What is the potential for cascading changes in intensity of service provision (e.g. inpatient to outpatient)?

Melinda Buntin and Mike Thompson

Define the issue or assumption being discussed.

Technologies and services can, over time, move from more intensive (and often more costly) sites of care to less intensive ones as they become more routine or refined. Examples include outpatient surgeries that were formerly done on an inpatient basis and diagnoses that can be given on the basis of more simple or accessible tests by general practitioners. Simplified drug regimens and movements from brand to generic status are a related change in the Part D arena. Note however, that some types of shifts may be cost-increasing overall, such as changes in the use of specialty hospitals or hospital-affiliated physicians who can bill at higher "outpatient" rates. In addition, the volume of services delivered can be affected by the number of providers who can deliver it safely and accessibly.

Why is it potentially relevant and material to the Medicare Trustees Report?

There are two reasons why these types of changes are potentially relevant: first, the settings in which care is received can affect the total cost of care. Second, the settings can affect whether the service is included in Part A or Part B, which affects estimates about the HI Trust Fund. The attached Figure and Table show the levels and growth rates by sector for the most recent decade and the next one.

How is it currently reflected in the Medicare Trustees Report? To your knowledge, has this issue been considered by prior Medicare Technical Panels?

These types of changes are individually reflected in sector-specific growth assumptions, but to my knowledge they are not considered across sectors and haven't been explicitly addressed by prior panels, except insofar as certain sectors are expected to grow more or less rapidly.

What are the potential alternatives to be considered and potential advantages and disadvantages of each.

Option 1: Status quo.

Pros: Continuity and comparability with prior estimates.

Cons: Does not account for changes in site of care in an internally consistent way.

Option 2: Explicitly adjust sector growth rates to reflect shifts across sectors.

Pros: Would explicitly and transparently include such shifts in projections of site/sector growth. Might more accurately reflect shifts from Part A to Part B and implications for financing.

Cons: Changes across sites of care are just one factor affecting growth rates, and may not be the major factor for any given site or sector. The number of parameters to be

estimated would be effectively doubled as separate growth factors for price, volume, and intensity shift would have to be disentangled. There is not a standard method for doing this.

Option 3: Build model to represent sector interrelationships and their implications.

Pros: A model would formalize the substitutability of services across sectors and allow for a more structured analysis of changes in sites of care.

Cons: Effort and time cost – would "the juice be worth the squeeze?"

What studies or research exists that could be used to support one or more of these alternatives (cite, link or attach source)

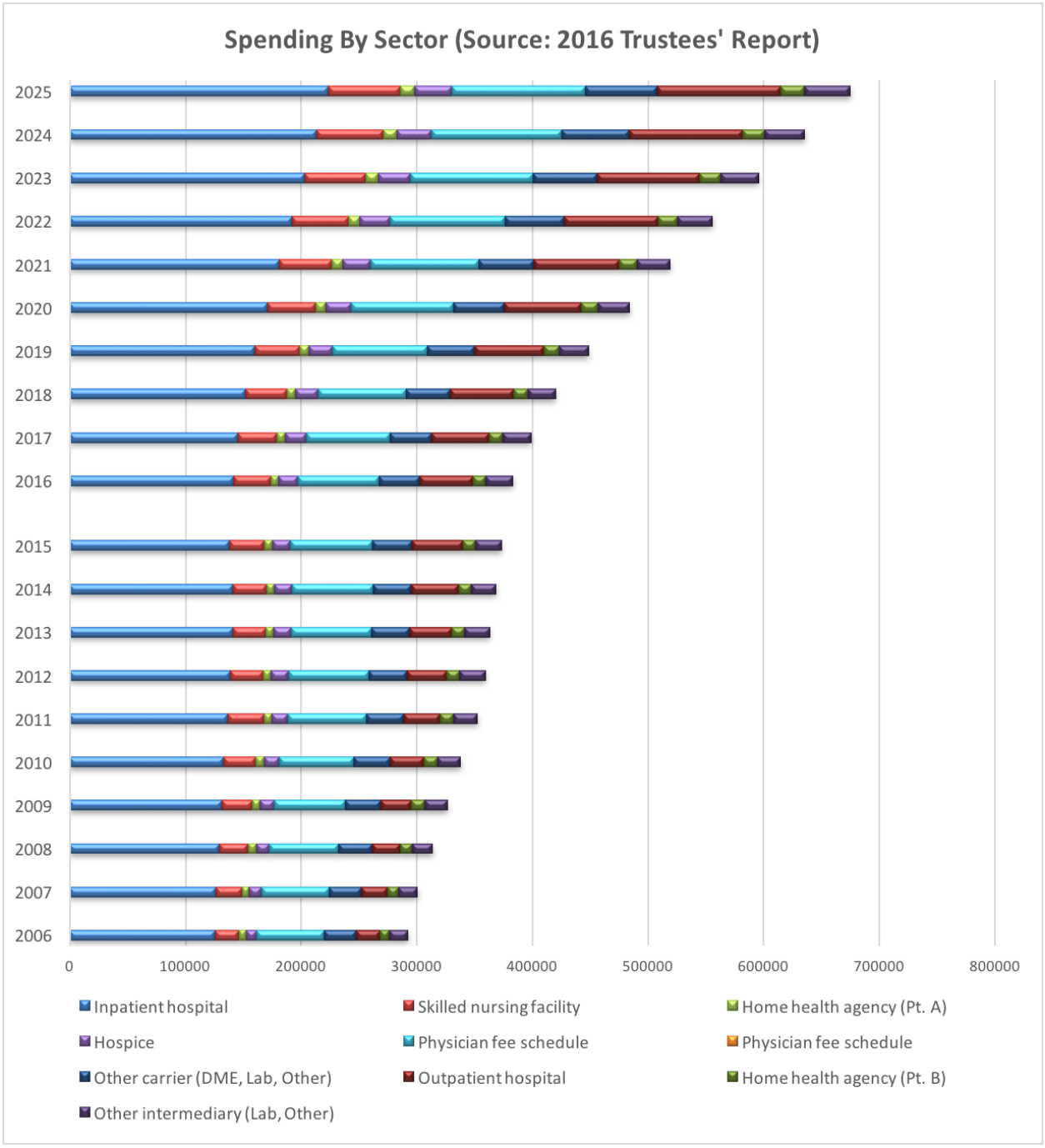
There are literatures on shifts between pairs of sites (e.g. inpatient and ASCs) and within sectors (e.g. post-acute care). MedPAC regularly examines such issues – e.g.

Chapter 3, March 2015

Chapter 2, March 2016

Are there speakers we should entertain to inform our consideration of this issue/assumption?

We could ask Mike Chernew about this when he comes. Mark Miller might also have thoughts.


Spending By Sector (Source: 2016 Trustees' Report)
2025
2024
2023
2022
2021
2020
2019
2018
2017
2016
2015
2014
2013
2012
2011
2010
2009
2008
2007
2006
0
100000
200000
300000
400000
500000
600000
700000
800000
Inpatient hospital
Skilled nursing facility
Home health agency (Pt. A)
Hospice
Physician fee schedule
Physician fee schedule
Other carrier (DME, Lab, Other)
Outpatient hospital
Home health agency (Pt. B)
Other intermediary (Lab, Other)

	Part A				Part B					Part D
Calendar Year	Inpatient hospital	Skilled nursing facility	Home health agency (Pt. A)	Hospice	Physician fee schedule	Other carrier (DME, Lab, Other)	Outpatient hospital	Home health agency (Pt. B)	Other intermediary (Lab, Other)	Part D Total
Historical data:	$ in millions									$ in billions
2006 ($)	125,287	21,005	6,031	9,368	58,467	27,363	20,837	8,114	15,980	44.3
(%)	0.4	7.7	2.3	16.9	1.6	2.4	6.3	14.8	4.0	
2007	126,000	22,753	6,268	10,518	58,379	28,208	22,424	9,458	16,594	50.3
	0.6	8.3	3.9	12.3	-0.2	3.1	7.6	16.6	3.8	13.5
2008	129,513	24,855	6,756	11,404	59,686	29,408	24,087	10,495	17,286	53.9
	2.8	9.2	7.8	8.4	2.2	4.3	7.4	11.0	4.2	7.2
2009	131,365	26,216	7,052	12,274	61,467	30,512	26,338	11,988	19,040	57.9
	1.4	5.5	4.4	7.6	3.0	3.8	9.3	14.2	10.1	7.4
2010	132,757	27,848	7,281	13,126	64,712	31,487	28,574	12,309	19,787	62.5
	1.1	6.2	3.3	6.9	5.3	3.2	8.5	2.7	3.9	7.9
2011	136,536	31,232	6,907	14,034	67,806	32,093	31,112	11,669	20,815	66.0
	2.8	12.2	-5.1	6.9	4.8	1.9	8.9	-5.2	5.2	5.6
2012	138,834	28,306	6,810	15,045	69,304	33,579	33,967	11,359	22,090	68.5
	1.7	-9.4	-1.4	7.2	2.2	4.6	9.2	-2.7	6.1	3.8
2013	140,828	28,752	6,796	15,234	68,934	33,034	36,358	11,254	21,935	72.9
	1.4	1.6	-0.2	1.3	-0.5	-1.6	7.0	-0.9	-0.7	6.4
2014	140,774	29,147	6,700	15,195	70,173	32,956	41,165	11,173	21,329	82.0
	0.0	1.4	-1.4	-0.3	1.8	-0.2	13.2	-0.7	-2.8	12.5
2015	138,069	30,226	6,631	15,888	70,657	34,306	43,895	11,050	22,510	91.7
	-1.9	3.7	-1.0	4.6	0.7	4.1	6.6	-1.1	5.5	11.8
Intermediate estimates:										
2016	141,576	32,013	6,820	16,919	70,063	34,989	45,824	11,356	23,389	95.7
	2.5	5.9	2.9	6.5	-0.8	2.0	4.4	2.8	3.9	4.4
2017	144,975	34,149	7,109	18,151	72,199	35,960	49,968	11,829	24,491	104.6
	2.4	6.7	4.2	7.3	3.0	2.8	9.0	4.2	4.7	9.3
2018	151,784	36,071	7,466	19,319	75,979	38,346	54,760	12,416	23,766	120.7
	4.7	5.6	5.0	6.4	5.2	6.6	9.6	5.0	-3.0	15.4
2019	159,804	38,571	8,017	20,793	81,989	40,763	59,980	13,325	25,114	134.6
	5.3	6.9	7.4	7.6	7.9	6.3	9.5	7.3	5.7	11.5
2020	170,535	41,831	8,681	22,439	87,899	44,370	66,683	14,422	27,106	147.7
	6.7	8.5	8.3	7.9	7.2	8.8	11.2	8.2	7.9	9.7
2021	181,098	45,209	9,357	24,190	93,712	47,532	73,650	15,536	28,783	160.0
	6.2	8.1	7.8	7.8	6.6	7.1	10.4	7.7	6.2	8.3
2022	191,902	48,913	10,084	26,047	99,685	50,796	81,069	16,727	30,489	173.1
	6.0	8.2	7.8	7.7	6.4	6.9	10.1	7.7	5.9	8.2
2023	202,850	52,954	10,857	28,006	105,963	55,034	88,975	17,991	32,633	187.2
	5.7	8.3	7.7	7.5	6.3	8.3	9.8	7.6	7.0	8.1
2024	213,574	57,293	11,684	30,031	112,537	58,743	97,652	19,343	34,523	202.0
	5.3	8.2	7.6	7.2	6.2	6.7	9.8	7.5	5.8	7.9
2025	223,802	61,685	12,508	32,314	115,151	62,436	106,675	20,689	39,402	215.7
	4.8	7.7	7.1	7.6	2.3	6.3	9.2	7.0	14.1	6.8