Measuring low-value care

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Motivation for examining low-value care

- Increased interest in measuring and reducing low-value care
- Choosing Wisely campaign: 60 medical societies identified over 300 tests and procedures that are often overused
- Commission supports value-based insurance design (part of benefit redesign)
- Commission’s analysis of potentially inappropriate imaging services (June 2014)
Overview

- Researchers (including physicians) developed 26 claims-based measures of low-value care
- We applied these measures to 2012 Medicare claims
- Results of our analysis
- Potential next steps
Low-value care

- **Definition**
  - Services with little or no clinical benefit
  - When risk of harm from a service outweighs potential benefit

- **Increases health care spending**

- **Potential to harm patients**
  - Direct: Risks from low-value service itself
  - Indirect: Service may lead to cascade of additional tests and procedures that contain risks
Researchers developed 26 measures of low-value care

- Article published in *JAMA Internal Medicine* (Schwartz et al. 2014)
- Measures based on Choosing Wisely, USPSTF*, literature, other sources
- Applied measures to 5% sample of Medicare claims (2009)
- 2 versions of each measure
  - Broad (higher sensitivity)
  - Narrow (higher specificity)

*U.S. Preventive Services Task Force*
# Examples of low-value care measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Source</th>
<th>Broader version</th>
<th>Narrower version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imaging for nonspecific low back pain</td>
<td>Choosing Wisely</td>
<td>Back imaging w/diagnosis of low back pain</td>
<td>No diagnosis in claim that warrants imaging; imaging within 6 weeks of back pain diagnosis</td>
</tr>
<tr>
<td>Colon cancer screening for older patients</td>
<td>USPSTF</td>
<td>Colorectal cancer screening for all patients aged ≥ 75</td>
<td>Only patients aged ≥ 85 w/no history of colon cancer</td>
</tr>
<tr>
<td>Head imaging for uncomplicated headache</td>
<td>Choosing Wisely</td>
<td>CT or MRI imaging of head for headache (not thunderclap or post-traumatic)</td>
<td>No diagnosis in claim that warrants imaging</td>
</tr>
</tbody>
</table>

Note: USPSTF (U.S. Preventive Services Task Force), CT (computed tomography). Source: Schwartz et al. 2014.
Differences between our analysis and *JAMA Internal Medicine* article

- We used later year (2012 vs. 2009), larger sample size (100% vs. 5%), and larger population (aged + disabled vs. aged only)
- Authors of article made small changes to some measures after publication
Our analysis of 26 low-value care measures: Aggregate results, 2012

- **Broader measures**
  - 65 instances of low-value care per 100 beneficiaries
  - 37% of beneficiaries received at least 1 low-value service
  - Medicare spending on low-value care: $5.8 billion

- **Narrower measures**
  - 28 instances of low-value care per 100 beneficiaries
  - 21% received at least 1 low-value service
  - Medicare spending on low-value care: $1.9 billion

Data are preliminary and subject to change
Results by category of low-value measures, 2012

- Imaging and cancer screening measures accounted for ~70% of volume of low-value care (under broader and narrower measures)
- Cardiovascular testing & procedures and imaging accounted for most of spending on low-value care
  - Broader measures: 72% of spending
  - Narrower measures: 60% of spending

Data are preliminary and subject to change
Results for selected individual measures, 2012

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count per 100 patients</td>
<td>Spending (millions)</td>
<td>Count per 100 patients</td>
<td>Spending (millions)</td>
</tr>
<tr>
<td>Imaging for nonspecific low back pain</td>
<td>12.0</td>
<td>$224</td>
<td>3.6</td>
<td>$67</td>
</tr>
<tr>
<td>Colon cancer screening for older patients</td>
<td>8.7</td>
<td>435</td>
<td>0.4</td>
<td>4</td>
</tr>
<tr>
<td>Head imaging for uncomplicated headache</td>
<td>3.8</td>
<td>248</td>
<td>2.6</td>
<td>167</td>
</tr>
</tbody>
</table>

Data are preliminary and subject to change
Results may understate volume and spending on low-value care

- There are a limited number of claims-based measures of low-value care
- Challenging to identify low-value care with claims data
- Thus, unable to measure full extent of low-value care with claims data. Spending estimates for measures of low-value care don’t include downstream services that result from initial service
Potential next steps

- Publish rates of low-value care on regular basis
- Alter Medicare’s coverage and payment rules to be consistent with evidence of low-value care
- Increase cost sharing for low-value care (e.g., value-based insurance design)