Creating the Business Case for Improving Clinical Quality

McKinsey&Company

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Principal

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TODAY'S DISCUSSION

- **Issues in improving quality**
- Approaches that a payor can use to improve clinical quality
- Understanding the impact of changes in quality on hospital economics
- Key takeaways for quality improvement

ELEMENTS OF HIGH QUALITY PATIENT CARE

	Why it is important . . .	. . . best practice examples
Standard of care	• Variability in treatment leads to unnecessary variability in outcomes	• Use of evidence-based clinical pathways for common diseases
Right time right location	• Timely treatment improves outcomes • Right setting can be lower cost and higher quality	• Lean approaches for delivering care; ICU and telemetry criteria
Patient preferences	• Care must be aligned with patient preferences	• Health coaching and DVDs to help patients understand preferences
Skilled caregivers	• Necessary skills for diagnosis, treatment and standard of care	• Physician credentialing and peer review for all clinicians
Appropriate resources	• Ensure that scare resources are used equitably	• Guidelines for using expensive medical supplies, case management to monitor LOS
Outcomes oriented	• Mission is to deliver the best possible care for patients	• Physician and departmental scorecards

Source: McKinsey

WE DEFINE CLINICAL QUALITY ACROSS THE FULL DIMENSION OF PATIENT CARE

Delivering appropriate evidence-based standard of care treatment by skilled caregivers

- *at the **right time in the right location***
- *in accordance with **patient preferences***
- *using **appropriate resources***
- ***monitoring outcomes** and*
- *driving **continuous improvement***

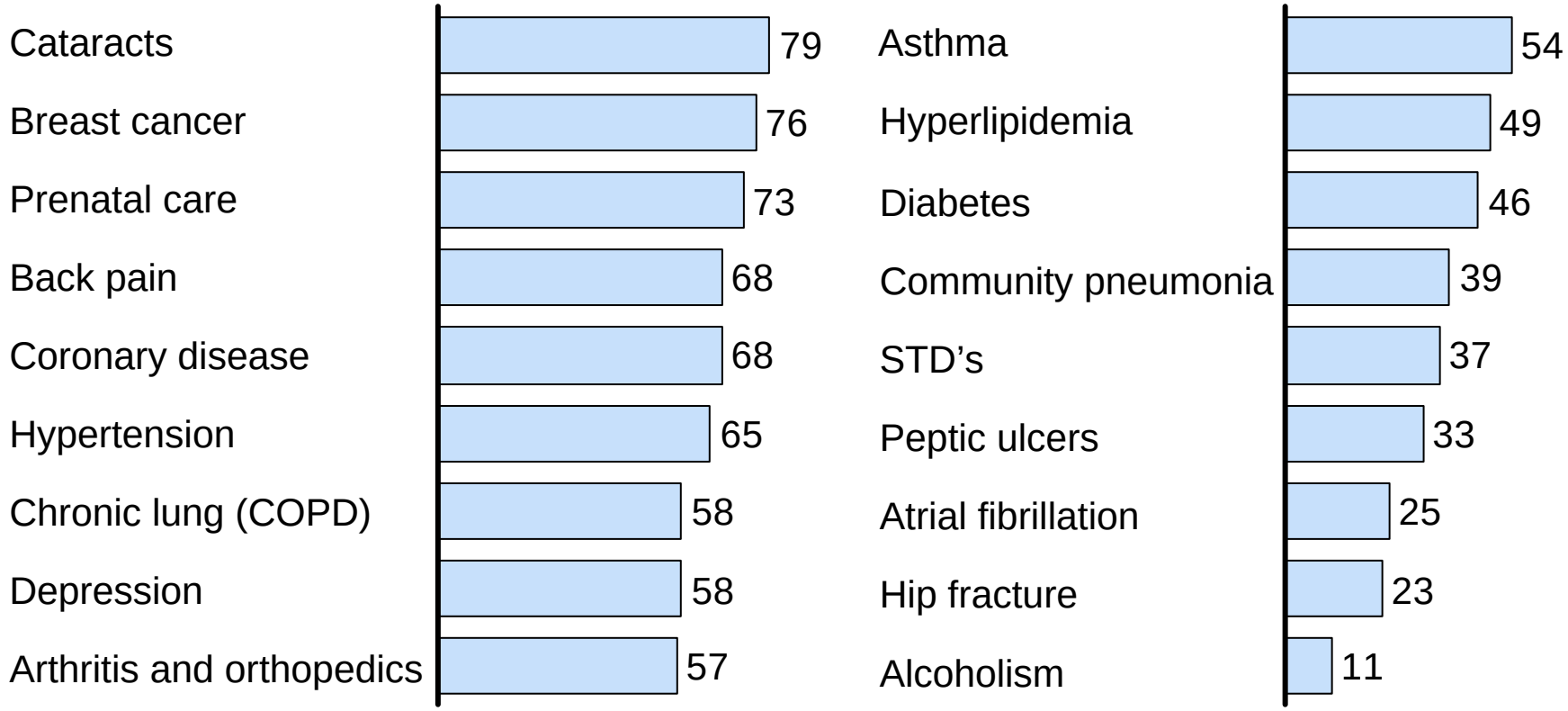
Higher quality can have the following effects

- Variable effect on health care costs
- Variable effect on payor and provider margins
- Increased lifetime earnings of individuals
- Improved labor productivity for employers and the broader economy
- Improved satisfaction for consumers and healthcare providers

Source: McKinsey

HEALTH SYSTEM OFTEN DOESN'T MEET THESE QUALITY STANDARDS

Percent of recommended care received, Rand Study 2003



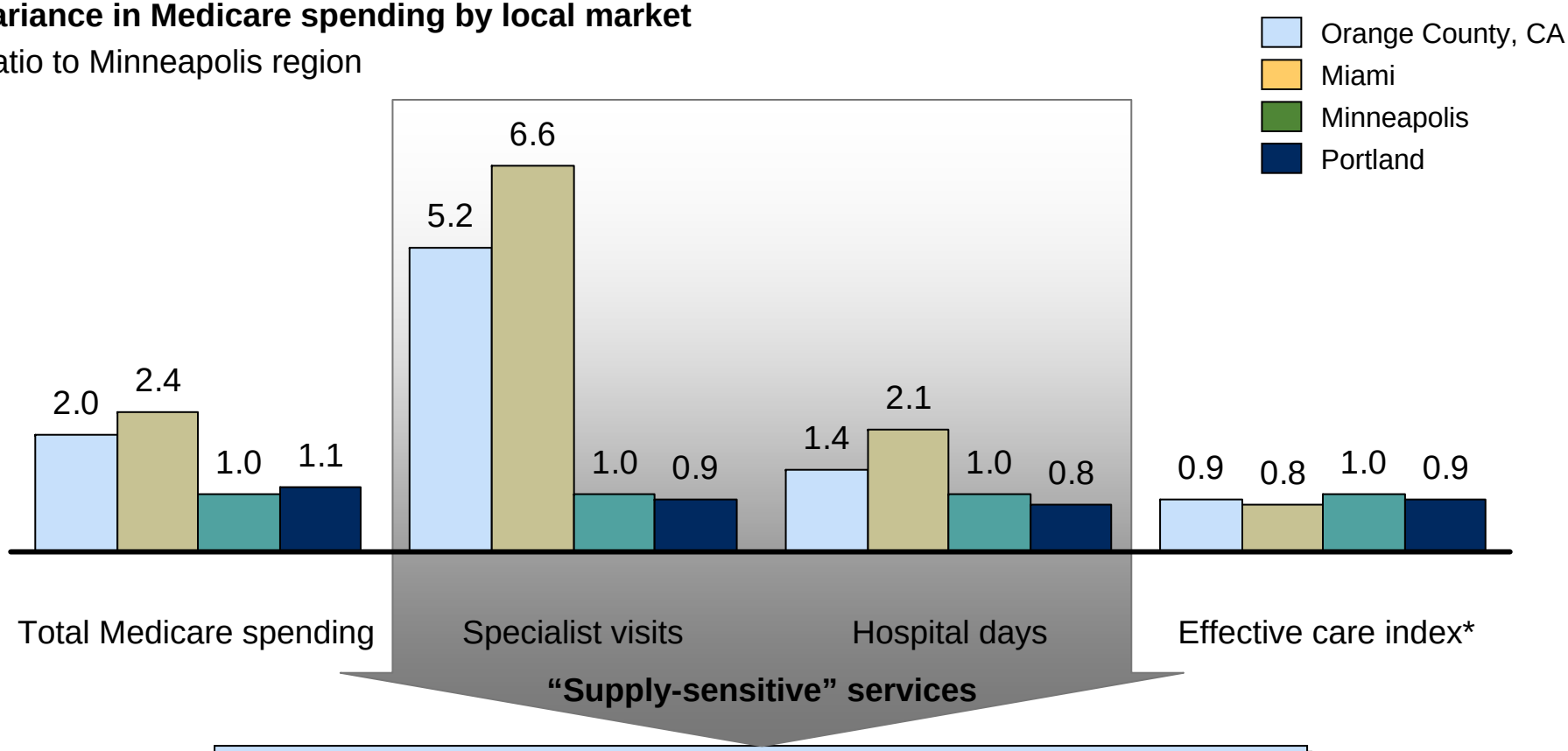
- **Underuse more prevalent than overuse**
- **11.3% received care that was not recommended and was potentially harmful**

Source: McGlynn et al., "The Quality of Health Care Delivered to Adults in the United States"; *NEJM* 2003; 348:2635-45

IN US, EFFECTIVE CARE MAY BE GETTING "CROWDED OUT" BY SUPPLY DRIVEN CARE AND TECHNOLOGY

Variance in Medicare spending by local market

Ratio to Minneapolis region



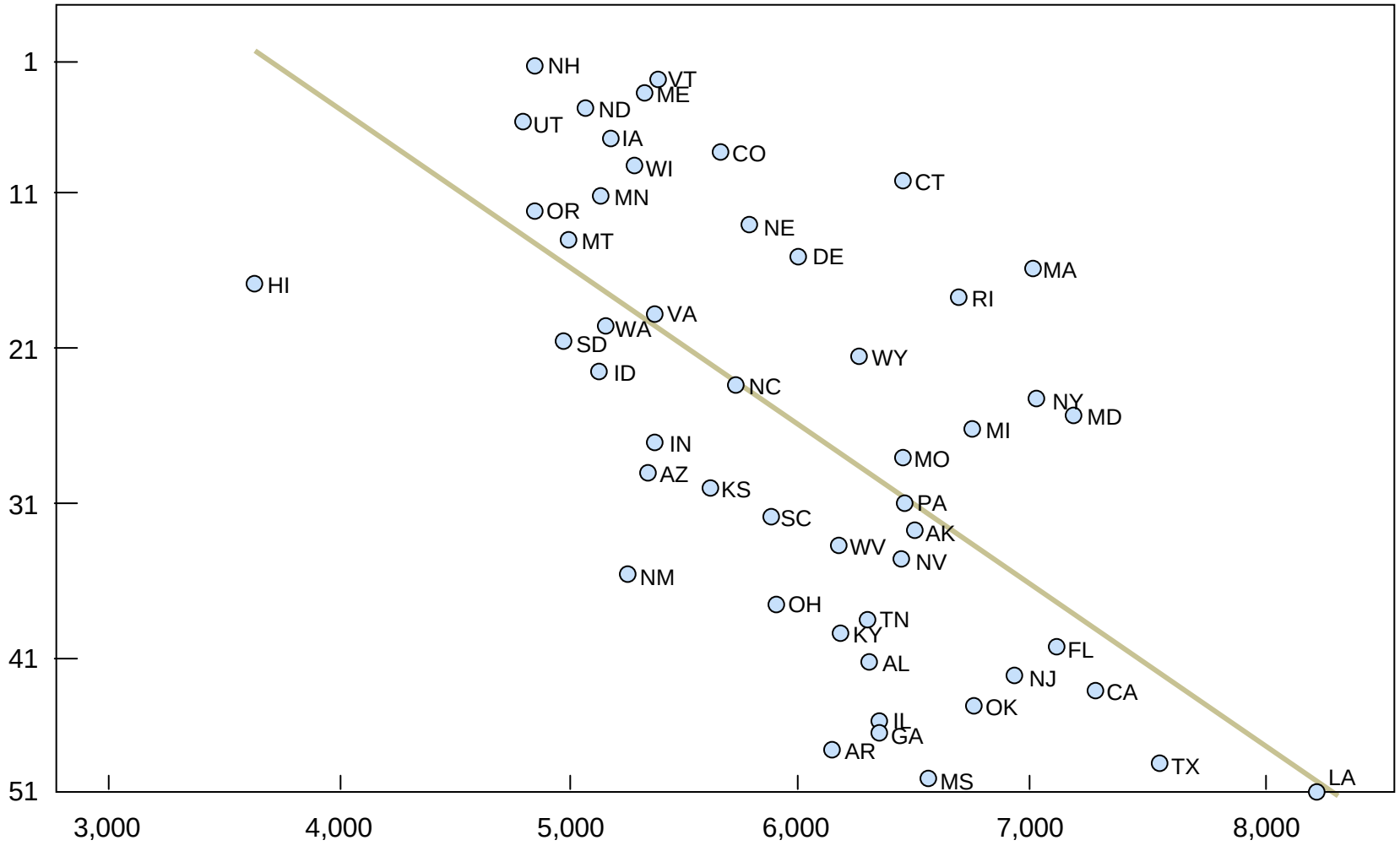
Up to 30% of US Medicare's annual estimated expenditures are due to inefficiency resulting from variance across local markets that does not result in higher-quality care

* Reflects 11 types of healthcare services proven effective through research; all patients meeting medical criteria should receive these services

Source: *Health Affairs*, February 2002; Dartmouth Atlas

AS A RESULT, HIGHER SPENDING IS INVERSELY CORRELATED WITH MANY QUALITY METRICS

Overall quality ranking, US Medicare patients

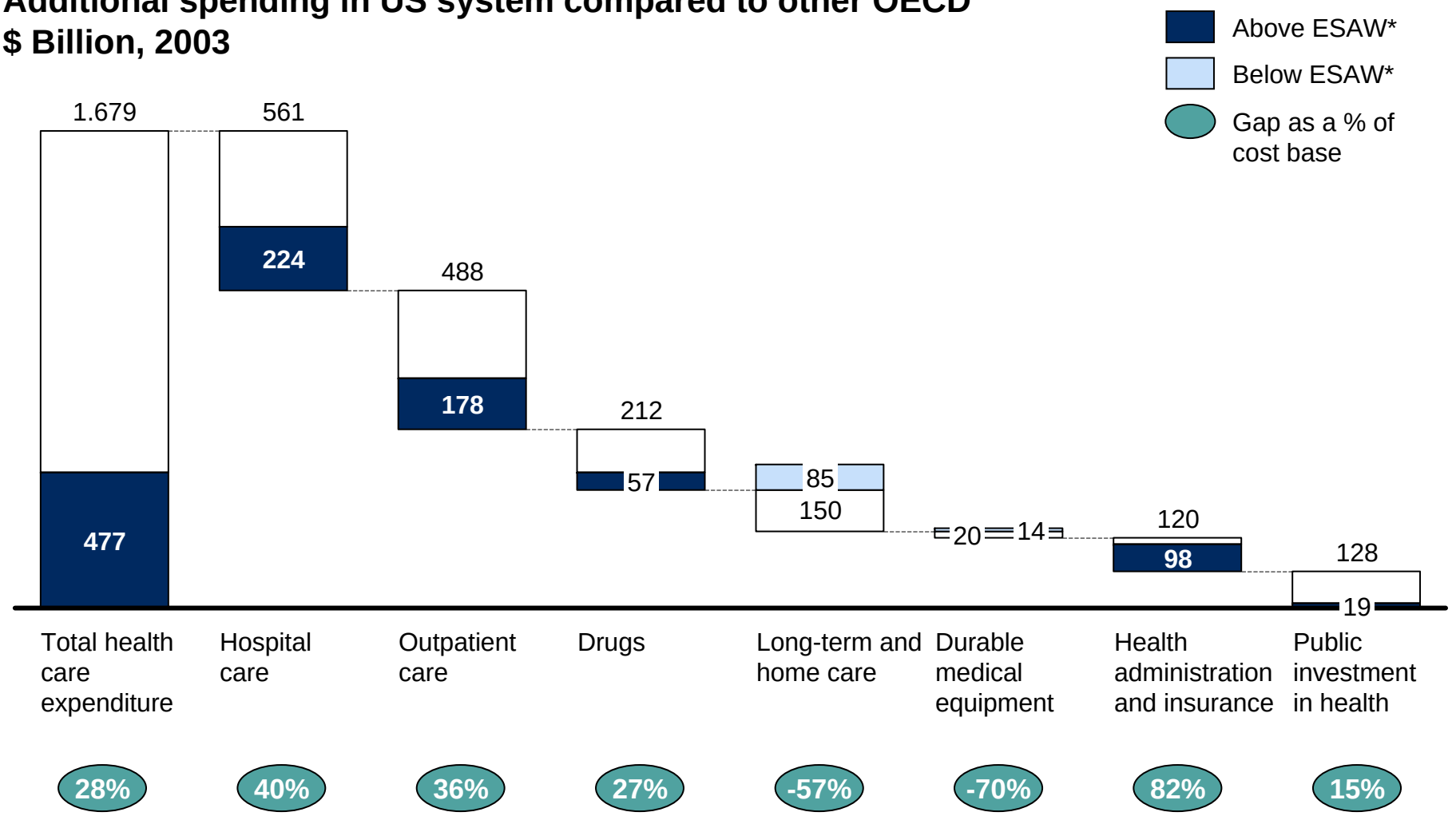


Annual spending per beneficiary, US Medicare, $ Dollars

Source: Baicker and Chandra, *Health Affairs*, 2004; Web exclusives

REDEPLOYING HEALTH CARE COSTS WHILE IMPROVING QUALITY WILL REQUIRE ADDRESSING THESE STRUCTURAL ISSUES

Additional spending in US system compared to other OECD
$ Billion, 2003

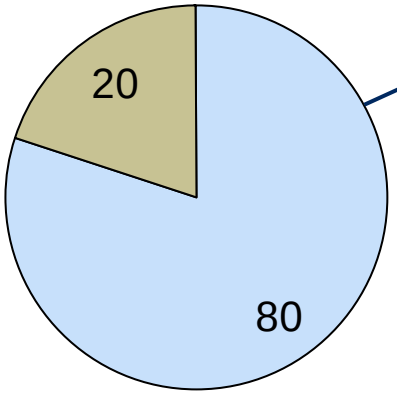


*Estimated spending according to wealth.
Source: OECD; MGI analysis

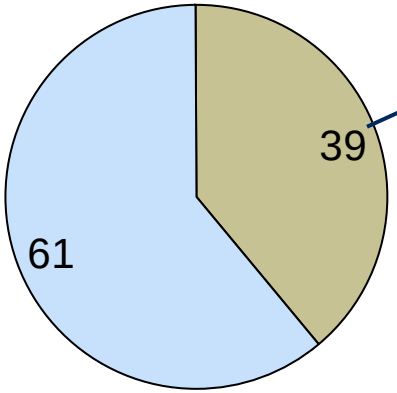
U.S. CONSUMERS WANT DATA ON QUALITY BUT ARE LESS AWARE THAT DATA ARE AVAILABLE

Consumer awareness of healthcare quality 2006

100% = 150



Patients who believe that being able to check quality measures to verify the quality of health services is important



Patients who are aware that such quality measures are available

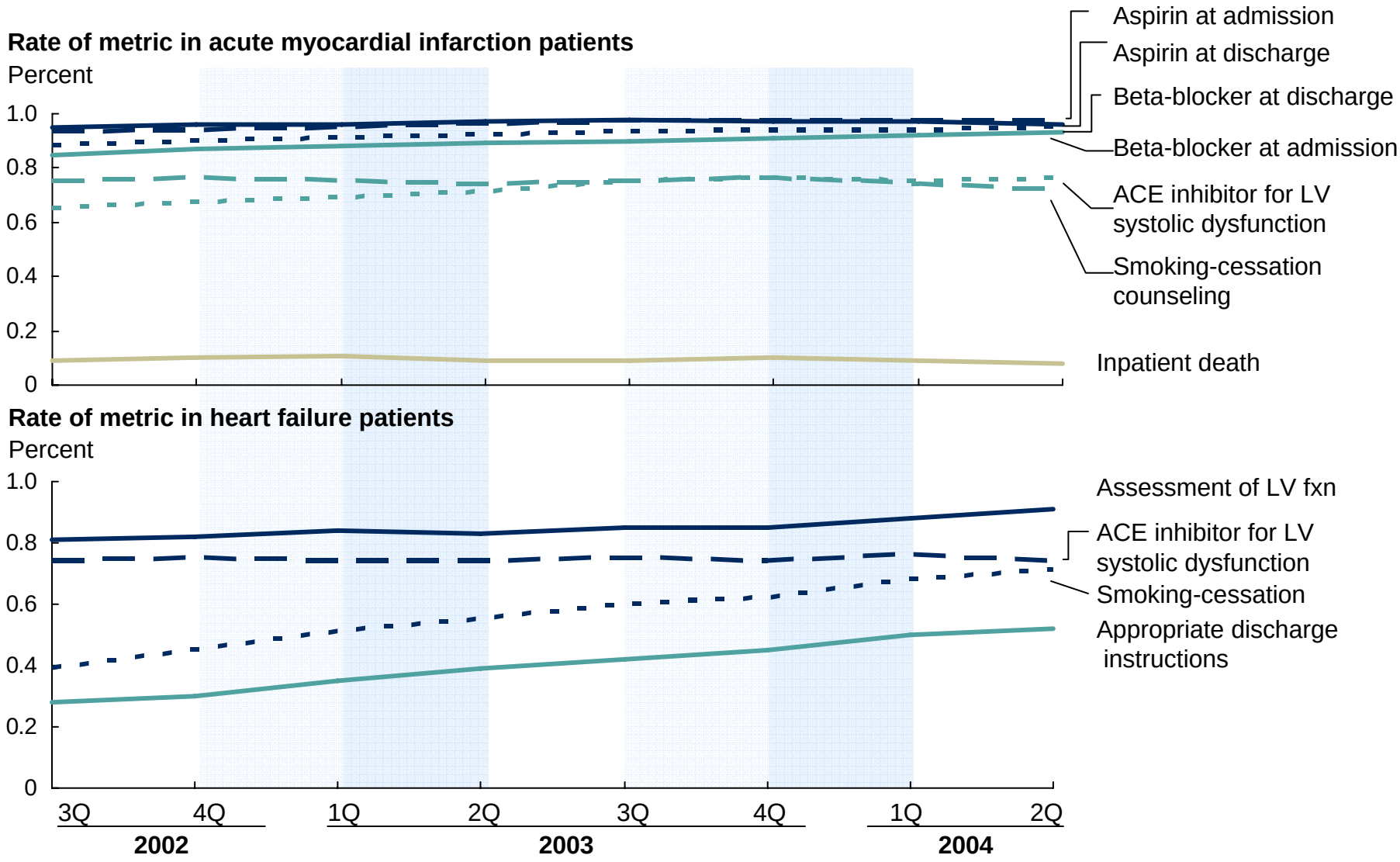
Implications

- Push for more data in the hands of consumers that is understandable, meaningful and relevant
- Data needs to be aggregated to be meaningful (e.g. at individual provider level)
- Which entity will be the source for consumers to go to for decisions making is not at all clear at this time
- Opportunity for health insurers to take leadership role in this area

Source: CIGNA; team analysis

THERE IS SOME GOOD NEWS

Quality of care in 3,000 U.S. hospitals, JCAHO measures



Source: Williams et al., "Quality of Care in U.S. Hospitals as Reflected by Standardized Measures", 2002-2004; *NEJM* 2005;353:255-64

MANY "SMALLER" SUCCESS STORIES AS WELL

Institutional experiences implementing safe practices

Intervention	Impact
Peri-operative antibiotic protocol	94 % reduction surgical site infections
Physician computer order entry	81% reduction of medication errors
Pharmacist rounding with team	66% reduction of preventable drug events
Protocol enforcement	95% reduction in central line infections
Rapid response teams	15% reduction in cardiac arrests
Reconciling medication	90% reduction in medication errors
Standardized insulin dosing	63% reduction of hypoglycemic episodes
Standardized warfarin dosing	60% reduction in out-of-range anticoagulation
Ventilator bundle protocol	62% reduction in ventilator pneumonias

Source: Leape and Berwick, "5 years after "To Err is Human" – What Have We Learned?"; *JAMA*, 2005; 293: 2,384-90

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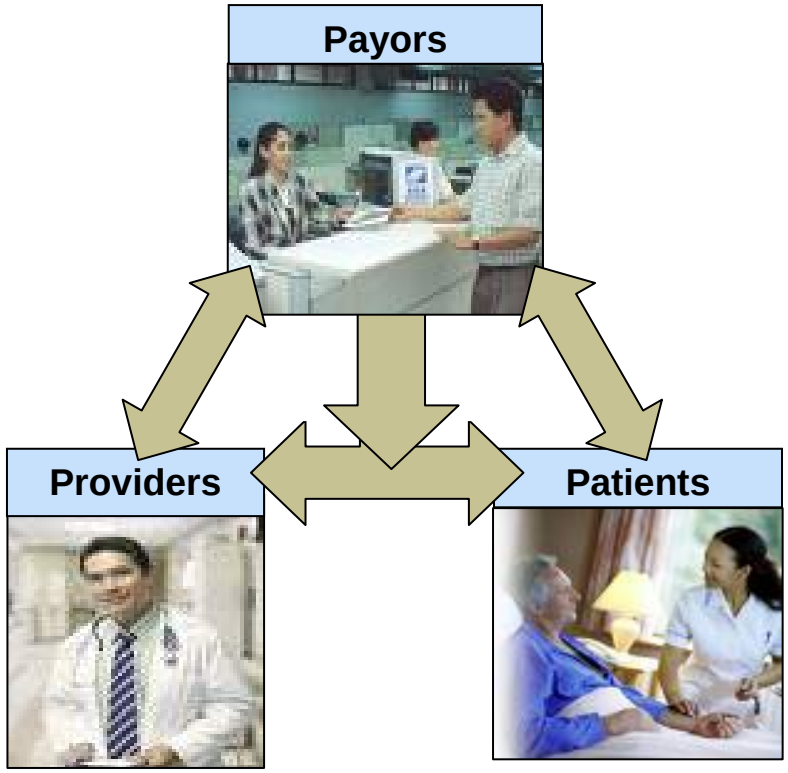
PAYORS HAVE SEVERAL WAYS TO DRIVE SIGNIFICANT QUALITY IMPROVEMENT

1 Accreditation
- Metrics and standard setting

2 Provider incentives
- Pay for performance
- Clinical practice guidelines
- Information transparency

3 Health system design and improvement
- Provider competition
- Vertical integration
- Training in industrial quality engineering



4 Consumer engagement
- Information transparency
- Value based benefit design
- Decision support tools
- Provider choice
- Personal health record

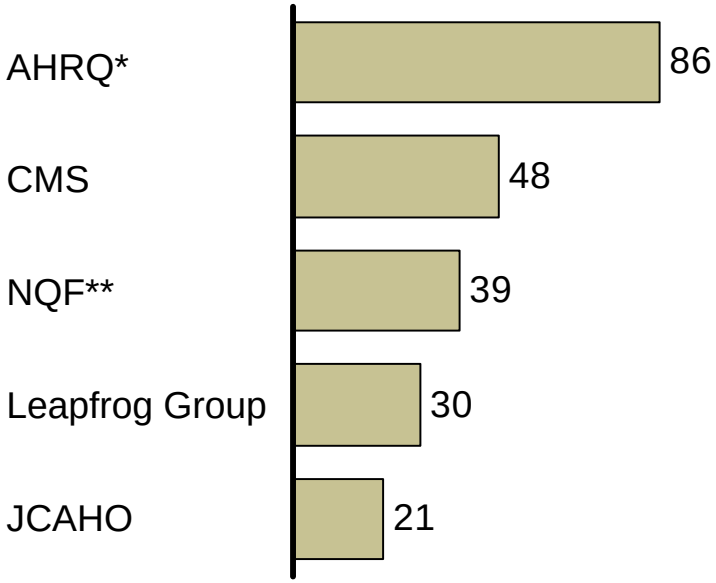
5 Population health management
- Case management
- Disease management
- Errors and omissions programs
- Wellness and prevention programs

6 Clinical information technology

1 IN THE U.S., A CONFUSING QUALITY METRIC LANDSCAPE HAS EMERGED

A dizzying array of metrics exist . . .

Number of measures proposed



Providers are faced with numerous, often conflicting metrics without a clears sense of importance

* Agency of Healthcare Research and Quality

** National Quality Forum

Source: Organization Web sites; team analysis

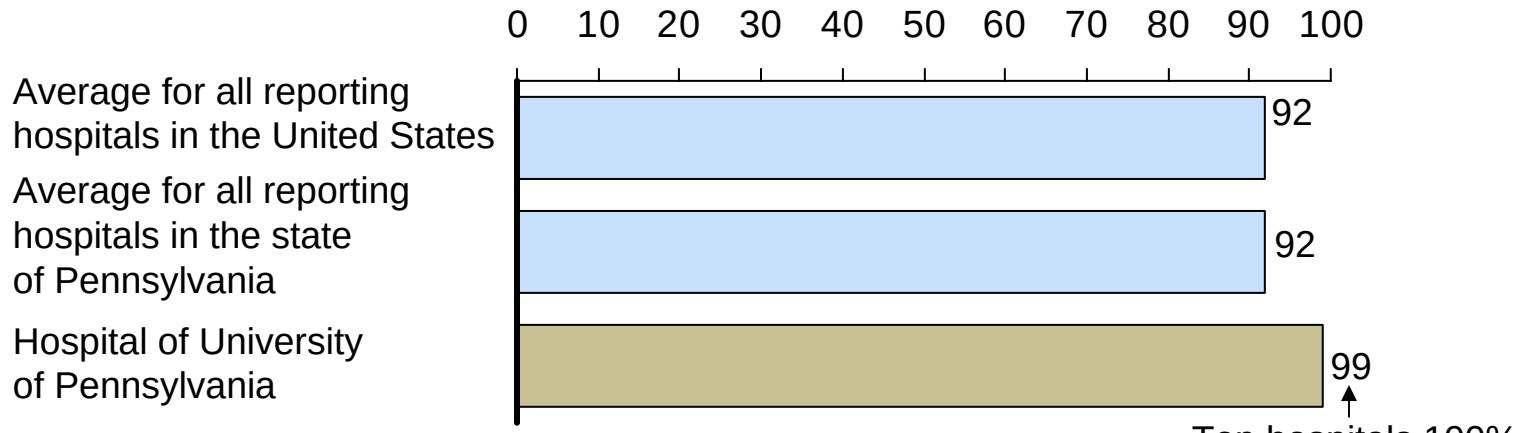
. . . with a variety of goals

	Example
"Experience-based" metrics	• Volume targets for PCI, CABG
"Outcome" metrics	• Mortality, complications, readmission rates
"Binary" process or structural metrics	• Presence of CPOE
"Classic" process metrics	• Percent of AMI patients receiving ASA on arrival
Process metrics with a goal of time sensitivity	• PCI within 90 minutes of AMI

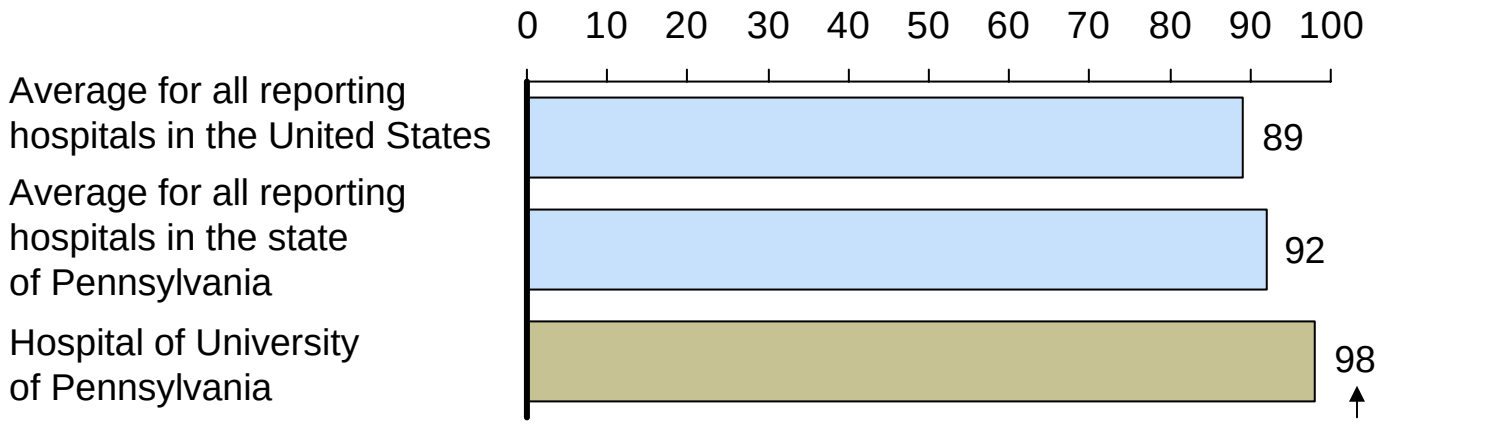
1 CMS MEASURES ARE PUBLICLY VIEWABLE

Percent

Heart attack patients given aspirin at arrival*



Heart attack patients given beta blocker at discharge*



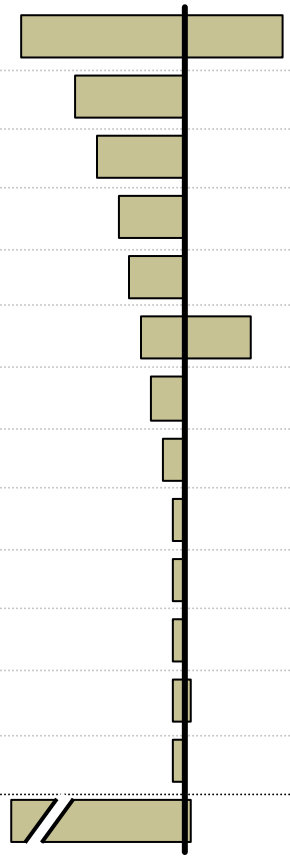
* The rates displayed in this graph are from data reported for discharges April 2005 through March 2006

Source: www.hospitalcompare.hhs.gov

1 EXISTING QUALITY METRICS FOCUS ON A SMALL NUMBER OF DISEASE AREAS

U.S., 2004

Disease area	Direct cost $ Billions*	Percentage of JCAHO and CMS metrics
Cardiovascular	227	46
Digestive system	158	0
Nervous system	127	0
Mental disorders	124	0
Musculoskeletal system	88	0
Lung	76	31
Neoplasms	69	0
Genito-urinary system	65	0
Endocrine/metabolic	62	0
Other respiratory	43	0
Diseases of the skin	35	0
Infectious and parasitic	31	3
Blood	8	0
Other	427	3



100% = 26 unique metrics

- **Current metrics focused on a small subset diseases**
- **Many common, expensive conditions not in metrics**
- **Some evidence of convergence recently**

* Direct costs account for 60% of overall system costs

Source: National Heart, Lung, and Blood Institute of NIH; interviews; team analysis

② BRIDGES TO EXCELLENCE – COMBINING CREDENTIALING WITH PAY FOR PERFORMANCE

- **Employer-group** funded program launched by 2003
- **Application fees**, receive time-limited certificate
- Currently in **selected markets** – AR, CO, DC, DE GA, IL, KY, MA, MN, MD, NC, NY, OH, VA

Physician Office Link (POL) – maximum $50 PMPY
- Clinical information systems (e.g., EMRs, registries)
- Patient education programs
- Care management and coordination

Diabetes Care Link (DCL) – maximum $80 PMPY
- HbA1c, Blood pressure, Lipid testing
- Patients receive self-care tools (MyDiabetesCoach) and earn points for compliance

Cardiac Care Link (CCL) – maximum $160/patient/year
- Outcomes and process metrics for cardiovascular/stroke patients

BRIDGES to Excellence®
Rewarding Quality across the Healthcare System

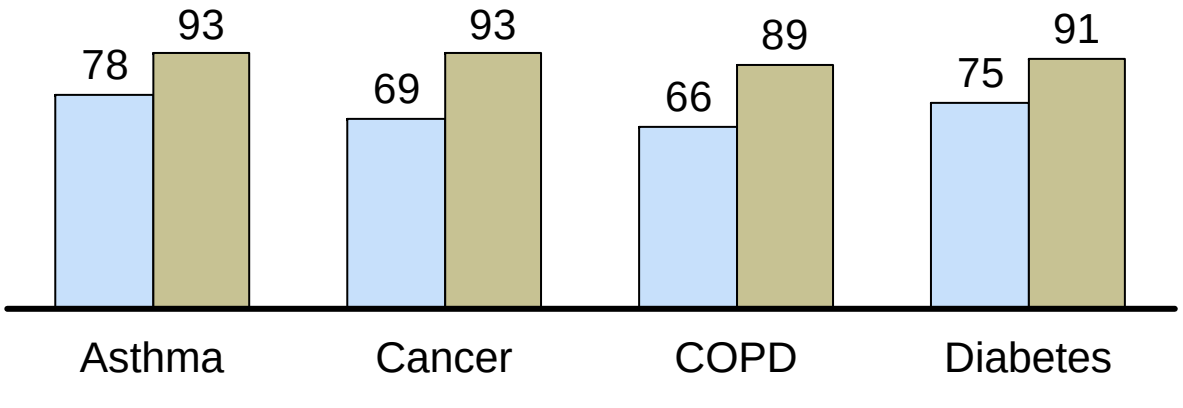
Diabetic patient cost-savings:
- Overall health costs 5% less
- Diabetic-related costs 10-15% less

Source: Literatures review,

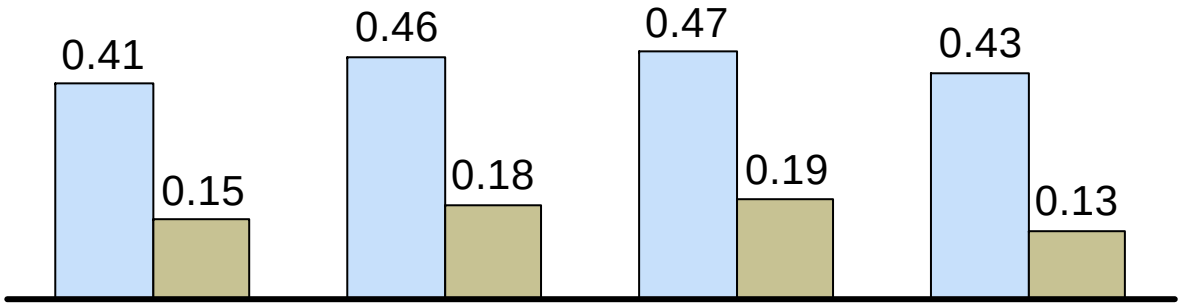
② PHYSICIANS RESPONDED TO THE QUALITY AND OUTCOMES FRAMEWORK IN THE U.K. . . .

2004/2005
2005/2006

Mean percent of indicators where upper achievement thresholds maximized possible points before and after QOF
Percent



Standard deviation of mean scores



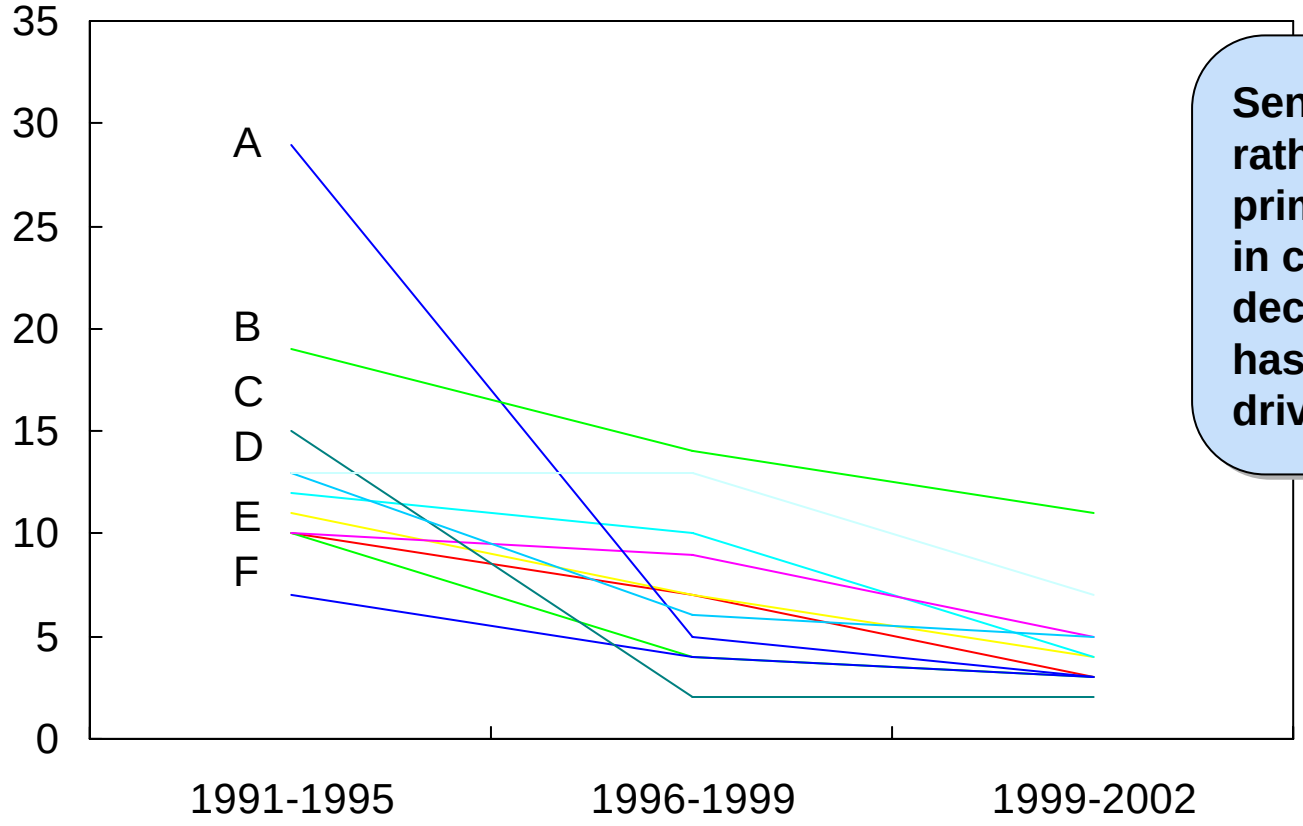
- **QOF increased the number of physician groups that met the maximum guidelines**
- **The reporting and financial incentives reduced variability as well**

Source: Gravelle et. al., CHE Report, "Doctor Behaviour under QOF", May 2007

4 . . . HOWEVER, WOULD TRANSPARENCY ON METRICS ALONE HAVE SUFFICED?

Mortality rate for open heart procedures in children under 1 in UK since data began to be published
Percent

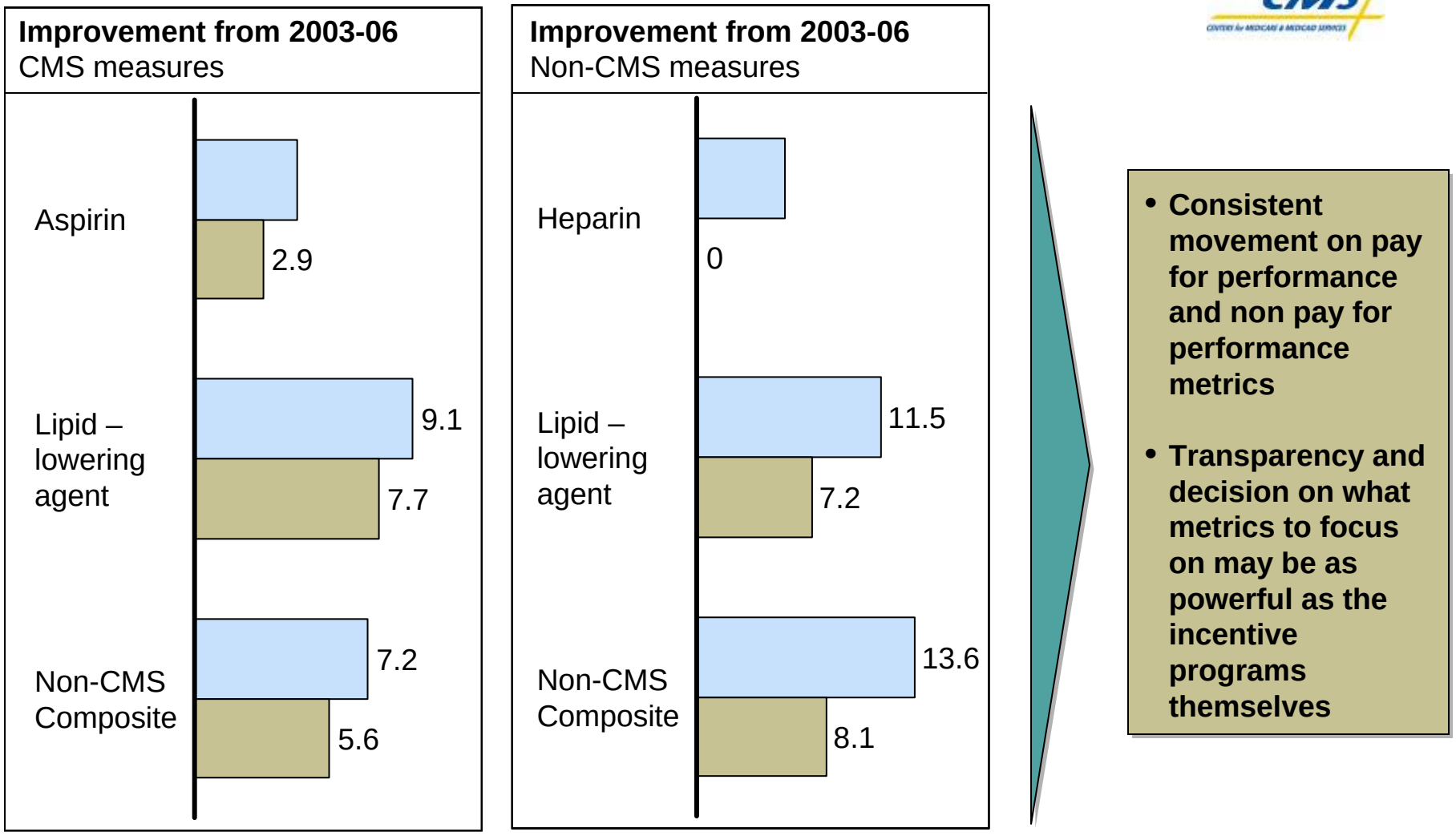
Individual hospital trusts



Sentinel effects rather than primary changes in consumer decision making has been major driver of change

Source: Aylin et al., *British Medical Journal*, October 2004

4 INFORMATION TRANSPARENCY AND P4P CAN WORK TOGETHER



Source: Glickman et. al., "Pay for Performance, Quality of Care, and Outcomes in Acute Myocardial Infarction", *Journal of the American Medical Association*; vol. 297, no. 21, June 2007

④ GUIDING MEMBERS TO NAVIGATE HEALTH COMPLEXITIES

Overview

- Provides a **personal "health advocate"** or nurse supported by a team of experts
- Helps patients **navigate** healthcare complexities and make **informed choices**

Approach to leveraging this information

- Assists members **finding** the best doctors, hospitals, and other healthcare providers
- Facilitates **access** to centers of medical excellence and schedule appointments
- Provides a **second opinion** if the member wants
- **Coordinates benefits** and renegotiate overcharged bills
- **Provide services** for elderly care, e.g., transportation, alternative living arrangements

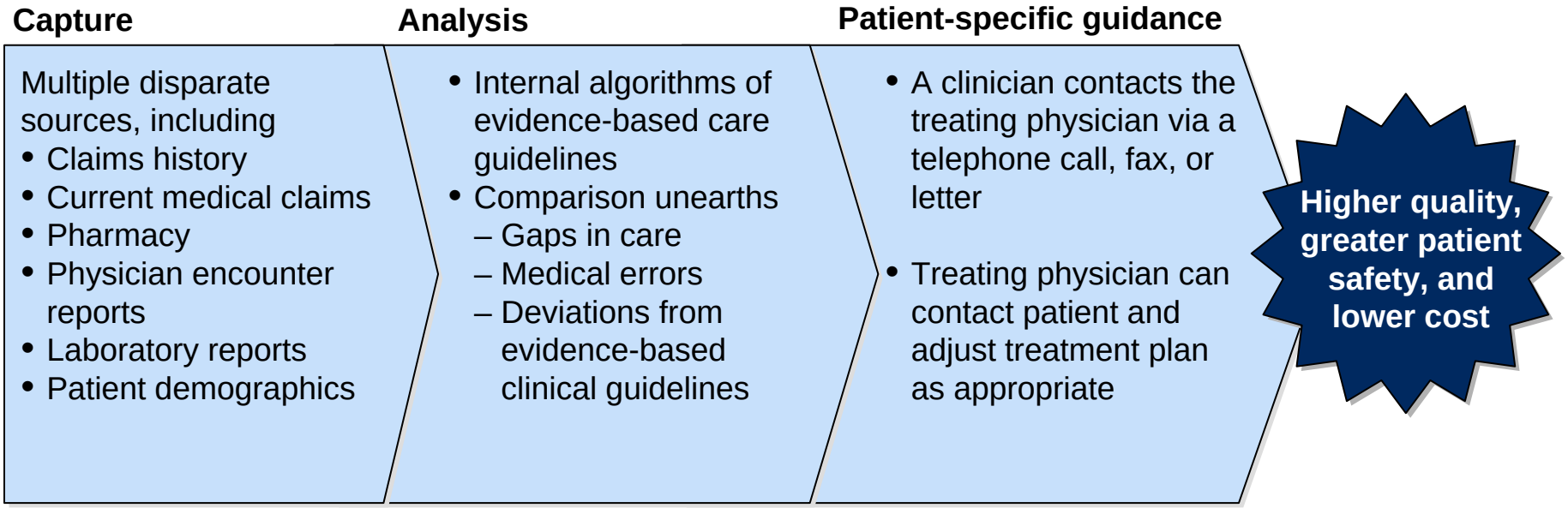
Impact

- High degree of satisfaction among the members
- Customers reported they get a lot for a small fee
- Serves 6 millions people through its relationship with 1,900 institutions (e.g., employers, unions, insurers)

Source: Health Advocate Web page; team analysis

5 USING AN EVENT-DRIVEN, ERRORS AND OMISSIONS APPROACH TO DISEASE MANAGEMENT

Aetna™



Program facts

- Positive physician feedback –providers perceive information they receive through this program to be timely, credible, and "actionable“
- Average ROI of 200% on medical costs through avoided complications, medical errors, and ineffective treatments

Source: Aetna; team analysis

5 EMPLOYERS HAVE BEEN INVESTING MORE IN WELLNESS PROGRAMS

Pitney Bowes
Engineering the flow of communication™

Wellness/prevention

Healthcare University: voluntary educational program for employees
- Health education
- Self-care counseling and disability management
- On-site fitness centers and clinics
- Subsidy for healthier foods in cafeterias

Disease Management

Value based benefit design
- No co-pays for all diabetes drugs and testing products as well as asthma, hypertension
- Other adjustments to formulary over time

Economic impact
- Estimates ROI of 3:1 including worker productivity
- Participating employees have 10% less health care costs
- Cost savings of about $1 million per year in asthma and diabetes costs alone
- Out of pocket costs for employees have fallen by 50-80%
- Increased adherence for chronic disease medication
- Drop in ER visits and hospital admissions
- Diabetes costs rose by 3% less than national average

Source: Sipkoff, Martin, "Employers' Stock in Wellness Rises with No End in Sight", *Managed Care Magazine,* July 2006; Mahoney, John J., "Reducing Patient Drug Acquisition Costs can Lower Diabetes Health Claims", *American Journal of Managed Care, v*ol. 11, no. 5, sup, August 2005

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McKINSEY LOOKED AT UNDERSTANDING HOW HOSPITALS COULD CAPTURE ECONOMIC VALUE THROUGH IMPROVING QUALITY

	LOS reduction	Complication reduction	Filling liberated capacity	Volume growth and rewards
Rationale	• Directly impact on economics with case rates • Indirect impact through better negotiation	• Decrease direct costs of in-hospital complications, unreimbursed readmission	• LOS reduction increases effective capacity for new cases	• Improved quality performance will create more demand • Facilitate increased reimbursements
Community acquired pneumonia example	• Converting IV to PO antibiotics 2 days earlier can shorten LOS by 1.6 days*	• Giving appropriate antibiotics is associated with decreased number of sepsis episodes	• Ambulating patients by Day 1 instead of Day 3 could decrease LOS and liberate new capacity	• Share shifts through marketing high-quality care • Better positioning in pay for performance programs

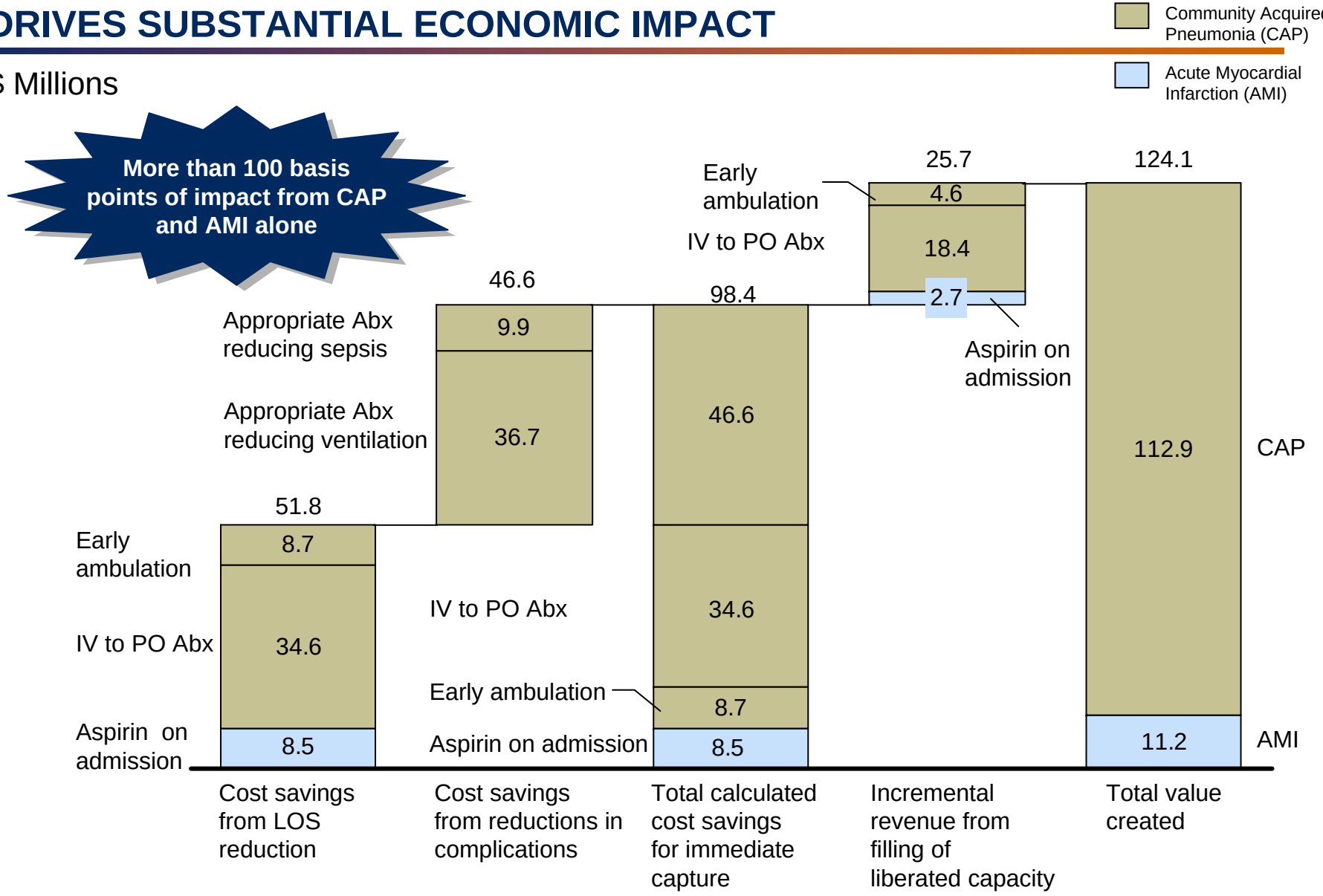
* Additional cost-savings likely from decreased antibiotic and supply costs, and liberated nursing time

** Additional cost-savings likely from decreased unreimbursed re-admission, and decreased legal liability

Source: McKinsey team analysis of client 2003 CAP data

IMPROVEMENT OF JUST 4-5 METRICS IN 2 DISEASES DRIVES SUBSTANTIAL ECONOMIC IMPACT

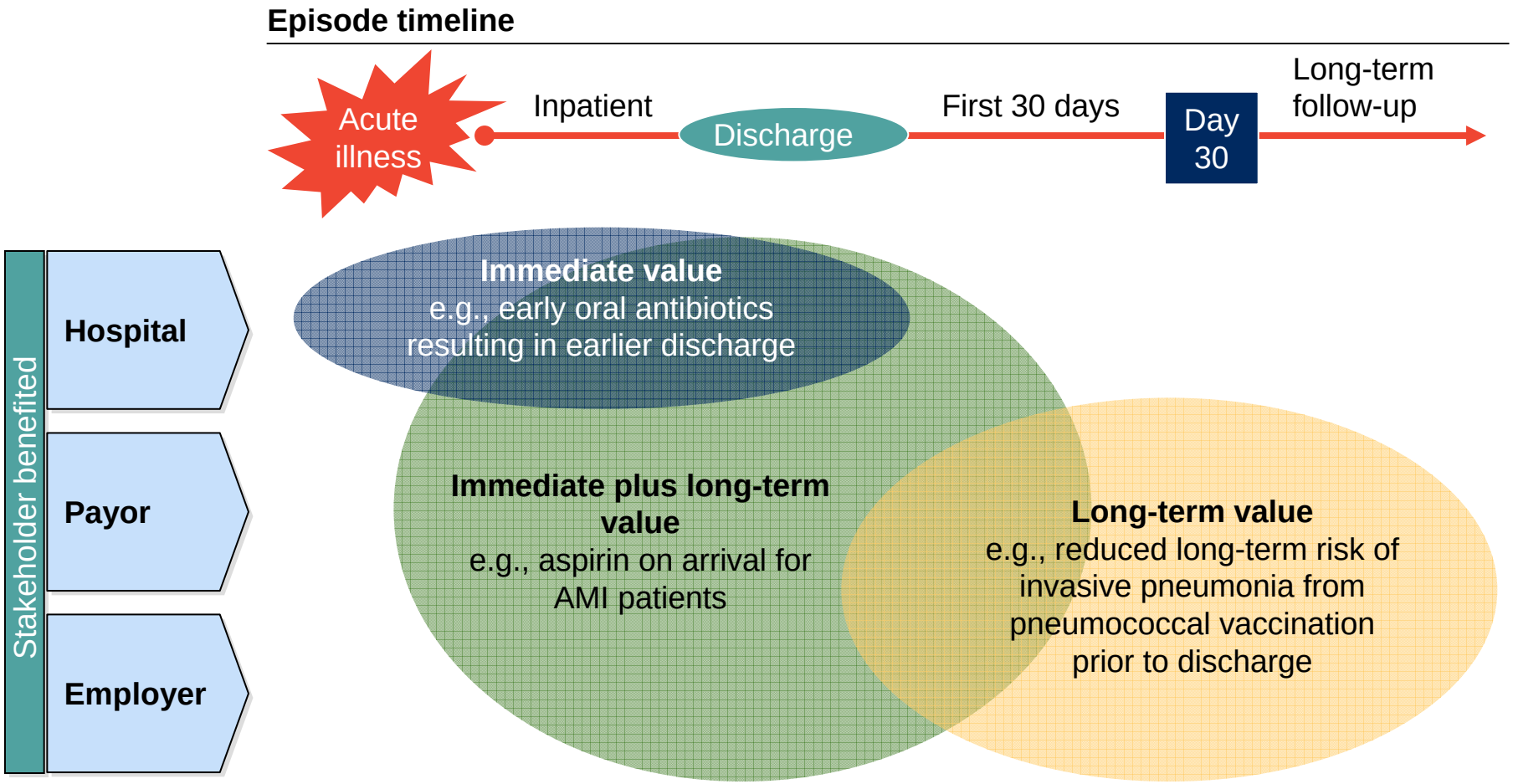
$ Millions



Note: CABG metrics value creation is <$1 million; additional CAP and AMI metrics did not yield significant cost saving

Source: Client quality data; literature review; team analysis

IMPORTANT TO UNDERSTAND HOSPITAL PERSPECTIVE OF TIMING OF ECONOMIC VALUE CAPTURE



Source: McKinsey

② "HEALTH WARRANTY", OFFERS ABILITY TO DEMONSTRATE INTERMEDIATE AND LONG-TERM VALUE

GEISINGER

Geisinger introduces ProvenCare, a 90-day warranty on CABG's

- Flat fee charged for procedure and any follow up treatment required for 90 days
- Price set to account for anticipated follow up treatments, but 50% lower than historical rates
- To mitigate technical risk, hospital ensured 100% compliance to 40-step clinical pathway
- Average hospital charges declined 5% while LOS dropped 12%

Potential payor application

- Utilize claims data to assess technical risk/likely follow up expenses
- Offer physicians a supplemental payment to "warranty" select procedures
- Monitor resulting quality and claims

Source: the *New York Times*; American Surgical Association

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KEY LESSONS FOR PAYORS ON IMPROVING CLINICAL QUALITY

Focus on common diseases	• Driving quality across these diseases will impact the greatest number of patients (e.g., pneumonia, not transplant)
Prioritize metrics	• Sequenced approach with fewer metrics; e.g., share metrics with providers, then transparency, then pay for performance
Approaches are complementary	• Understanding structural barriers and issues is critical (e.g., risk adjustment in hospital payment) • Improving system capabilities is important as well
Meaningful accountability	• Willingness to let market decide or direct patients to higher value providers over time • Meaningful rewards for top performers over time
Engage clinicians and consumers	• Rely on “standards; not standardization” -- enable local clinicians to adapt care processes to meet their needs and standardized quality goals. • Position yourself to the consumer as an advisor and navigator
CEOs must lead quality improvement	• Consistent, compelling, balanced and complementary messages to the consumer and provider communities

THANK YOU!

- For questions or further information, please contact

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