Measuring low-value care in Medicare

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Overview

- Definition of low-value care
- Claims-based measures of low-value care
- We applied measures to Medicare claims from 2012-2014
- Results of our analysis
  - Volume and spending on low-value care
  - Geographic variation
- Potential policy directions

Low-value care

- Definition
  - Services with little or no clinical benefit
  - When risk of harm from a service outweighs potential benefit
- 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 but provide little or no benefit
- Increases health care spending

Motivation for examining low-value care

- Several recent studies of low-value care
- Choosing Wisely: Over 70 medical societies identified over 450 tests and procedures that are often overused
- Commission supports value-based insurance design (part of benefit redesign)
- When measuring quality, important to look at overuse in addition to underuse

Researchers developed claims-based measures of low-value care

- Articles in *JAMA Internal Medicine* (Schwartz et al. 2014 and 2015)
- 31 measures based on Choosing Wisely, USPSTF*, literature, other sources
- 2 versions of each measure
  - Broad (higher sensitivity, lower specificity)
  - Narrow (lower sensitivity, higher specificity)

*U.S. Preventive Services Task Force

Our analysis of low-value care

- Used 31 measures developed by authors of *JAMA Internal Medicine* articles
- Prior years: we applied measures to 2012 and 2013 fee-for-service claims data (100% claims)
- This year, we added 2014 to the analysis

Aggregate results from analysis of low-value care measures

- Broader measures, 2014
  - 37% of beneficiaries received at least one low-value service
  - 72 low-value services per 100 beneficiaries
  - Medicare spending on low-value care: $6.5 billion
- Narrower measures, 2014
  - 23% of beneficiaries received at least one low-value service
  - 34 low-value services per 100 beneficiaries
  - Medicare spending on low-value care: $2.4 billion

Data are preliminary and subject to change

Modest decline in volume and spending on low-value care, 2012-2014

	2012	2013	2014
Broader version of measures			
Count per 100 beneficiaries	74.6	73.7	72.2
Share of beneficiaries	38.7	38.1	37.4
Spending (in billions)	$7.5	$7.3	$6.5
Narrower version of measures			
Count per 100 beneficiaries	35.4	35.1	34.2
Share of beneficiaries	23.6	23.1	22.5
Spending (in billions)	$2.7	$2.6	$2.4

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Some categories of low-value care account for most of volume, spending

	Broader version of measures	Narrower version of measures
Categories that account for most volume	• Imaging • Cancer screening	• Imaging • Diagnostic and preventive testing
Categories that account for most spending	• Cardiovascular tests/procedures • Other surgical procedures	• Other surgical procedures • Imaging

Results for selected individual measures, 2014

Measure	Broader version		Narrower version	
	Count per 100 patients	Spending (millions)	Count per 100 patients	Spending (millions)
Imaging for nonspecific low back pain	12.0	$232	3.4	$66
PSA screening at age ≥ 75 yrs	9.0	79	5.1	44
Colon cancer screening for older adults	8.0	405	0.3	3
Spinal injection for low-back pain	6.6	1,261	3.4	643

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Results probably understate volume and spending on low-value care

- Limited number of claims-based measures of low-value care
- Challenging to identify low-value care with claims data
- Spending estimates for low-value care don't include downstream services that result from the initial service
- Study estimated that Medicare spent $145 million/year on PSA tests + related diagnostic services for men age ≥ 75 (Ma et al. 2014)
  - PSA tests accounted for 28% of spending
  - Biopsies accounted for 50%, pathology for 19%

Geographic variation in use of low-value care

- Used MedPAC geographic areas (based on MSAs)
- Adjusted for geographic differences in beneficiaries' demographic characteristics and comorbidities
- Calculated number of low-value services per 100 beneficiaries
- Used narrower version of measures

Substantial geographic variation in use of low-value care, 2014

- Adjusted number of low-value services
  - 61% higher in area at 90th percentile than area at 10th percentile
  - 182% higher in area with highest number than area with lowest number
- But significant amount of low-value care even in area at 10th percentile (25 low-value services per 100 beneficiaries)
- Modest positive relationship between low-value care and total service use

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Geographic areas with highest adjusted number of low-value services, 2014

Name of area	Adjusted number of low-value services per 100 beneficiaries
Yuma, AZ	56
Punta Gorda, FL	53
Miami-Ft. Lauderdale-W. Palm Beach, FL	51
Ocala, FL	51
Sebastian-Vero Beach, FL	51
Naples-Immokalee-Marco Island, FL	49
Beaumont-Port Arthur, TX	48
Hammond, LA	47
New York-Newark-Jersey City, NY	47
Sumter, SC	46

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Pioneer ACOs reduced low-value care compared with control group (Schwartz et al. 2015)

- Researchers compared change in use of low-value care between beneficiaries in Pioneer ACOs and control group of other beneficiaries
- Same 31 measures we used
- Pioneer ACOs had greater reduction in volume (-1.9%) and spending (-4.5%) for low-value care relative to control group

Potential policy directions

- Payment/delivery system reform (e.g., ACOs)
- Quality measurement
- Medicare payment and coverage policy
- Increase beneficiary engagement (e.g., cost sharing, shared decision making)

Examples of low-value care measures

Measure	Source	Broader version	Narrower version
Imaging for nonspecific low back pain	Choosing Wisely	Back imaging w/diagnosis of low back pain	Excludes certain diagnoses; limited to imaging within 6 wks of back pain diagnosis
Colon cancer screening for older patients	USPSTF	Colorectal cancer screening for all patients aged ≥ 75	Only patients aged ≥ 85 w/no history of colon cancer
Head imaging for uncomplicated headache	Choosing Wisely	CT or MRI imaging of head for headache (not thunderclap or post-traumatic)	Excludes diagnoses that warrant imaging

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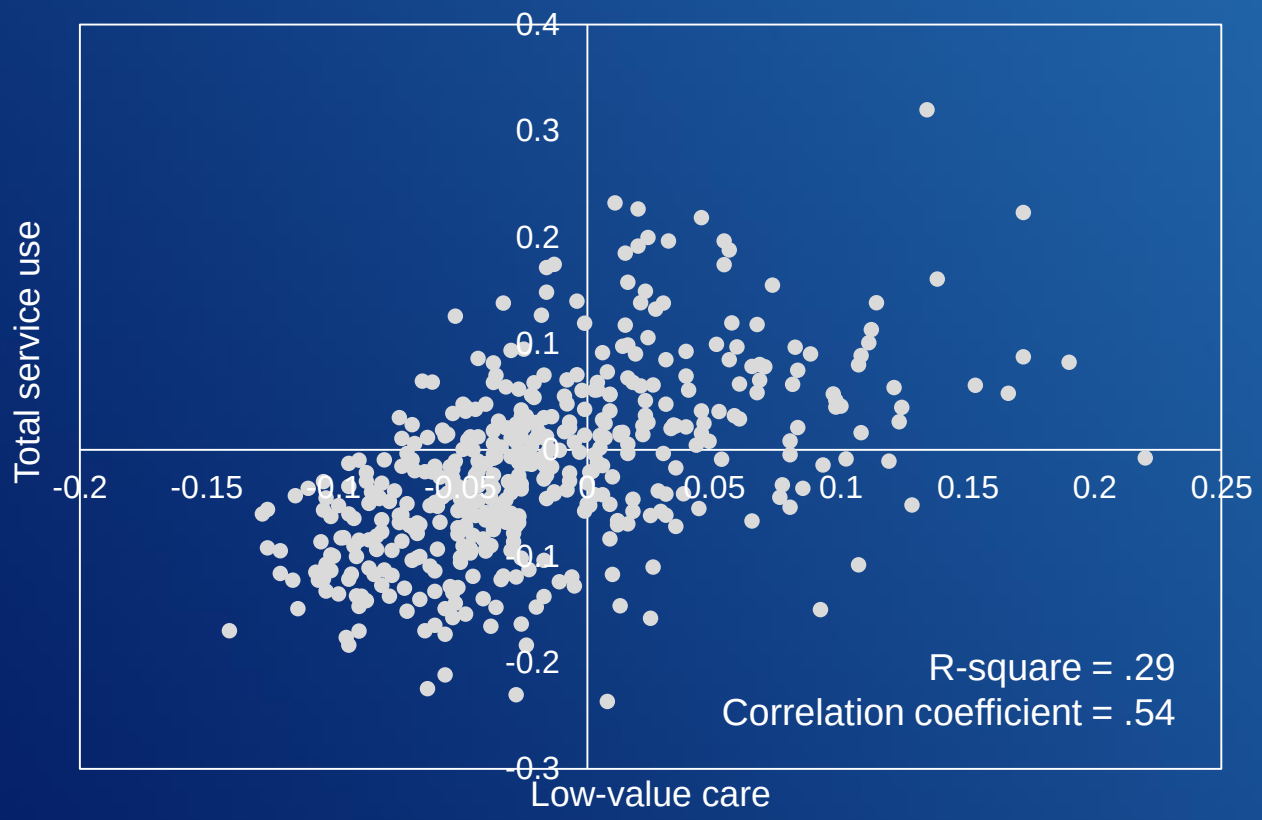
Note: USPSTF (U.S. Preventive Services Task Force), CT (computed tomography).
Source: Schwartz et al. 2014.

Relationship between total service use and low-value care

DATA ARE PRELIMINARY AND SUBJECT TO CHANGE



Source: MedPAC analysis of 2013 and 2014 beneficiary-level spending from Medicare Beneficiary Summary File and Medicare inpatient claims.