



Advising the Congress on Medicare issues

Greatest total Medicare spending and fast growing episodes

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Using episodes to explore Medicare spending levels and growth

- Cross-silo perspective to explore levels, growth, and variation in Medicare spending
- Claims grouped into clinically distinct episodes of care
- Of the 524 possible episodes, we focus on the 20 that account for the most Medicare spending and the 20 that grew quickly

Greatest total Medicare spending episodes

- The 20 clinical episodes that accounted for the greatest share of total Medicare spending on episodes in 2005 together accounted for 58 percent of total spending on episodes.
- Of the 20 clinical episodes, 2 are acute conditions—closed fracture or dislocation—thigh, hip & pelvis and bacterial lung infections. The rest are chronic conditions (e.g. diabetes).

The 20 highest spending level episodes, 2005

Rank	Episode	Share of total spending	Incidence rate*
1	Ischemic heart disease	14.0%	20
2	CHF	4.3	8
3	Hypertension	4.0	44
4	Cerebral vascular accident	3.6	8
5	COPD	3.4	7
6	Diabetes	3.2	18
7	Joint degeneration—knee & lower leg	3.1	7
8	Joint degeneration—back	3.0	12
9	Chronic renal failure	2.8	4
10	Closed fracture or dislocation—thigh, hip & pelvis	2.3	1

The 20 highest spending level episodes, 2005 (continued)

Rank	Episode	Share of total spending	Incidence rate*
11	Cataract	2.3%	24
12	Bacterial lung infections	2.1	3
13	Malignant neoplasm of pulmonary system	1.6	1
14	Malignant neoplasm of prostate	1.4	3
15	Malignant neoplasm of breast	1.4	3
16	Psychotic & schizophrenic disorders	1.3	2
17	Malignant neoplasm of skin, major	1.2	8
18	Joint degeneration—thigh, hip & pelvis	1.2	2
19	Other metabolic disorders	1.2	6
20	Atherosclerosis	1.1	3

Fast growing episodes

- Half of the 20 episodes that accounted for the most total Medicare spending on episodes were also among the 20 fast growing.
- The 20 clinical episodes that grew the fastest in terms of total spending on episodes from 2002 to 2005 (among those that accounted for at least 0.5 percent of total spending on episodes) together accounted for 29 percent of total episode spending in 2005.
- Of the 20 fastest growing clinical episode groups, two are acute conditions—spinal trauma and infection of lower genitourinary system, not sexually transmitted. The rest are chronic conditions (e.g., arthritis and atherosclerosis).

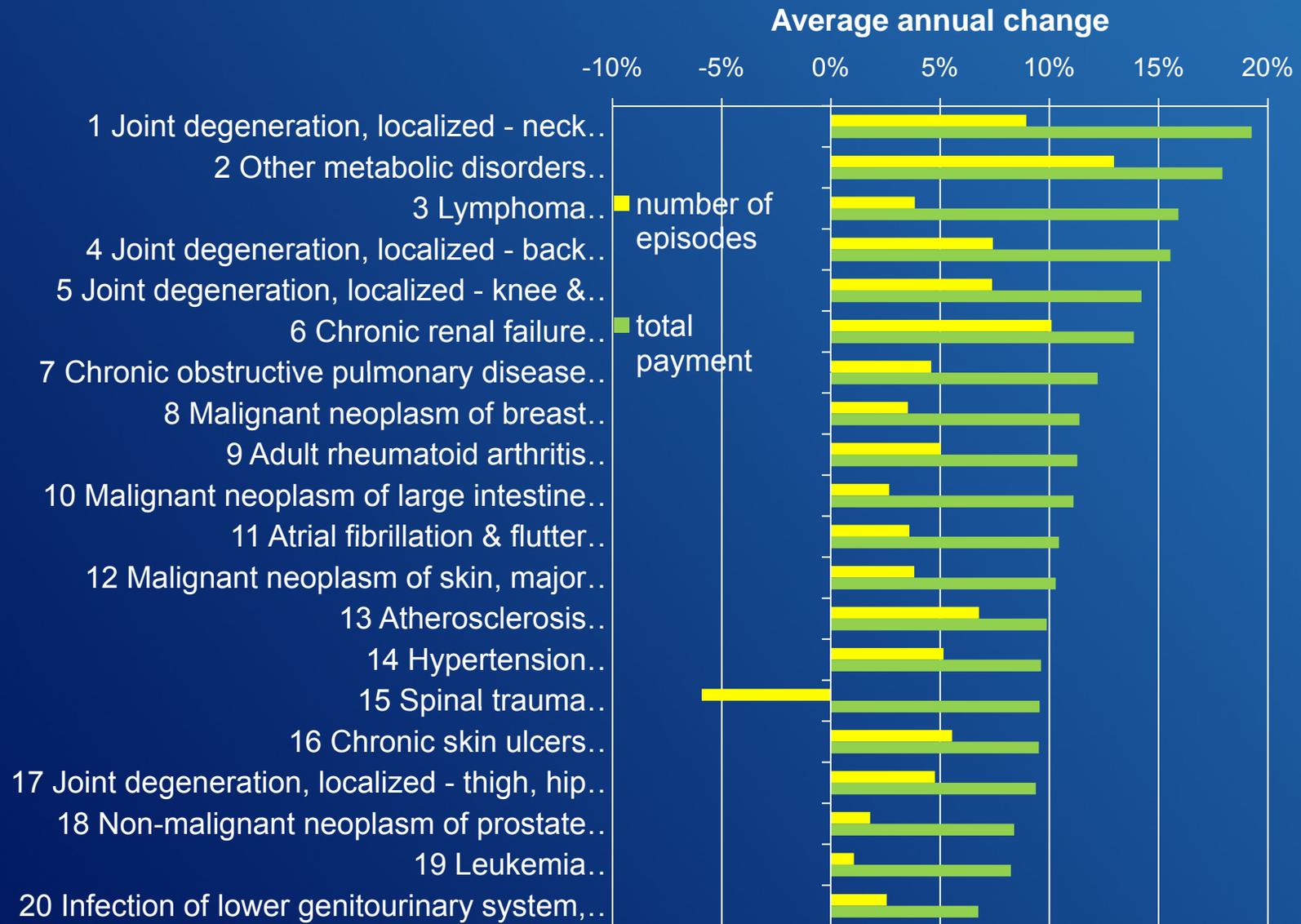
The 20 fastest* growing episodes, 2002 to 2005

Rank	Episode	Ave. annual growth	Share of total spending, 2005
1	Joint degeneration—neck	19%	0.8%
2	Other metabolic disorders	18	1.2
3	Lymphoma	16	0.6
4	Joint degeneration—back	16	3.0
5	Joint degeneration—knee & lower leg	14	3.1
6	Chronic renal failure	14	2.8
7	COPD	12	3.4
8	Malignant neoplasm of breast	11	1.4
9	Adult rheumatoid arthritis	11	0.5
10	Malignant neoplasm of large intestine	11	0.6

The 20 fastest* growing episodes, 2002 to 2005 (continued)

Rank	Episode	Ave. annual growth	Share of total spending, 2005
11	Atrial fibrillation & flutter	10%	0.8%
12	Malignant neoplasm of skin, major	10	0.8
13	Atherosclerosis	10	1.1
14	Hypertension	10	4.0
15	Spinal trauma	10	0.6
16	Chronic skin ulcers	10	0.6
17	Joint degeneration—thigh, hip & pelvis	9	1.2
18	Non-malignant neoplasm of prostate	8	0.5
19	Leukemia	8	0.5
20	Infection of lower genitourinary system...	7	0.9

The 20 fastest* growing episodes, 2002 to 2005



Episodes vary by geographic areas

We ranked the episodes that account for the greatest share of total Medicare episode spending and that grew the fastest in 10 geographic areas:

- Boston
- Greenville
- Houston
- Indianapolis
- Las Vegas
- Miami
- Minneapolis
- Orange County
- Phoenix
- Portland

The 10 highest spending level episodes by geographic area, 2005

National rank	Episode	Bos	Gre	Hou	Ind	LV	Mia	Min	OC	Pho	Por
1	Ischemic heart disease	1	1	1	1	1	1	1	1	1	1
2	Congestive heart failure	2	2	5	2	4	6	2	4	6	3
3	Hypertension	5	4	2	5	2	2	5	2	4	8
4	Cerebral vascular accident	4	3	3	4	3	5	6	6	5	2
5	Chronic obstructive pulmonary disease	3	6	6	3	5	3		7	7	
6	Diabetes	6	8	4	8	10	4	10	5		6
7	Joint degeneration, localized–knee & lower leg	9	7		6	8	9	3	8	3	4
8	Joint degeneration, localized–back			10		6	8	4	3	2	9
9	Chronic renal failure	7	5	7		9	10	9		8	10
10	Closed fracture or dislocation–thigh, hip & pelvis	10	9	9	7	7					7

The 10 fastest* growing episodes by geographic area, 2002 to 2005

National rank	Episode	Bos	Gre	Hou	Ind	LV	Mia	Min	OC	Pho	Por
1	Joint degeneration, localized - neck	2	9		4	3	5	2	10	6	6
2	Other metabolic disorders	1	8	5	5			4			
3	Lymphoma					1				2	5
4	Joint degeneration, localized - back				10		10	8			
5	Joint degeneration, localized - knee & lower leg	8	7		7		8	7		9	
6	Chronic renal failure		6					6			
7	Chronic obstructive pulmonary disease	3			9				8		
8	Malignant neoplasm of breast							3			8
9	Adult rheumatoid arthritis										10
10	Malignant neoplasm of large intestine								6		

Geographic variation in episodes includes type of service spending

- We found that there were significant differences in type of service spending for the same episode in different geographic areas.
- The analysis includes 10 areas by 10 conditions by 7 types of service.

The 5 highest spending level episodes differed by spending by TOS and geographic area, 2005

Rank	Episode	Notable ranges
1	Ischemic heart disease	Inpatient: 49% in Miami to 68% in Minneapolis
2	CHF	PAC: 14% in Portland & Phoenix to 31% in Boston
3	Hypertension	E&M: 29% in Houston to 46% in Portland
4	Cerebral vascular accident	PAC: 17% in Phoenix to 33% in Boston
5	COPD	Inpatient: 44% in Miami to 66% in Greenville

The 5 fastest* growing episodes differed by spending growth by TOS and geographic area, 2002 to 2005

Rank	Episode	Notable ranges
1	Joint degeneration—neck	PAC: ↓4pp in Indianapolis and ↑14pp in Phoenix
2	Other metabolic disorders	Inpatient: ↓4pp in Greenville and ↑8pp in Indianapolis
3	Lymphoma	Imaging: ↓33pp in Las Vegas and ↑3pp in Portland
4	Joint degeneration—back	PAC: no change in Minneapolis and ↑11pp in Miami
5	Joint degeneration—knee & lower leg	PAC: ↓3 pp in Miami and ↑6pp in Greenville

Future analysis

- Dataset is extensive
- Virtually only limitation is ability to present results visually
- Can disaggregate and aggregate in multiple ways

Discussion questions

- The analysis of fast-growing episodes raises questions about the underlying incidence of disease:
 - does this reflect growing disease burden in the Medicare population,
 - increasing propensity among health care professionals to diagnosis and treat, or
 - increasing propensity among Medicare beneficiaries to seek treatment?
- Are there more detailed analyses that you would like of the change in composition of episodes?
- Are there any illustrative episodes that should be examined in greater detail?