



***Value-based Payment  
Systems to Incentivize Health  
Care Delivery***

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# Why link healthcare delivery and payment systems?

- Integrated care is the 21<sup>st</sup> Century effort to meet the needs of infectious, non-communicable and chronic illness – the trifecta of health challenges in LMICs
- To achieve that shift and to bolster the quality of primary care
  - financing must align with those objectives and,
  - the payment systems must provide the incentives to drive new behaviors and processes

What are payment systems?

# Payment systems are simply the way health providers are paid

-- and they have profound impacts on how providers behave

- The major rationale for separating payment and provision is to allow payers – governments, social insurers, private insurers – to reward good performance and penalize poor performance → it can raise overall performance and quality in health care
- However, payment systems are necessary but not sufficient for raising provider performance

# What are payment systems in healthcare?

- Payment systems are provider payment mechanisms (PPM) that transfer funds from the purchasers of healthcare services – Ministries of Health, social insurance funds, other public or private sources of funds -- to the providers, hospitals, clinics, physicians, nurses, other medical staff
- They are fundamental to the operation of healthcare services

# PPMs are more than a way to transfer funds

- They are key to achieving government objectives in healthcare
- PPM are the most important leverage purchasers have in shaping health care delivery → because they have a profound impact on the behavior of managers, physicians and other staff
- Thus PPMs are important in affecting volume, quality and efficiency of services

# Financing is not just about transfer of funds

- Financing changes behavior of providers and patients
- Ample evidence shows that explicit and implicit incentives in payment arrangements affect provider and patient behaviors
- Proper payment incentives influences efficiency and quality in healthcare delivery
- Integrating financing and delivery offers an opportunity to influence processes and outcomes – and ensure harnessing of incentives for healthcare objectives

# Value based payment and integrated care

# Driving change in healthcare

Payment system –  
value-based payment

a strategy to promote quality and value of health care services by shifting from volume based payments to payments tied to outcomes

(Michael Porter 2009)

# Value-based health care delivery - - key concepts

- Value = patient health outcomes per dollar spent
- Goal is:
  - Value for patients, not just access
  - Cost containment,
  - Convenience
  - Customer service
- Choice and competition to encourage continuous improvement across providers

# Porter's choice and competition to encourage continuous improvement in value and restructuring of care

- Integrate systems of care – integrated care
- Create integrated practice units – coordinate care
- Measure outcomes – generate data
- Measure costs – know relative costs
- Bundled prices rather than FFS -- targeted payment system
- Build an enabling information technology platform – data systems to track progress and manage the system

Michael Porter, 2009

# Driving value based care → designs incentives and uses data to achieve results

- Payment systems designed to change behaviors to enhance quality and efficiency
- Different payment arrangements are appropriate for different purposes
- Effective use of payment systems requires:
  - Data
  - Policy and program engagement to design incentives and monitor impacts

# Traditional payment systems have limited leverage to improve outcomes

- Common payment arrangements in public systems do not design incentives for productivity or quality:
  - Salary
  - Capitation
  - Fee for service
  - Line item budget
- They drive up volume rather than value

# Traditional payment systems limit ability to manage healthcare

- No data on allocation of spending, so hard to know how funds are used and the impact of the payments
- No connection between level of payment and performance
- Limits ability to hold individuals or institutions to account for performance
  - no data and no accountability, that is, consequences for performance

# Value –based care needs alternative payment systems

- New payment models geared to producing quality and value
- Entail more oversight from payers
- Require clear incentives for providers
- Need to equip providers to respond to incentives in payment systems
- Payers must be reliable

# New payment systems and value-based care

# New payment systems align with value-based care

- Global budgets with autonomy and accountability
- Capitation with autonomy and accountability
- Diagnostic related groups (DRGs)
- Bundled payments
- Pay for performance (P4P)
- Shared savings
- Accountable Care Organizations (ACOs)

# Each payment system has different approach and confronts different issues

- Some are more complicated
- Others are effective but hard to use
- Autonomy of providers central to new payment models
- Role of data is key in all of them
- Accountability – that is, holding providers to account for their performance, is integral to the design

# Global capitation with autonomy and accountability

| Definition   | Issues   | Objective  |
|--|--|--|
| <ul style="list-style-type: none"><li>• Fixed prospective payment to an integrated care entity to cover all patient services for a defined population over a specified time period. Payment adjusted for gender, age, income and location</li><li>• Provider has autonomy in structuring and delivering services</li><li>• Provider is held to account for performance</li></ul> | <ul style="list-style-type: none"><li>• Requires data to track activity, performance and outcomes</li><li>• Requires management to assess data, compare performances, administer rewards and penalties</li><li>• Performance and outcome goals defined in advance</li><li>• Payer must be consistent over time and providers</li></ul> | <p>Encourage use of primary care, promote wellness, reduce costs, improve quality.</p> <p>Autonomy provides incentive to innovate and provides tools to meet goals</p> |

# Global budgets with autonomy and accountability

| Definition   | Issues  | Objective   |
|--|---|---|
| <ul style="list-style-type: none"><li>• Defined annual or bi-annual payment for full service provision by health provider, often for hospitals</li><li>• Provider has autonomy in structuring and delivering services</li><li>• Performance and outcome goals defined</li><li>• Data tracks volume, value and outcomes</li><li>• Provider is held to account for performance</li></ul> | <ul style="list-style-type: none"><li>• Requires data to track activity, performance and outcomes</li><li>• Requires management to assess data, compare performances, administer rewards and penalties</li><li>• Payer must be consistent over time and providers</li></ul> | <p>Encourage use of primary care, promote wellness, reduce costs, improve quality. Autonomy provides incentive to innovate and provides tools to meet goals</p> |

# Diagnostic related groups (DRGs)

| Definition  | Issues   | Objectives   |
|---|--|--|
| <ul style="list-style-type: none"><li>• A “case rate” payment (i.e. care associated with a particular condition or procedure) to hospitals based on expected cost of inpatient treatment</li><li>• Predetermined amount for hospitalization for specific diagnosis based on primary and secondary diagnoses</li></ul> | <ul style="list-style-type: none"><li>• Complicated system for defining payment by diagnoses based on ICD-10 codes</li><li>• Detailed data systems for tracking activity – also useful for monitoring provider activities</li><li>• Provider data systems parallel payer systems</li></ul> | <ul style="list-style-type: none"><li>• Incentives for hospital efficiency</li><li>• Provides a tool for monitoring hospital activity and tracking allocation of costs</li></ul> |

# Bundled payments

| Definition  | Issues   | Objective  |
|---|--|--|
| <ul style="list-style-type: none"><li>• Predetermined, risk adjusted payment for full cost of treatment over the entire care cycle of a clinical episode, encompassing hospital and outpatient services</li><li>• Following of clinical protocols embedded in process</li><li>• Provider is held to account for performance</li></ul> | <ul style="list-style-type: none"><li>• Need to define the full set of inpatient and outpatient needs and determine the associated costs to set prices for each bundled service</li><li>• Need to monitor the process to ensure compliance</li></ul> | <ul style="list-style-type: none"><li>• Encourages integrated, higher quality care with better patient support</li><li>• Greater efficiency in treatment lead to savings</li></ul> |

# Pay for performance (P4P)

| Definition  | Issues   | Objective   |
|---|--|---|
| <ul style="list-style-type: none"><li>• Bonus or supplemental payments for hospitals, physician groups or health care team that reward meeting of defined performance standards</li></ul> | <ul style="list-style-type: none"><li>• Requires data to track activity, performance and outcomes</li><li>• Requires management to assess data, compare performances, administer rewards and penalties</li></ul> | <ul style="list-style-type: none"><li>• Encourages achieving specific goals for medical team or group of providers.</li><li>• Goals can be processes, outputs or outcomes</li></ul> |

# “Shared savings” – sharing of cost savings

| Definition  | Issues  | Objective   |
|---|---|---|
| <ul style="list-style-type: none"><li>• Payment in which provider or provider organizations share cost savings with the payer; savings are generated when actual spending for a defined population is below a target amount</li><li>• Payers often provide assistance and funding to initiate efficiency change</li></ul> | <ul style="list-style-type: none"><li>• Requires data to track costs, and efficiency or savings</li><li>• Requires management to assess data, and manage the allocation of savings</li><li>• Often achieved by physician groups or health care teams with new delivery arrangements</li></ul> | <ul style="list-style-type: none"><li>• Encourages improved care for patients including managing high risk conditions</li><li>• Offers physicians and healthcare teams tools to improve efficiency and care</li></ul> |

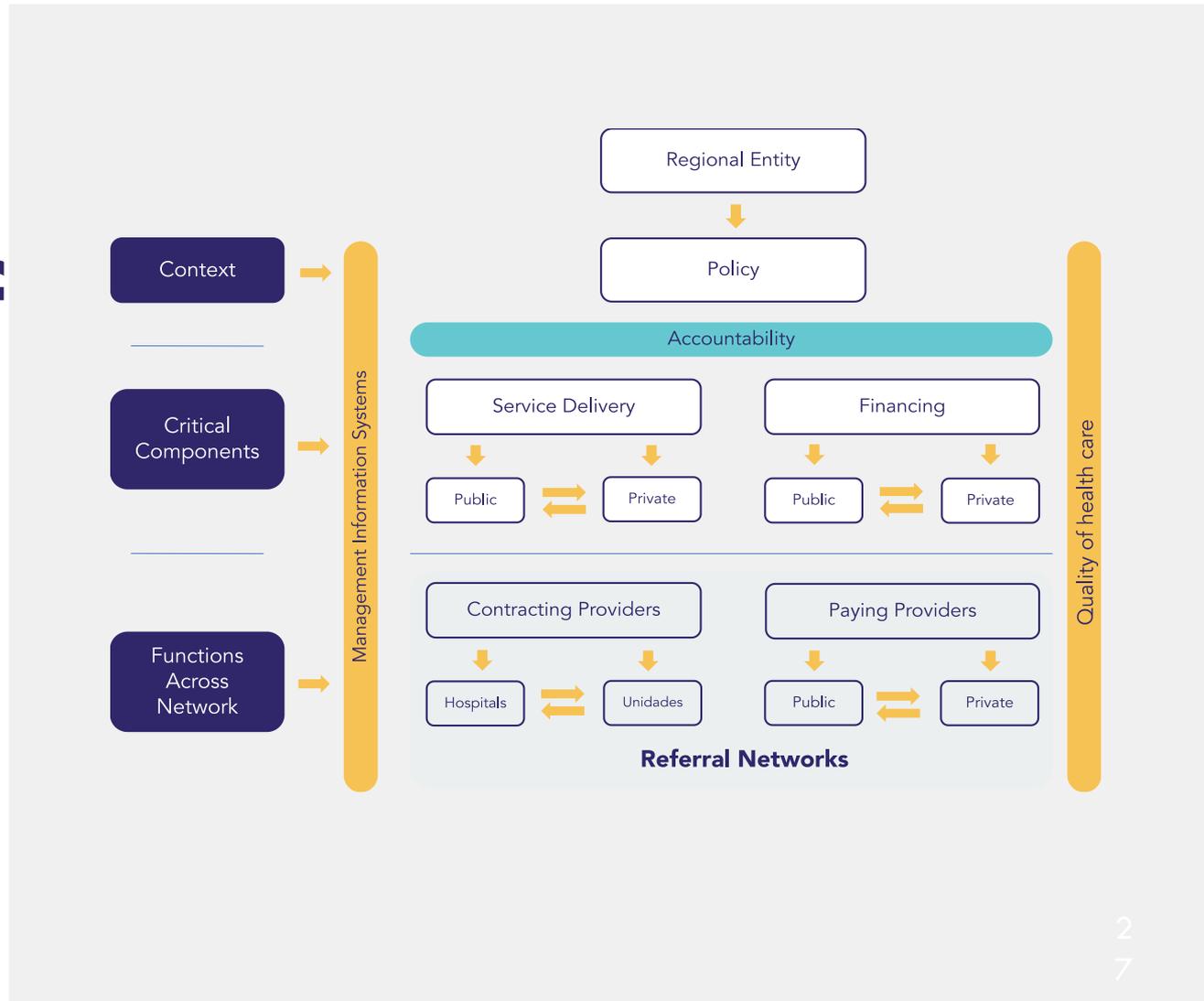
# Accountable Care Organizations (ACOs)

| Definition  | Issues   | Objective  |
|---|--|--|
| <ul style="list-style-type: none"><li>• An organizational and financing arrangement that relies on different payment systems (capitation, bundled payments, shared savings)</li><li>• Payments based on the results health care organizations and health care professionals achieve for patients in their care network</li><li>• Provider has autonomy in structuring and delivering services. Performance and outcome goals defined in advance</li></ul> | <ul style="list-style-type: none"><li>• Requires data to track activity, performance and outcomes</li><li>• Requires management to assess data, compare performances, administer rewards and penalties</li></ul> | <ul style="list-style-type: none"><li>• Encourages use of primary care, promotes wellness, reduces costs, improves quality</li><li>• Autonomy provides incentives to innovate and provides tools to meet goals</li></ul> |

# Policy objective and ability to manage providers determine best payment system

- Value-based care more challenging than traditional payment as it entails:
  - More management by providers
  - More management and oversight by payers
  - More data across the system
- In effect it means a different culture –moving from “command and control” to one of greater autonomy and accountability with ability to manage and measure

# Example of an integrated care model



# Using payment systems as incentives for improved performance

# Only payers can shift healthcare services for quality and value

- Financial and other incentives for providers and beneficiaries are key
- Payer support for providers important in clinical services, data and analysis

# Financial incentives raise provider performance and quality

## *Through hospital alternatives:*

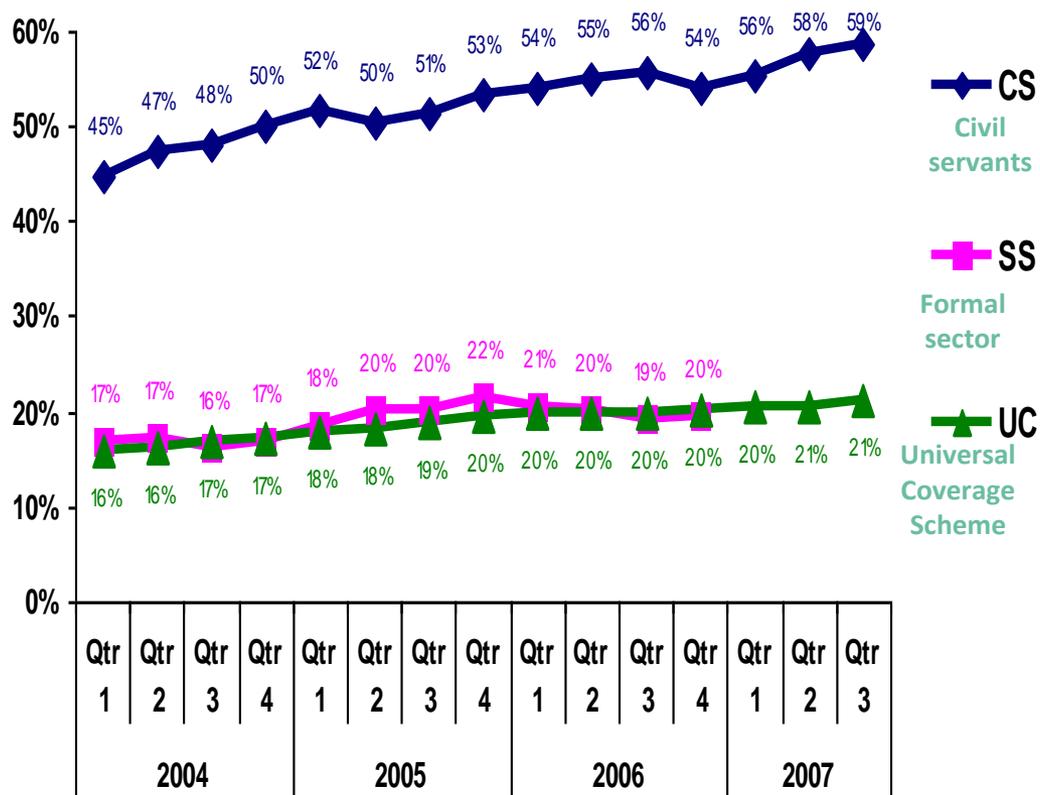
- Improved outpatient services and outreach
- Day hospitals
- Rehabilitation hospitals
- Home care
- Palliative care

## *By targeting high cost, low value behavior:*

- Systematically applying clinical protocols
- Reducing readmissions
- Reducing unnecessary hospital lengths of stay
- Discouraging use of emergency rooms for routine health problems
- Engaging patients in managing their health

# Thailand - different payment schemes affect Cesarean-section incidence

## Cesarean section

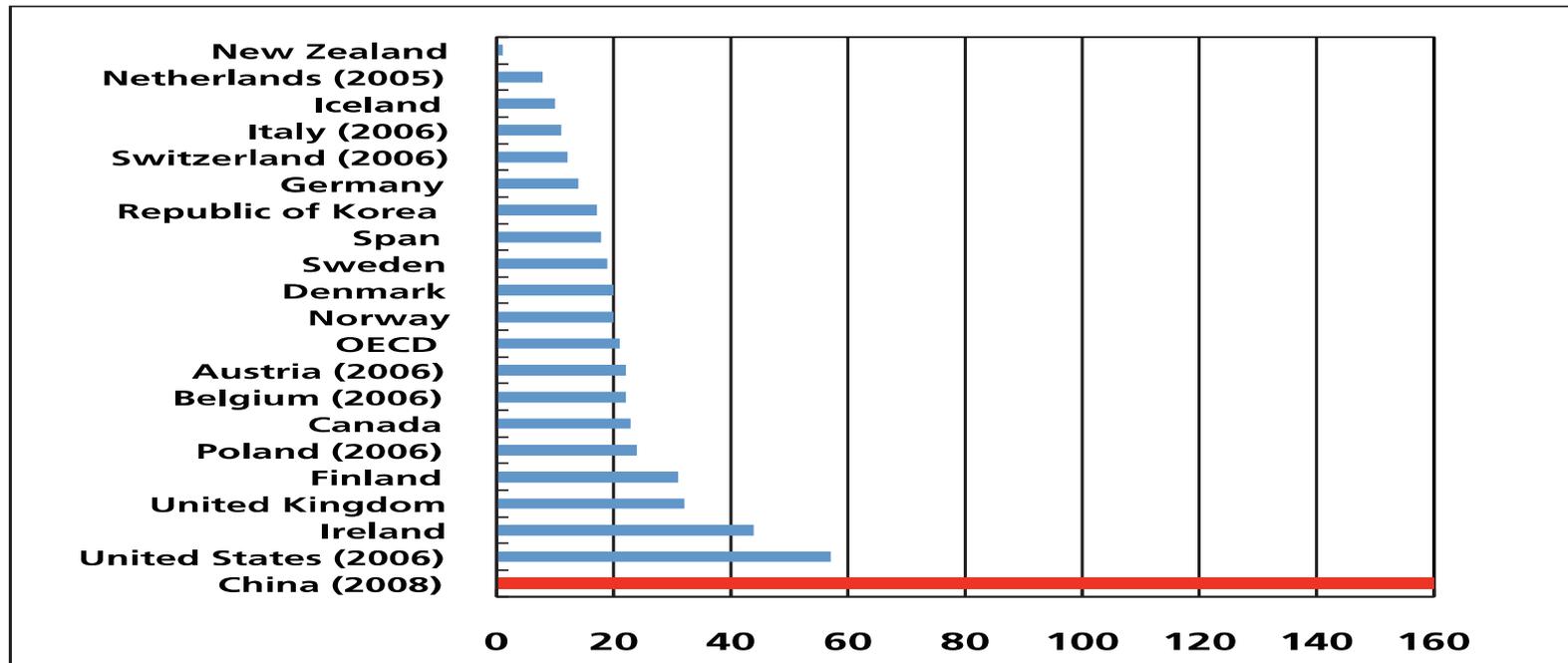


- Changes in how providers were paid resulted in significant variation in services provided to mothers at birth...natural delivery or C-section
- The 3 lines show payment models for 3 insurance schemes. The top line shows doctors paid under fee-for-service while the bottom two are under capitation

Source: Limwattananon, J., S. Limwattanon, et al. (2009). Analysis of practice variation due to payment methods across health insurance schemes. CDP Health report.

# China: hospitalization for diabetes over 8 times the levels of European countries → no incentives to manage diabetes as chronic condition

Age-sex Standardized Rates per 100,000  
Aged 15 and Over



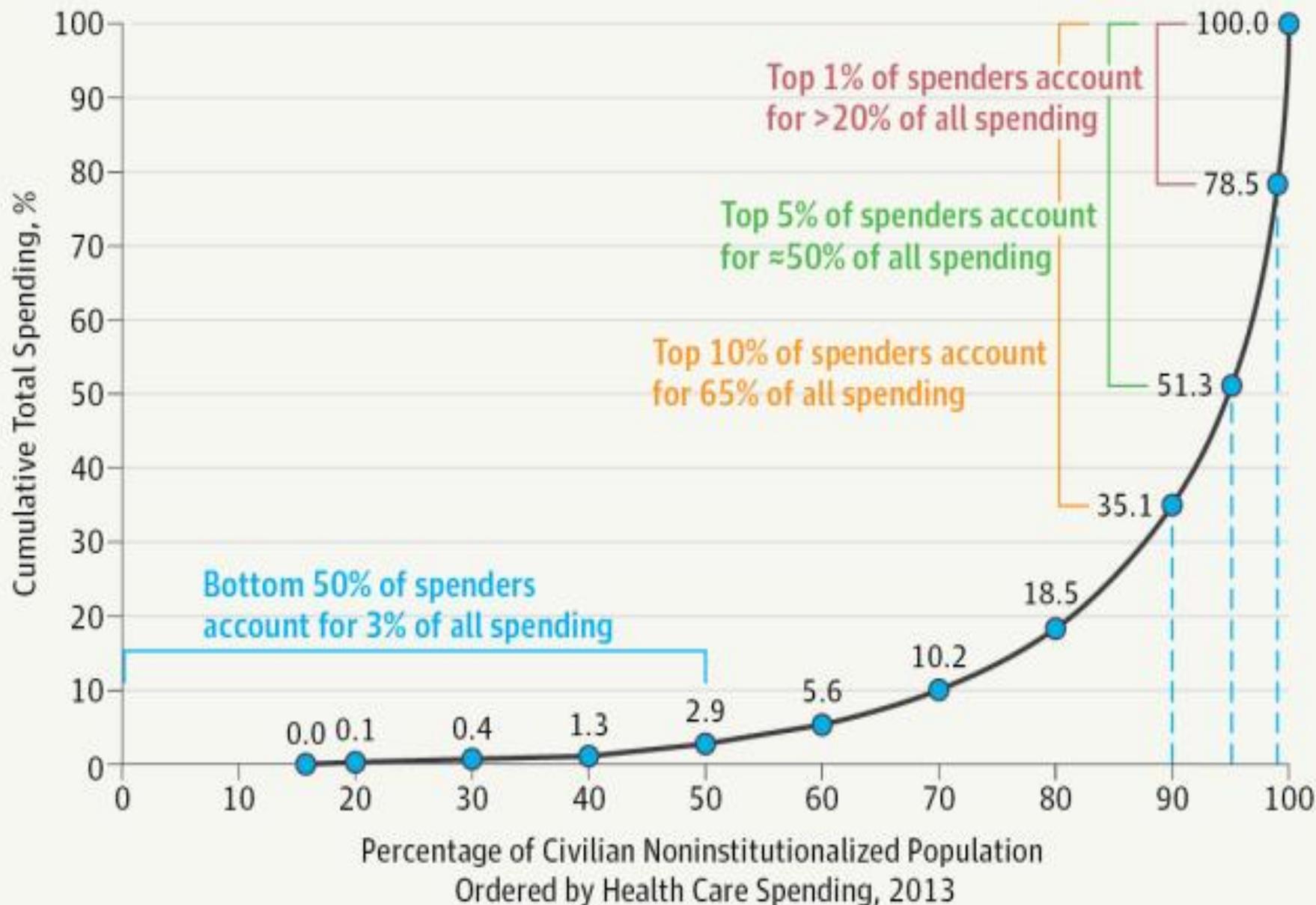
China's data point is an estimate based on the 2008 national household health surveys.

Source: Health at a Glance

# Obamacare has restructured the US healthcare system

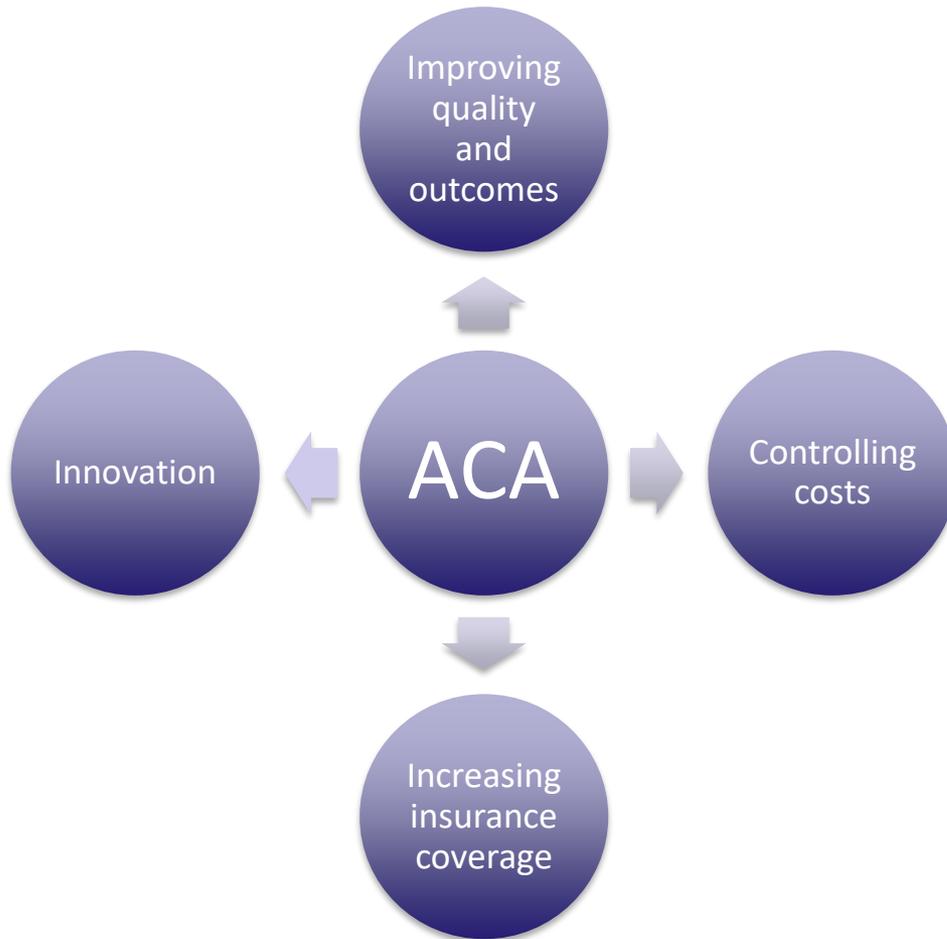
- Big emphasis on quality
- Strong focus on integrated, coordinated primary care
- Built and expanded a national data system using electronic health records
- Different payment systems designed and deployed to reach objectives → value based purchasing
- Disease burden big driver for change

## Concentration of Health Spending Among Highest Spenders



Source: National Institute for Health Care Management Foundation analysis of data from the 2013 Medical Expenditure Panel Survey

# Obamacare was intended to:



Change initially driven  
by public sector,

but:

private sector  
adopted similar  
innovations to drive  
quality and better  
outcomes

# US private and public payment systems shifting away from fee for service (FFS)

- “Pay for quality” and “pay for value”
- Promoting new models of care
- Reliance on big data to track performance, determine compliance and define rewards

# Public insurer (CMS) revised payment arrangements under Obamacare

## Alternative Payment Models

- **Accountable Care Organizations – global capitation/shared savings**
- **Bundled Payments to include physicians and post-hospital care**
- **Comprehensive Primary Care through integrated care models**

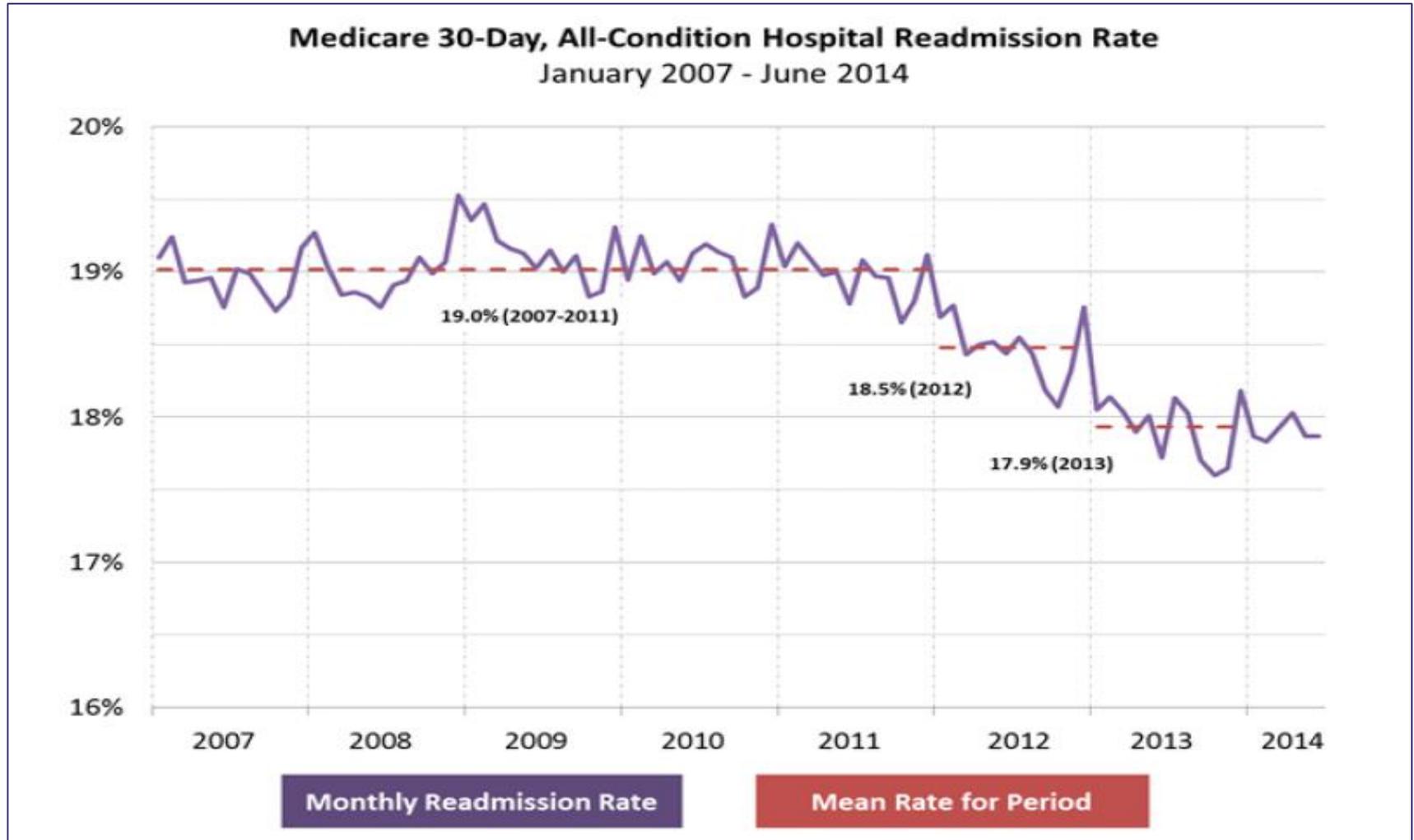
## Payment for Quality and Value

- **Hospital Value Based Purchasing for quality and value - bonuses**
- **Physician Value Based Modifier for quality and value**
- **Readmissions/Hospital Acquired Infections penalties**
- **Shared savings/Blended payments for PHC**

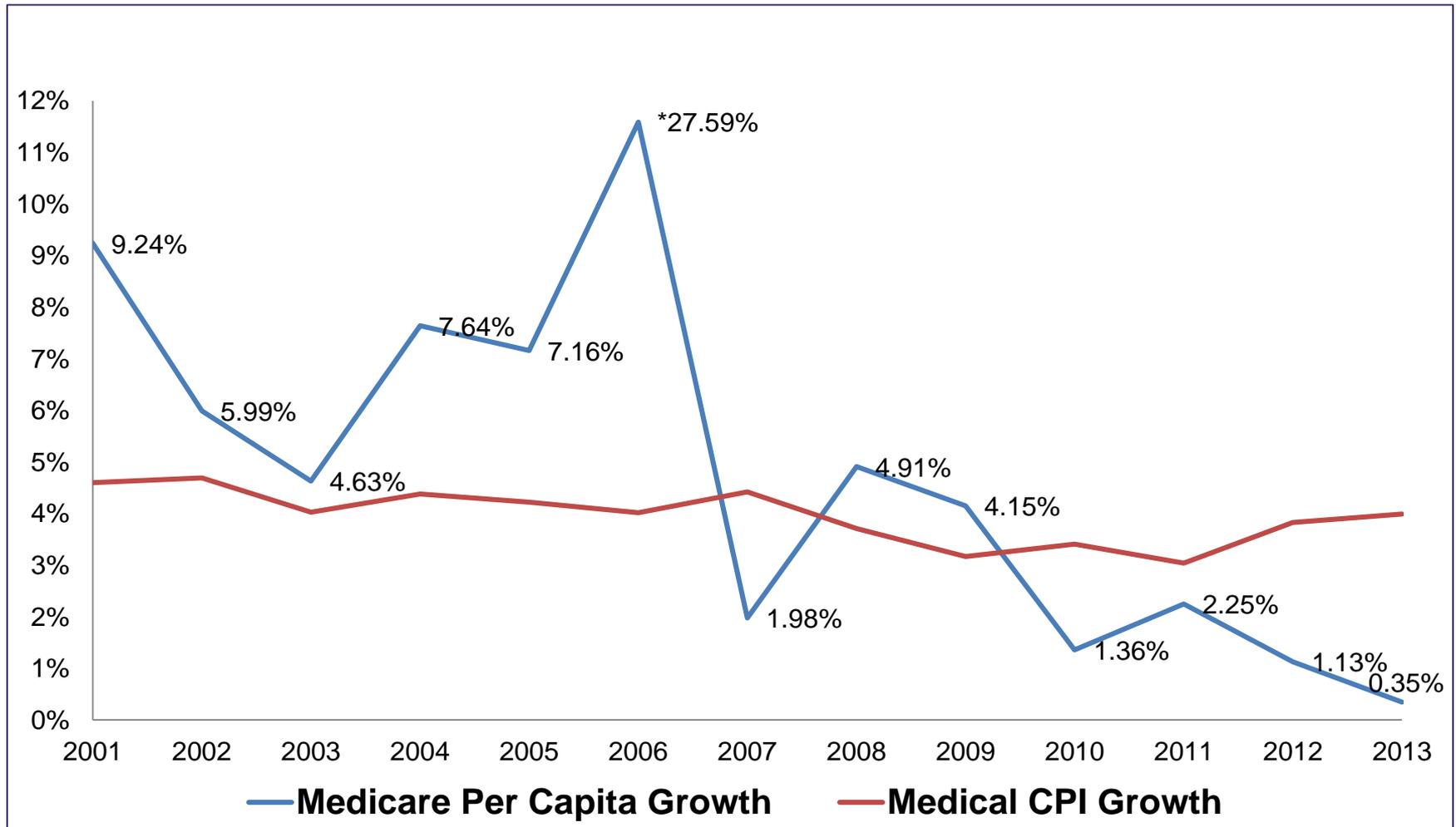
# 1. Hospitals paid for value and quality – not volume (FFS)

- Receive bonuses for improving trends in:
  - Reduced readmissions
  - Improved quality based on indicator targets
  - Controlling costs
- Face penalties for no improvement in:
  - Quality indicators
  - Patient outcomes
  - Efficiency

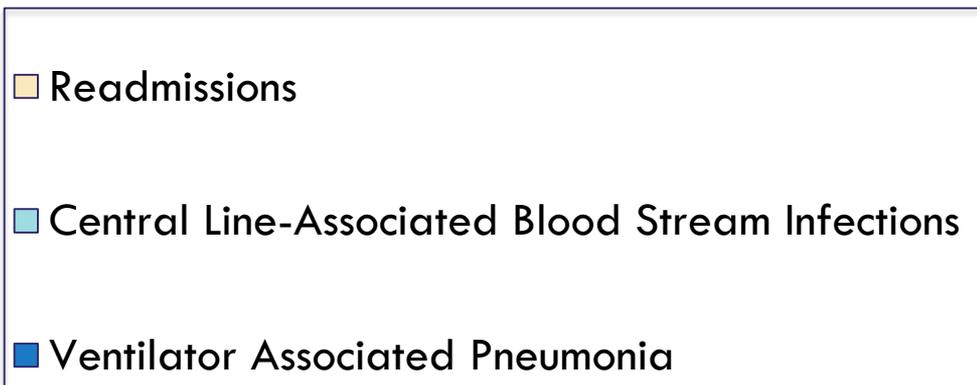
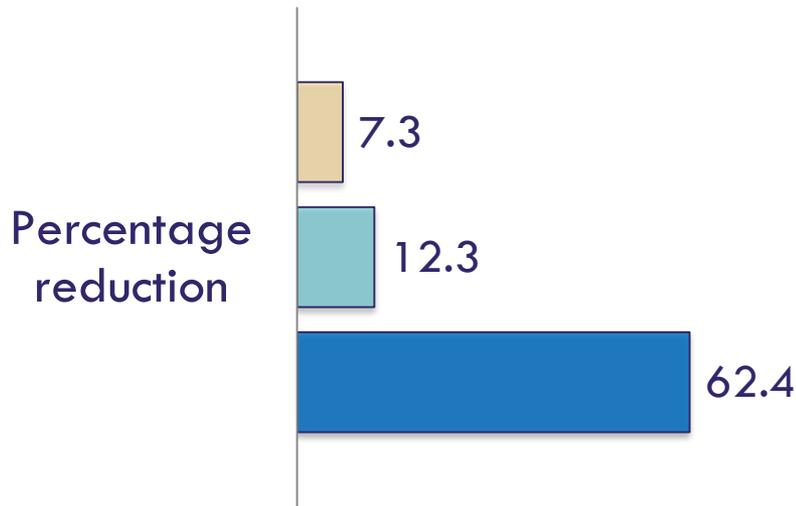
# Positive Medicare Readmission Trends



# Declining Per Capita Spending Growth



# Quality and outcomes improved: hospital acquired infection reduction 2010-2013



17% fall in hospital acquired infections

50,000 lives saved

US\$ 12 billion in savings

Source: CMS

## 2. Bundled Payments

Payment to provider(s) is “bundle” for:

- Hospital and physician payment: to encourage use of teams – physicians, nurses, community
- An episode of care, hospitalization and follow up outpatient care for discharged patients
  - to promote recovery and discourage reliance on emergency room care or readmission
  - To coordinate care and manage chronic conditions
- Used extensively for orthopedic surgery, cancer treatments, maternity

# Successful application of bundled payments in US and Netherlands

## Baptist Health System, Texas

**Summary:** Clinically integrated network of 5 hospitals with orthopedic surgery episode

**Results:**

- 21% decline in average overall episode spending
- 29% drop in joint implant device costs
- 54% drop in average inpatient rehabilitation spending
- Length of stay dropped 22% to 7%

Source: Cost of Joint Replacement Using Bundled Payment Models (Navathe et al., 2017)

## Zorg In Ontwikkeling

**Summary:** Integrated primary care network for diabetes patients

**Results:**

- 15% drop in patients with poor glycemic control
- 54% decrease in hospitalization admission costs with assigned nurse specialist

Source: Case Study: Zio Integrated Care Network (Hubertus et al., 2017)

### 3. ACO integrated care networks provide value – though evidence mixed

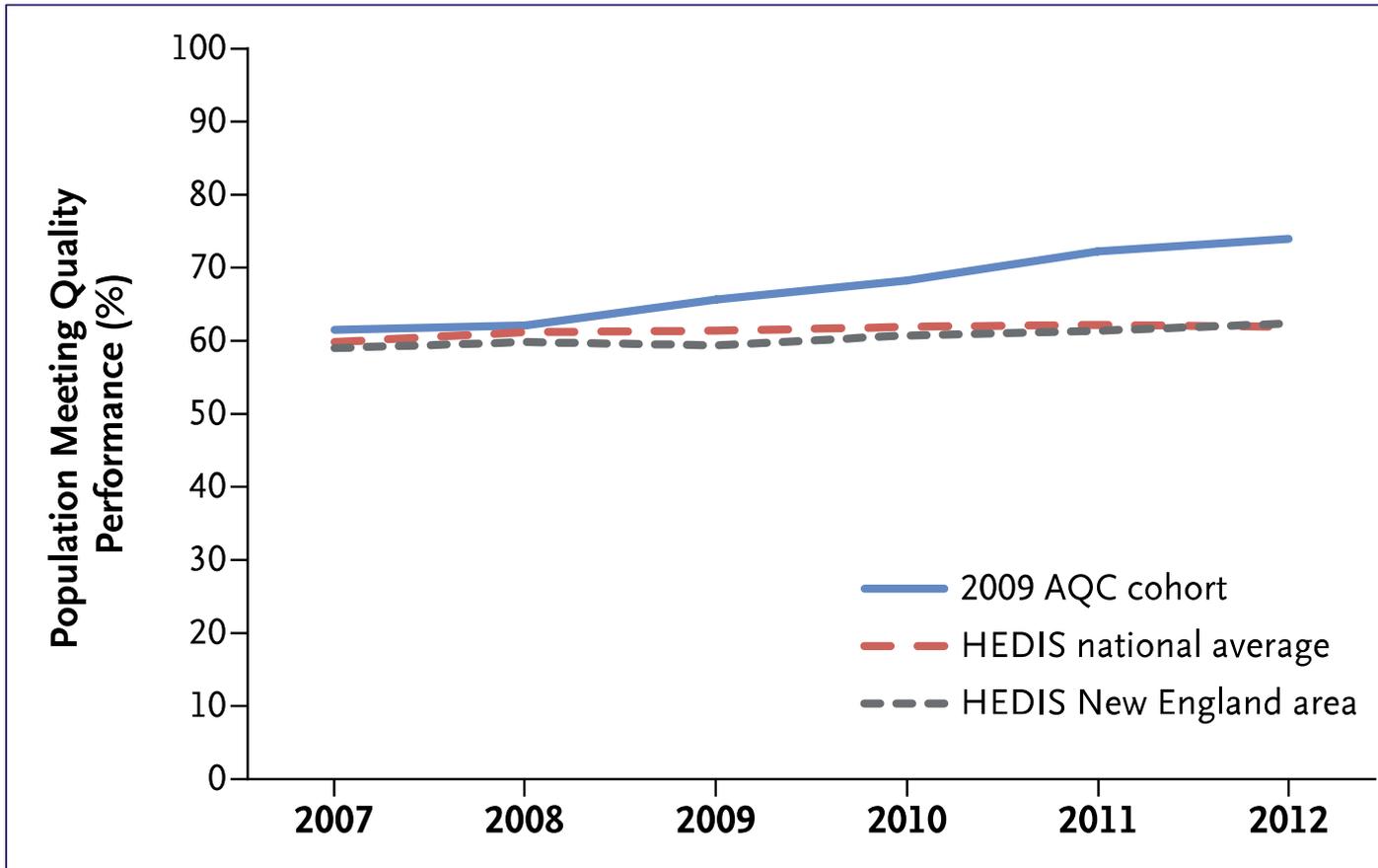


- ✓ Rewards keeping chronic care patients healthy
- ✓ Payers & providers share risk -- and savings
- ✓ Avoid emergency rooms & hospitalizations

# Massachusetts ACO: global capitated budget and shared savings

- Blue Cross, non profit quality and cost control finances large physician groups
- Physician group leads the process
- Spending and clinical performance data shared with providers – payer supported provider planning and testing
- Budgets based on historical provider spending
- Payer participated in redesign with ACO

# AQC Improves Outcomes, 2007-2012



AQC enrollees had better outcomes on 5 measures of the Healthcare effectiveness data information (HEDIS)

Song Z, Rose S et al. Changes in Health Care Spending and Quality 4 Years into Global Payment, N Engl J Med 2014; 371:1704-1714 October 30, 2014

# Massachusetts Alternative Quality Contract Components

|  |  |
|--|--|
| Global Capitated Budget                              | Defined annual budget for all physician groups. All medical expenses covered for enrollees   |
| Performance Indicators                               | Incentives based on quality measures; performance determines share of profits or losses  |
| Clinical Support for data analysis and best practice | Physician groups have dedicated team from Blue Cross to generate performance data share, best practices across groups and drive innovation           |
| Shared savings                                       | Blue Cross shared savings from increased efficiency with Massachusetts ACO physicians after the integrated care network was operating and successful |

# Many payment systems, but they can fail for many reasons:

- Distorted incentives that are confusing and make responding difficult
- Providers that don't have sufficient autonomy or financial resources to respond adequately
- Targets too ambitious too soon
- Managers, medical staff or administrators not adequately trained to respond

# Some ACOs have failed due to

- Confused incentives
  - Putting hospitals as leaders of the ACO –confused incentives as ACOs are meant to reduce hospitalizations, hospitals earnings are tied to hospital stays
- Raising the bar too high too fast

**New payment systems create  
other demands**

# Payment systems require data to design incentives and hold providers to account for outcomes

Data extracted from EMRs and other data sources allow:

- Providers to manage performance
- Payers to encourage better outcomes

- Big data can be harnessed to compensate providers for quality and value, not volume
- Big data facilitates effective use of alternative payment mechanisms

# How payers can move the agenda forward

- ✓ Place quality of care at the center of the agenda
- ✓ Create incentives for providers to integrate care and raise quality
- ✓ Collaborate with providers in designing approaches that can work to ensure quality of care

# Key Messages and Considerations

- Providers and payers have an interest in improving quality
- Quality and efficiency help to control costs
- Payers can collaborate with providers to support changes
- Many options for encouraging better care at lower cost
  - Different payment arrangements
  - “Nudges” for behavior shifts of providers and patients

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