Sponsored by the American College of Radiology

• Number of facilities
  – 2016, n=2410
  – 2017, n=2603
  – 2018, n=3091
Facility characteristics among those screened in LCSR

*Note: Facility characteristics were generally similar among all exams and USPSTF eligible
Number of baseline scans (n=888,579), projected (n=936,771) and USPSTF-Eligible (n = 827,595)
How good are we at screening the “eligible” People?

• 88% meet USPSTF criteria

• Among those **not** meeting USPSTF criteria:
  – 50% were former or current smokers <30 pack years
  – **13%** were former smokers with 30+ pack years, but quit more than 15 years ago
  – **12%** were <55 years
  – **10%** were current smokers without info
  – **2%** were >80 years
  – **2%** were never smokers
Preliminary Estimates of the Number Eligible, Number Receiving and Past-year LDCT Screening Rates in the US based on LCSR, NHIS, and US Census Data, 2016-2018
### Characteristics of Baseline Exams in NLST vs US Census vs LCSR

<table>
<thead>
<tr>
<th></th>
<th>NLST</th>
<th>US Census Survey (Eligible)</th>
<th>LCSR Total Exams</th>
<th>LCSR among USPSTF Eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
<td>59</td>
<td>58.5</td>
<td>51.7</td>
<td>51.8</td>
</tr>
<tr>
<td><strong>55-64y</strong></td>
<td>73.4</td>
<td>64.5</td>
<td>49.3</td>
<td>50.4</td>
</tr>
<tr>
<td><strong>65-74y</strong></td>
<td>26.6</td>
<td>35.5</td>
<td>43.8</td>
<td>44.2</td>
</tr>
<tr>
<td><strong>75-80y</strong></td>
<td></td>
<td></td>
<td>5.5</td>
<td>5.4</td>
</tr>
<tr>
<td><strong>% Black</strong></td>
<td>4.4</td>
<td>5.5</td>
<td>7.6</td>
<td>7.5</td>
</tr>
<tr>
<td><strong>% Hispanic</strong></td>
<td>1.7</td>
<td>2.4</td>
<td>2.3</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>Current smoker</strong></td>
<td>48.2</td>
<td>57.1</td>
<td>61.8</td>
<td>62.3</td>
</tr>
<tr>
<td><strong>College education</strong></td>
<td>31.5</td>
<td>14.4</td>
<td>15.9</td>
<td>15.4</td>
</tr>
</tbody>
</table>
## Subgroups: QALY

<table>
<thead>
<tr>
<th>Age Range</th>
<th>QALY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>81K</td>
</tr>
<tr>
<td>Male</td>
<td>147K</td>
</tr>
<tr>
<td>Female</td>
<td>46K</td>
</tr>
<tr>
<td>Age: 55-59</td>
<td>152K</td>
</tr>
<tr>
<td>Age: 60-64</td>
<td>48K</td>
</tr>
<tr>
<td>Age: 65-69</td>
<td>54K</td>
</tr>
<tr>
<td>Age: 70-74</td>
<td>117K</td>
</tr>
<tr>
<td>Former Smoker</td>
<td>615K</td>
</tr>
<tr>
<td>Current Smoker</td>
<td>43K</td>
</tr>
</tbody>
</table>

## Health Insurance Status

<table>
<thead>
<tr>
<th>Health Insurance</th>
<th>All exams</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicare</td>
<td>276,937</td>
<td>41%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>42,872</td>
<td>7%</td>
</tr>
<tr>
<td>Private insurance</td>
<td>317,229</td>
<td>50%</td>
</tr>
<tr>
<td>Self Pay/Uninsured</td>
<td>12,272</td>
<td>1%</td>
</tr>
</tbody>
</table>

Missing data on > 300,000
Adherence

• Adherence in NLST was 95% for 3 years
• Definition in NLST was scan 11-15 months
• >90% of people who were USPSTF eligible and had a baseline exam, were also eligible for screening at 1 and 2 years
• Among those eligible for follow-up, only ~12%-40% had another LDCT scan within a year of baseline scan
LCSR Data

Limitations

• No denominator of eligible, working on estimating with survey and census data
• High % missing race/ethnicity, education, and some risk factors

Strengths

• Only current dataset on nationwide, screening in the US
• Complete smoking and facility info
Takeaways

• Screening is increasing but slowly
• About the right mix of facilities in the right locations
• Vast majority of those screened are eligible
• **Demographics Differ in some important ways**
• Screening more than expected:
  – Females
  – Current smokers
  – Minorities
  – Older patients
Challenges

• Increasing pool of those screened
  – Capturing eligible patients
    • Former smokers
    • Men
    • Under or uninsured
    • Younger persons

• Data capture:
  – No way to understand downstream events without linking to other datasets
    • Medicare claims data
    • SEER Cancer Registries

• Adherence
Acknowledgements

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