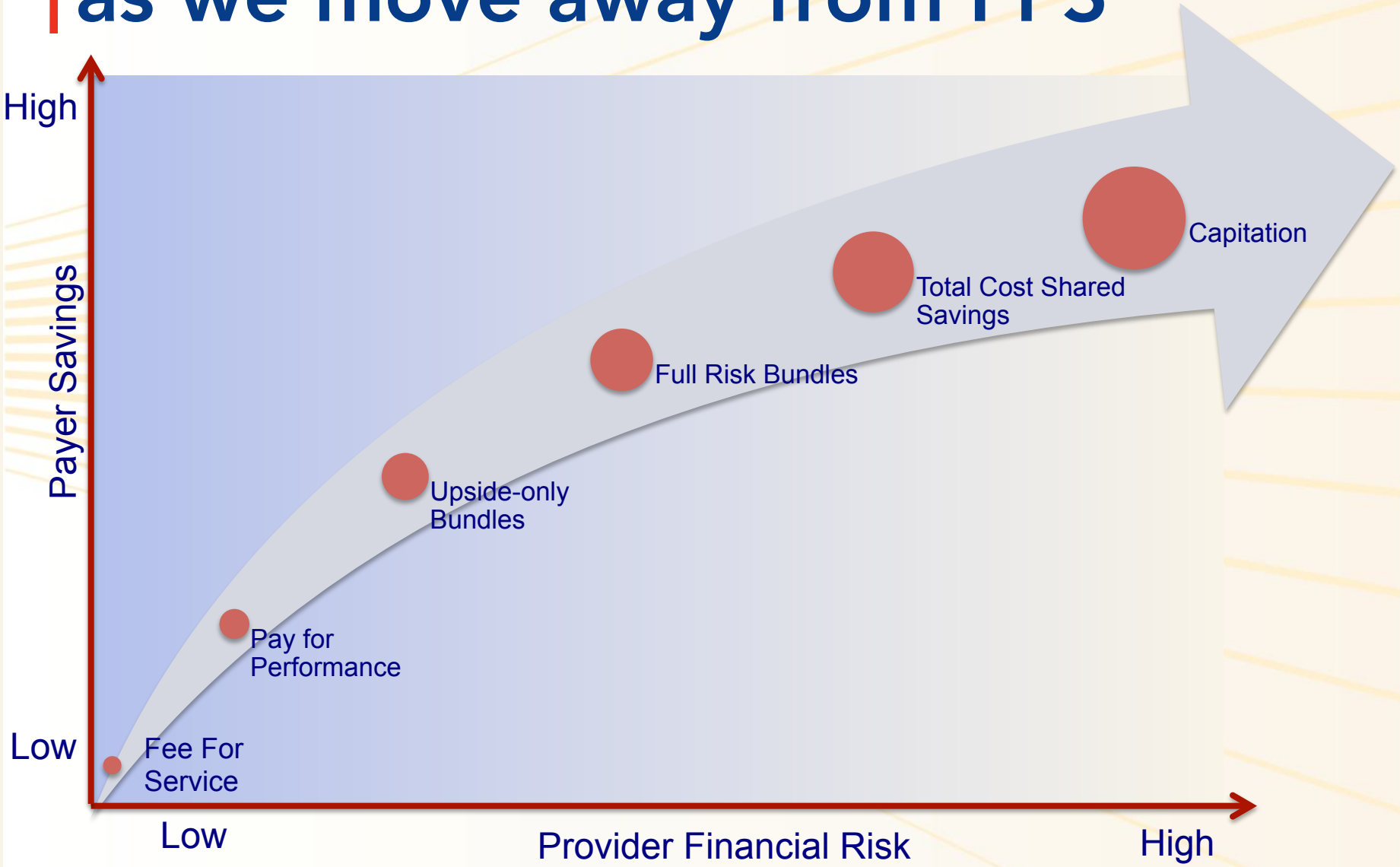
From Episodes to Bundles: Two Sides of the Same Risk Coin

Second Bundled Payment Summit

June 12th 2012

Provider financial risk increases as we move away from FFS



The Episode/Bundle Risk Coin

Retrospectively:

- Actual < Expected =

- Actual > Expected =

Prospectively:

- Actual < Budgeted =

- Actual > Budgeted =

What's the difference?

- You can assess the episode cost performance of a provider without bundling payments
  - Compare the expected costs for an episode with actual costs incurred
- You can't implement bundled payments without defining the episode for which you're bundling services:
  - DRGs bundle all facility services for a specific hospitalization episode
  - The ACE demo pays a single bundle that covers all facility and professional services for a specific hospitalization episode
  - The PROMETHEUS chronic care payment program in CO bundles all services – facility, professional, pharmacy, ancillary – for a chronic condition (and co-morbidities) for an entire year

What are we really talking about?

- A different unit of accounting:
  - Not individual professional services or single instances of a stay
  - Not all services for any reason
- A group of services naturally bound by a medical condition or event/intervention:
  - Maintains a natural ability for the physicians to arbitrage the supply chain and treatment options
  - Creates a natural compression of waste

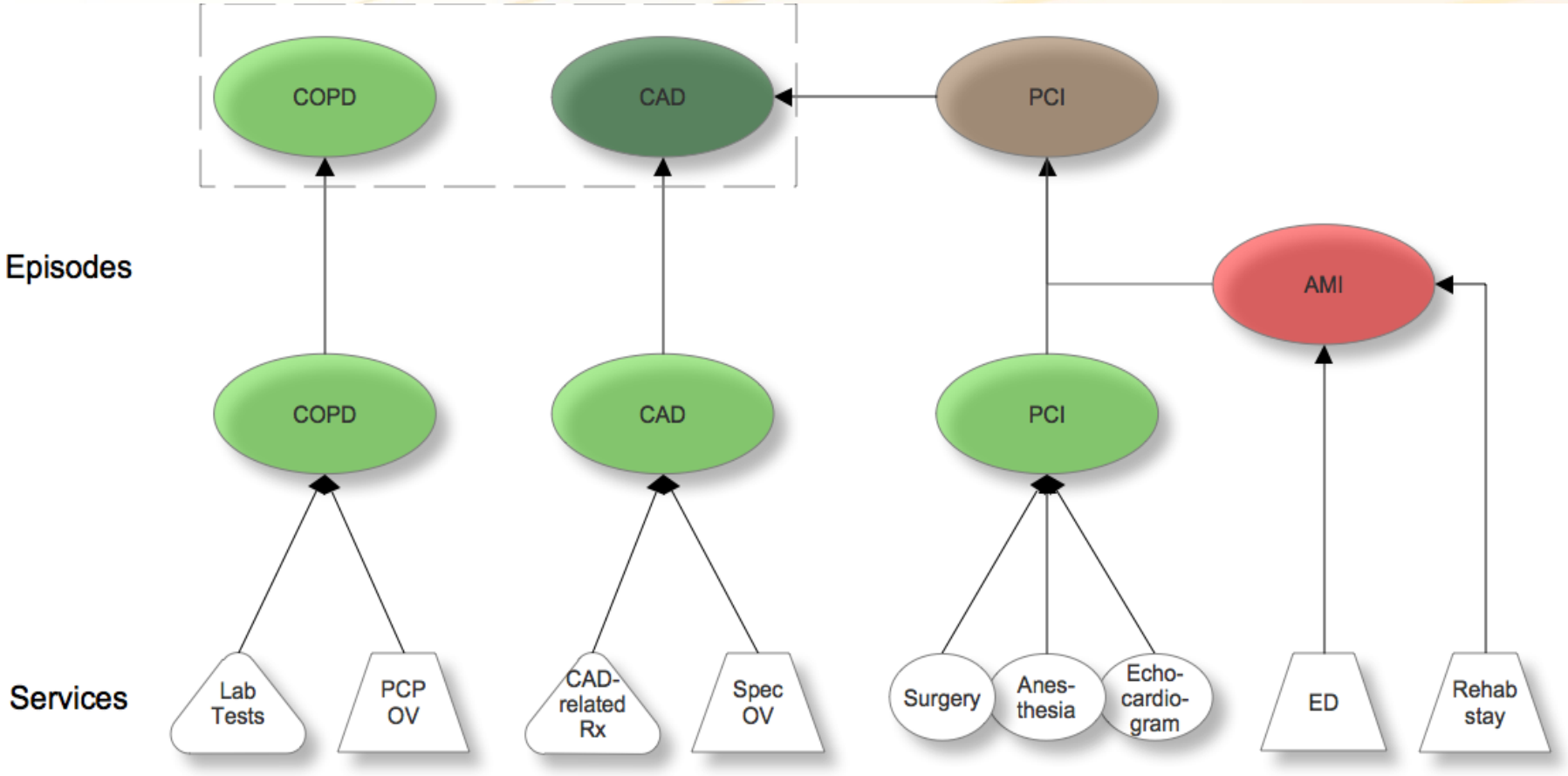
What do we want to achieve?

- Physicians as prudent stewards of the care of the patient
  - Doing well financially by doing right for the patient
- Significant reduction in unnecessary care
- Significant reduction in potentially avoidable complications
- Manageable financial risk for payers, providers and patients

Let's consider an example

- 60 year old with mild COPD and a long history of CAD
- The patient undergoes a PCI
- The patient has an AMI 45 days after the PCI and requires cardiac rehab

What inferences are we trying to make?



Consider the following

- Expected costs are based on observed historical practice patterns that include current overuse of services and excessive complications. Therefore:
  - Actual costs of PCIs with very few complications < Budgeted costs ()
  - Actual costs of CAD with fewer PCIs than average < Budgeted costs ()
  - Well managed chronic care "clusters" using fewer tests/visits and complications < Budgeted costs ()

The National Landscape

Episodes:

- Most commonly-used metric to retrospectively define provider efficiency by commercial health plans
- Foundation of CMS Grouper (see ACA Section 3003 Improvements to the Physicians Feedback Program)

Bundled Payment:

- Over 19 commercial plan implementations spread out in the US
- CMS Acute Care Episode demonstration in Southwest
- CMMI Bundled Payments for Care Improvement

Recent Issue Brief on BP Implementations[1]

- Independently conducted by Bailit Purchasing LLC
- 19 sites reviewed throughout the US
  - 9 have fully operationalized at least one bundled payment
  - 2 are conducting "shadow pricing"
  - 8 are in process of operationalizing
- Early results consistent with program design (and findings from CABG by-pass demo and ACE demo) – lower costs, better quality

1. Michael Bailit and Megan Burns, Bundled Payments in The US Today: Status of Implementations and Operational Findings. www.hci3.org

General observations from the field

- Line of sight on accountability
- Manageable variation (e.g. limited heterogeneity of procedures or underlying population)
- Focus on the right zone of "arbitrage":
  - More efficient suppliers
  - More effective treatments

How do these match up with the CMMI BPCI Pilot?

- Line of sight on accountability
- Manageable variation (e.g. limited heterogeneity of procedures or underlying population)
- Focus on the right zone of "arbitrage"

✓ Choice of models hones focus

X All cases in a selected MS-DRG, all MS-DRGs in same class (e.g. PCIs), small samples, deceased patients

~ Too many gaming opportunities

Variability based on underlying patient Dx codes

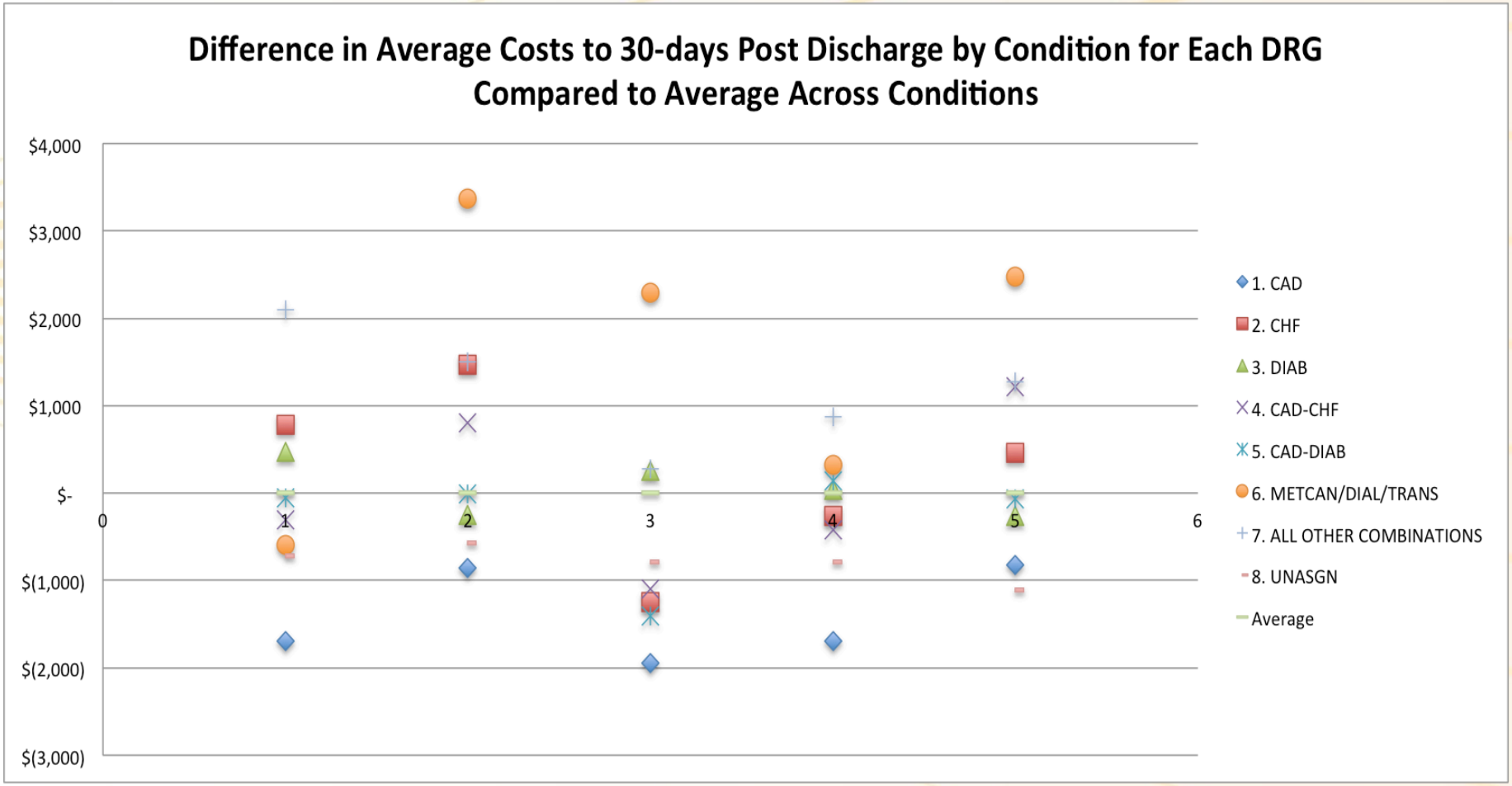
Difference in overall average 30-day episode costs per MS DRG with the average broken down by patient diagnoses:

	243	244	308	309	310
	1	2	3	4	5
1. CAD	$(1,688)	$(855)	$(1,943)	$(1,697)	$(826)
2. CHF	$786	$1,472	$(1,251)	$(265)	$459
3. DIAB	$470	$(252)	$254	$33	$(259)
4. CAD-CHF	$(303)	$805	$(1,103)	$(426)	$1,216
5. CAD-DIAB	$(54)	$(7)	$(1,411)	$135	$(64)
6. METCAN/DIAL/TRANS	$(590)	$3,374	$2,294	$318	$2,473
7. ALL OTHER COMBINATIONS	$2,098	$1,507	$281	$878	$1,274
8. UNASGN	$(721)	$(571)	$(792)	$(792)	$(1,107)

The obligation to take on all patients with a specific MS-DRG creates a lot of heterogeneity in costs and that mix alone can cause the provider to win/ lose

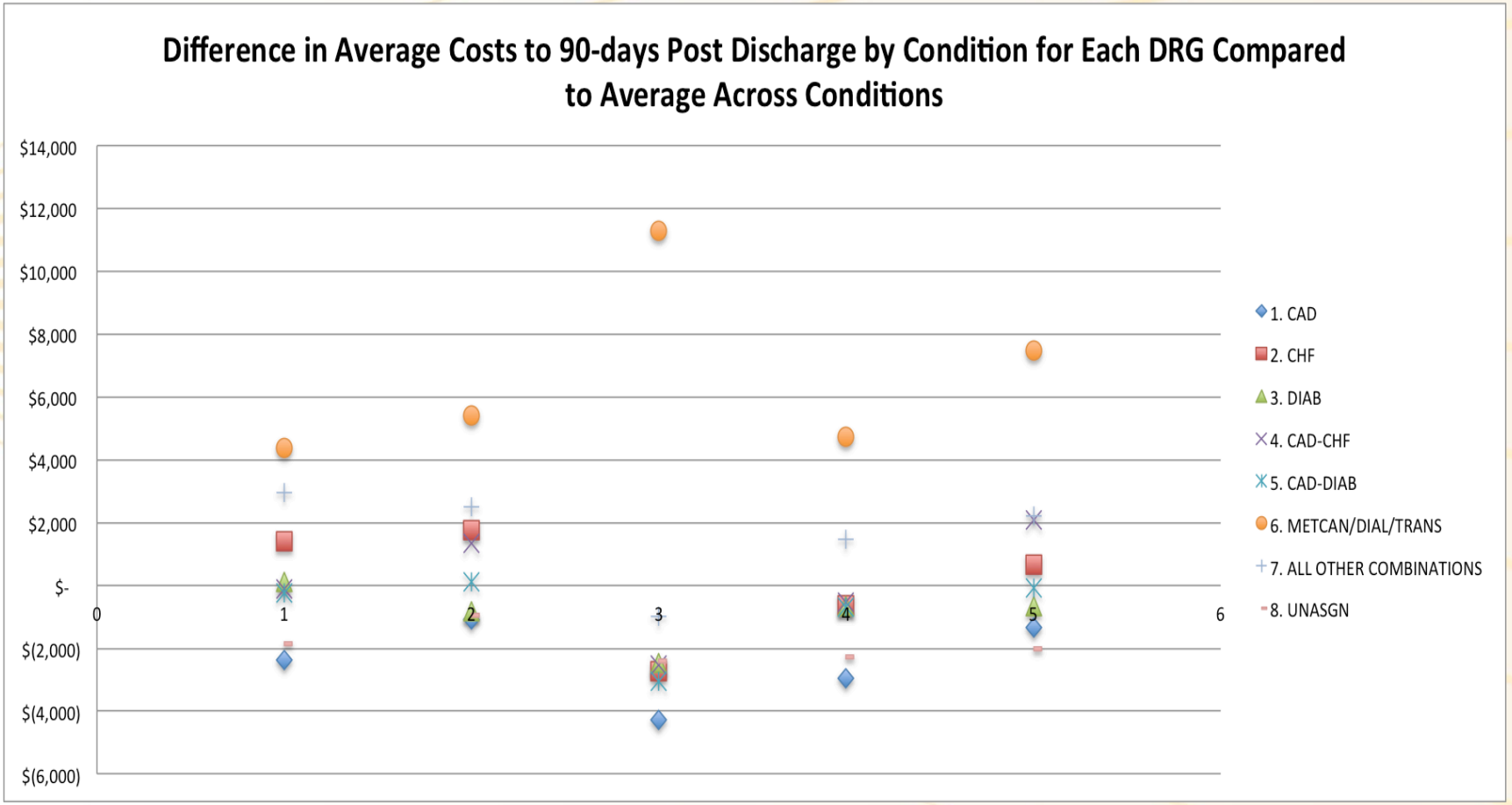
2011 Analysis of a sample of Medicare claims (Parts A and B only)

Underlying Dx drives costs for a given procedure



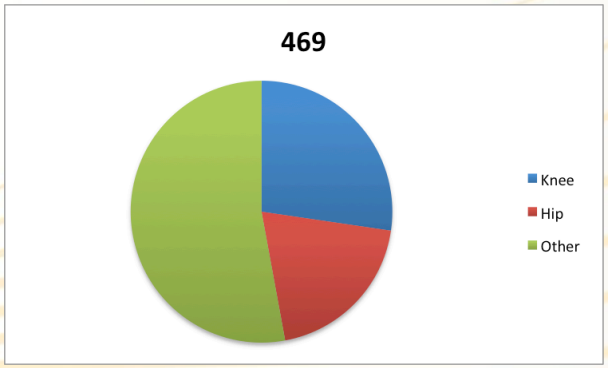
2011 Analysis of a sample of Medicare claims (Parts A and B only)

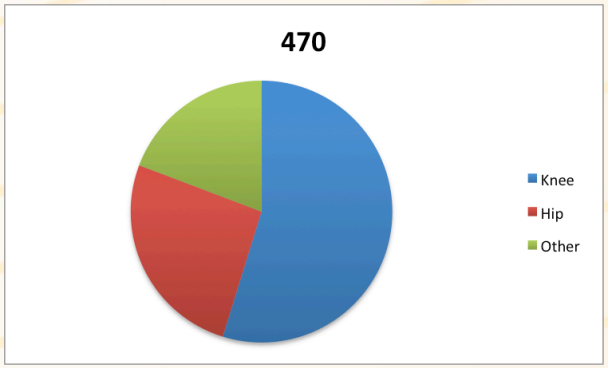
It's even more pronounced when the episode goes out 90 days

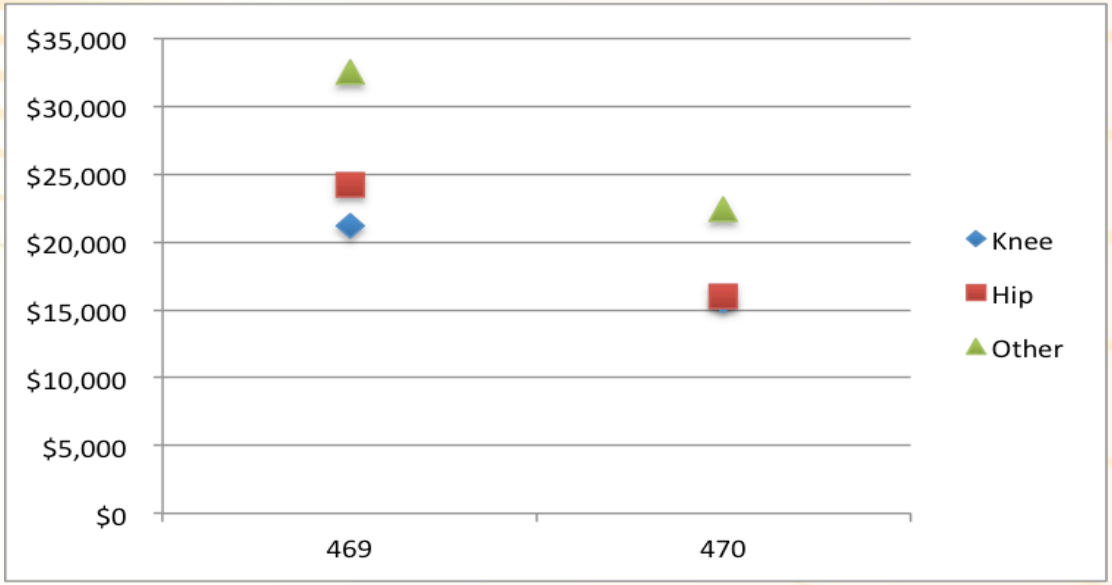


2011 Analysis of a sample of Medicare claims (Parts A and B only)

The mix of procedures in a MS-DRG impacts the episode costs



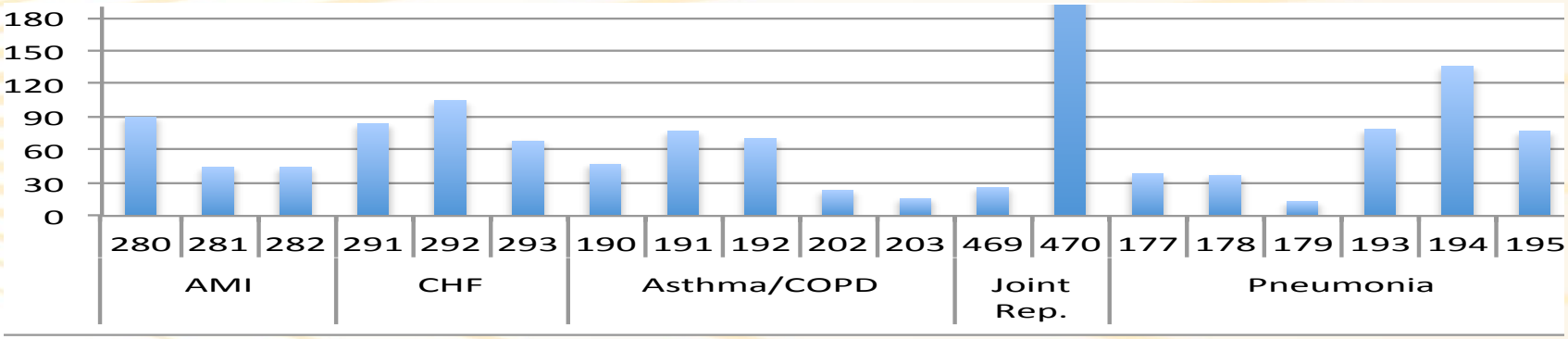




2011 Analysis of a sample of Medicare claims (Parts A and B only)

Some other problem areas

- All MS-DRGs in a class:
  - Some have low case counts



  - Which drives variation in average costs

	Pneumonia					
	177	178	179	193	194	195
Volume (2009)	38	37	13	79	136	77
Average Cost	$ 21,379	$ 17,352	$ 12,073	$ 14,850	$ 10,340	$ 7,751
25th Percentile	$ 12,080	$ 9,117	$ 6,566	$ 8,712	$ 6,181	$ 4,444
Median	$ 15,241	$ 12,936	$ 6,840	$ 12,335	$ 7,216	$ 4,760
75th Percentile	$ 22,456	$ 21,597	$ 17,202	$ 19,063	$ 11,929	$ 7,905
Min	$ 10,457	$ 6,248	$ 5,837	$ 6,937	$ 5,273	$ 3,877
Max	$ 147,371	$ 61,929	$ 32,084	$ 37,321	$ 32,698	$ 29,653
STD DEV	$ 22,121	$ 11,905	$ 8,843	$ 7,184	$ 6,884	$ 5,886
Ave. LOS	9.0	7.6	5.6	7.2	5.4	3.8
Readmits %	16%	11%	23%	17%	9%	8%
PAC %	22%	13%	15%	13%	9%	10%

The CMMI BPCI "death dividend"

- Patients who die during the episode time window are included in estimating the historical average price
  - The greater the number of patients who die during the pilot phase for selected MS-DRGs, the lower the actual average episode costs for those MS-DRGs (everything else being equal), and therefore….

Average Costs with and without Patients who Expire (2009)

	Average Costs			
	Acute Care Costs	Post-Acute Care Costs	Total Costs	Diference
DRG291				
With Expired Patients	$ 9,284	$ 13,033	$ 22,317	
Without Expired Patients	$ 8,997	$ 16,340	$ 25,337	$ 3,020
17 of 83 patients expired (20%)				14%
DRG 177				
With Expired Patients	$ 12,514	$ 8,865	$ 21,379	
Without Expired Patients	$ 12,817	$ 12,031	$ 24,848	$ 3,469
10 of 37 patients expired (27%)				16%

Bundled Payments done right yield good results[1]

- The HCFA CABG bypass demo was shown to be the highest yielding payment reform demonstration in Medicare history
- The CMS ACE demo is also yielding good results for its participants, particularly in hip and knee replacement procedures
- The PROMETHEUS implementations in NJ and NC are leading to the desired provider behaviors
- Design and execution matter

1. Cutler D and Kaushik G. "The Potential for Cost Savings through Bundled Episode Payments." *New England Journal of Medicine* 366;12 March 22, 2012.

Summary

- Episode definitions and the underlying construction and severity adjustment logic are the mechanisms that enable the proper inferences on performance and risk assumption by payers and providers
  - HCI^3 is announcing a strategic relationship with the SAS Institute to build, distribute and support its ECR Analytics, incorporating all knowledge and expertise from years of development and implementations
- Bundled payment efforts can be designed to minimize gaming – we've done it – and that usually means avoiding shortcuts
- We're finally creating a real market for health care services and competition at a level that matters to consumer-patients

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