

Christiana Care Health System | VALUE INSTITUTE

2017 Spring Symposium

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We Count Our Successes in Lives: Quality as a Core Business Strategy



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Disclosures

Neither I, Brent C. James, nor any family members, have any relevant financial relationships to be discussed, directly or indirectly, referred to or illustrated with or without recognition within the presentation.

I have no financial relationships beyond my employment at Intermountain Healthcare.

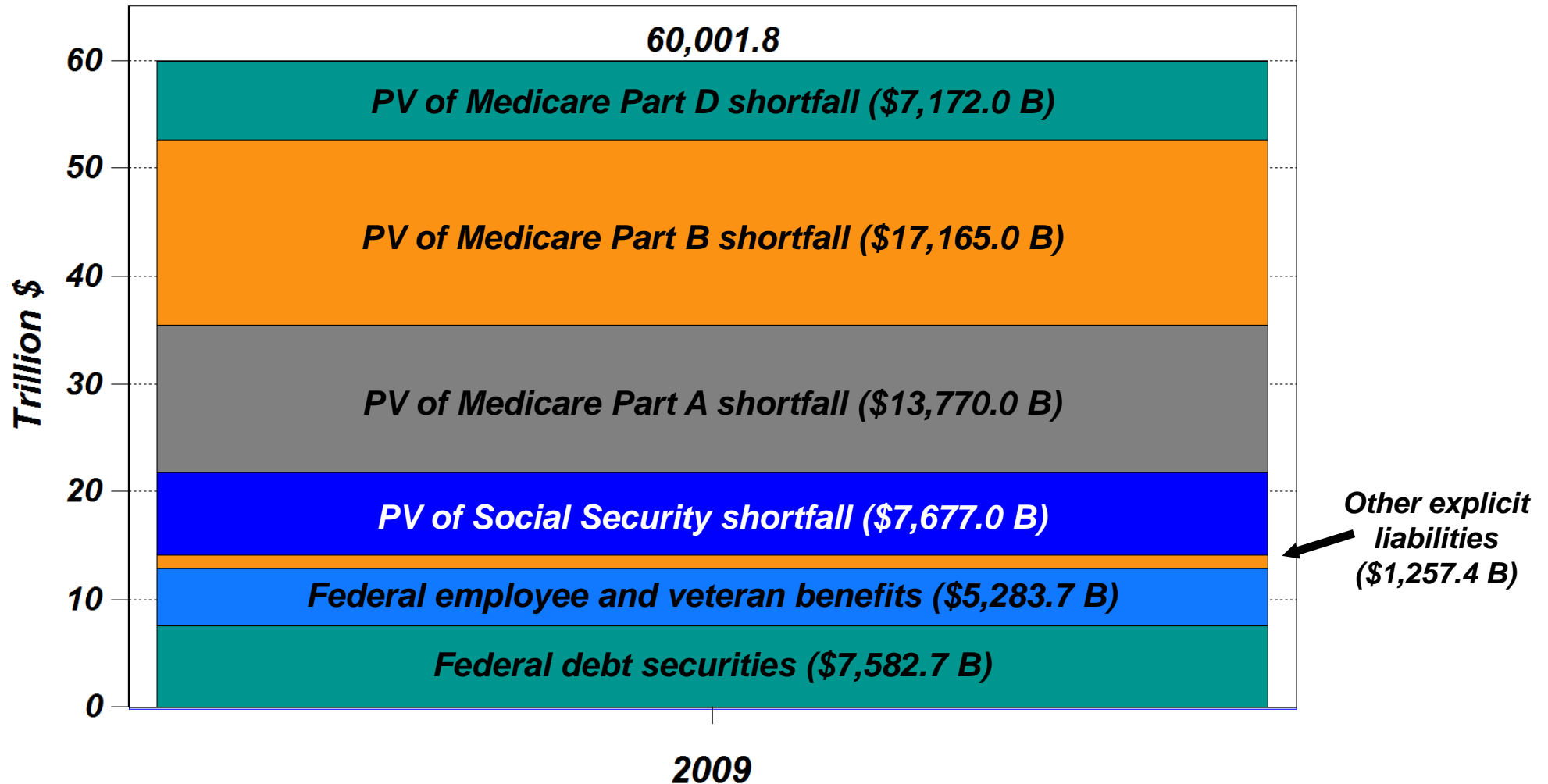
Point 1:

The federal government is running out of money

- *This is driving behavior at CMS*
- *Commercial payers, as usual, are “shadowing” off CMS*

Total U.S. fiscal exposures

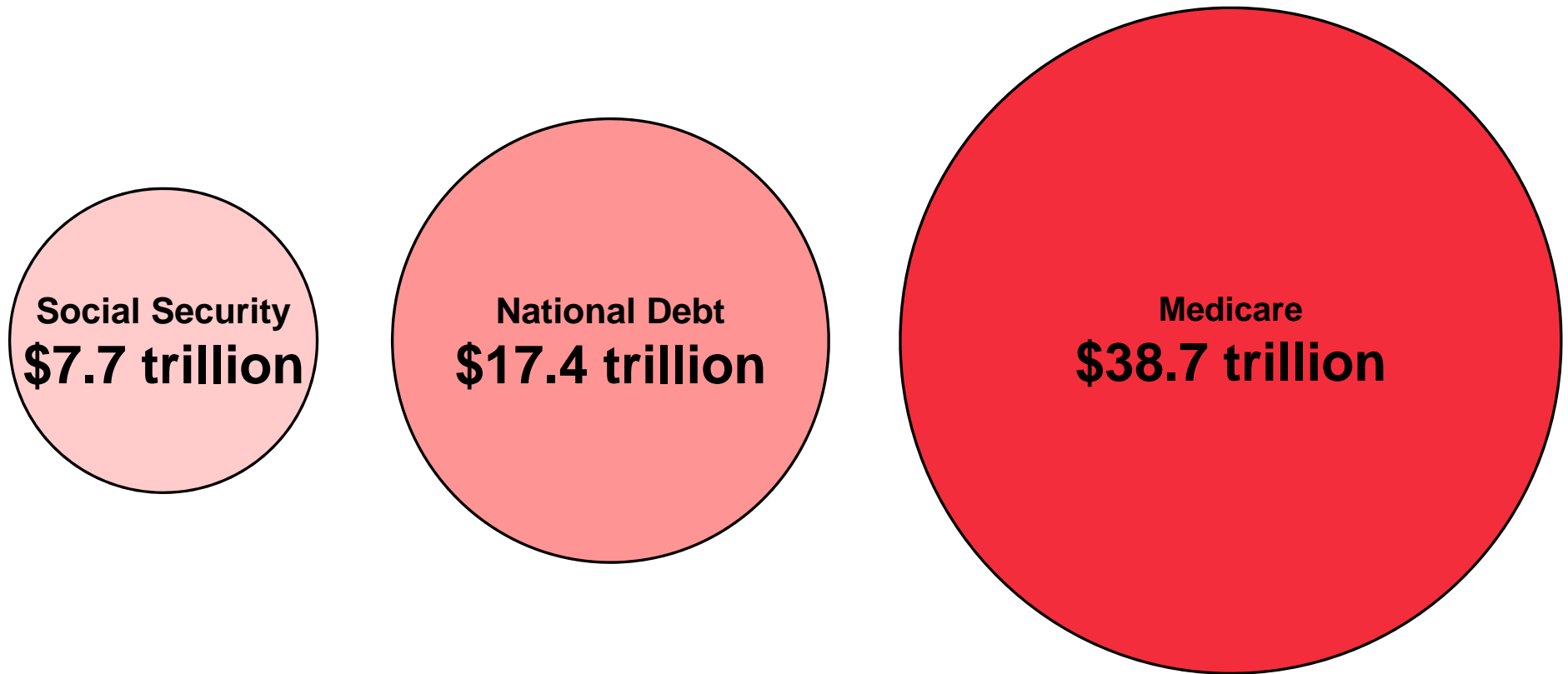
By layering on future obligations, the total net present value (PV) of debt rises to over \$60 trillion -- about \$195,000 for every man, woman and child in the U.S. More than two-thirds of the shortfall arises from health care delivery.)



Source: GAO. Financial Reports of the United States Government for the Years Ended September 30, 2009 and 2008.

The Fiscal Gap

Unfunded federal obligations, 2014 *(all NPV -- net present value)*



Total = \$63.8 trillion+

CMS Office of Actuary (Foster): ~\$120 trillion, \$211 trillion

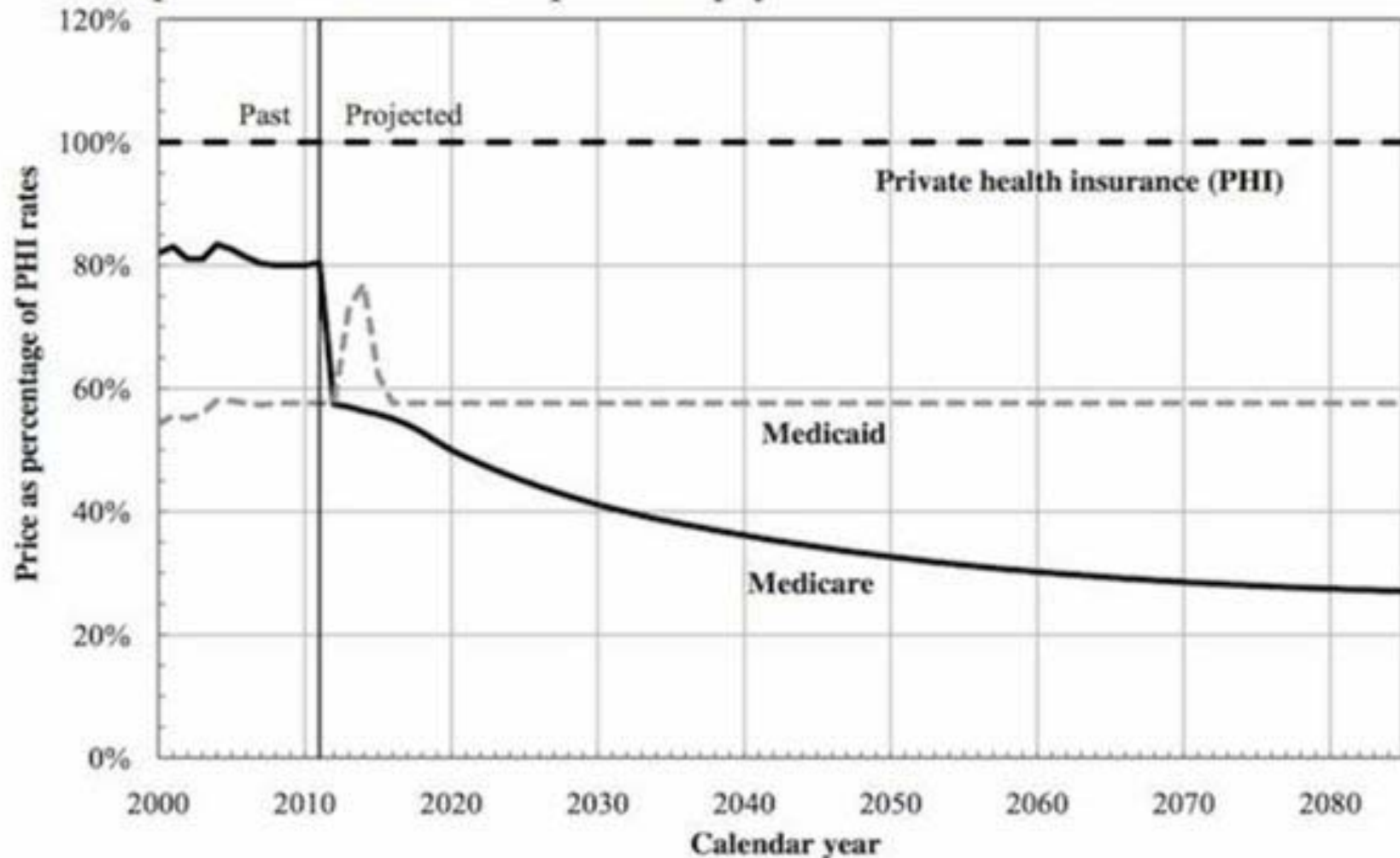
PPACA Medicare payment reductions

-- \$760 billion over 10 years

- **Hospitals** **\$260 billion**
- *Managed care* (Medicare Advantage) **\$156 billion**
- Home health care **\$66 billion**
- Uncompensated care payments **\$56 billion**
- Complex imaging **\$1.2 billion**
- **MD payment update factor** **\$196 billion**

Physician payments under PPACA

Figure 2—Illustrative comparison of relative Medicare, Medicaid, and private health insurance prices for physician services under current law



Shatto & Clemens. Projected Medicare expenditures under the PPACA. Washington, DC: Medicare Office of the Actuary. May 18, 2012.

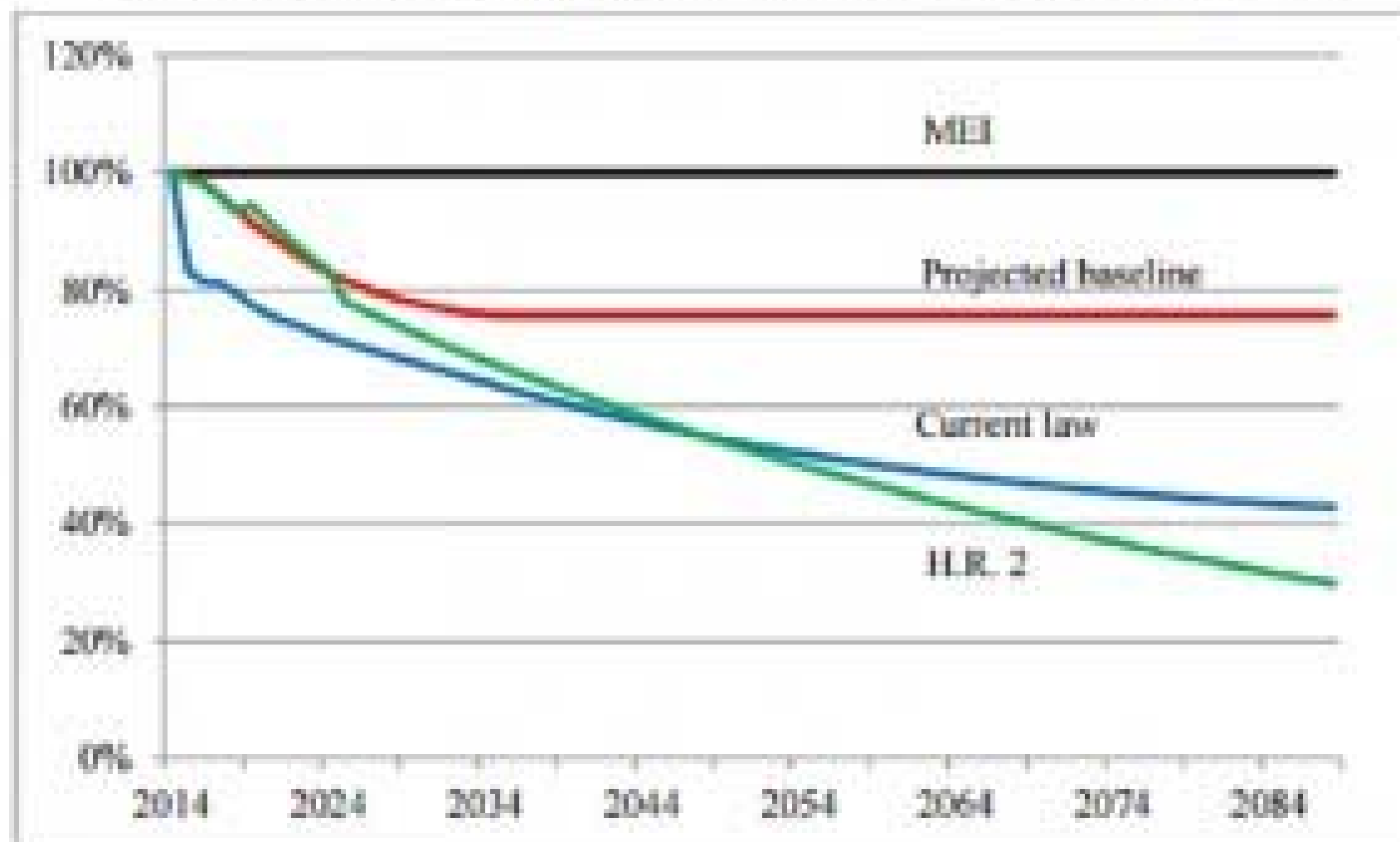
Sustainable Growth Rate (SGR)

- **Passed Congress in 1998, first implementation in 2003** *(by law)*
- **Limited Medicare Part B** *(professional fee)* **payment rate increases to growth rate of economy (GDP)**
- **17 “11th hour” implementation delays in next 11 years** *(23+% accumulated fee decrease waiting in the wings)*

The “Doc Fix” – H.R. 2

- **Medicare Access and CHIP Re-Authorization Act (MACRA) passed Congress on April 16, 2015; implementation starts in 2019**
- **Replaced SGR formula**
- **Cost: \$205 billion over next 11 years**
(\$64 billion funded, \$141 billion added to national deficit)
- **Streamlines and combines multiple physician quality incentive program**
- **Shifts from FFS “pay for volume” to “pay for value”**
 - **Merit-Based Incentive Payment System (MIPS)**
 - **Alternative Payment Model (APM)**

Figure B : Illustrative Comparison of Medicare Prices for Physicians' Services under Current Law, the Projected Baseline, and H.R. 2 relative to the MEI



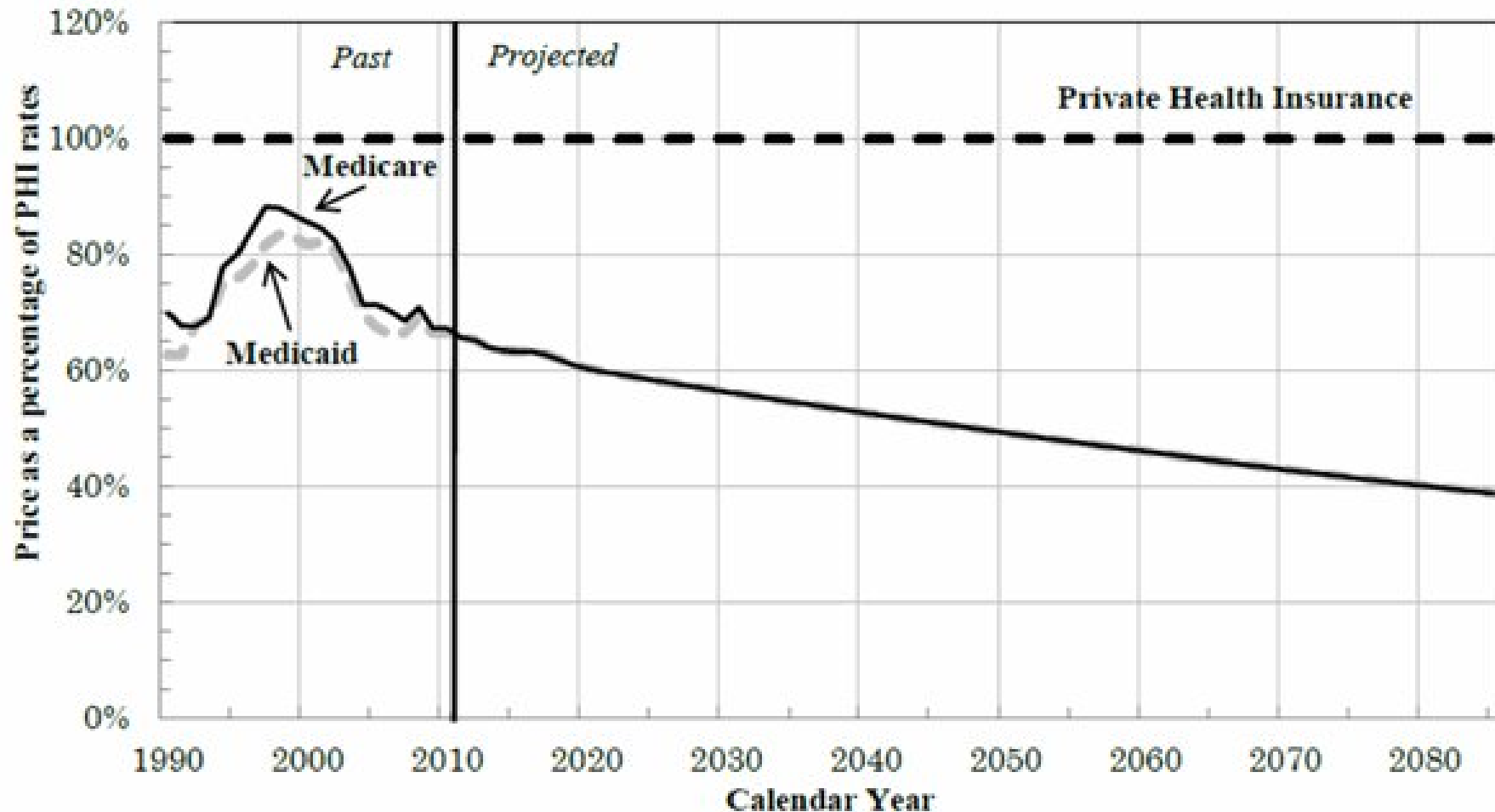
Source: Paul Spitalnic, "Estimated Financial effects of the Medicare Access and CHIP Reauthorization Act of 2015 (H.R. 2)," Centers for Medicare & Medicaid Services, April 9, 2015, p. 8.

MACRA MD payment rates over time



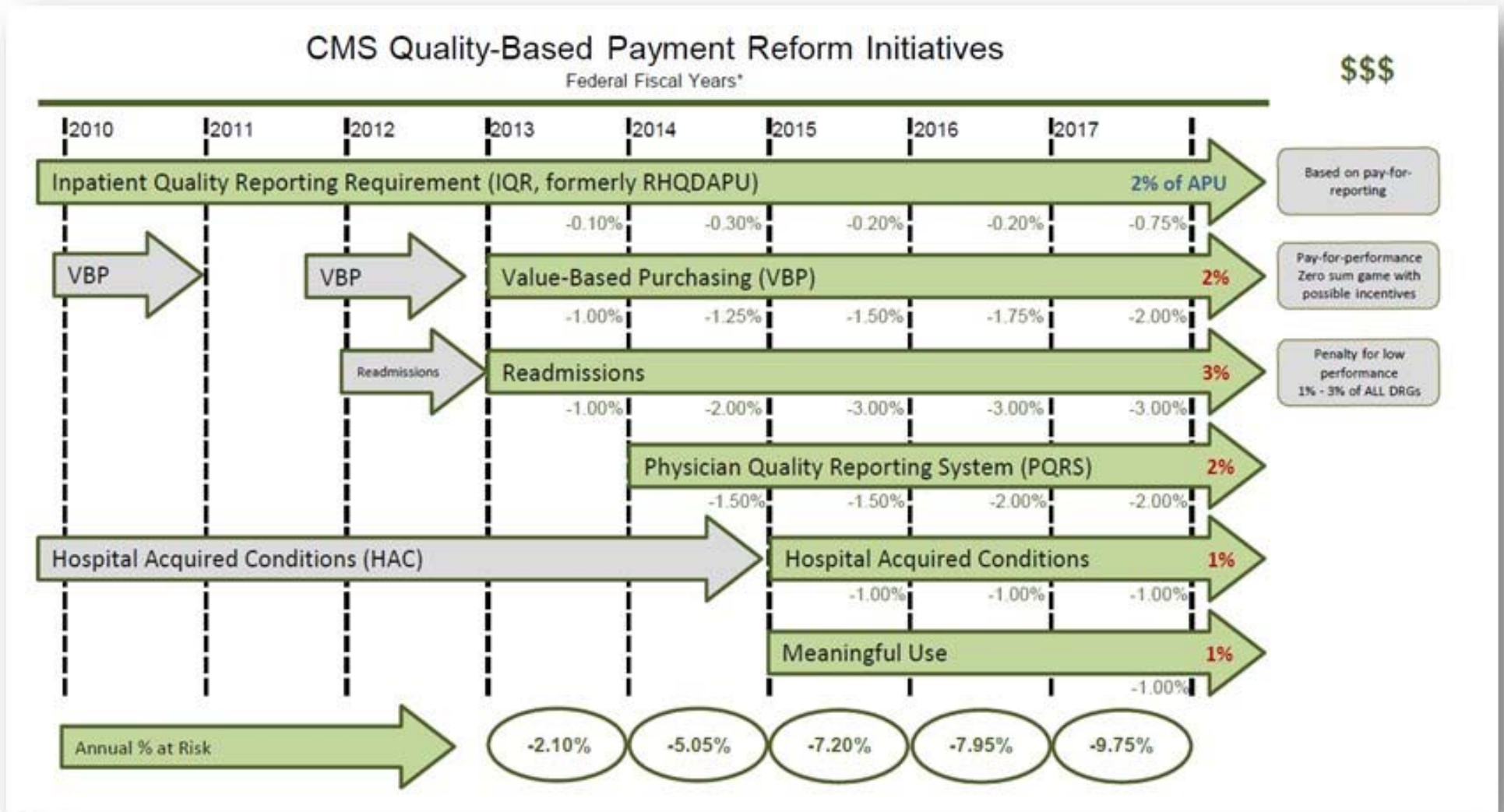
Hospital payments under PPACA

Figure 1. Illustrative comparison of relative Medicare, Medicaid, and private health insurance prices for inpatient hospital services under current law



Shatto & Clemens. Projected Medicare expenditures under the PPACA. Washington, DC: Medicare Office of the Actuary. May 18, 2012.

Impact of government cost controls



Point 2:

Movement into “value-based payment” will accelerate

- *Explicit primary goal set by DHHS Secretary Burwell, with solid progress to date; no changes in Price DHHS*
- *Leavitt Group: About two-thirds of all ACO activity is happening in the private sector (commercially funded care); growth is accelerating*
- *Major for-profit insurers report that more than half of all new commercial insurance contracts involve some element of “provider at risk”*

Point 3:

Under “pay for value” the financial opportunity lies in finding and removing **waste**

- *This aligns with **clinical ethics**: The best way to take out waste is to improve clinical outcomes*

The waste opportunity is **HUGE**

35-50+% of all health care resource expenditures are

quality-associated waste:

- *recovering from preventable foul-ups*
- *building unusable products*
- *providing unnecessary treatments*
- *simple inefficiency*

Institute of Medicine Roundtable on Value and Science-Driven Healthcare. *The Healthcare Imperative: Lowering Costs and Improving Outcomes*. Yong, Pierre L., Saunders, Robert S., and Olsen, LeighAnne, editors. Washington, DC: National Academy Press, 2010.

Financial leverage is **MUCH** higher in waste elimination than in revenue growth

5 – 9% contribution

for each case added on the revenue side

**Net
Operating
Income**
(NOI; margin)

50 – 100% contribution

for each case avoided on the cost side

Point 4:

We have found proven methods

Shared Baseline “Lean” protocols (*bundles*)

1. **Identify a high-priority clinical process** (*key process analysis*)
2. **Build an evidence-based best practice protocol**
(*always imperfect: poor evidence, unreliable consensus*)
3. **Blend it into clinical workflow** (= *clinical decision support; don't rely on human memory; make "best care" the lowest energy state, default choice that happens automatically unless someone must modify*)
4. **Embed data systems to track (1) protocol variations and (2) short and long term patient results** (*intermediate and final clinical, cost, and satisfaction outcomes*)
5. **Demand that clinicians vary based on patient need**
6. **Feed those data back** (*variations, outcomes*) **in a Lean Learning Loop** - *constantly update and improve the protocol*

Problems with “best care” protocols

- ◆ **Lack of evidence for best practice**

- Level 1, 2, or 3 evidence available only about 15-25% of the time

- ◆ **Expert consensus is unreliable**

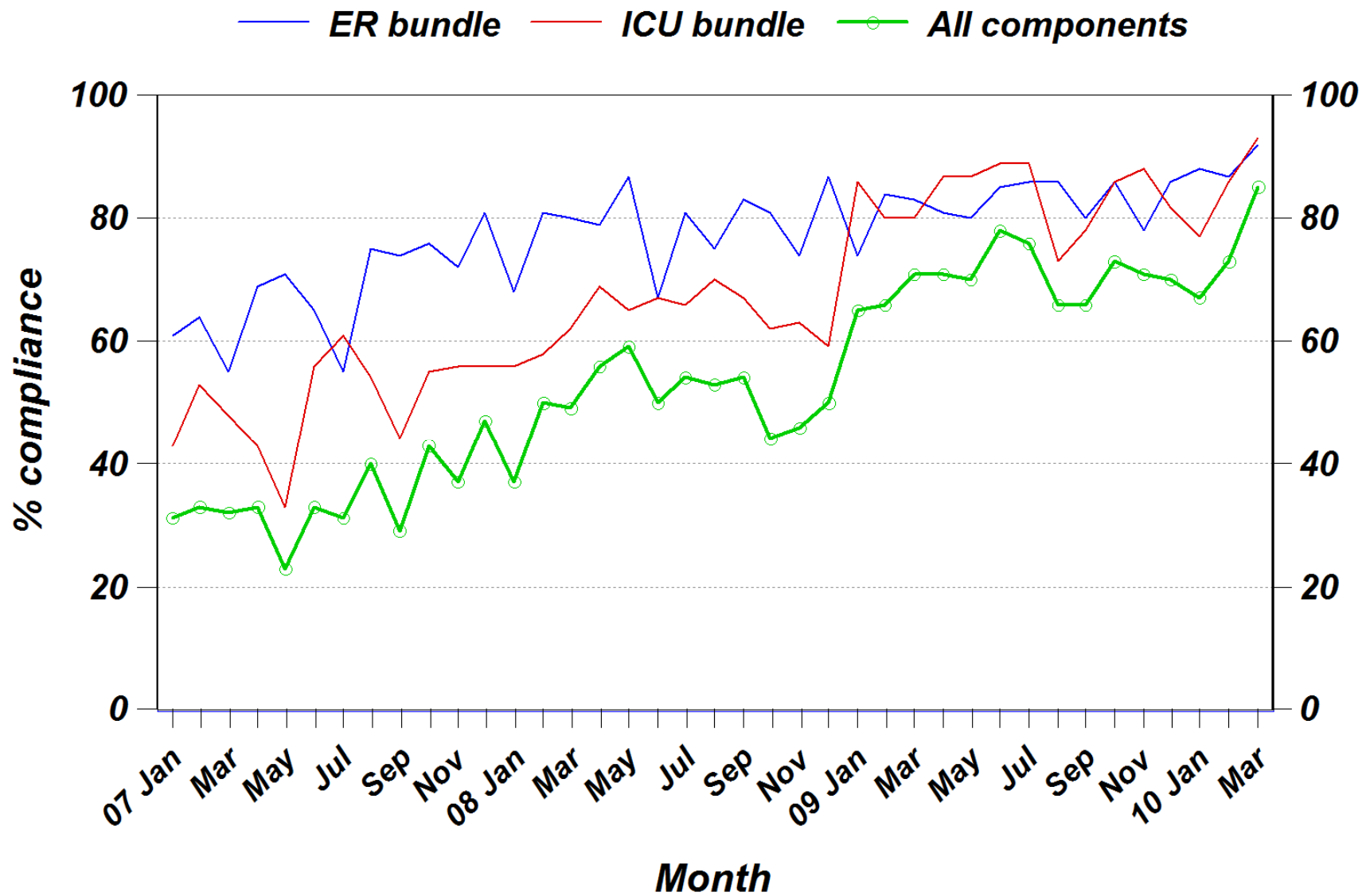
- experts can't accurately estimate rates relying on subjective recall
(produce guesses that range from 0 to 100%, with no discernable pattern of response)
 - what you get depends on whom you invite (specialty level, individual level)

- ◆ **Guidelines don't guide practice**

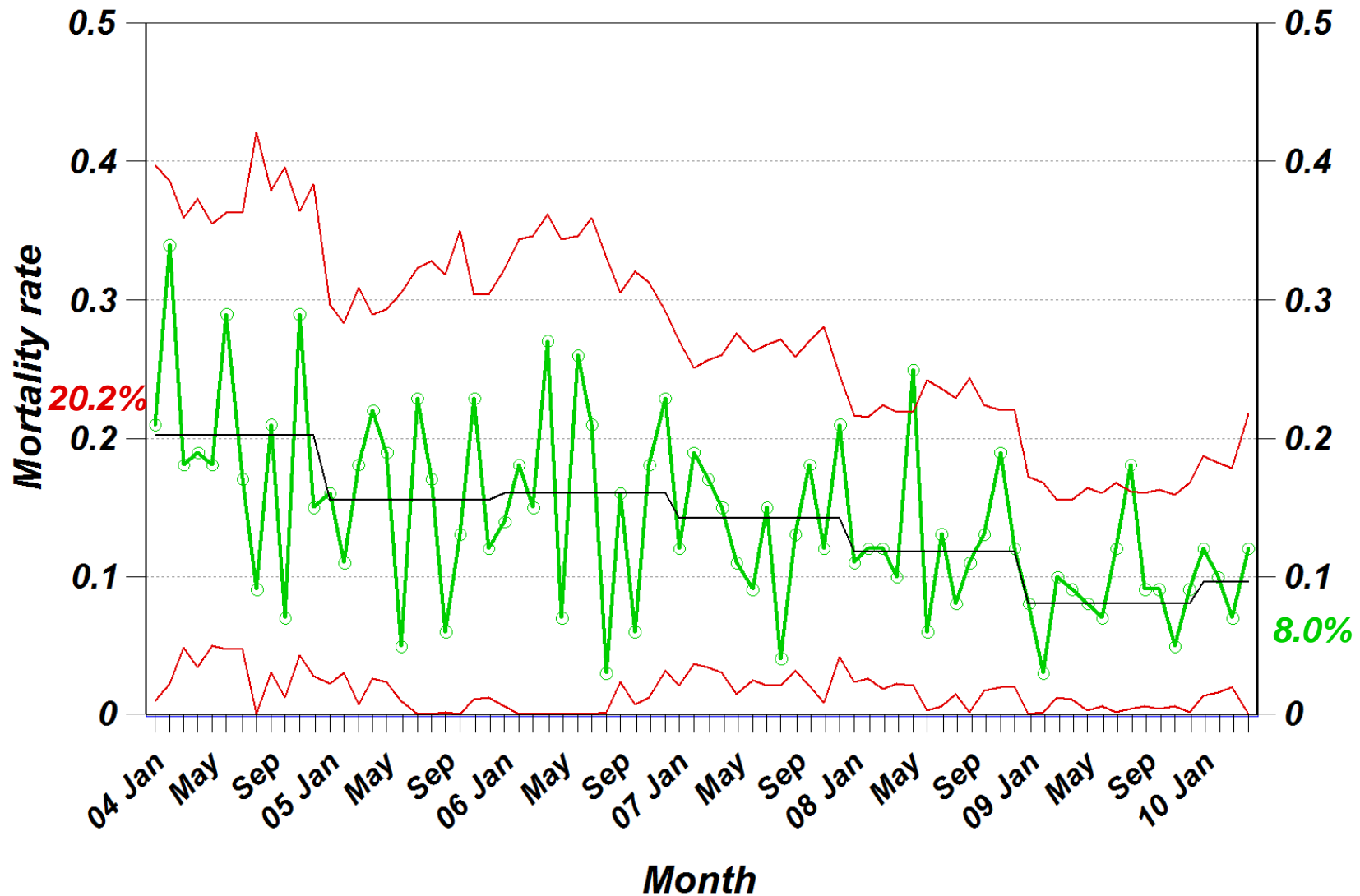
- systems that rely on human memory execute correctly ~50% of the time (McGlynn: 55% for adults, 46% for children)

- ◆ **No two patients are the same; therefore, no guideline perfectly fits any patient** (with very rare exception)

Sepsis bundle compliance



Sepsis mortality - ER-ICU transfers



125+ fewer inpatient deaths per year

Lesson 1

We count our successes in lives

Sepsis costs - all ER-ICU transfers

Adjusted for age and severity at admission (CCIS); inflation adjusted to 2012 dollars

<u>Year</u>	<u># cases</u>	<u>Compliance rate</u>	<u>Mortality rate</u>	<u>Total cost reduction (\$)</u>	<u>Annual NOI impact (\$)</u>
2004	384	4.4%	21.2%	18,062	9,967
2005	469	23.2%	15.0%	115,628	63,752
2006	395	24.8%	14.5%	103,774	57,362
2007	680	35.0%	13.5%	252,652	139,374
2008	756	50.0%	13.2%	401,436	221,760
2009	927	70.2%	8.8%	692,416	381,746
2010	965	73.4%	8.7%	752,292	414,876
2011	1097	81.2%	9.1%	948,500	523,658
2012	1146	85.1%	8.2%	1,036,648	573,038
2013	1405	87.3%		1,302,379	719,258

No significant inflation-adjusted financial change for patients presenting w septic shock.

For patients presenting with severe sepsis, savings of

11% (\$2557 per case) in total cost,

12% (\$1288 per case) in variable cost.

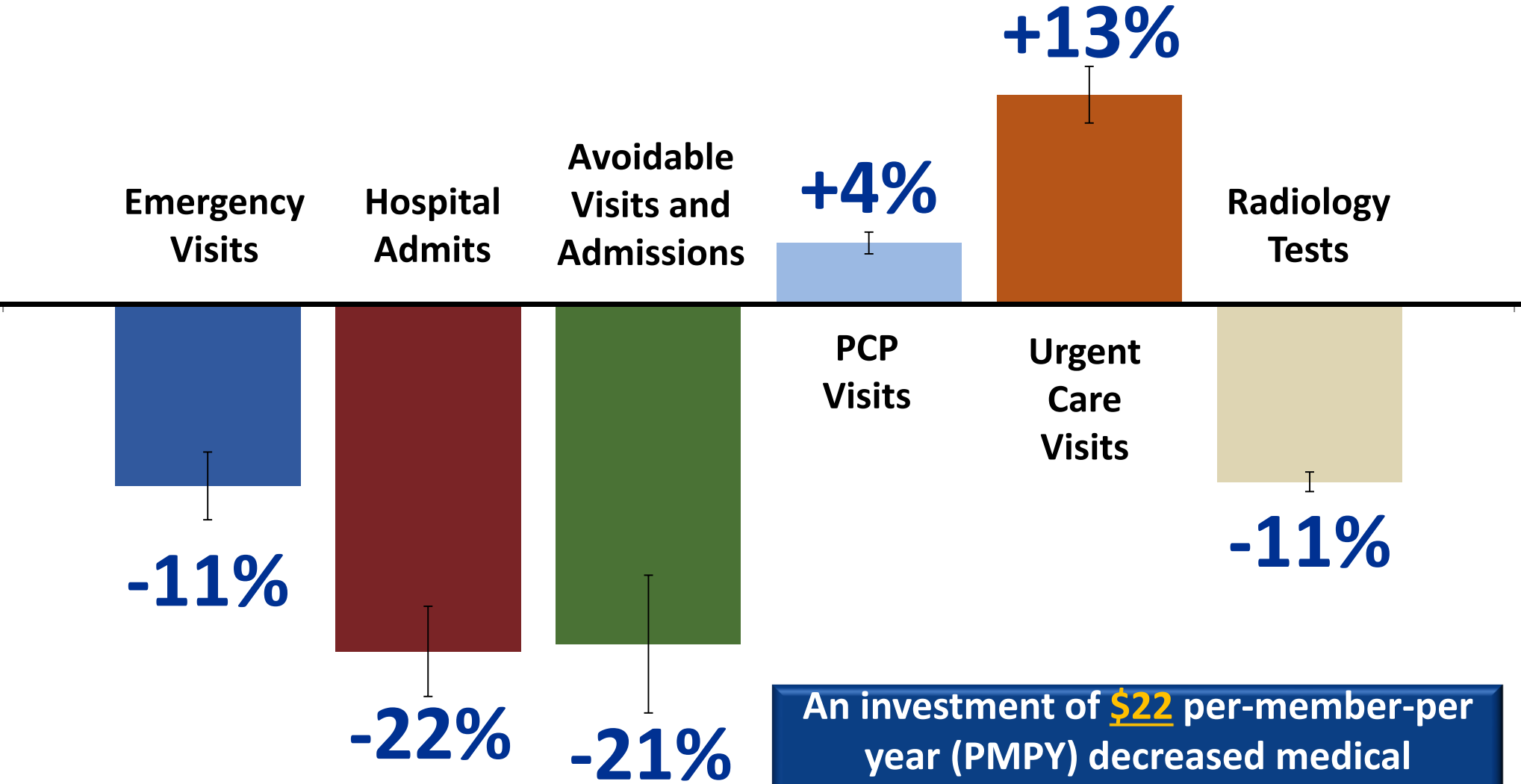
Lesson 2

Most often
(but not always)

better care is cheaper care

Team-Based Care

(Level 3 coordinated medical home)



An investment of **\$22** per-member-per year (PMPY) decreased medical expenses by **\$115** PMPY

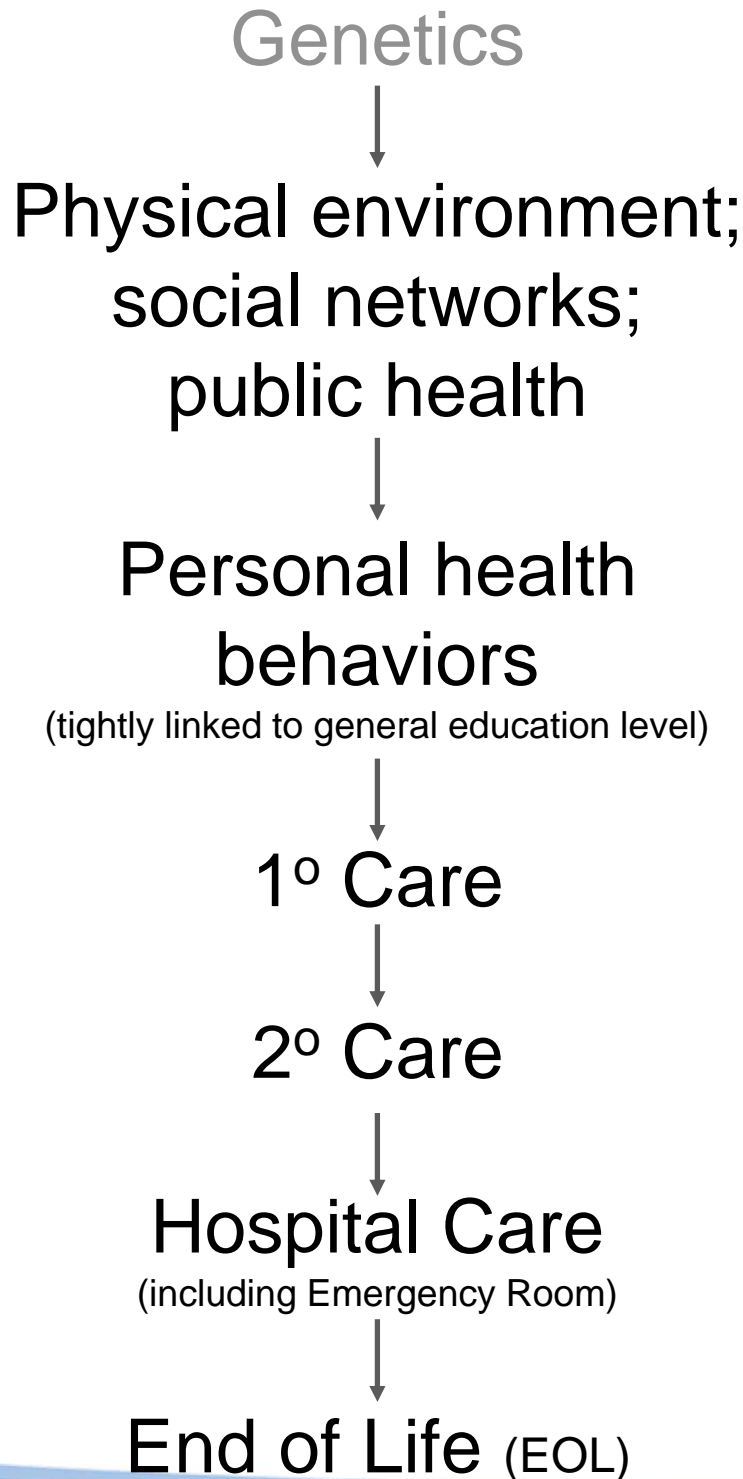
Contribution to Total Health

30%
20%
40%
10%

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Population Health

Disease Treatment System



"Move Upstream" strategies

(illustrations)

- housing for chronic homeless



- AMH
- Iora patient activation
- SDM
- Hot spotting



“Move Upstream” *(hot spotting)* strategies

1. **Identify current high utilizers, then intervene**

- Find high rates of ED visits, hospitalizations, etc. (<15% yield)
- Address homelessness, unmanaged mental illness
- Provide health coaches (Hibbard’s patient activation scores; Iora Health)
- Special clinics / care setting outreach (Primary Children’s Hospital “special needs” clinic; LTAC outreach)

2. **Predictively model to identify future high utilizers (usually acute events), then intervene**

- David Eddy’s Archimedes system (Arches, InDigo)
- Lincoln Nadauld’s cancer genomic predictive models
- Shared Decision Making tools
- In-home palliative care for elderly, end-of-life support (Dr. Diane Meier, Mt. Sinai, New York; Dr. Gordon Hunt, Sutter; Dr. Gregg Meyer, Boston)

3. **Population-level health behavior interventions**

- Tobacco use, EtOH & other recreational drugs, obesity, etc.
- Convene, inform, and lead: partner w schools, churches, local governments
- Very long-term strategy – plays out across many years

Financial incentives for waste elimination under different payment mechanisms

WASTE REMOVAL LEVEL	% of all waste	PAYMENT METHOD			
		Cost plus	FFS	Per case	Provider at risk
3. Case-rate utilization <i>(# cases per population)</i>	45%	▼	▼	▼	▲
2. Within-case utilization <i>(# and type of units per case)</i>	50%	▼	▼	▲	▲
1. Efficiency <i>(cost per unit of care)</i>	5%	▼	▲	▲	▲

Note: For green arrows, savings from waste elimination accrue to the care delivery organization; for red arrows, savings go to payer organizations.

Point 5:

***“Evidence-based administration”
can accelerate a successful
transition into “pay for value”***

(a.k.a. the Value Institute)

The Learning Health Care System

- 1. Build a system for clinical management**
- 2. Justify the required major financial investment on the basis of care delivery performance** -- *"the best clinical result at the lowest necessary cost"*
- 3. Use the resulting clinical management data system to:**
 - (a) Generate true transparency at the clinician-patient level, rolling up to the national level*
 - (b) "**Learn from every patient**" - integrate clinical effectiveness research into front-line care; every patient goes "on study"*

Enterprise Data Warehouse (EDW)

- ◆ **currently 58 clinical registries aligned to specific conditions** *representing about 80% of all care delivered within Intermountain*
- ◆ **follows every patient longitudinally over time** *condition-specific clinical, cost, and service intermediate and final outcomes*
- ◆ **about 3 petabytes** *(million gigabytes)* **of storage**
- ◆ **primary use: routine clinical management**

4 “types” of clinical research

1. **Rapid impact on care delivery performance**

(the best medical result at the lowest necessary cost)

- *internally funded w/ patient care dollars: whoever pays for the research, gets to set the research agenda*
- *publication, external grant funding = “icing on the cake”*
- *often centers around “care delivery science” = operations*

2. **Investigator-initiated research**

- *traditional academic model*
- *external grant funding*

3. **Collaborations with external investigators**

- *multi-center trials*
- *local universities*
- *requires an internal “champion”*

4. **Industry-based groups** *(pharma, device manufacturers)*

2015 "Type 1" learning production

- ◆ *Women & Newborn: 84 peer-reviewed articles*
- ◆ *Cardiovascular* (2103 data):
 - 64 peer-reviewed articles**
 - 67 abstracts**
 - 15 "other" - book chapters, editorials, etc.**
- ◆ *Other Clinical Development Teams also published*
(just not as prolific as Women & Newborn and CV -- 399 total articles)
- ◆ *Cumulative impact on cost of operations: ~\$688 million*

Goal: 1,000 peer-reviewed Type 1 publications
in a single year (sometime before I retire)

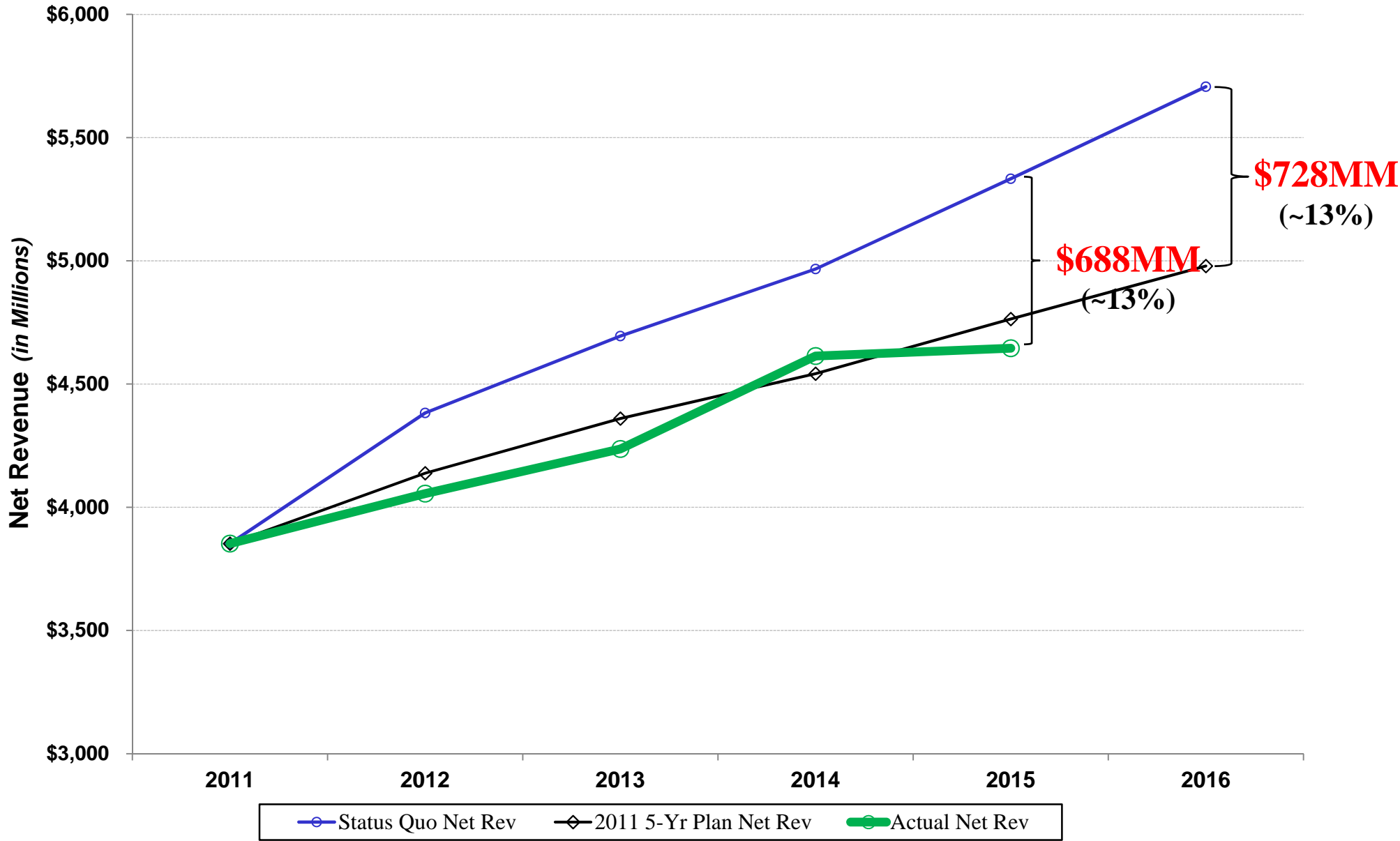
Point 6:

It really does work

Without access,
“quality” is meaningless;

Accessible means ***Affordable***

Goal: Limit rate increases to CPI+1%



Health Services

Process management is the key

- ◆ ***better clinical results produces lower costs***
- ◆ *aligned financials: **under fee-for-value payment, savings drop to care groups' bottom lines***
- ◆ ***more than half of all cost savings will take the form of unused capacity*** (*fixed costs: empty hospital beds, empty clinic patient appointments, reduced procedure, imaging, and testing rates*)
- ◆ ***balanced by increasing demand:***
 - *demographic shifts (Baby Boom); population growth; behavioral epidemics (e.g., obesity); technological advances*

A fundamental shift in focus

The past:

1. **"Top-line" revenue enhancement**
 - Systems designed around documentation to support FFS payment, clinical decision support as a secondary "bolt-on"
2. **Quality defined as regulatory compliance** - e.g. CMS Core Measures, Pay for Value, Meaningful Use

The future:

1. **Quality becomes the core business**
 - Demonstrated performance for key clinical processes
 - Systems designed around clinical decision support (process management), producing documentation as an integrated by-product
2. **"Bottom-line" cost control and waste elimination**
in a "provider at risk" financial environment

Better has no limit ...

an old Yiddish proverb



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