

COMMONWEALTH OF MASSACHUSETTS  
HEALTH POLICY COMMISSION

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2015 HEALTH CARE  
COST TRENDS  
HEARING



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HEALTH POLICY COMMISSION

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COST TRENDS HEARING

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Up Next: Presentation  
Center for Health Information and Analysis

#CTH15



# THE PERFORMANCE OF THE MASSACHUSETTS HEALTH CARE SYSTEM COST TRENDS HEARINGS 2015

*Áron Boros, Executive Director*  
October 5, 2015



center  
for health  
information  
and analysis

**Per capita Total Health Care Expenditure  
growth exceeded the HPC benchmark.**

**+4.8%**

2013-2014



# Massachusetts measured quality is similar to national performance.

5

Domains were identified by the Statewide Quality Advisory Committee as priorities over the next three years.

# Commercial adoption of alternative payment methods is growing ... slowly.

38%

of enrollees' care was coordinated by a physician group with an APM contract (2014)



Adoption was significantly lower for Medicaid members, particularly for global budget contracts.

**Cost sharing – copays and deductibles --  
is increasing faster than premiums.**

**1 in 5**

Commercial market members were enrolled in  
a high deductible health plan (2014).

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Up Next: Presentation  
Dr. Amitabh Chandra

#CTH15

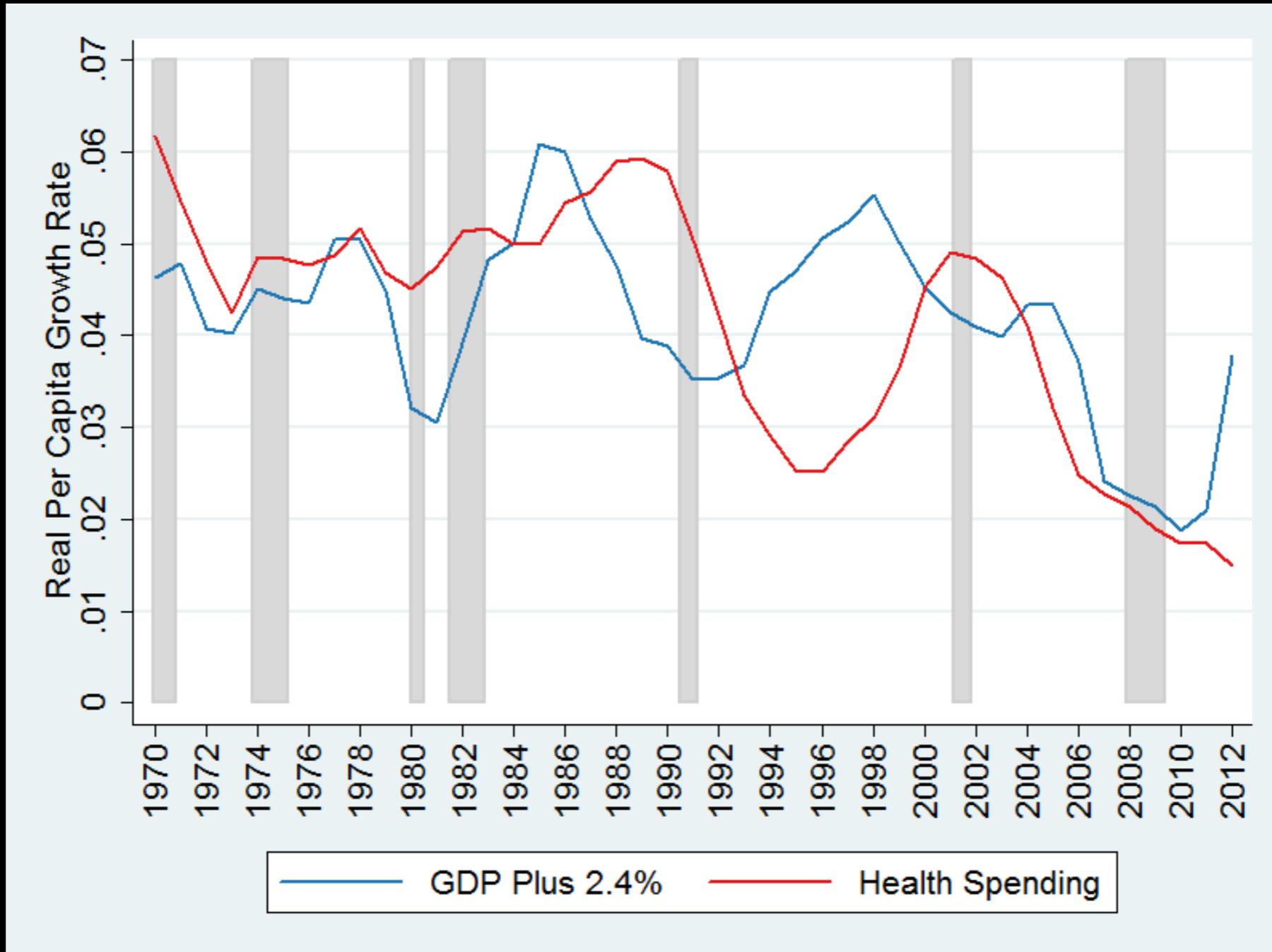


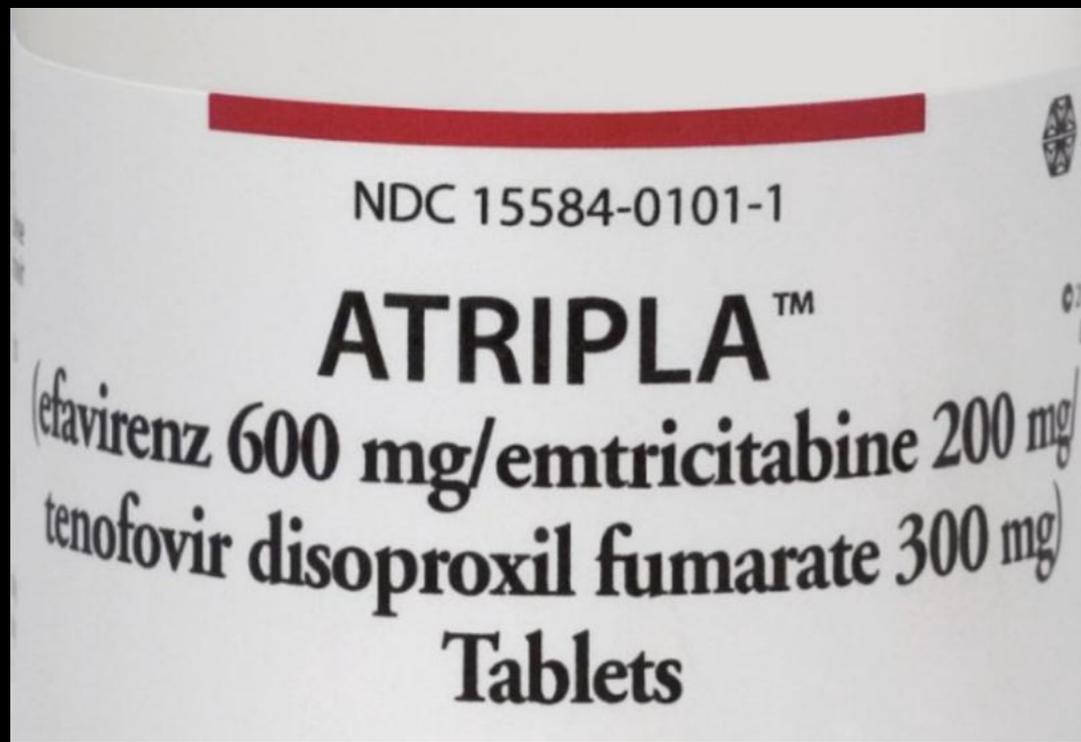
# The Innovation Dilemma

Amitabh Chandra  
HARVARD UNIVERSITY



Healthcare Growth = GDP Growth + 2.4%





# Innovation



# Proton Beam Therapy

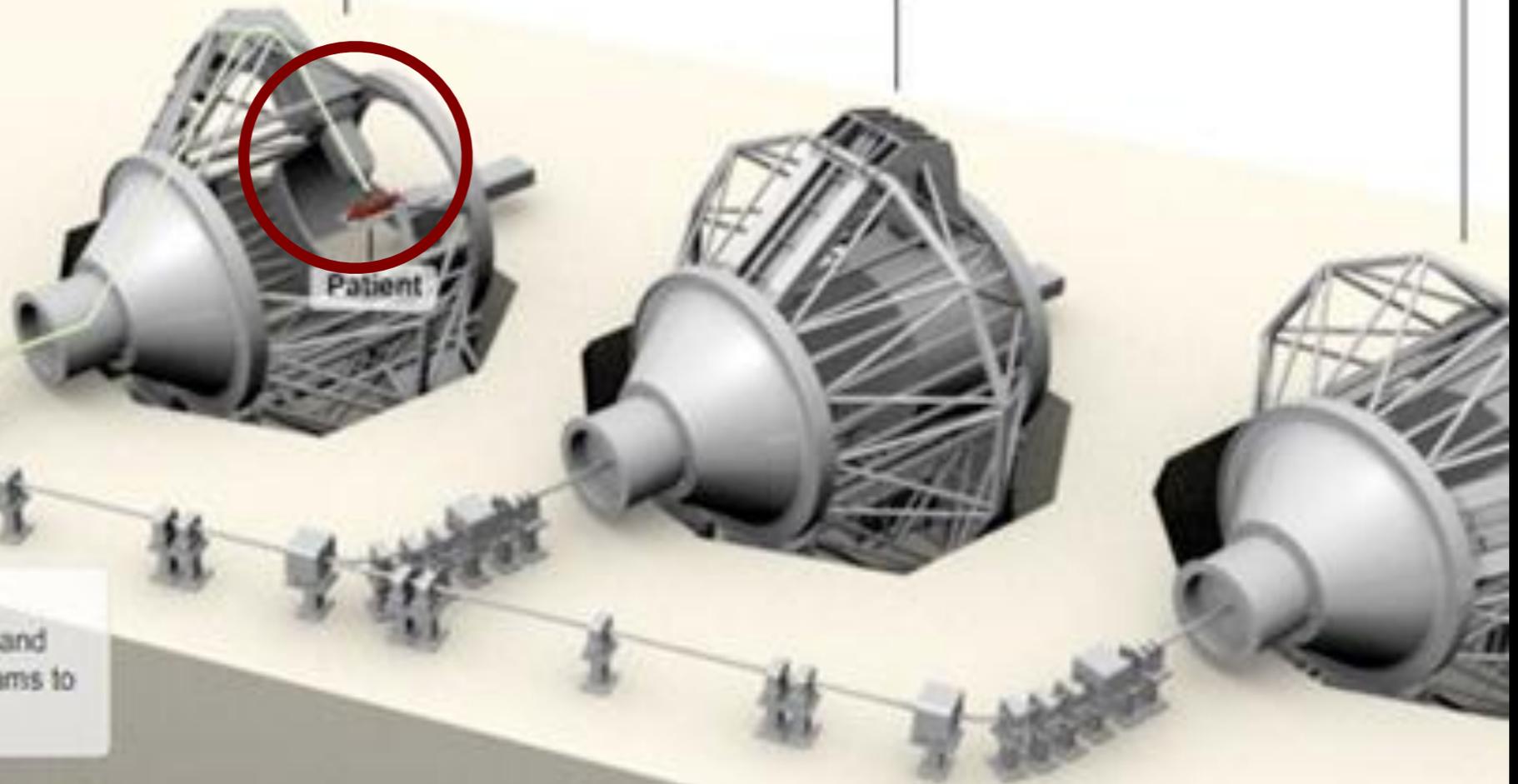
## 1 Cyclotron

Using electric fields, the cyclotron can accelerate the hydrogen protons to two-thirds the speed of light.



## 3 Gantry

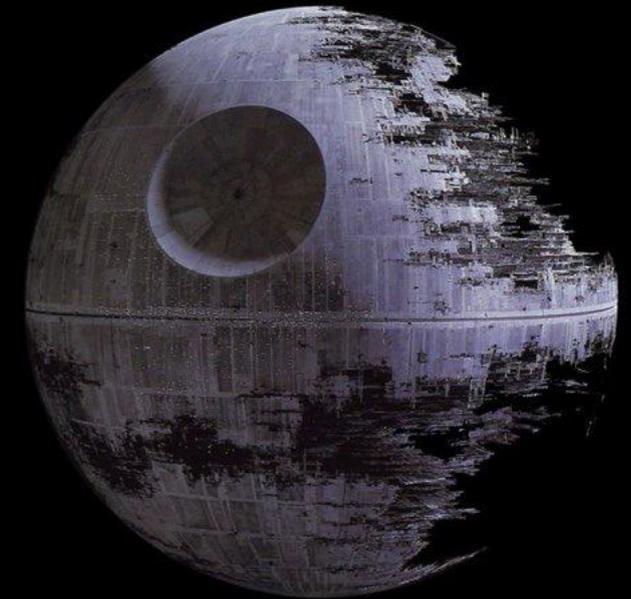
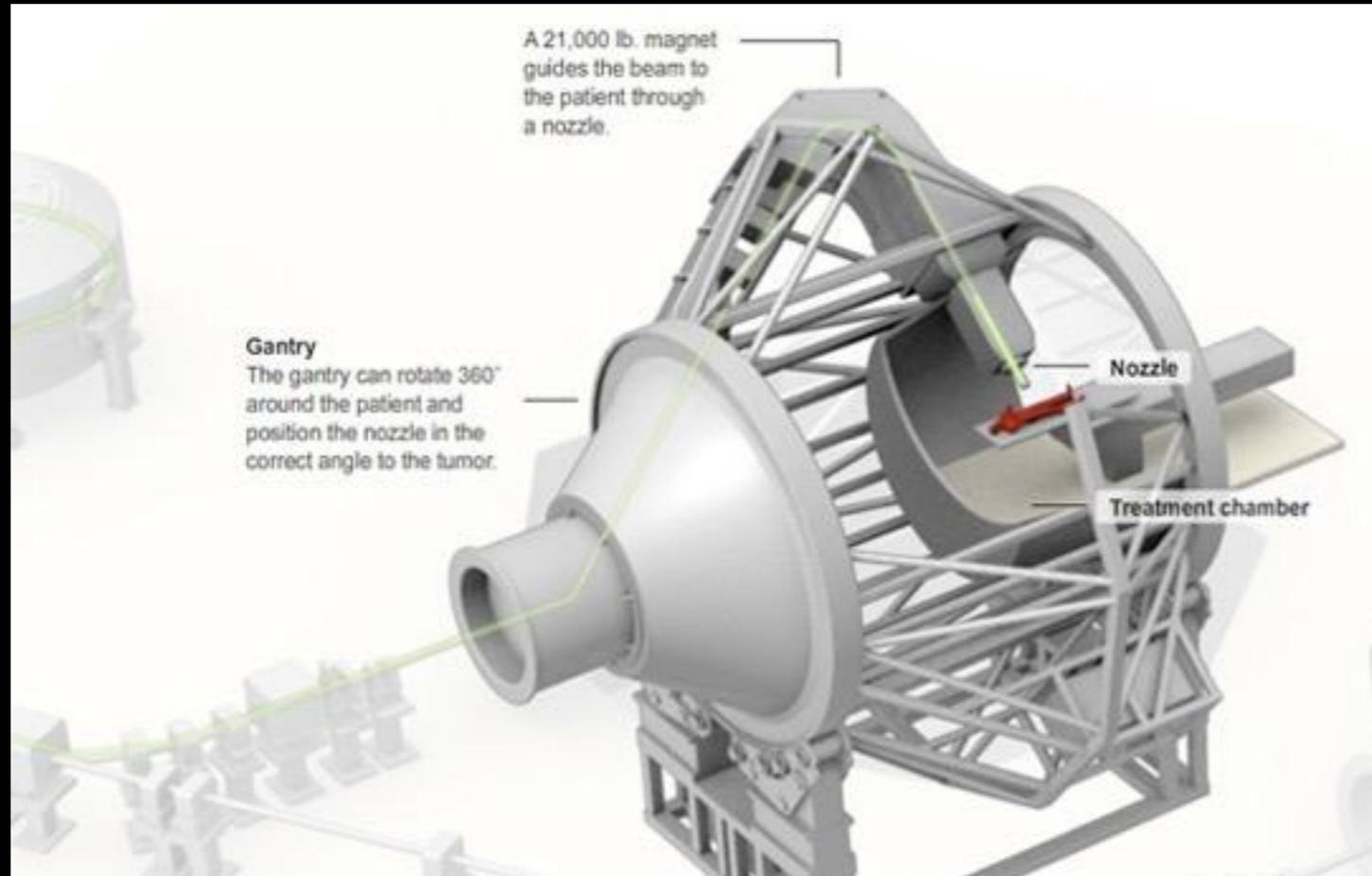
Each of the three gantries is three-stories tall and weighs 200,000 lbs.



## 2 Electromagnets

The magnets focus and route the proton beams to the gantry.

# PROTON BEAM THERAPY

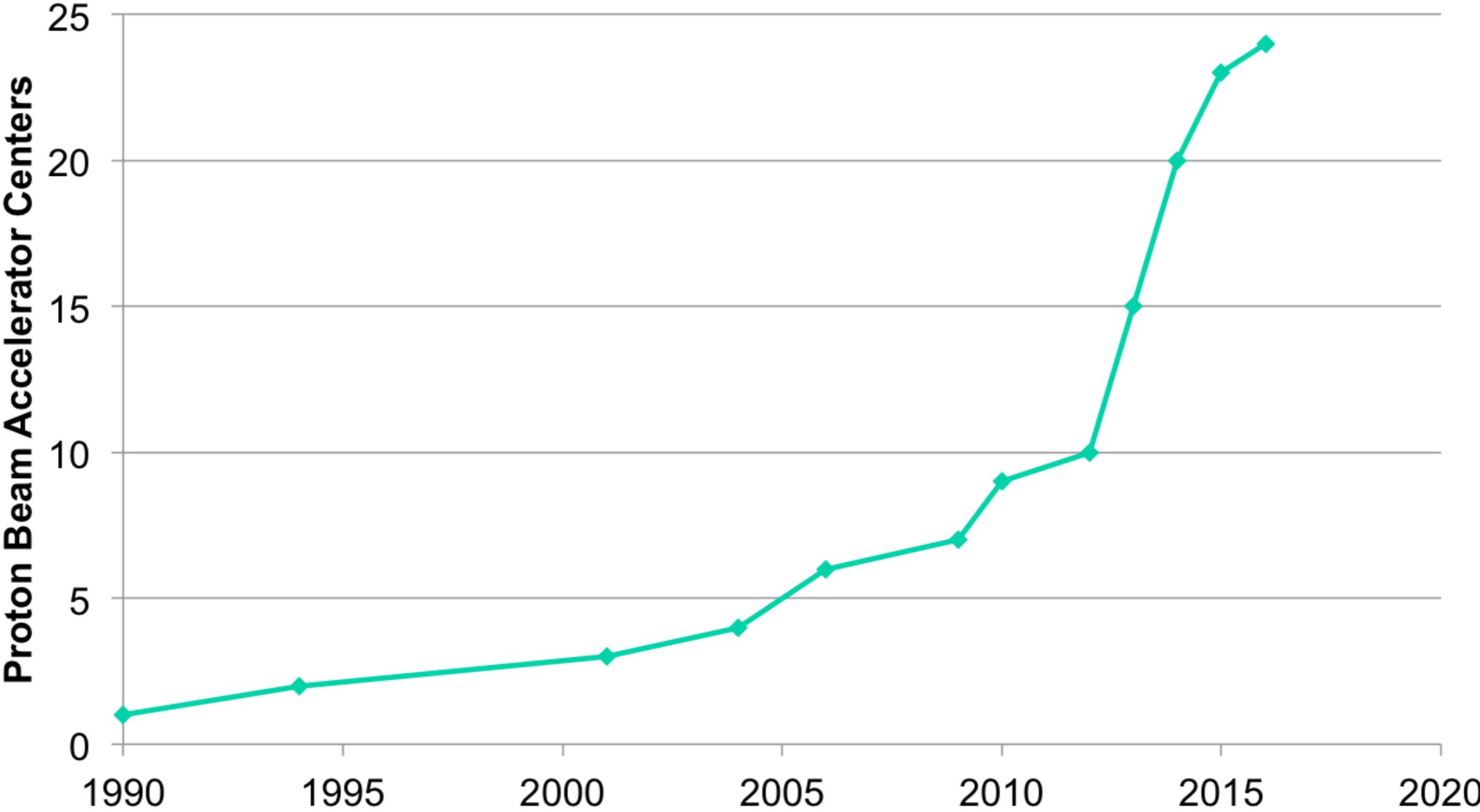


Cost: \$120 million

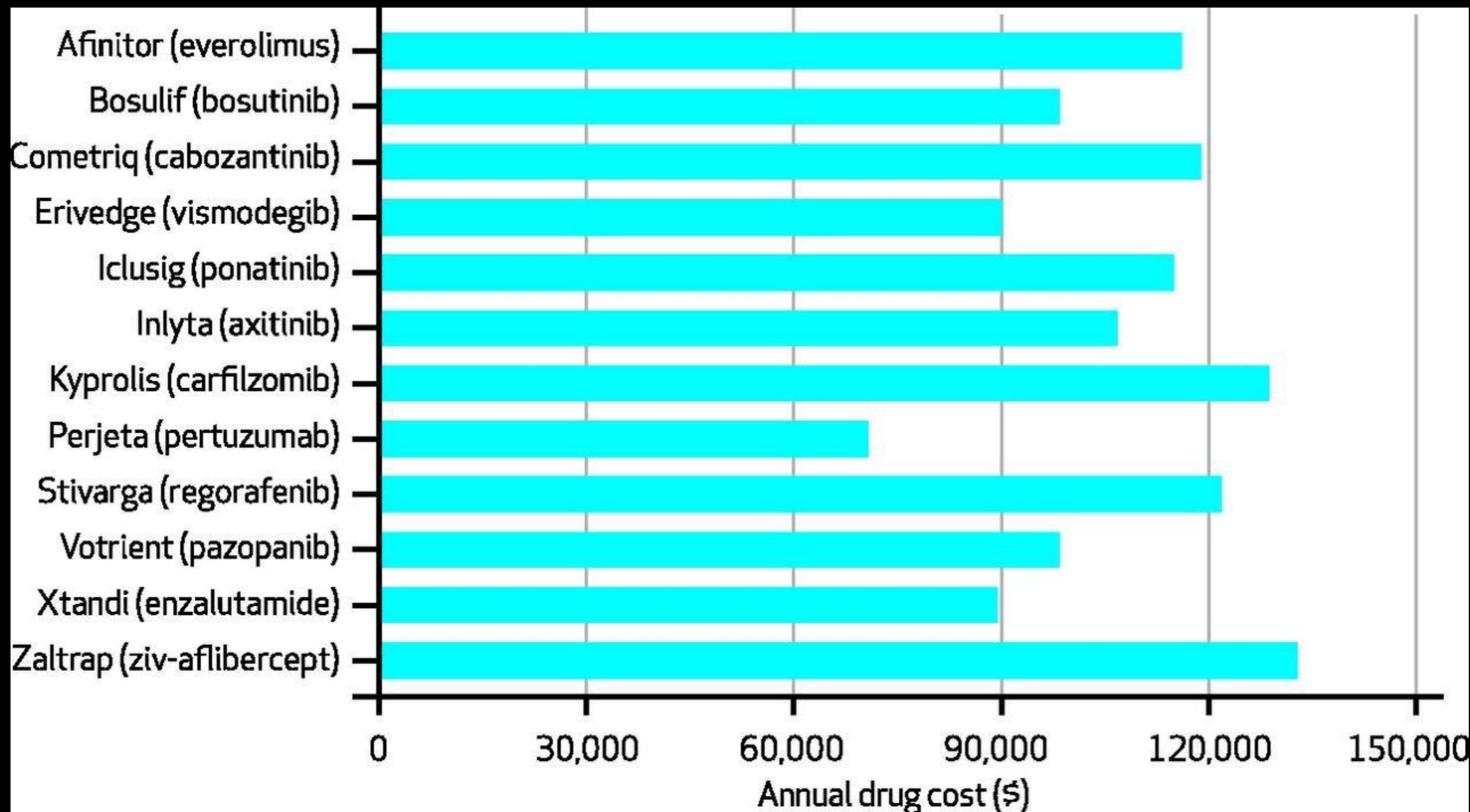
Benefit for prostate cancer: unknown

Medicare reimburses \$32,000 per treatment  
(= cost of insuring 8 people)

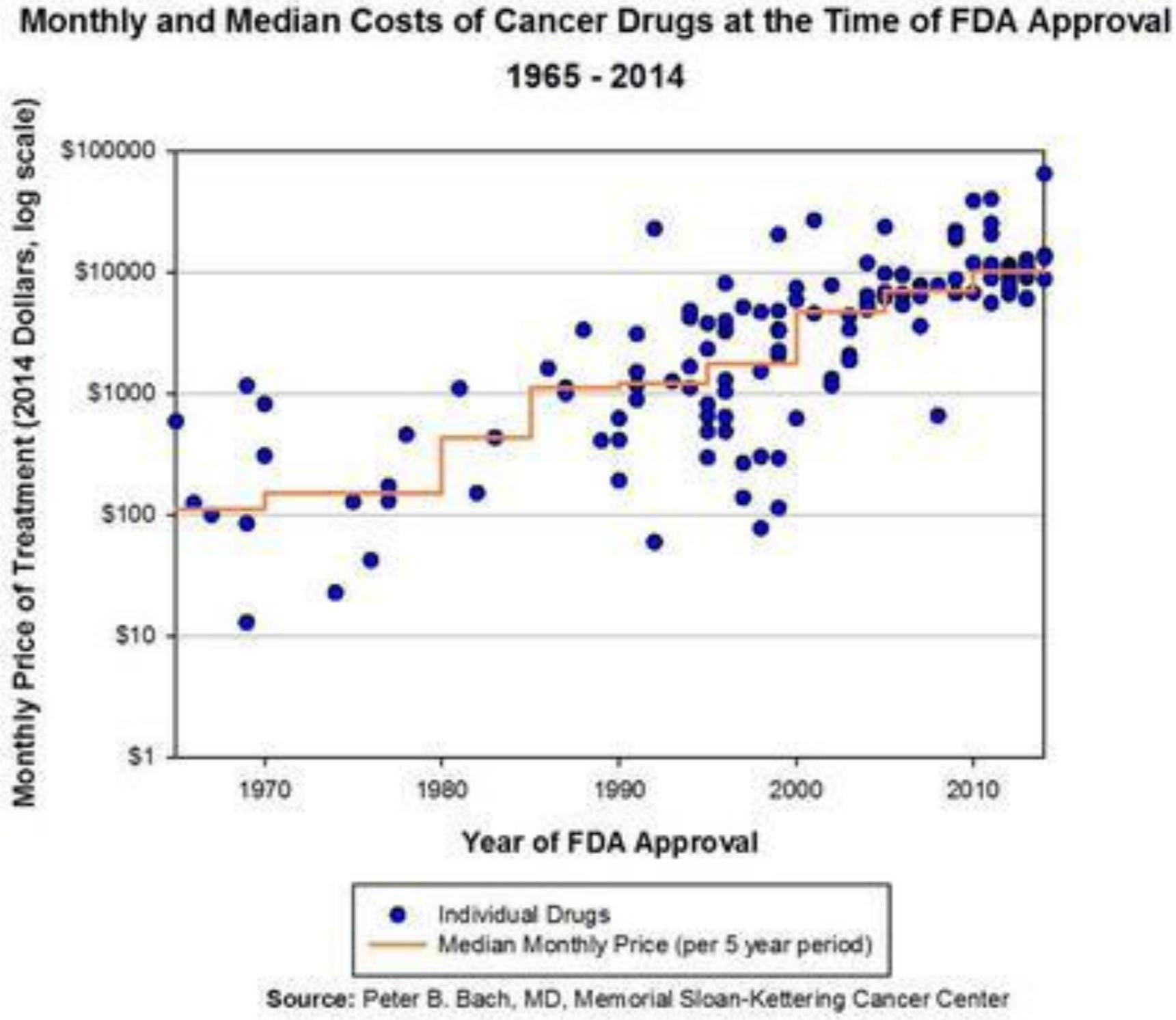
# Proton Beam Accelerator Facilities Operating, Planned, or Under Construction



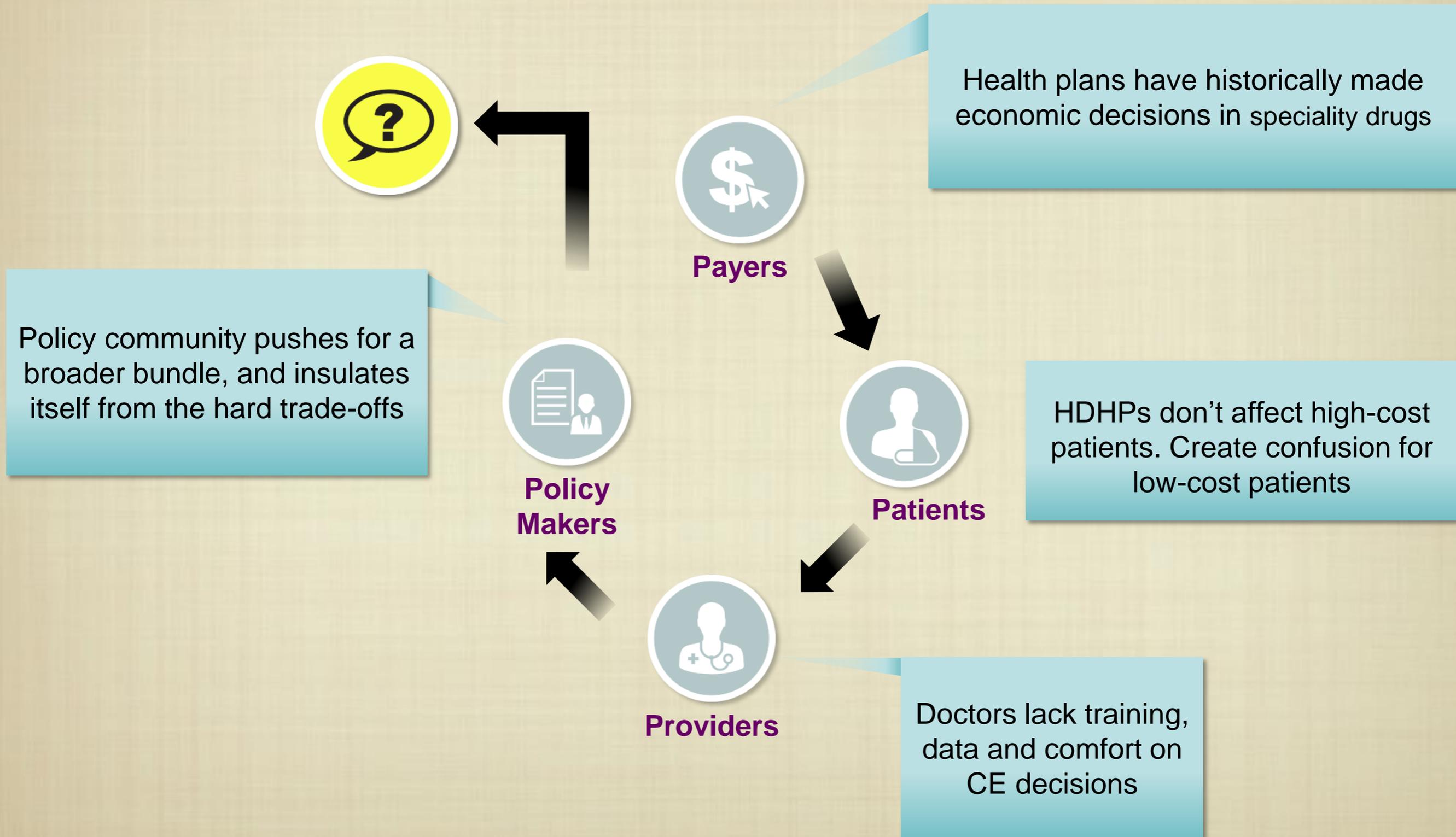
Source: Chandra, Holmes and Skinner (Brookings 2014)



- **ACA will increase innovation and Prices**
  - Expanded Market-Size
  - Medicaid Rebates
  - reforms increase value of insurance
- **Personalized Medicine increases Arrival of High Priced Rx**
  - Targeted Therapies= higher Efficacy
  - Orphan Rx get 7 yrs of exclusivity
- **21st Century Cures Act will increase innovation**
  - Easier for FDA to approve on surrogate-endpoints



# Unprepared for Difficult Choices



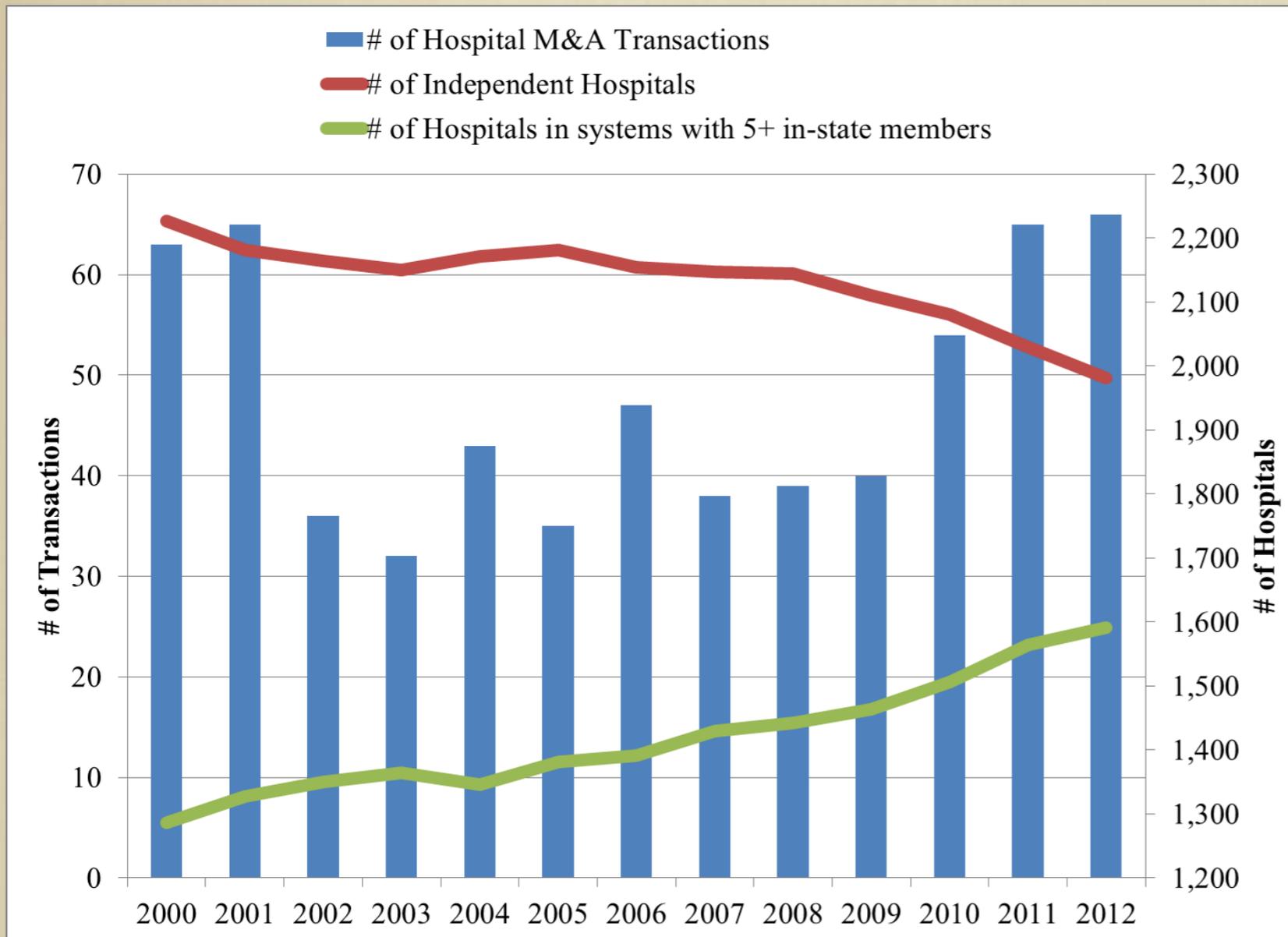
# Takeaways

- Innovation responds to market size— future bodes more innovation
- States are unlikely to affect innovation in Rx or Tx
- But can lead on every other form of reform!

# Opportunities

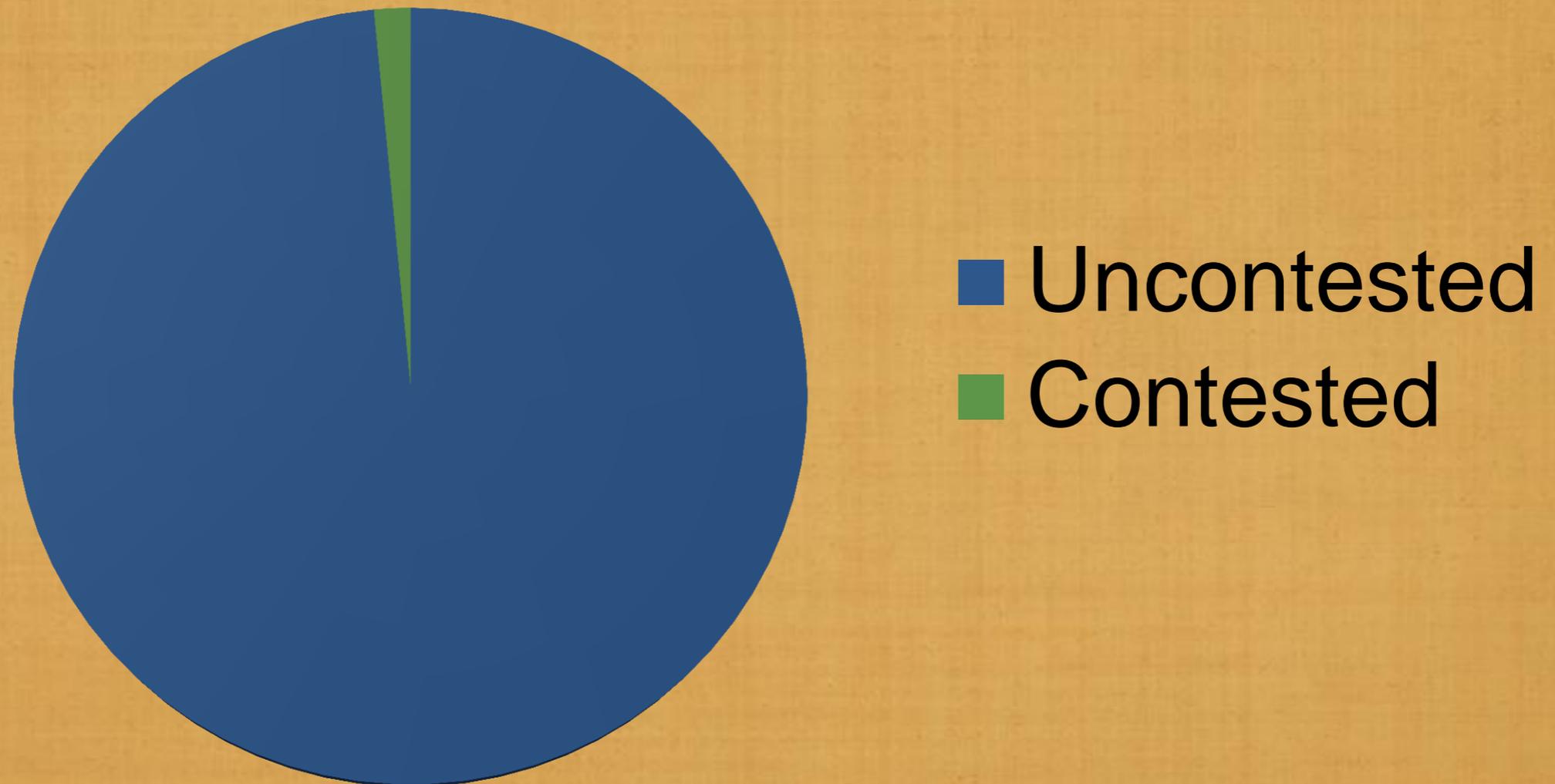
- Competition— in provider markets and in insurance markets

# Hospital M&A Overtime



# FTC DOES NOT CONTEST MOST MERGERS

General Acute Care Hospital Mergers in  
2013



Anthem®



ætna™

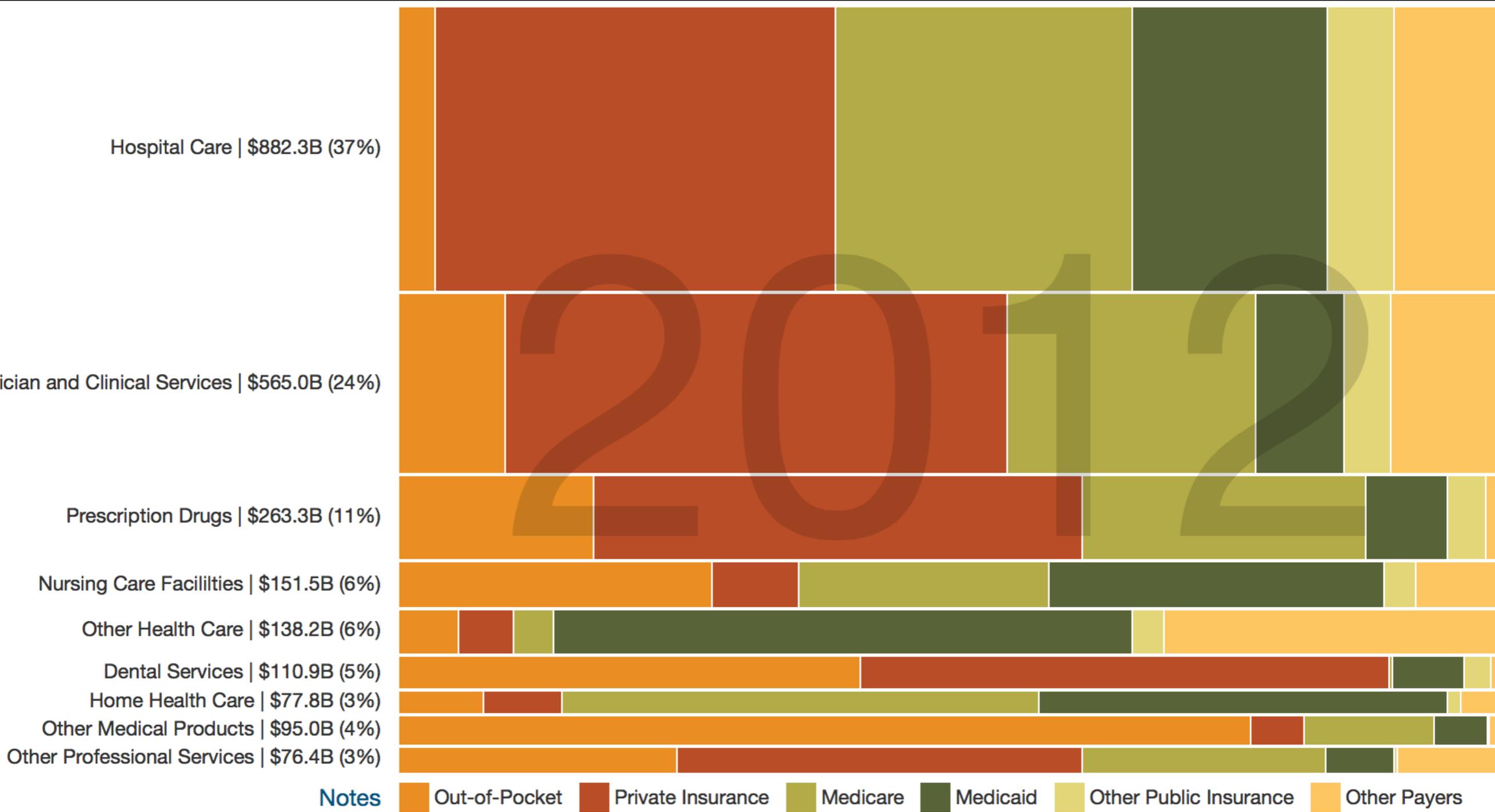


Humana®

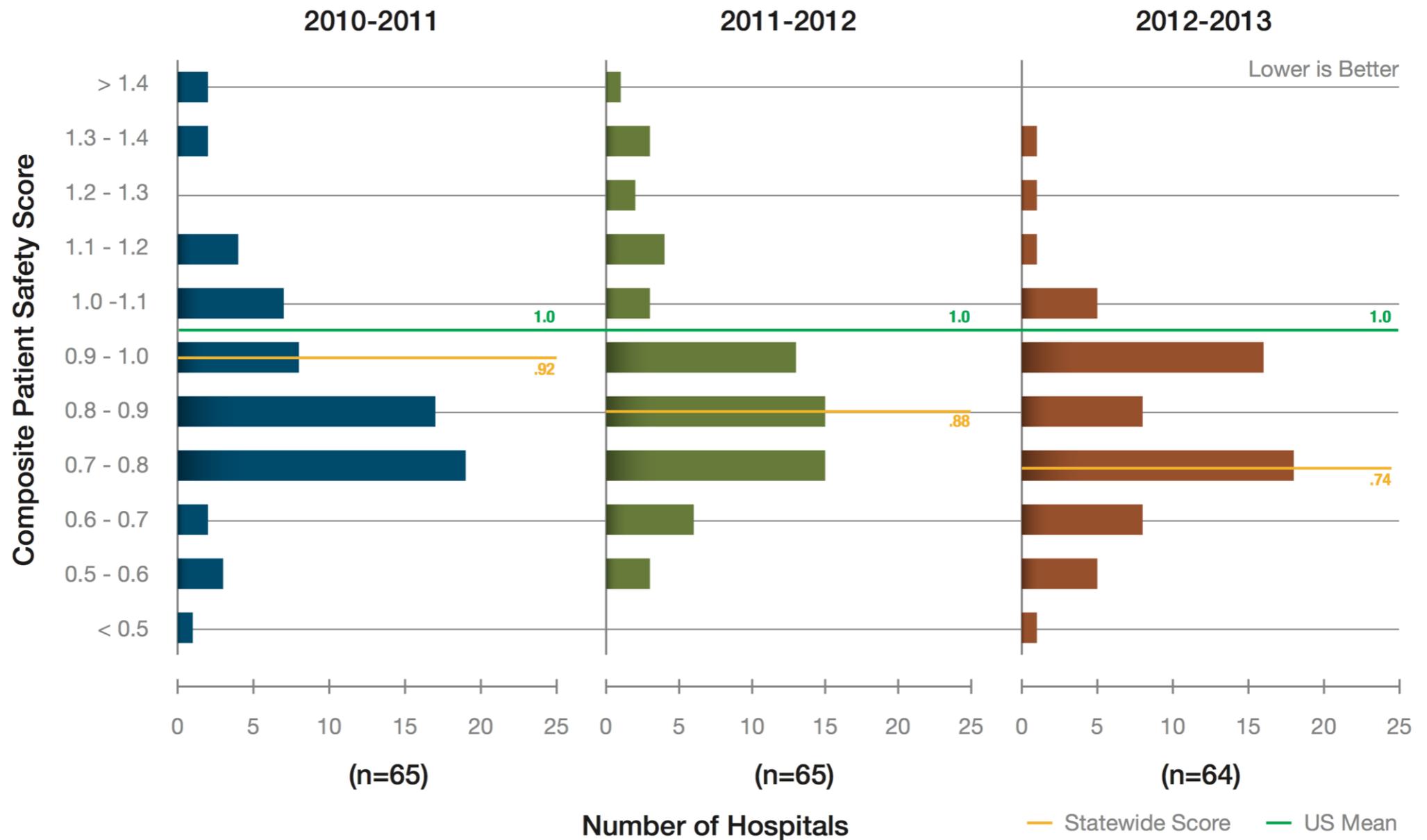
# Opportunities

- Competition— in provider markets and in insurance markets.
- Because of CHIA , encourage MassHealth and GIC to move to full risk-contracts (including Rx) and bundled payments

2012



The Massachusetts state average declined by 18 points over three years.



Source: CHIA Hospital Discharge Database | Note: All Payers, Age 18+

# Provider decision making: Implications of for oncology drugs



Five oncology groups participated from 2009-12, all patients with breast, colon and lung cancer—1,024 patients in all

Identified 19 different “episodes” based on tumor site, stage, HER2 status, whether chemo is used, etc.

Each group selected a single chemo regimen for each adjuvant therapy episode “on the basis of their interpretation of the medical literature”

Practice receives an episode payment at initial visit to cover 4-12 months of treatment, depending on episode

Episode payments covered chemo drugs (based on the practice-selected regimen) **at acquisition cost**

**Eliminated incentive for providers to choose more expensive therapies simply because they are more profitable**

# Results of United experiment: Compared to FFS



## Total medical costs

Decreased  
by  
**34%**

**(\$33M vs. \$98M)**



## Chemotherapy drug costs

Increased  
by  
**179%**

**(\$8M vs. \$21M)**

Study not powered to determine which costs drove the decline in total medical costs, but some evidence suggests declines in hospitalizations and therapeutic radiology use

Sample size insufficient to evaluate survival or most other quality impacts

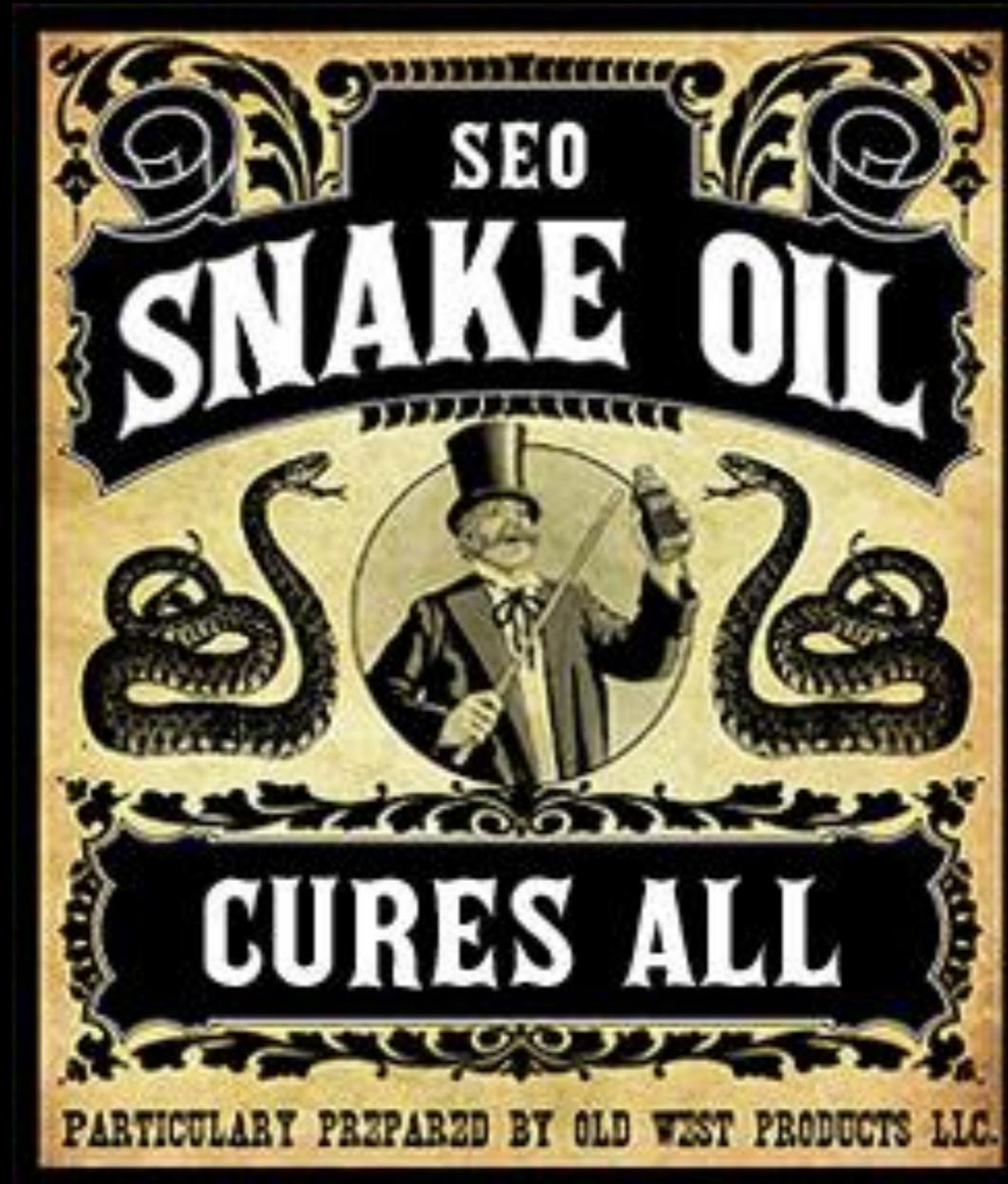
# Opportunities

- Competition— in provider markets and in insurance markets.
- Because of CHIA , encourage MassHealth and GIC to move to full risk-contracts including Rx.
- Explore moving MassHealth to a PBM managed formulary (perhaps better than bulk-purchasing)

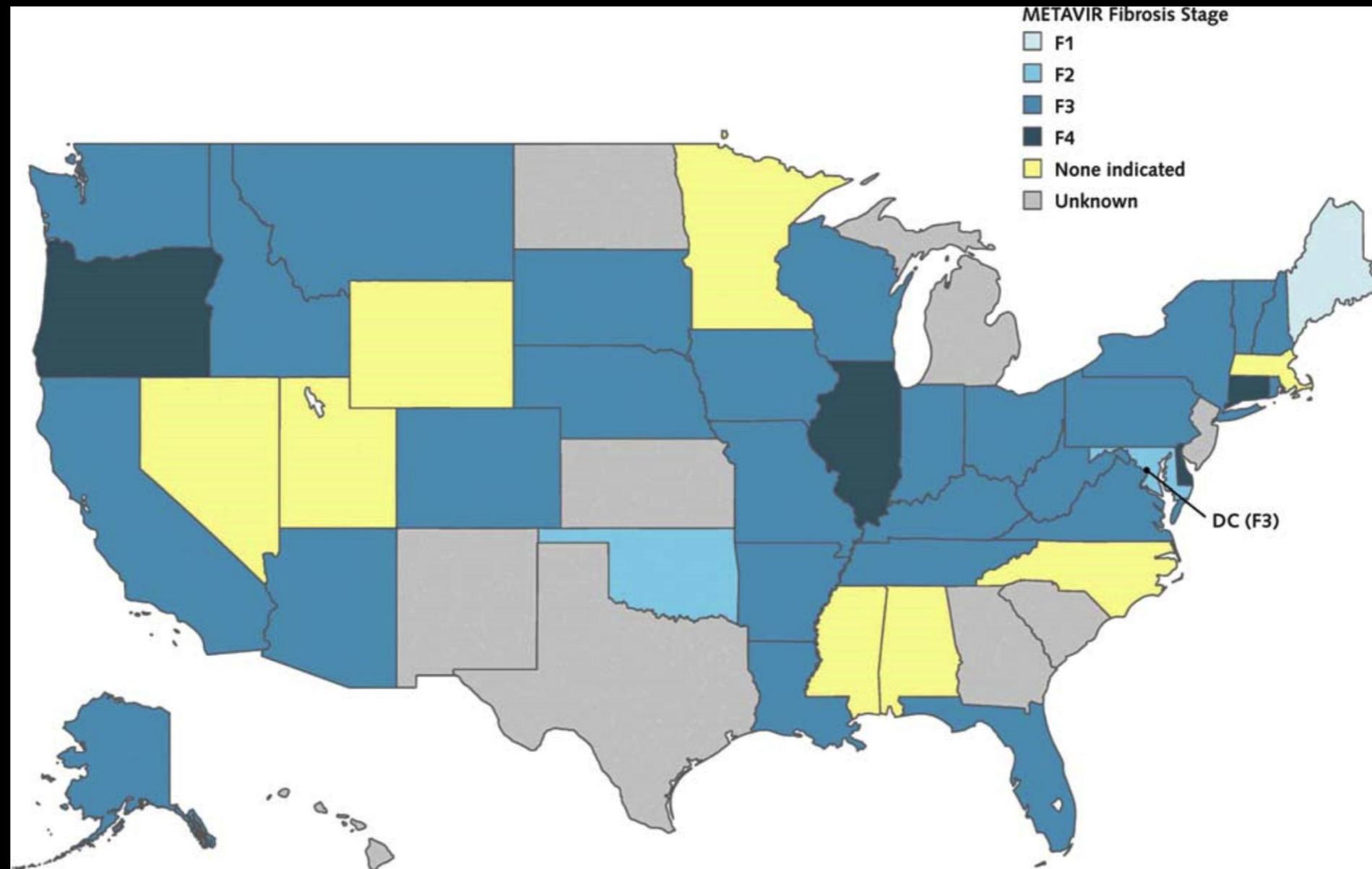
# Opportunities

- Competition— in provider markets and in insurance markets.
- Because of CHIA , encourage MassHealth and GIC to move to full risk-contracts including Rx.
- Explore moving MassHealth to a PBM managed formulary (perhaps better than bulk-purchasing?)
- Examine novel pricing arrangements with Massachusetts providers— drug licenses and drug-warranties.

# Cautions

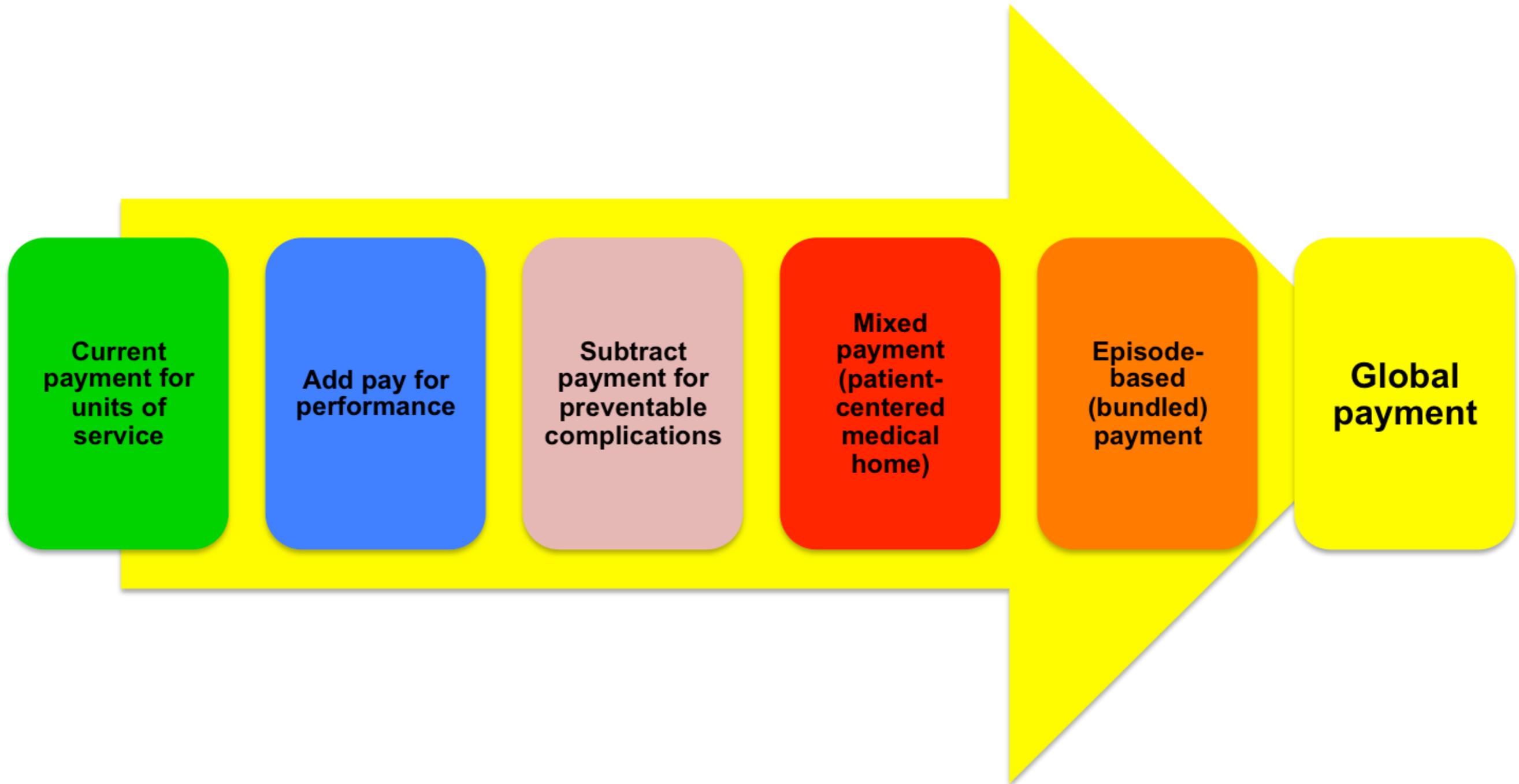


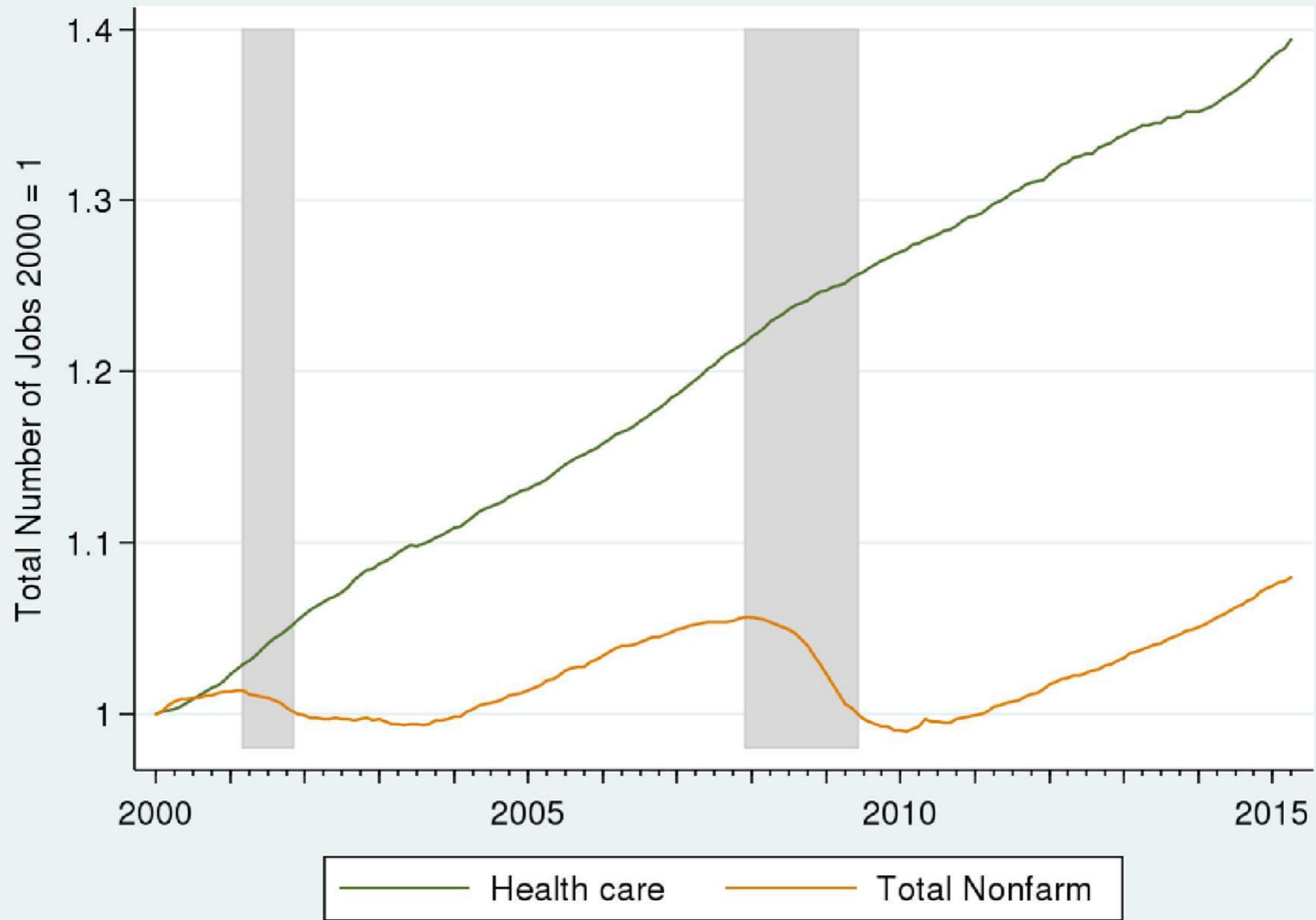
## Restrictions for Medicaid Reimbursement of Sofosbuvir for the Treatment of Hepatitis C Virus Infection



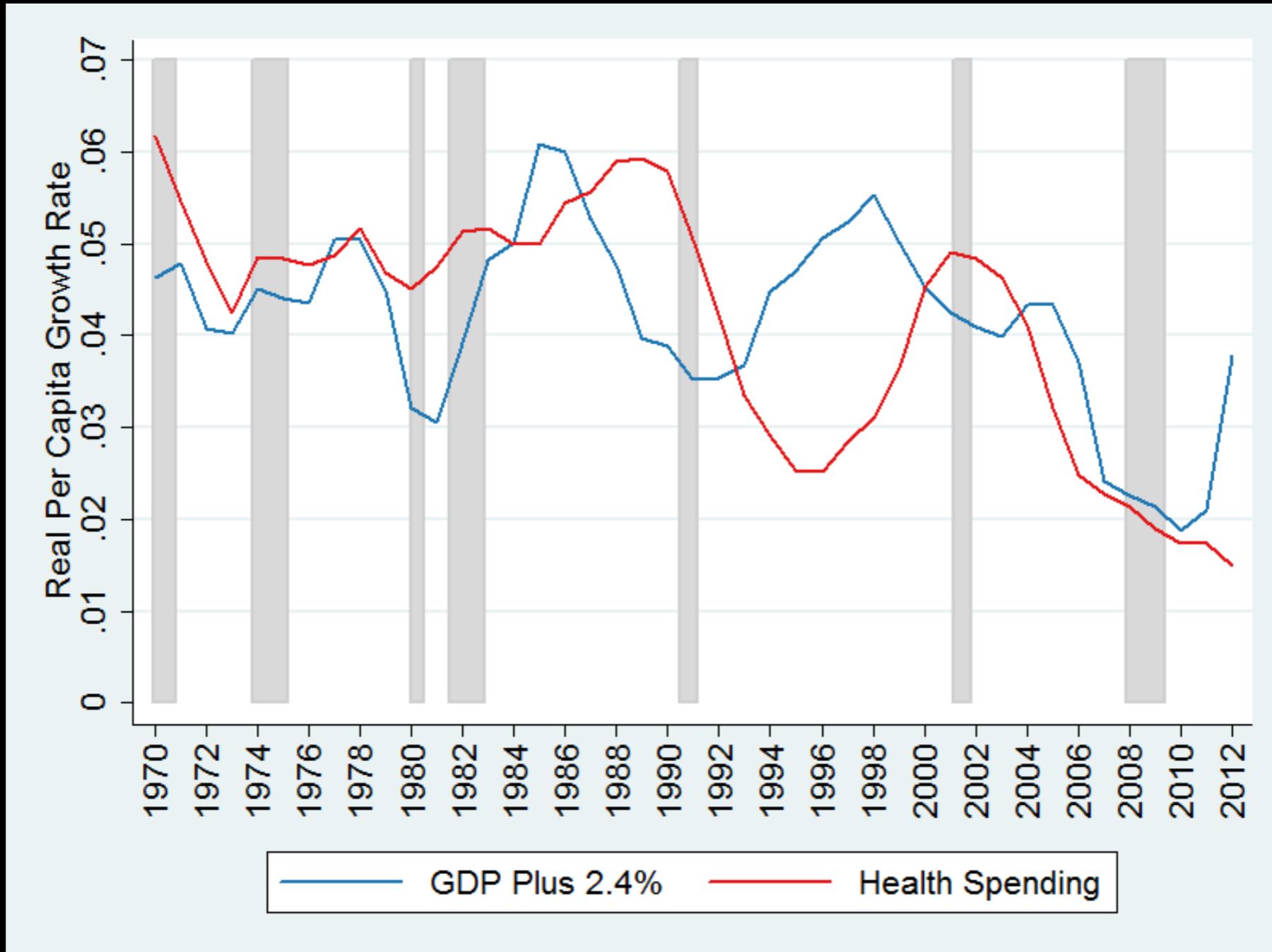


# Spectrum of provider payment





Healthcare Growth = GDP Growth + 2.4%



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Up Next: Panel One  
Challenges to the Health Care Cost Growth Benchmark

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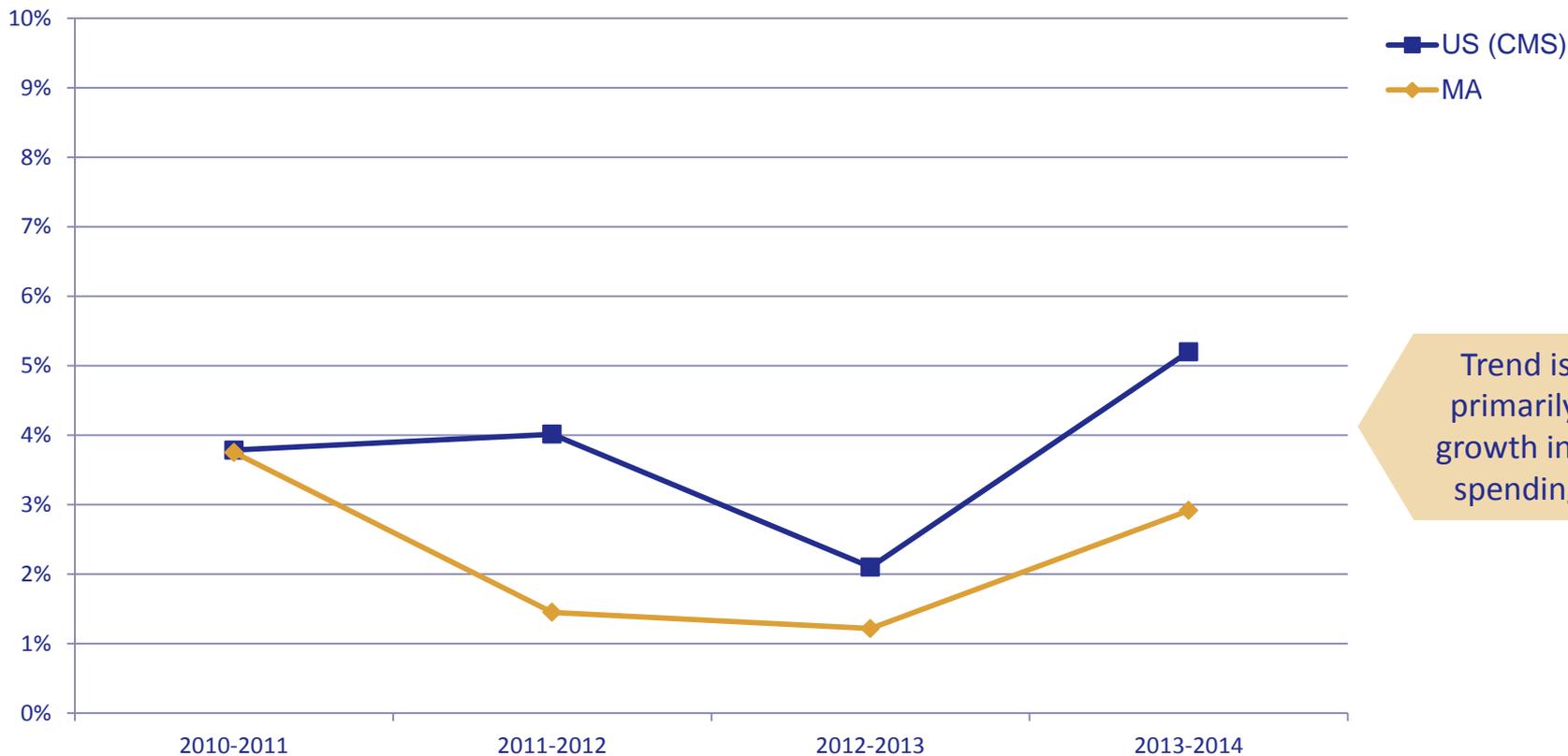


# Between 2013 and 2014, commercial per-person spending grew at 2.9 percent in MA, well below the growth rate in the nation as whole

## Panel One

Percentage growth in per member per year spending for commercial enrollees in Massachusetts and in the U.S., 2010 - 2013

### Annual per-Enrollee Spending Growth: All Commercial



Trend is driven primarily by low growth in hospital spending in MA

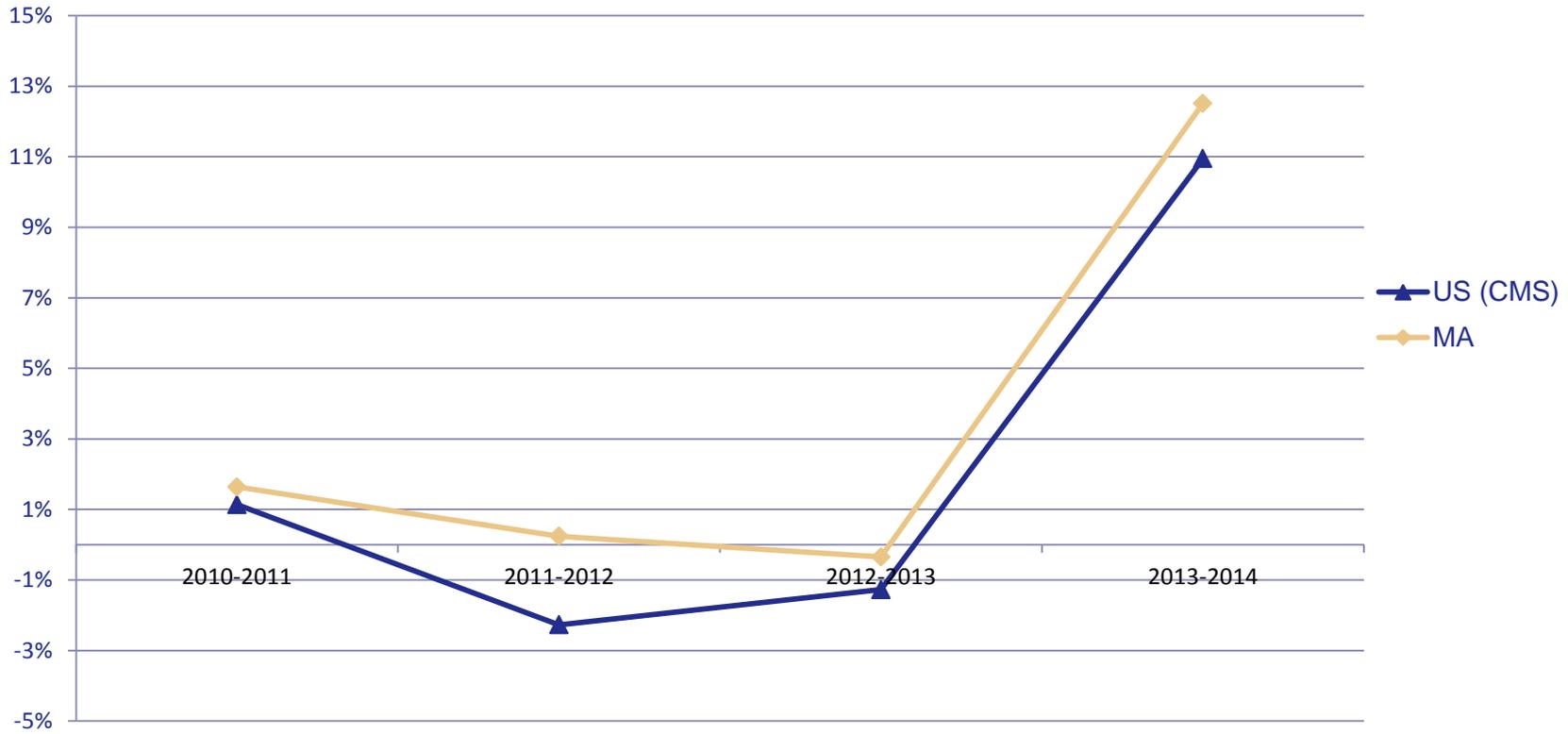
Massachusetts data are Total Medical Expenditures for commercial enrollees for which full claims data are available as reported by CHIA. US data are from the Private Health Insurance totals within the National Health Accounts series produced by the Center for Medicare and Medicaid Services (CMS).



# Massachusetts commercial spending on prescription drugs spending grew significantly in 2014, consistent with the national trend

Panel One

Annual per-Enrollee Spending Growth: Commercial Drug



Massachusetts data are Total totals Medical Expenditures for commercial enrollees for which full claims data are available as reported by CHIA. US data are from the Private Health Insurance within the National Health Accounts series produced by the Center for Medicare and Medicaid Services (CMS).



CONFIDENTIAL WORKING DRAFT – POLICY IN DEVELOPMENT

# Oncology remained MA's top therapy class in 2014 with non-HIV antivirals leading growth due to new Hepatitis C products

## Panel One

Top therapy classes by adjusted spending (millions) in Massachusetts

	2010	2011	2012	2013	2014
<b>1 Oncology</b>					
<i>Growth</i>		2.8%	11.2%	7.2%	12.3%
<i>Spending</i>	\$506.1	\$520.3	\$578.5	\$620.0	\$696.4
<b>2 Antiarthritics, Systemic</b>					
<i>Growth</i>		15.6%	19.7%	23.5%	28.4%
<i>Spending</i>	\$228.4	\$264.1	\$316.2	\$390.6	\$501.5
<b>3 Non-HIV Antivirals (mostly Hepatitis C)</b>					
<i>Growth</i>		37.7%	20.9%	-10.1%	352.3%
<i>Spending</i>	\$64.4	\$88.7	\$107.2	\$96.4	\$436.0
<b>4 Insulin</b>					
<i>Growth</i>		15.0%	29.1%	33.7%	19.8%
<i>Spending</i>	\$182.0	\$209.3	\$270.3	\$361.4	\$432.9
<b>5 Antipsychotics</b>					
<i>Growth</i>		13.5%	-28.4%	-15.6%	3.8%
<i>Spending</i>	\$499.7	\$567.1	\$405.9	\$342.5	\$355.4

Many top drug classes have substantial annual spending growth, although total spending in earlier years was offset by decreases in other drug classes, due to factors including generic entry



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Panel One

PANELISTS

Dr. Stephen Boswell, President and CEO, Fenway Community Health Center  
Mr. Normand Deschene, CEO, Lowell General Hospital/Wellforce  
Mr. Robert Coughlin, President and CEO, Massachusetts Biotechnology Council  
Mr. David Segal, President and CEO, Neighborhood Health Plan  
Mr. James Roosevelt Jr., CEO, Tufts Health Plan

KEY FOCUS AREAS

- 1 Meeting the Goals of Chapter 224
- 2 Pharmaceutical Spending and the Role of Innovation
- 3 Medicaid Spending Trends and Payment Reform



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Up Next: Presentation  
Health Policy Commission

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Scope of Practice and Cost-  
Effective Care Delivery in  
Massachusetts

October 5, 2015



## “Scope of Practice” laws

- Define legal boundaries and operational restrictions on practice for some categories of health care providers – particularly where training and practice overlap with other providers, e.g.,
    - Nurse Practitioners
    - Nurse Anesthetists
    - Dental Hygienists
    - Optometrists
    - Psychologists
- } Advanced-Practice Registered Nurses (APRNs\*)
- Scope of Practice laws are the purview of state legislatures and aim to balance concerns of safety, access, costs and competition



# Scope of Practice laws concerning Advanced Practice Registered Nurses

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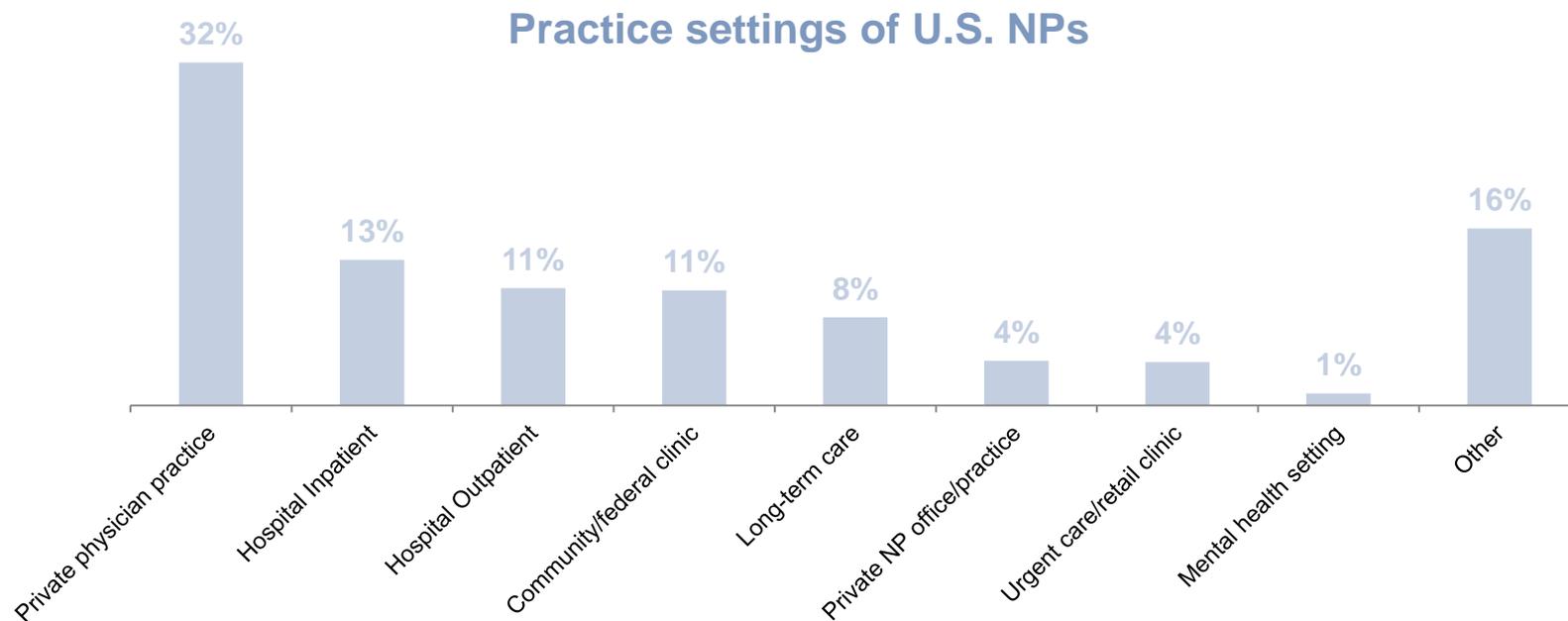
- Generally take the form of limitations on practice authority
- State legislatures and researchers have been reassessing the evidence base concerning these laws
- Massachusetts has among the most restrictive laws in the nation
- By preventing providers from practicing to the full extent of their licenses and training, these laws may represent an unnecessary barrier to cost-effective care

Kaiser Health News: Nurse Practitioners Try New Tack To Expand Foothold In Primary Care, Sept 8, 2013: <http://khn.org/news/nurse-primary-care-slowed-by-insurer-credentialing/>



## Nurse Practitioner practice characteristics (U.S., 2012)

- NPs are Advanced Practice Registered Nurses (APRNs) who have completed a Master's or Doctorate with required clinical hours and passed a national certification exam
- There are 127,000 NPs in patient care in the US; 60,000 in primary care; ~5,000 in MA
- Median earnings (NPs in patient care): \$87,000
- 89% work in settings with a physician on site
- Medicare pays 85% of the physician fee; other payers vary from ~75-100%



Chattopadhyay, Arpita, George A. Zangaro, and Kathleen M. White. "Practice Patterns and Characteristics of Nurse Practitioners in the United States: Results From the 2012 National Sample Survey of Nurse Practitioners." *The Journal for Nurse Practitioners* 11.2 (2015):. MA data from the Department of Public Health



## NPs provide high quality care

Quality and outcomes of care provided by NPs relative to that provided by primary care physicians:  
literature review, 1980-2008

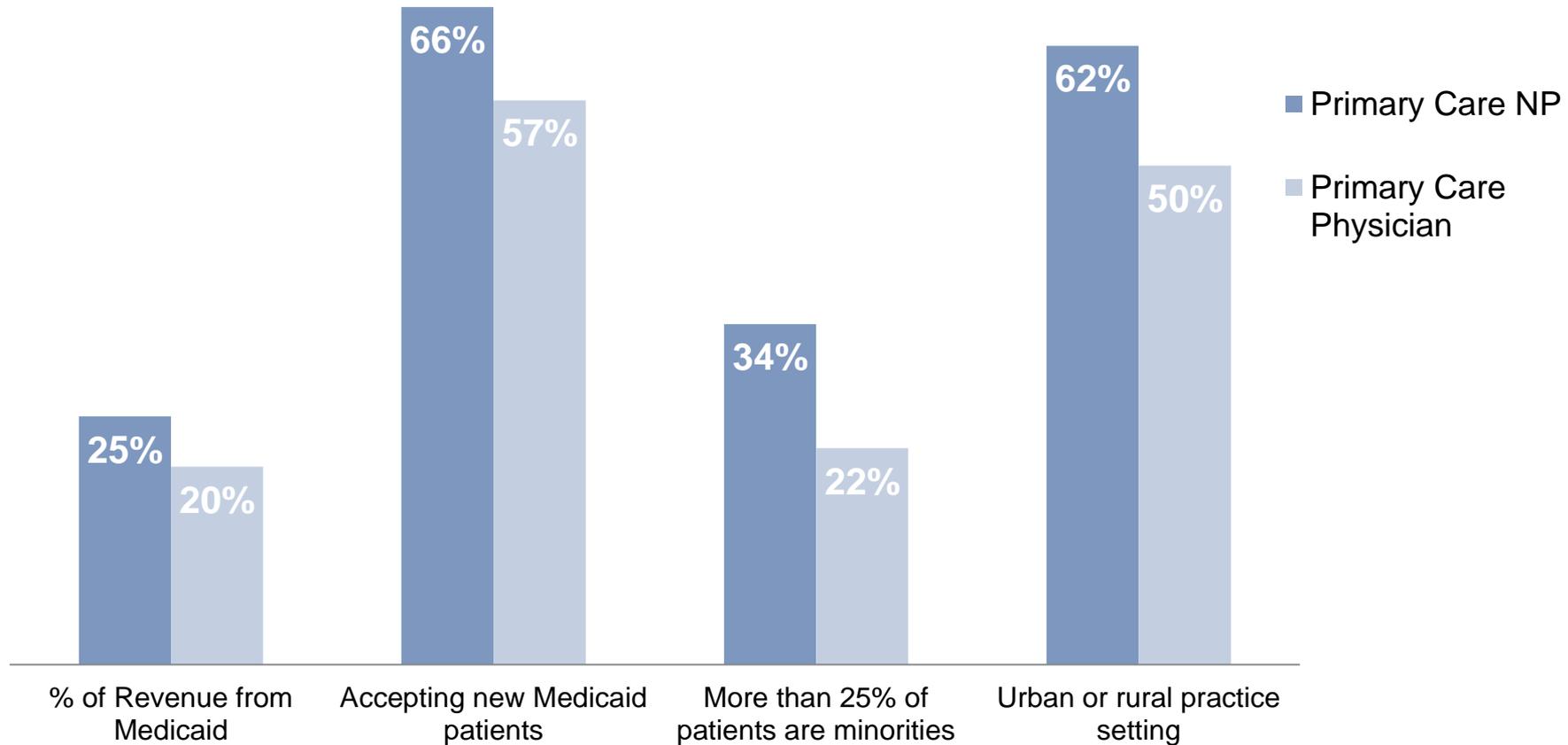
Outcome	# of studies	Result
Patient Satisfaction	6 (4 RCTs)	Equivalent
Self-reported health status	7 (5 RCTs)	Equivalent
Functional Status	10 (6 RCTs)	Equivalent
Glucose Control	5 (5 RCTs)	Equivalent or favoring NPs
Lipid control	3 (3 RCTs)	Favoring NPs
Blood Pressure	4 (4 RCTs)	Equivalent
ED/urgent care visits	5 (3 RCTs)	Equivalent
Hospitalization	11 (3 RCTs)	Equivalent
Mortality	8 (1 RCT)	Equivalent

Newhouse, Robin P., et al. "Advanced practice nurse outcomes 1990-2008: a systematic review." *Nursing Economics* 29.5 (2011): 1-21. Only study outcomes reported with 'high' confidence shown.



# NPs are more likely than physicians to treat vulnerable populations

Survey of ~2,000 primary care physicians and primary care nurse practitioners; 61% response rate



Buerhaus, Peter I., et al. "Practice characteristics of primary care nurse practitioners and physicians." *Nursing outlook* 63.2 (2015): 144-153.



# Costs of care provided by NPs are generally lower

## Prominent findings from the literature

- Direct costs of primary care visits
  - Lower labor costs in Kaiser system for visits to NPs or PAs (Roblin et al., 2004)
  - ~35% lower visits costs in Massachusetts (RAND, 2009)
- Total costs including subsequent care
  - Higher resource use in 3 categories among 150 VA patients randomized to providers (Hemani et al, 1999)
  - Lower costs (Medicare Part B; 29% lower, Medicare Part A; 11% lower) among ~600,000 Medicare beneficiaries (Perloff et al., 2015) with NPs as their PCP

Perloff, DesRoches, Buerhaus et al., Forthcoming in *Health Services Research*, 2015

Hemani, Alnoor, et al. "A comparison of resource utilization in nurse practitioners and physicians." *Effective clinical practice: ECP* 2.6 (1998): 258-265.

Hussey, Peter S., M. Susan Ridgely, and Elizabeth A. McGlynn. *Controlling health care spending in Massachusetts: an analysis of options*. RAND, 2009.

Roblin, Douglas W., et al. "Use of midlevel practitioners to achieve labor cost savings in the primary care practice of an MCO." *Health services research* 39.3 (2004): 607-626.



# Types of Scope of Practice laws governing Nurse Practitioners

- Requirements to maintain a collaborative agreement with a physician\* to:
  - Prescribe drugs
  - Provide care
- Requirements to practice within some distance from the collaborating physician
- Requirements to follow certain treatment protocols
- Inability to sign death and disability forms
- Required approval by the State Board of Medicine for implementation of new practice authority

*\*Nurse Practitioners often pay physicians on the order of several hundred to several thousand dollars per month under these agreements*

Comment from FTC Staff to the Hon. Thomas P. Willmott & Hon. Patrick C. Williams, La. House of Representatives (Apr. 20, 2012), <http://www.ftc.gov/os/2012/04/120425louisianastaffcomment.pdf> [hereinafter FTC Staff Louisiana APRN Comment].



# Independent bodies have recommended easing or removing of practice restrictions

## Selected findings from the Federal Trade Commission (2014) Staff Paper

- Collaboration and professional oversight among NPs and physicians are the norm, whether required or not
- No evidence of harm or risks from APRN prescribing
- Supervision requirements may “constrain [providers] in their ability to develop and implement more variable or flexible models of team-based care, consultation, and oversight, according to patient needs and institutional needs and resources.”
- “Physician supervision requirements may raise competition concerns because they effectively give one group of health care professionals the ability to restrict access to the market by another, competing group of health care professionals, thereby denying health care consumers the benefits of greater competition.”

"FTC Staff Paper: State Legislators Should Carefully Evaluate Proposals to Limit Advanced Practice Registered Nurses' Scope of Practice." Policy 202 (2014): 326-3136.

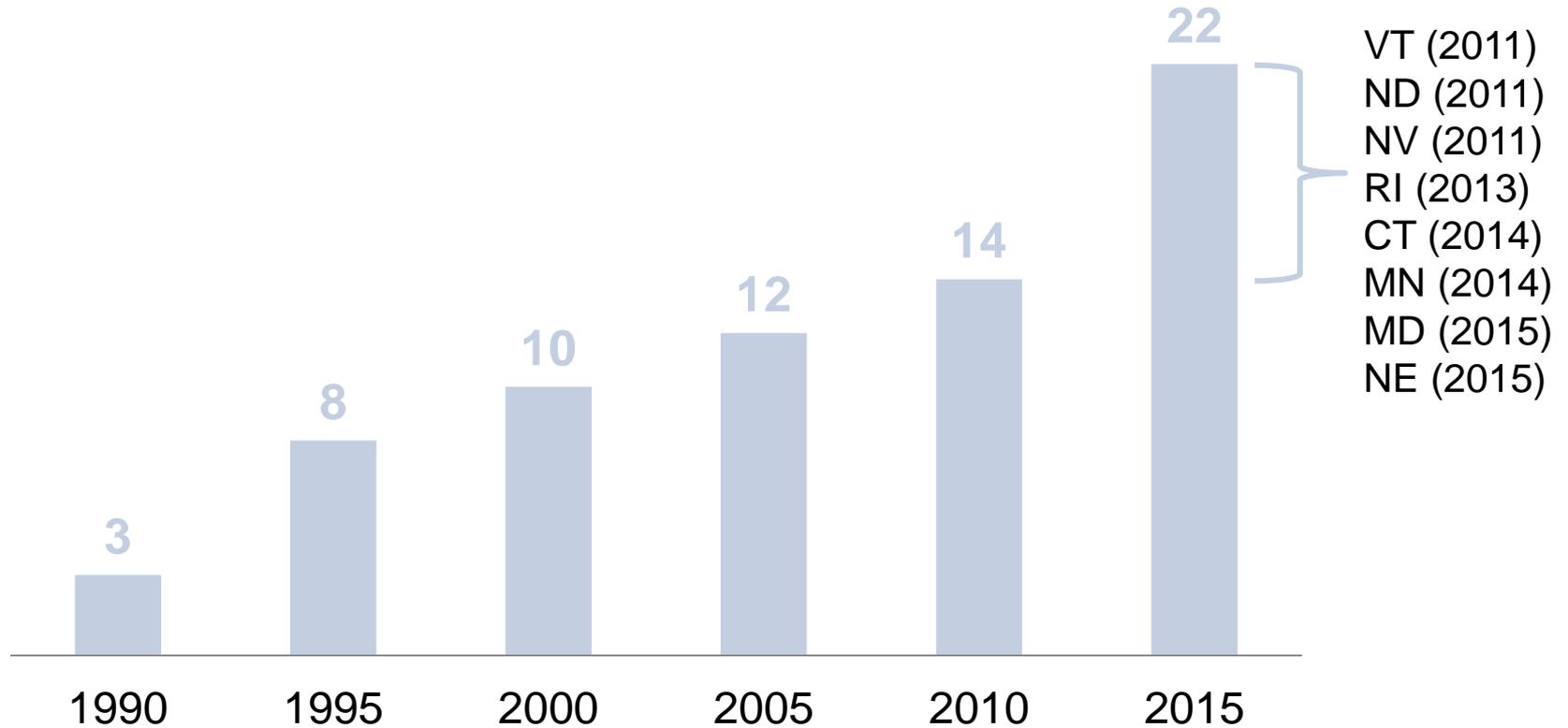
Institute of Medicine (US). Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing. The future of nursing: Leading change, advancing health. National Academies Press, 2011.

National Governors Association, and National Governors Association. "The role of nurse practitioners in meeting increasing demand for primary care." Washington, DC: National Governors Association (2012).



# States have increasingly removed these restrictions

Number of states that allow full practice authority for nurse practitioners



Source: RWJF and AARP: <http://campaignforaction.org/resource/state-progress-removing-barriers-practice-and-care> and Traczynski and Udalova, "Nurse Practitioner Independence, Health Care Utilization, and Health Outcomes, Working Paper, May 4, 2014



## Despite incremental changes in 2008, 2010 and 2012, Massachusetts remains a restrictive state

Restriction	Year removed/ still in place
NP recognized as PCP that patients can choose	2008
Systems and plans can't refuse to contract with entire categories of providers	2010
Ability to sign death and disability forms	2012
Requirements to follow treatment guidelines established by physicians	Still in place
Required approval by the Board of Medicine for implementation of new practice authority on the part of NPs or other APRNs:	Still in place
Requirements to maintain a collaborative agreement with a physician to prescribe drugs	Still in place





# What would be the impact of removal of restrictions in Massachusetts?

## Key findings from the literature

- Impacts on health care system (RAND, 2015)
  - **Access:** likely increase
    - Research finds 2% increase in office visits and reports of more timely and convenient preventive care
  - **Quality and outcomes:** possible increase
    - Data suggest possible improvements in self-reported health and fewer ambulatory-sensitive ED visits
  - **Total spending:** ambiguous
    - Decreased prices and payments from NPs to physicians; increased spending due to more visits
  
- Impact on supply of NPs (Kalist and Spurr, 2004)
  - 30% higher supply of APRNs in states without restricted practice

Martsof, Grant R., David I. Auerbach, and Aziza Arifkhanova. "The Impact of Full Practice Authority for Nurse Practitioners and Other Advanced Practice Registered Nurses in Ohio." (2015).

Kalist, David E., and Stephen J. Spurr. "The effect of state laws on the supply of advanced practice nurses." *International Journal of Health Care Finance and Economics* 4.4 (2004): 271-281.



## Impact of removal of restrictions (cont'd)

### Case study from Massachusetts (2013)

- Avoided gaps and disruption of care
  - A Massachusetts private behavioral health clinic staffed with one psychiatrist, 10 APRNs, 3 psychologists and 6 social workers provided care and medication management to more than 1,000 high-needs patients with disorders such as ADHD, bipolar disorder and schizophrenia.
  - The psychiatrist was abruptly terminated – causing an immediate halt to care provision by the APRNs until the practice could find a new physician willing to sign a collaborative agreement.
  - In the two month-gap in care that ensued, many patients had to visit emergency departments to obtain necessary medication.



## Summary

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- Scope of Practice laws in Massachusetts bear further consideration
- As noted by a Federal Trade Commission Comment on a Massachusetts bill to remove practice restrictions for APRNs (2014)
  - “If APRNs are better able to practice to the extent of their education, training, and abilities, and if institutional health care providers are better able to deploy APRNs as needed, Massachusetts health care consumers are likely to benefit from lower costs, additional innovation, and improved access to health care.”



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Up Next: Panel Two  
Care Delivery Transformation and innovation

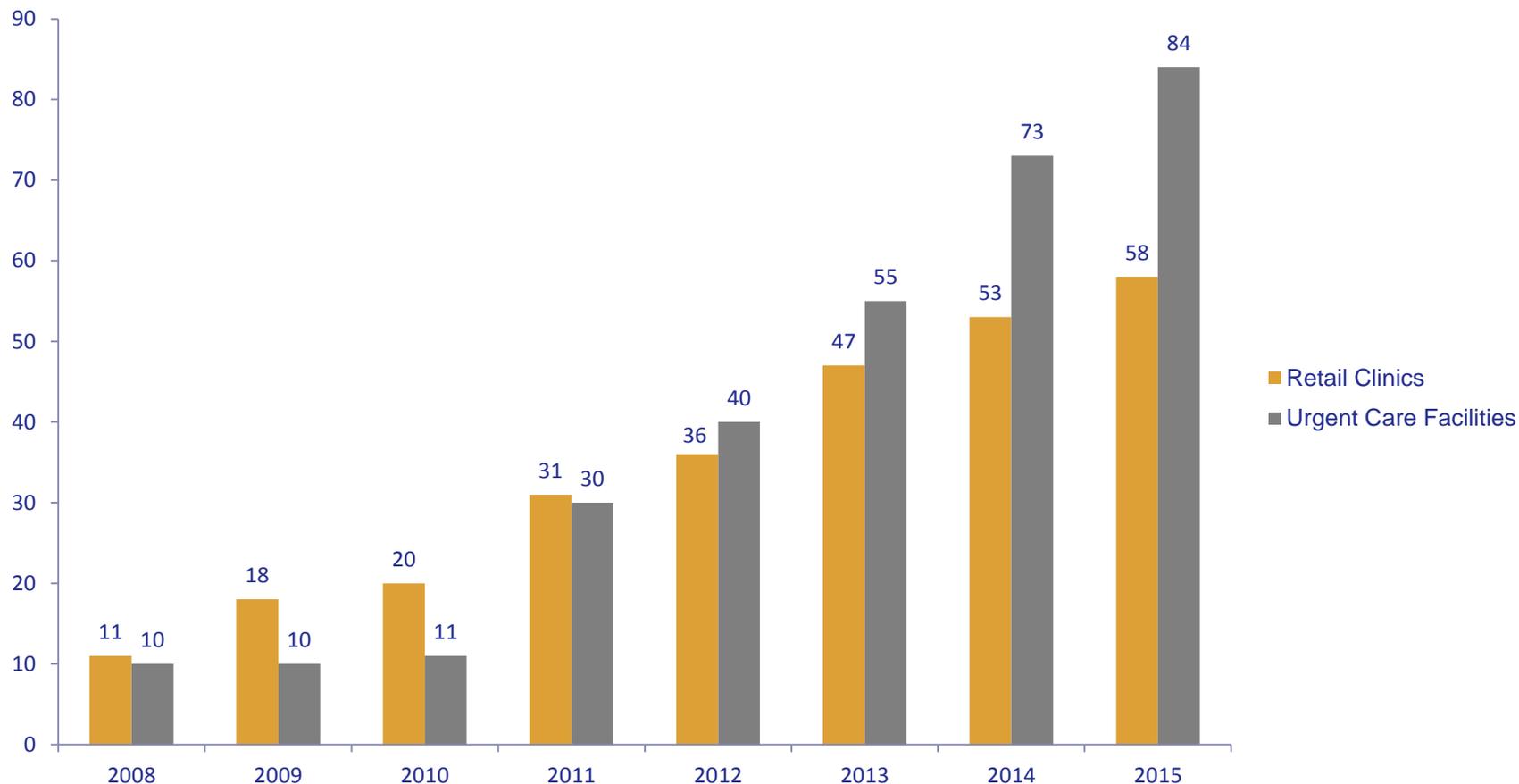
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# The number of retail clinics and urgent care centers has surged over the last 8 years in Massachusetts.

## Panel Two

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Retail clinics, located in retail stores, are typically staffed by nurse practitioners and treat a limited range of health conditions, such as minor infections and injuries. Annual data from CVS. Urgent care centers typically are freestanding physicians' offices with extended hours; on-site x-ray machines and laboratory testing; and an expanded treatment range, including care for fractures and lacerations. Annual data from NPI Registry.



# Characteristics of ED use among Massachusetts residents in 2014, %

## Panel Two

Among Emergency Department (ED) visits in the past 12 months

38.7%



Of recent ED visits were for a non-emergency condition



60.3%

Of recent emergency room visits were unable to get an appointment at a doctor's office or clinic as soon as needed

76.1%

Of recent emergency room visits was for care after normal operating hours at the doctor's office or clinic



ED utilization in MA is higher than US

Note: A non-emergency condition is one that the respondent thought could have been treated by a regular doctor if one had been available.

Source: 2014 Massachusetts Health Insurance Survey



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Panel Two

PANELISTS

Mr. Barry Bock, CEO, Boston Health Care for the Homeless Program

Mr. Shaun Ginter, President and CEO, CareWell Urgent Care

Dr. Robert Master, CEO, Commonwealth Care Alliance

Dr. Nancy Gagliano, Chief Medical Officer, CVS Minute Clinic

Ms. Christine Schuster, President and CEO, Emerson Hospital

Dr. Timothy Ferris, SVP, Population Health Management, Partners HealthCare System

KEY FOCUS AREAS

- 1 Retail Clinics and Urgent Care Centers
- 2 Innovative Care Delivery Models: Opportunities and Challenges
- 3 Role of NPs and Scope of Practice



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Up Next: Panel Three  
Value-Based Payment Reform: Progress and Opportunities

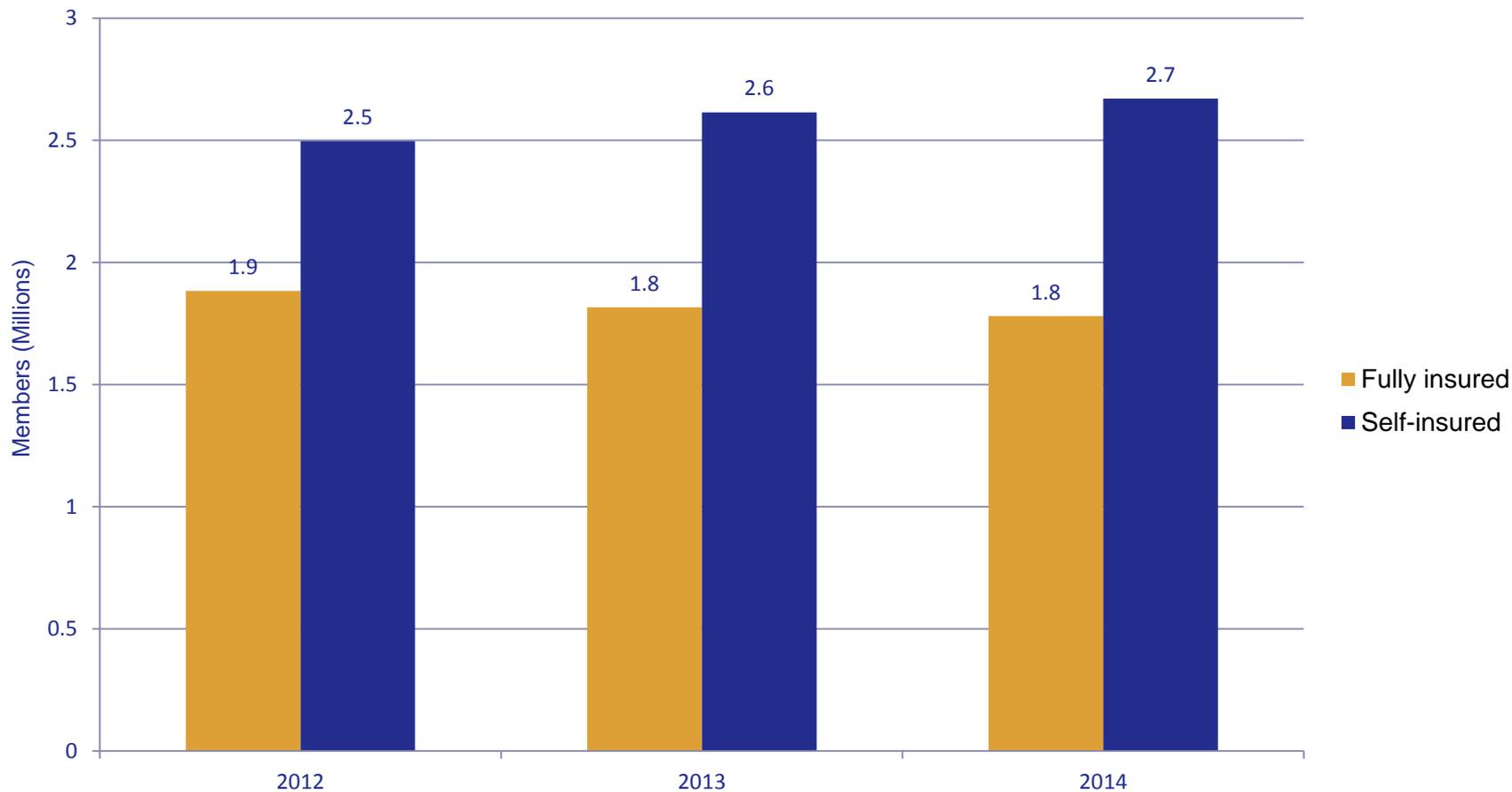
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# Trend One affecting the commercial market: Increasing self-insured membership

## Panel Three

Declining enrollment in fully-insured plans. In today's market, APMs are mainly used within HMO-type plans.



CONFIDENTIAL WORKING DRAFT – POLICY IN DEVELOPMENT



Source: Center for Health Information and Analysis 2015 Annual Report

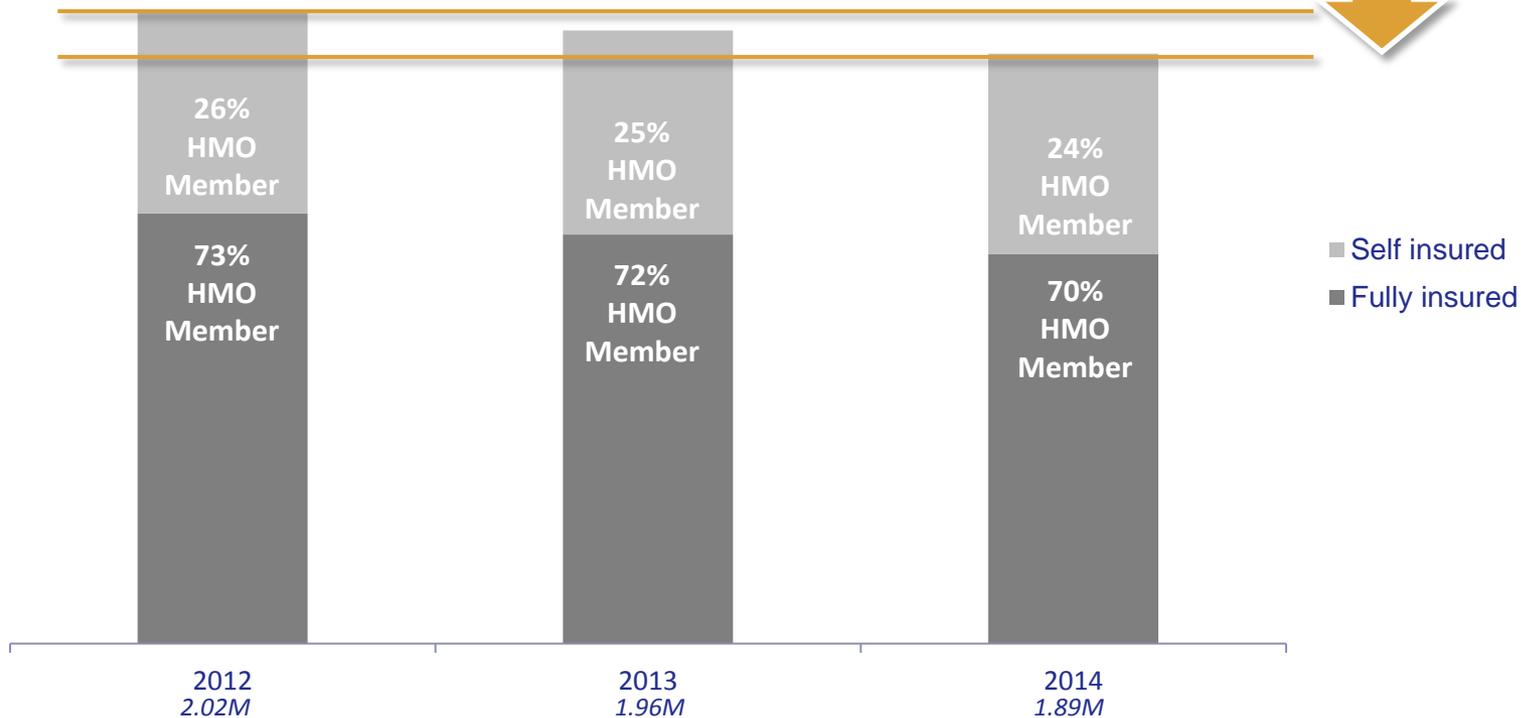
# HPC Selected Findings: Trend Two affecting the commercial market: Declining HMO membership

## Panel Three

Declining enrollment in HMOs. In today's market, APMs are mainly used within HMO-type plans.

HMO Membership

-3.8%



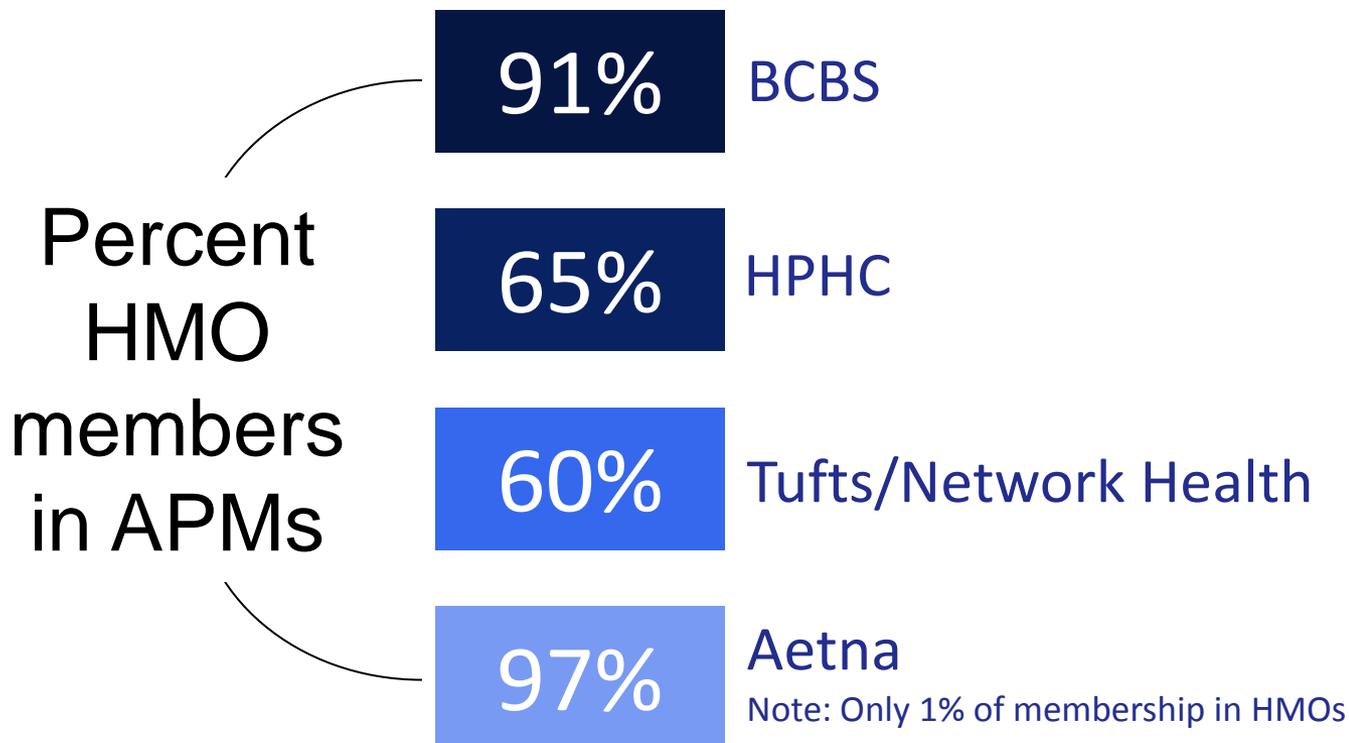
CONFIDENTIAL WORKING DRAFT – POLICY IN DEVELOPMENT



Source: Center for Health Information and Analysis 2015 Annual Report

# All major commercial plans have a substantial proportion of HMO members in APMs

Panel Three



CONFIDENTIAL WORKING DRAFT – POLICY IN DEVELOPMENT

Source: CHIA, analyzed by HPC. Sept. 2014.

HP HC includes data from Health Plans, Inc.

Other includes Health New England, Fallon, Cigna, Aetna, and other plan



## Providers testified that standardizing APM elements would allow ability to scale care delivery redesign, also express interest in MassHealth APMs

### Panel Three

#### Standardization of APMs

- **Many varying quality measures** increase administrative burden, but allow for tailoring to providers' improvement needs and specific populations served.
- **Hard to hold their own providers accountable if attribution methodologies vary** across contracts
- **Hard to coordinate between providers under very different financial incentives and budget models** (both FFS and various APMs), making it difficult to achieve care delivery transformation intended by each APM contract

#### Effectiveness of APMs

- Reports of performance on quality measures are not timely or standardized for easy comparison and thus, not actionable
- Challenge of operating in two worlds of FFS and APMs
- Financial data not timely at all and providers experience volatility in data as claims run out occurs - making it hard to manage
- Challenge of engaging hospitals, specialists and post-acute providers, specifically

#### Interest in MassHealth and PPO APMs

- Nearly all providers noted eagerness to participate in an APM offered by MassHealth
- Concern about risk adjustment methodology not accounting for challenges of MassHealth population and social needs.
- Larger providers also noted interest in PPO payment reform, although stated concerns about validity and variety of attribution methodologies and distribution of surplus to self-insured accounts.
- Challenge of care management without a PCP

Source: Pre-Filed Testimony, Sept. 2015.



COMMONWEALTH OF MASSACHUSETTS  
HEALTH POLICY COMMISSION

Panel Three

PANELISTS

Mr. Mark Santos, President, New England Market, Aetna Health Plan  
Dr. Mark Keroack, President and CEO, Baystate Health  
Mr. Andrew Dreyfus, CEO, Blue Cross Blue Shield of Massachusetts  
Ms. Kate Walsh, President and CEO, Boston Medical Center  
Dr. Barbara Spivak, President, Mount Auburn Cambridge IPA

KEY FOCUS AREAS

- 1 Extending Payment Reform to New Populations, Providers, and Products
- 2 Enhancing the Effectiveness of Payment Reform
- 3 Promoting Equitable and Aligned Payment Reform

