

James C. Robinson, PhD

Kaiser Permanente Professor of Health Economics

Director, Berkeley Center for Health Technology

University of California, Berkeley

Senior Director, Medical Technology Project

Integrated Healthcare Association

Value Purchasing In Orthopedics

AAOS / February 25, 2009

OVERVIEW



- **Innovation and Incentives**
- **Strategic Imperatives in Orthopedics**
- **The IHA Value Purchasing Initiative**
- **Example: total knee replacement**
- **The Way Forward**

Cost-Increasing Innovation

- Biomedical innovation, including new procedures and devices in orthopedics, is a major source of improved health
- It is expensive and risky and needs high revenues to motivate continued investment and appropriate priorities
- However, the extra value created by innovation should be shifted as soon as possible from physicians and suppliers to consumers, taking into account physicians' income needs and producers' needs for ROI
- This requires changes on the demand side of the market
- “Value-based purchasing”

Promoting Value in Health Care

- Sophisticated purchasers reward innovative producers
- The biomedical industries have long enjoyed unsophisticated purchasers (hospitals and insurers) and cost-unconscious demand (patients and physicians)
- This has permitted extensive innovation but also consistently high prices, inefficiency, and unjustified variation in use
- Remember: $\text{value} = \text{quality} / \text{cost}$
- There is an important role for physician organizations, hospitals, and health plans in evaluating performance, aligning incentives, and supporting coordination among participants in the delivery of care

Problematic Payment Incentives

- Many contemporary payment methods encourage adoption of cost-increasing technologies, not cost-reducing technologies
 - Fee-for-service for clinical services
 - Consulting payments to MDs from device firms
 - Hospital “carve-outs” for medical devices

Problematic Organizational Structures

- Much of the contemporary health care delivery system is not structured to encourage sophisticated evaluation, purchasing, and use of technology
 - Struggles between hospitals and physicians over imaging, ambulatory surgery, specialty facilities
 - Physician financial conflicts-of-interest
 - Poor clinical data systems that do not measure performance across all participants

Value-based Purchasing: Key Components

1. Integrated data systems that measure performance across the care continuum
2. Payment methods that align incentives among all contributors and reduce conflicts of interest
3. Organizational structures that support coordination and foster a culture of cooperation



Challenges to Surgeons

- Downward pressure on surgical fees
 - Medicare RBRVS and SGR, commercial insurers
- Rising chorus of adverse publicity
 - Device consulting: conflicts of interest
 - Specialty hospitals and ASC: cream skimming
- Concerns over quality and appropriateness
 - Unexplained geographic variation in procedure rates
 - Hospital readmissions and 'never events'



Challenges to Hospitals

- **Surgical procedures are core**
 - Volume of procedures, revenue per procedure
 - Margins, especially from private insurers
 - Visibility: high tech and hopefully high touch
 - Center of excellence branding
- **Essential that hospitals overcome challenges**
 - Cost management
 - Revenues and pricing
 - Physician relationships



Value Purchasing in the Short Term

- Physician committees to assess new technologies/devices prior to their being purchased by the hospital
- Sharing of data on devices prices and performance
 - Hospitals need to refuse price confidentiality clauses
- Collaboration on negotiating device prices
 - Limits on use of contract 'list price' devices
- Demand matching
 - Physician leadership in deciding which functional level of device for which patient (by age, diagnosis, functional ability)

Value Purchasing in the Long Term

- **In the long term, performance is improved and costs are managed by restructuring along physician-led services lines**
 - Data systems that capture full performance
 - Complications, LOS, outcome, cost, price
 - Preadmission tests, inpatient, post-discharge
 - Physicians assume joint responsibility for outcomes and costs across entire course of care
 - Some form of bundled (episode of care) pricing is important to support joint accountability

IHA Goals and Principles for Medical Devices

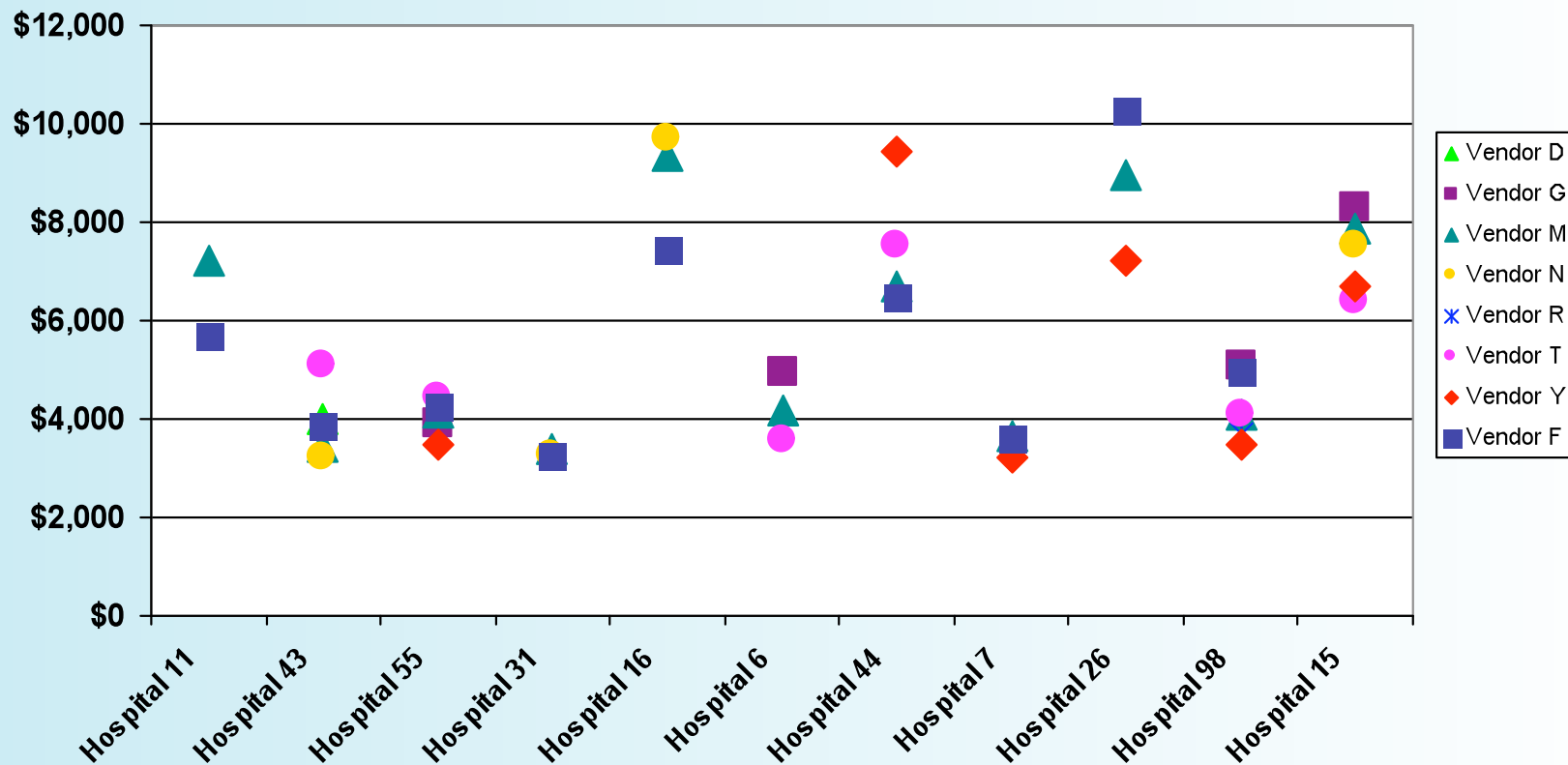
1. Expand P4P principles (quality and efficiency) to high-cost devices in orthopedics and cardiology
2. Foster cooperation between physicians, hospitals
3. Reduce physician conflicts of interest and promote transparency of device prices
4. Pilot a payment method that aligns incentives
5. Improve quality and outcomes for patients

Procedures and Devices of Interest

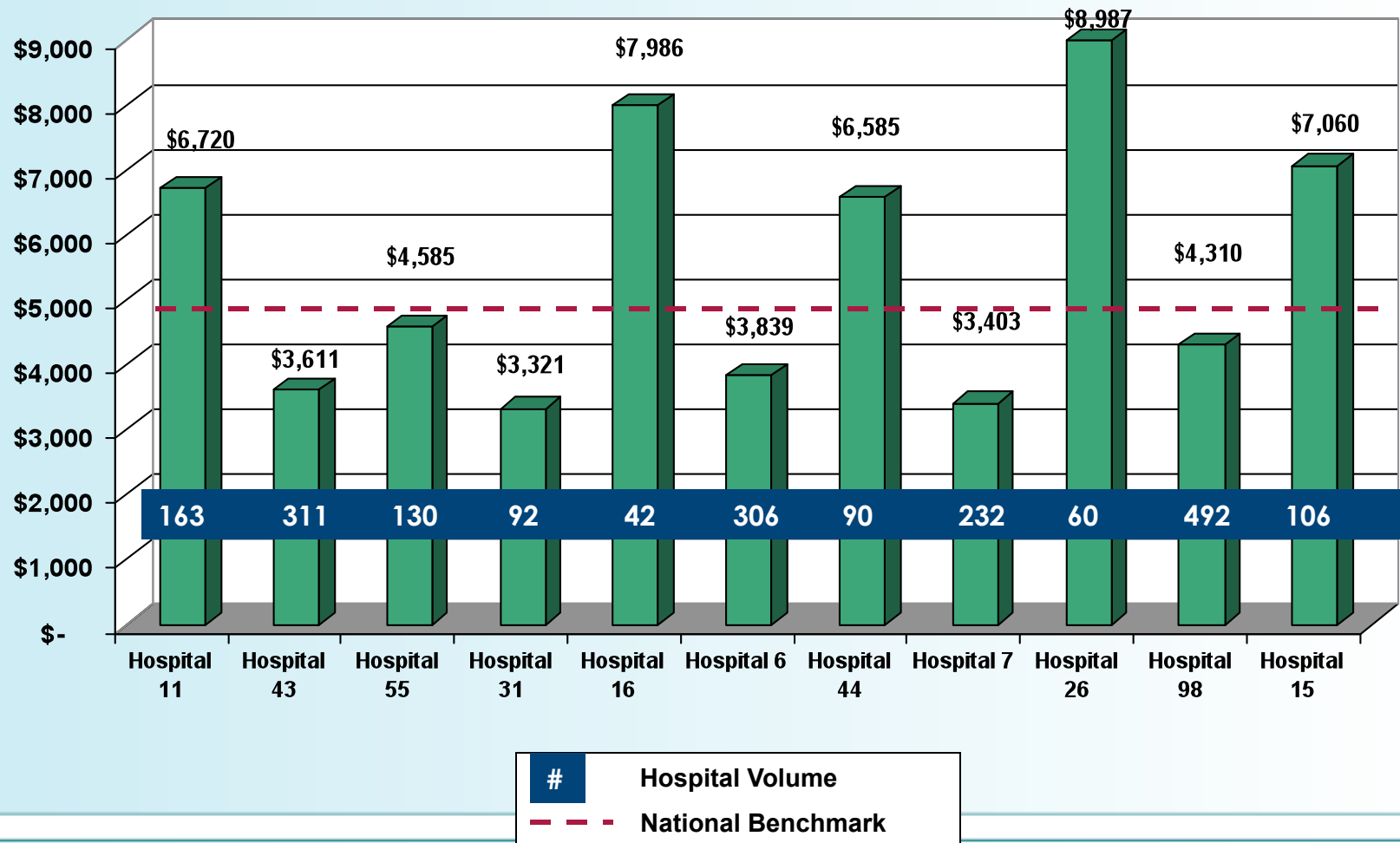
Interventional Cardiac Procedures <ul style="list-style-type: none">➤ PCI (Stents)	Orthopedic Surgery <ul style="list-style-type: none">➤ Total Knee➤ Total Hip➤ Hip/Knee Revisions
Cardiovascular Surgery <ul style="list-style-type: none">➤ Cardiac Valves	Spine Surgery <ul style="list-style-type: none">➤ Spinal Fusion (Cervical/Lumbar)
Cardiac Rhythm Management <ul style="list-style-type: none">➤ Pacemakers➤ Defibrillators/CRTs	

Total Knee Replacement (DRG 544, ICD-9-CM 81.51)

Implant Cost per Case, by Vendor

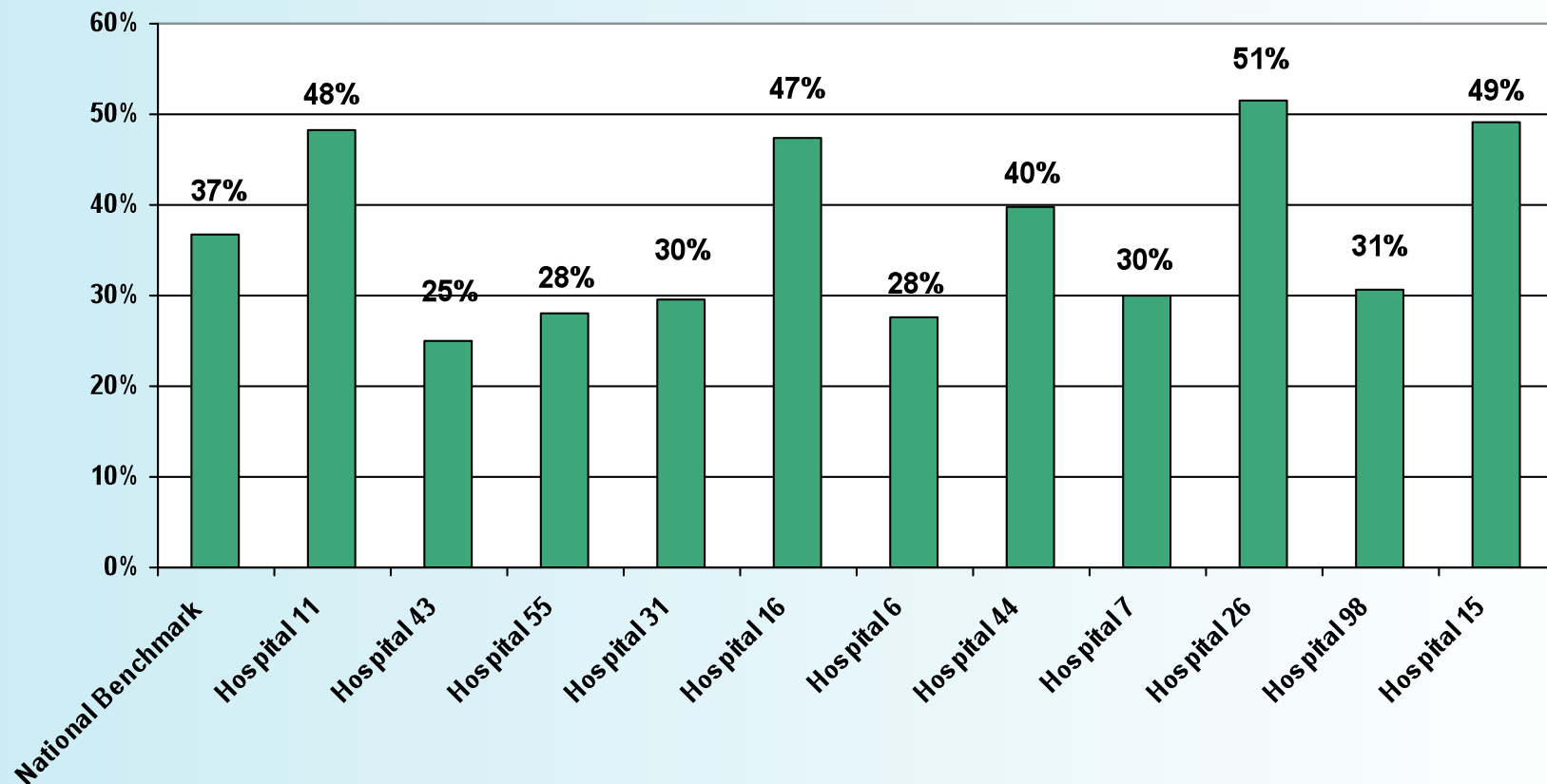


Total Knee Replacement (DRG 544, ICD-9-CM 81.51) Average implant cost per case



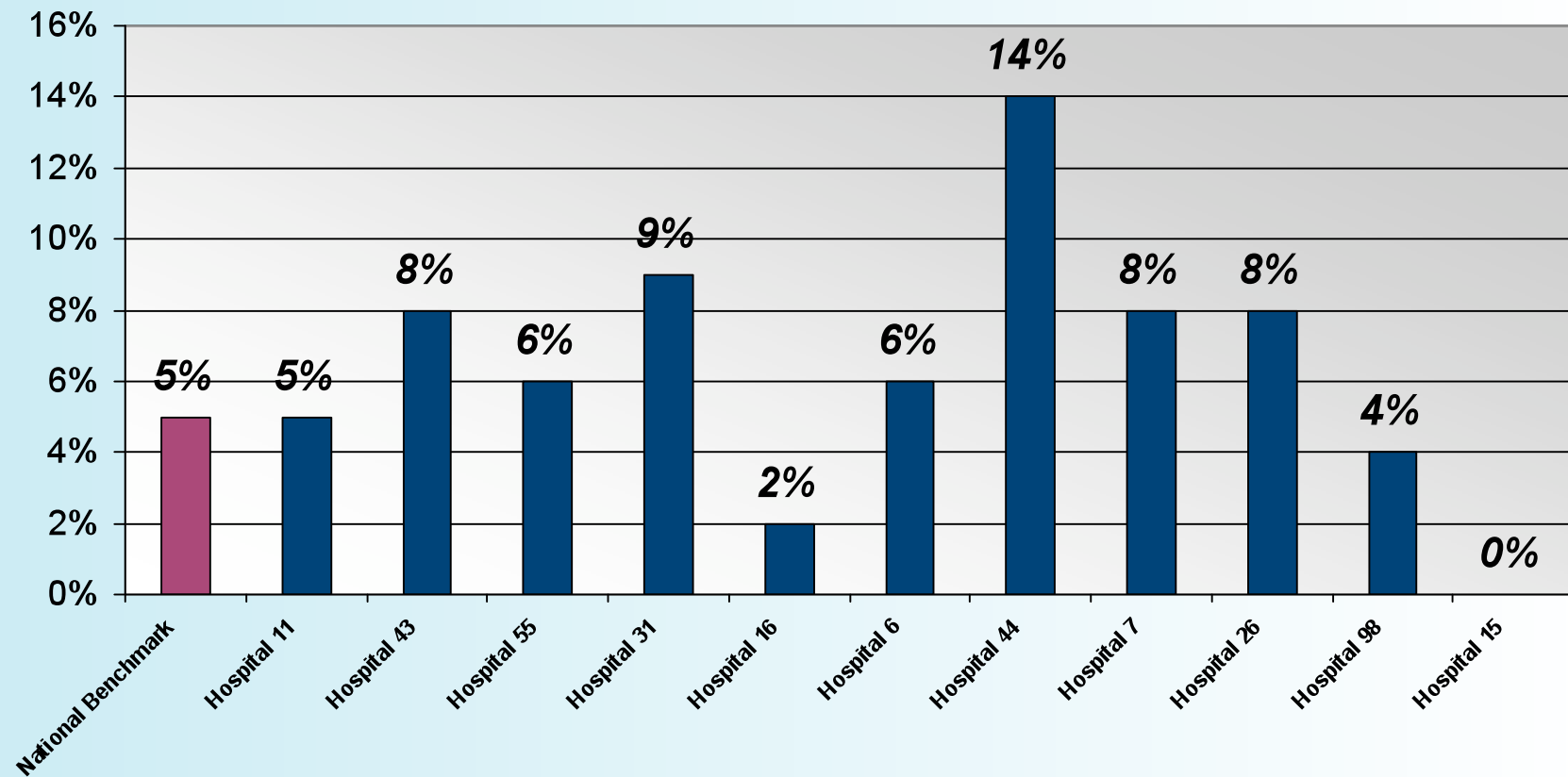
Total Knee Replacement (DRG 544, ICD-9-CM 81.51)

Implant cost as % of reimbursement



Total Knee Replacement (DRG 544, ICD-9-CM 81.21)

Complication rate across hospitals



The Way Forward: Physician-Vendor Relationships

- **Financial relationships between surgeons and device vendors now are front page news as well as being the source of greater regulation and, ultimately, litigation**
- **Conflicted and non-transparent financial relationships, real or merely perceived, undermine relationships:**
 - **Between physicians and hospitals**
 - **Between physicians and patients**
- **They contribute to higher health care costs**
- **They undermine public trust in the medical profession**
 - **The first step is greater disclosure**
 - **The second step is acceptable guidelines**

The Way Forward: Transparency in Device Prices

- **The US health care system is moving towards greater a role for consumers/patients in choosing and paying for care**
- **Cost-sharing is rising and will directly impact patient care**
- **Hospitals want to be able to benchmark the prices they pay against those paid by other hospitals, but are hampered by contract clauses that prevent disclosure to third parties**
- **Proposed federal legislation would force price disclosure**
- **This should be an area of collaboration rather than legislation: Physicians need to support hospital efforts to reject confidentiality clauses**

The Way Forward: Aligned Payment Incentives

- **Episode pricing pays a single bundled fee for the entire episode and all its components**
 - Preadmission testing, procedure, rehab
 - Facility, surgeon, device, other inputs
- **Orthopedic surgery as main area of focus**
 - Medicare demonstration projects
 - IHA and others pursue private sector demonstration projects
- **Could be structured as bonus program rather than single payment to both physicians and hospitals**

Value-based Purchasing: Summing Up

1. Integrated data systems that measure performance across the care continuum
2. Payment methods that align incentives among all contributors and reduce conflicts of interest
3. Organizational structures that support coordination and foster a culture of cooperation



Conclusion

- When used appropriately, medical devices offer breathtaking value to patients and to society
- This is an arena for either conflict or cooperation between surgeons, hospitals, device firms, payers
- Having tried the alternatives, perhaps there are grounds for collaboration and gain-sharing

