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Pursuing Value for Medical Devices in Orthopaedics

OVERVIEW



- **Economic Challenges Facing Orthopaedics**
- **Strategic Imperatives for Hospitals**
- **The IHA Value Purchasing Initiative**
- **Example: total knee replacement**
- **The Way Forward**

Challenges: Cost

- Cost pressures are growing for all
 - **Federal budget deficit**
 - **Medicare and Medicaid:** CBO, GAO
 - **Employers:** eroding commitment to coverage (especially for retirees and dependents)
 - **Health plans:** affordability is the imperative
 - **Individuals:** rising copayments and deductibles
- The **BLAME GAME** is in full swing.



Challenges: Quality

➤ Are we getting our money's worth?

- Utilization: unjustified geographic variations
- Appropriateness: over-use and under-use
- Safety risks and product recalls
- Poor coordination along continuum of care
 - Hospital, ASC, clinic, rehab, home care

➤ Demands for comparative effectiveness studies

- Registries, observational studies
- Coverage with evidence development
- Phase IV post-market studies



Challenges: Demonization

- **The medical device sector, surgeons, and hospitals are in the limelight**
 - Physician “bribes” from manufacturers
 - Promotion of off-label uses (e.g., BMP)
 - Price non-transparency for hospitals, manufacturers
 - Rising costs: insured, uninsured, under-insured
 - Medicine the leading cause of bankruptcy
 - Sicko: the worst health care in the world?
- **Litigation and regulation follow demonization as the day follows the night**

Hospitals: Challenges and Opportunities

- **Device-intensive 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



Hospitals: Cost Management in the Short Term

- **In the short term, costs are managed by reducing input prices, including devices**
 - Volume discounts; limits on off-contract use
- **It is imperative that hospitals manage device costs, as these are a high percent of revenues for high-margin procedures**
- **Supply chain principles:** obtain the best price for inputs and use only those inputs that are necessary (match device level to patient need)



Hospitals: Cost Management in the Long Term

- **In the long term, costs are managed by restructuring along services lines in order to analyze and improve processes of care**
 - Data systems that capture full performance
 - Complications, LOS, outcome, cost, price
 - Preadmission tests, inpatient, post-discharge
 - Physician leadership is essential
 - Some form of bundled (episode of care) pricing is important to create joint accountability

California hospitals:

Which strategies are being used today?

Current Hospital Medical Device Strategy	% of CA Hospitals Using Strategy [N=83]
Technology assessment committee	55%
Pre-approval needed before vendor receives payment	36%
Share device prices with MDs	84%
Invest savings (from lower costs) in OR	36%
Disclose MD conflicts of interest	47%
Limit MD conflicts of interest	20%

Source: CHA-IHA Medical Device Strategy Survey, January 2008.

California Hospitals:

Current purchasing strategies for orthopedic, cardiac and spine implants

	Total Joint Replacement	Cardiac	Spine
Limit # of Vendors	69%	74%	65%
Set a price-cap on devices	45%	45%	43%
Kit pricing	44%	36%	33%
Premium use rebates	44%	5%	8%

Source: CHA-IHA Medical Device Strategy Survey, January 2008.

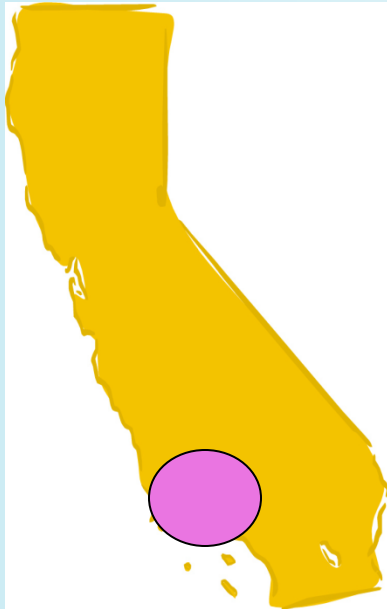
IHA Goals and Principles for Health Care Technology

1. Expand P4P principles (quality and efficiency) to high-value but high-cost procedures and devices
2. Foster cooperation between physicians, hospitals
3. Find areas of common interest among all stakeholders, including physicians, hospitals, medical groups, health plans, device firms, purchasers, consumers, and policymakers
4. 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	

Phase I (Proof of Concept)



Two-year demonstration project focused in the Orange County/ Long Beach area (June 2006 - June 2008)

I. Best practices (in collaboration with CHA):

- Purchasing strategies survey
- Statewide conference

II. Data aggregation and benchmarking

- 11 hospital participants (Memorial Health Services, St. Joseph Health System, Tenet Healthcare)

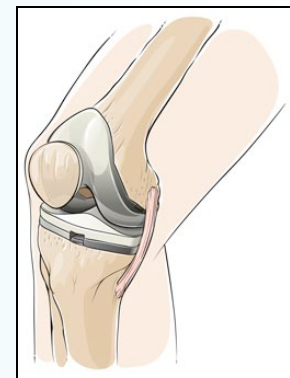
Phase II (Statewide Program)

Two-year statewide project (June 2008 - June 2010)



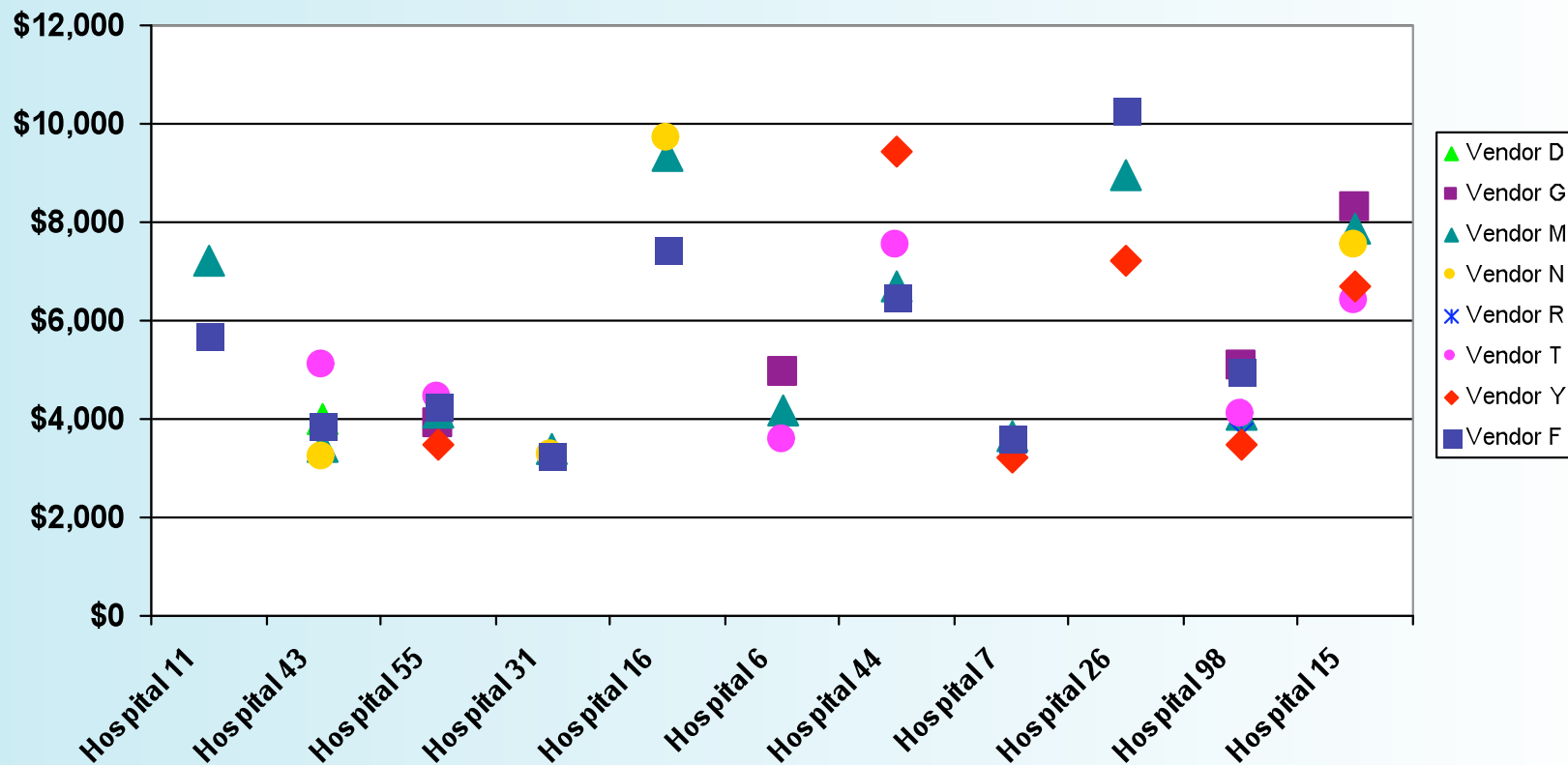
- I. Hospital data aggregation, analysis, benchmarking (100+ hospitals)
- III. Identification, dissemination of best practices: purchasing, transparency
- IV. Episode-of-illness pricing pilot using insurer claims data

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



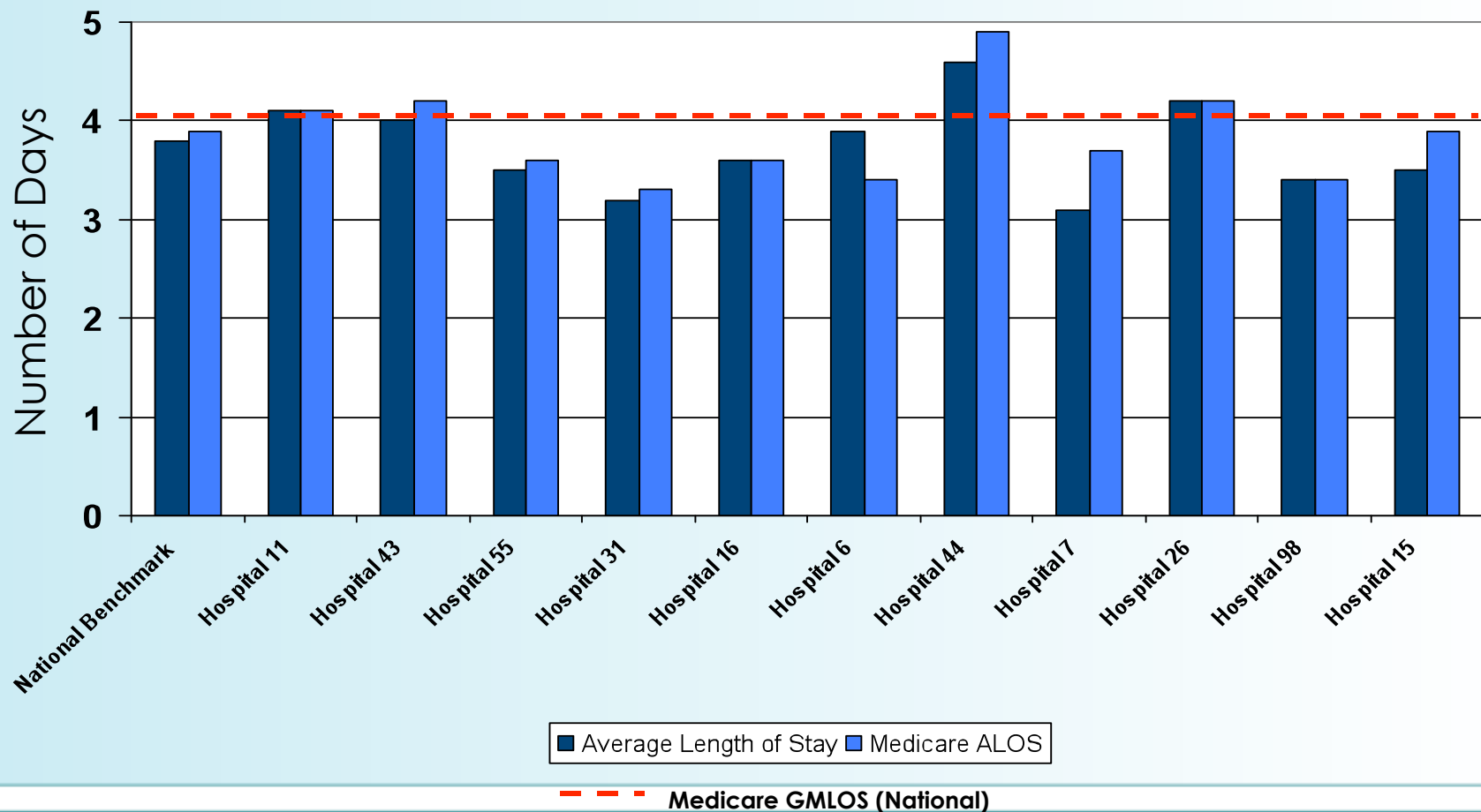
Total Knee Replacement (DRG 544, ICD-9-CM 81.51)

Implant Cost per Case, by Vendor



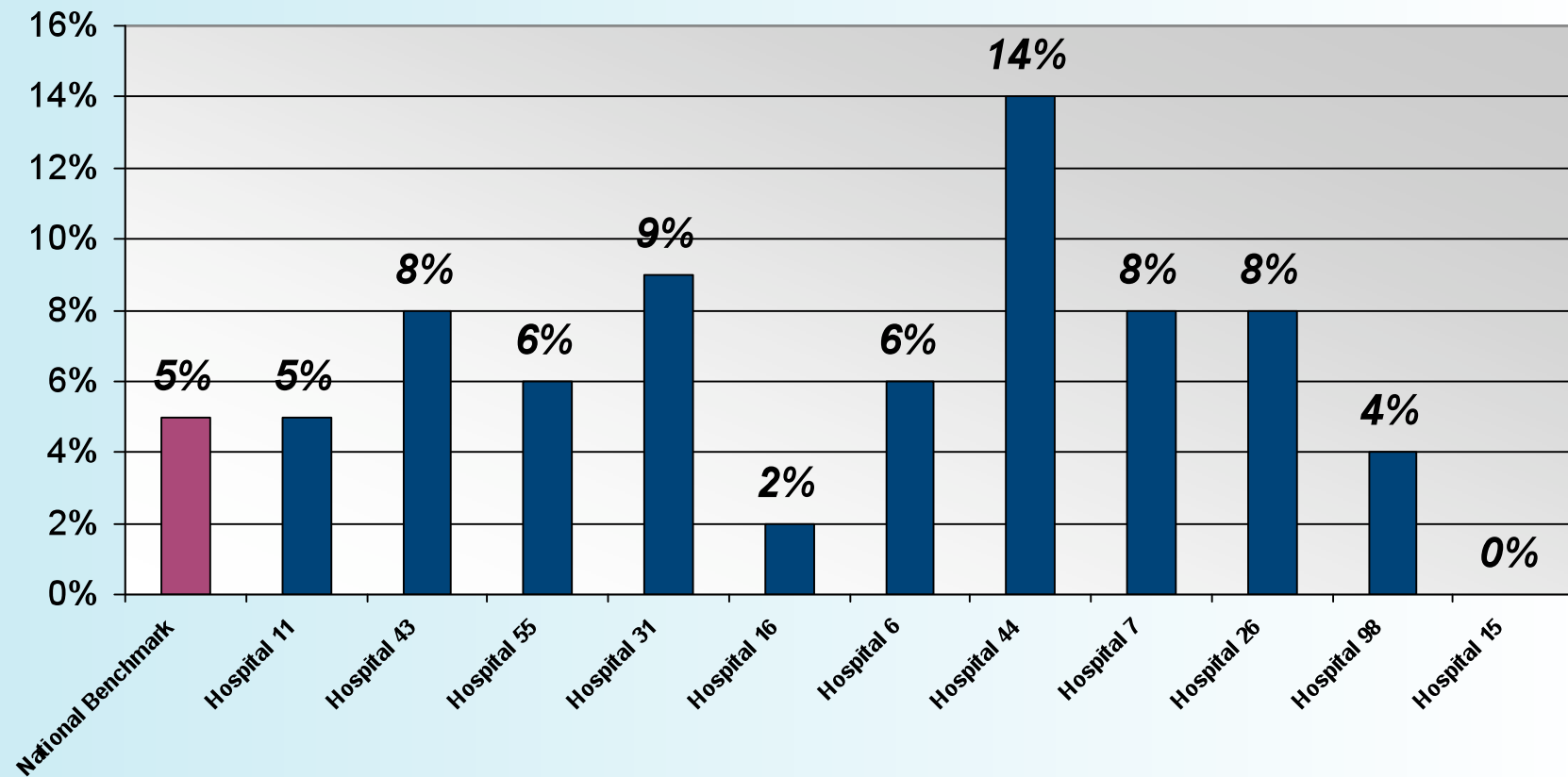
Total Knee Replacement (DRG 544, ICD-9-CM 81.51)

Average Length of Stay



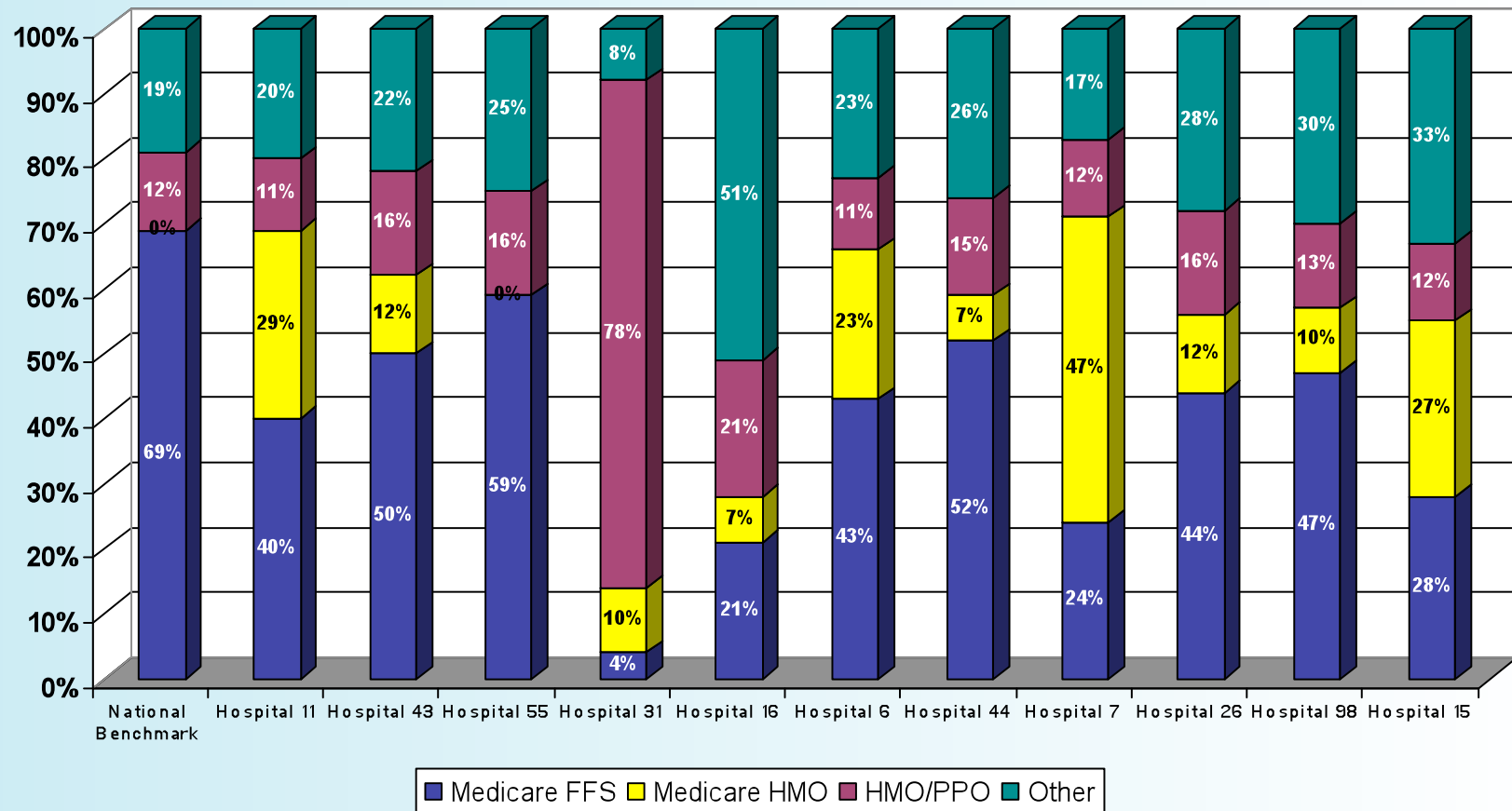
Total Knee Replacement (DRG 544, ICD-9-CM 81.21)

Complication rate across hospitals

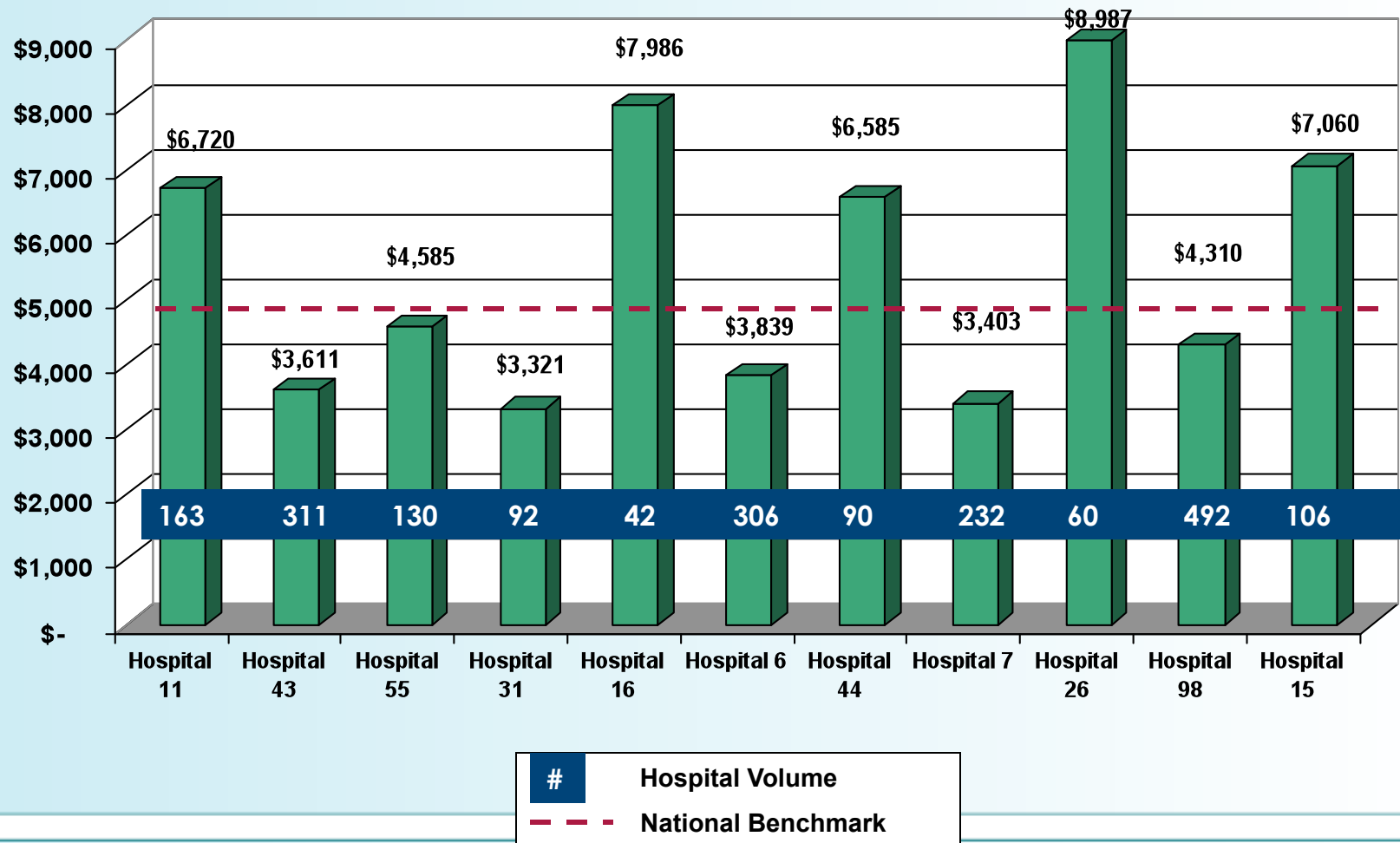


Total Knee Replacement (DRG 544, ICD-9-CM 81.51)

Payer Mix Across Hospitals

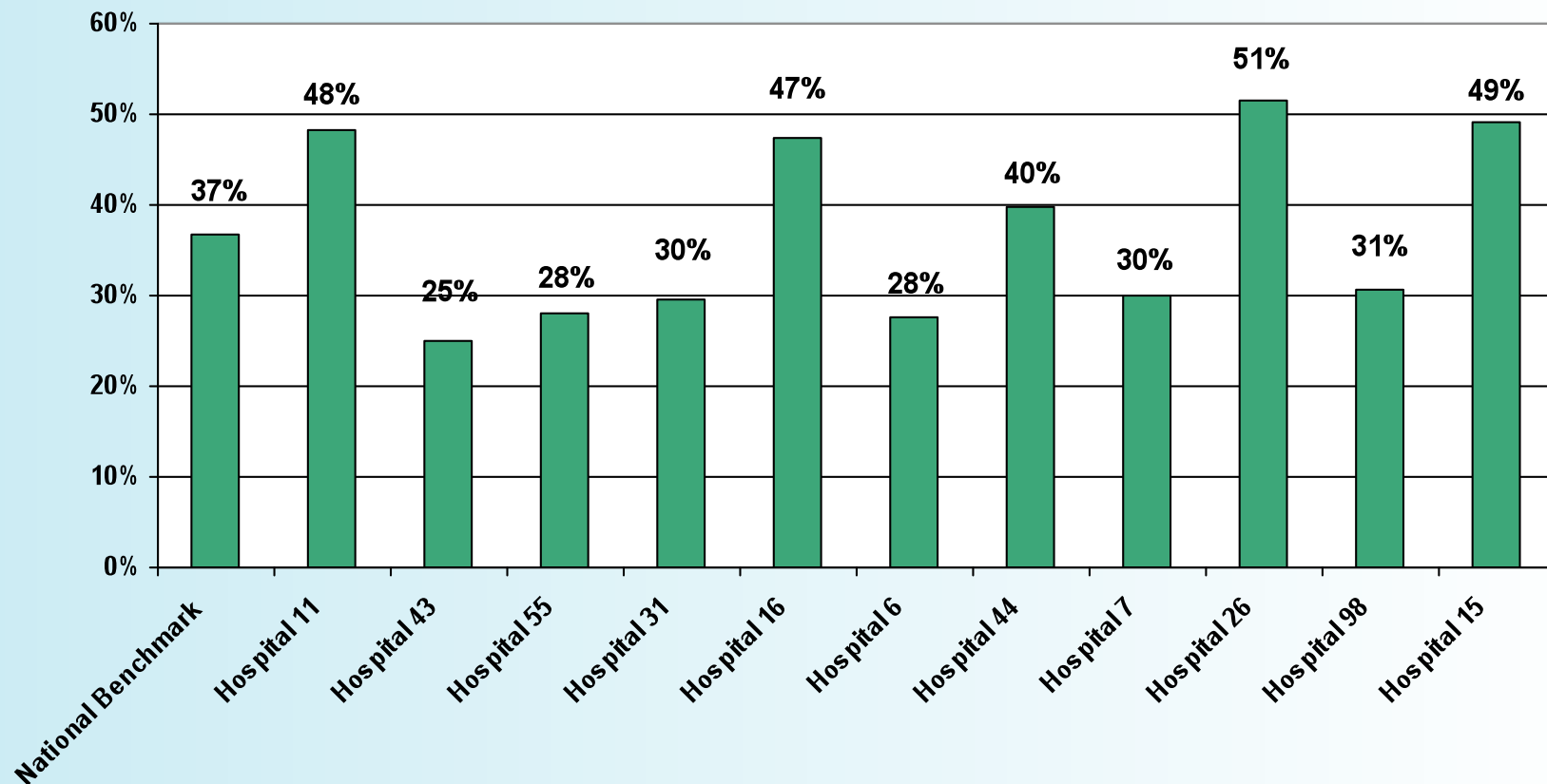


Total Knee Replacement (DRG 544, ICD-9-CM 81.51) Average implant cost per case



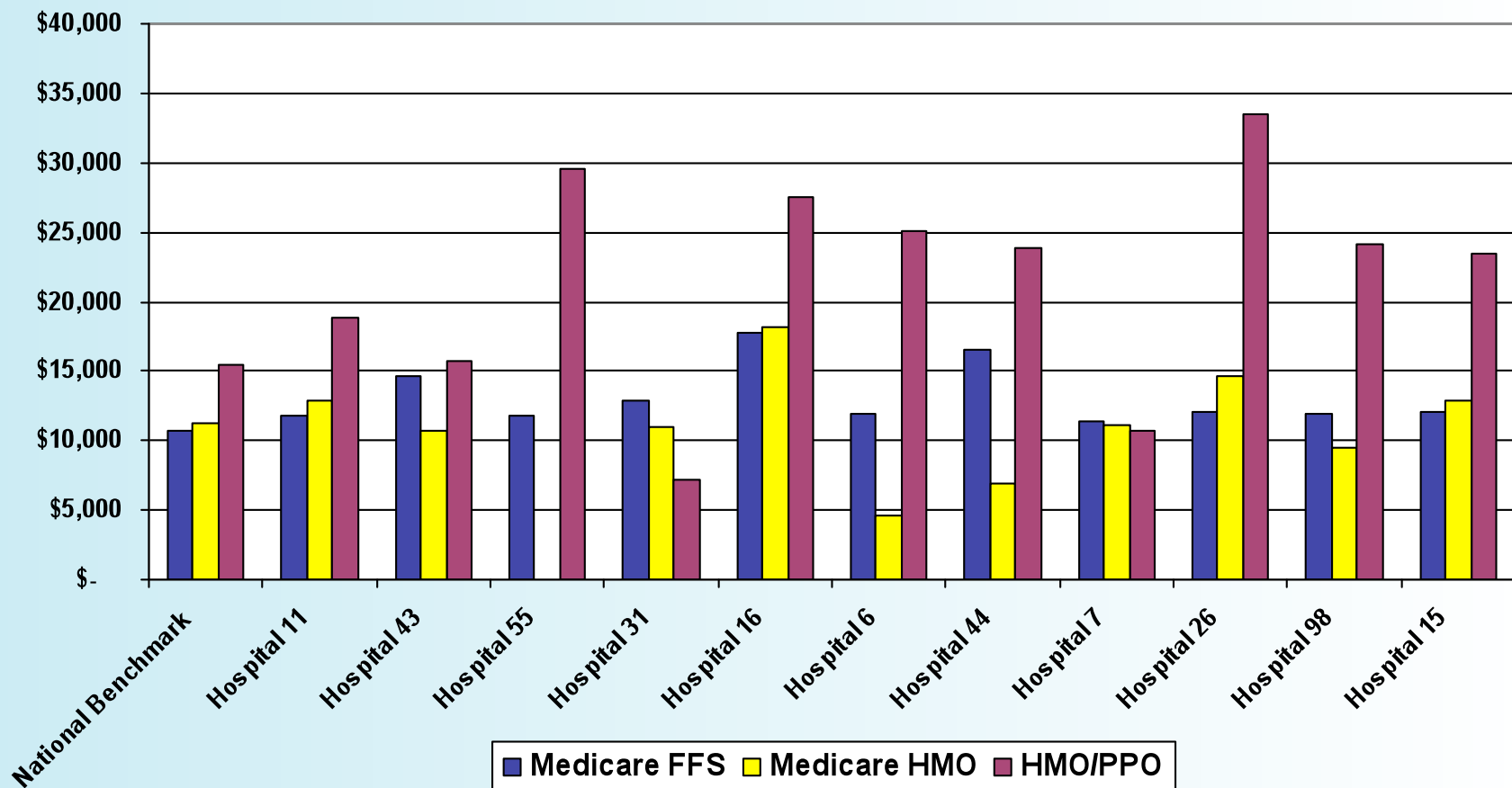
Total Knee Replacement (DRG 544, ICD-9-CM 81.51)

Implant cost as % of reimbursement



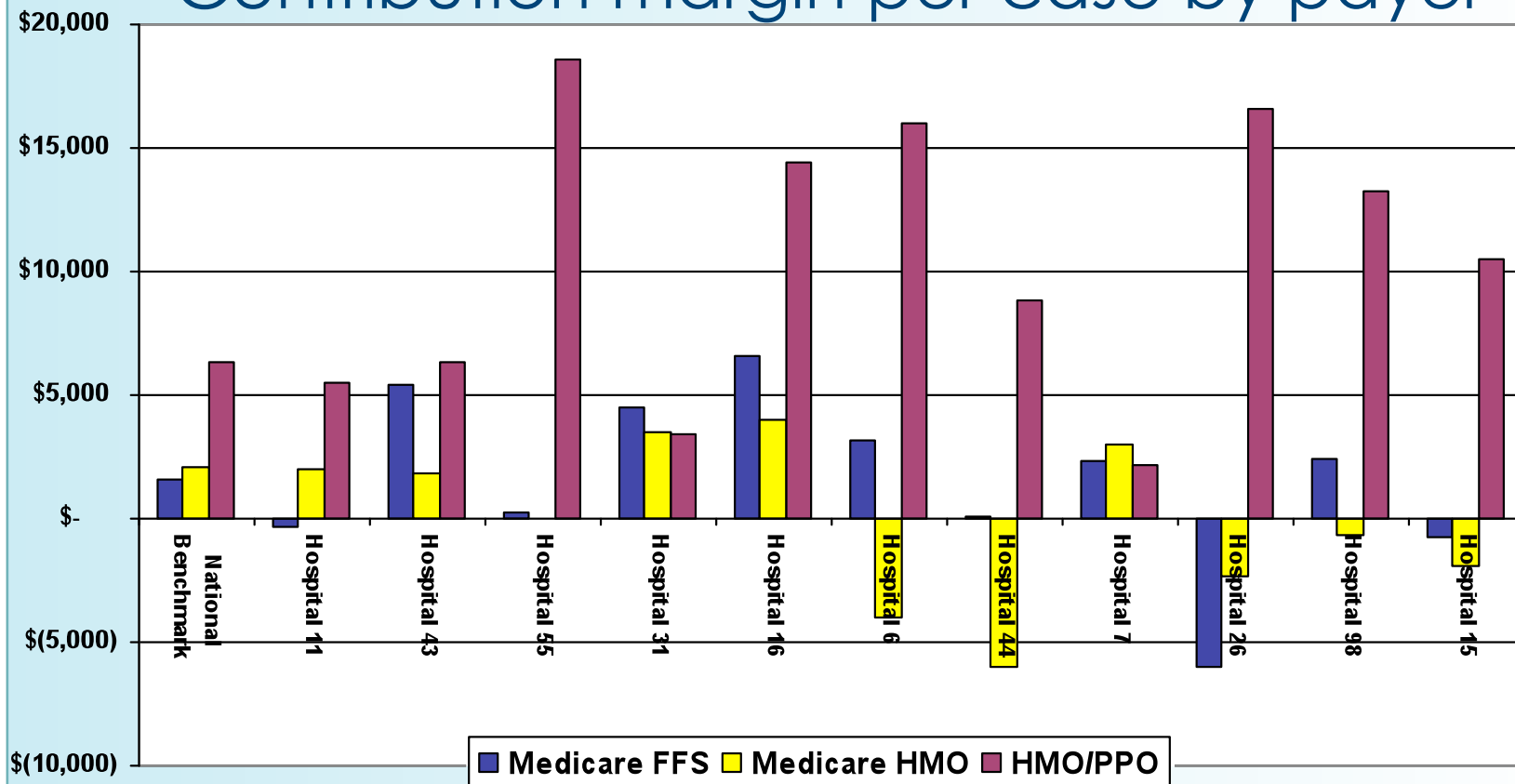
Total Knee Replacement (DRG 544, ICD-9-CM 81.51)

Average reimbursement per case by payer



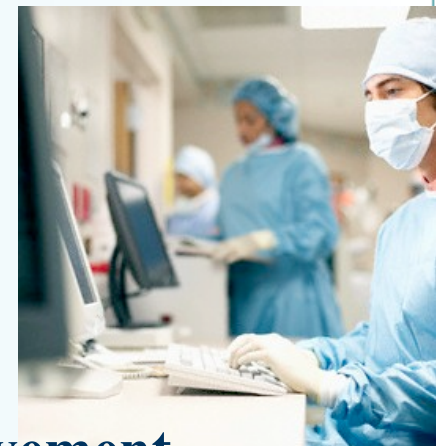
Total Knee Replacement (DRG 544, ICD-9-CM 81.51)

Contribution margin per case by payer



The Way Forward: Better Data Systems

- The hospital and medical device sectors are **data rich** but **information poor**
- **Need data on total costs and total outcomes**
 - Not just unit prices and silo-specific outcomes
 - The entire continuum of care
 - All contributors and participants
- **Need benchmarks and best practices for improvement**
- **Need transparency among partners**



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
- **Could be structured as bonus program rather than single payment to both physicians and hospitals**
- **Episode pricing is well adapted to device-intensive procedures (clear beginning & end to episode)**
- **This gives incentive for end-to-end performance analysis and continuous improvement**
- **Hospital, surgeon, and device firm must collaborate or all suffer (total gain-sharing)**

The Way Forward: Physician-Vendor Relationships

- **Viewed from outside, orthopedics is a dark room**
- **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**
- **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 new designs may more directly impact inpatient care in the future**
 - **High deductible health plans**
 - **Reference-pricing and tiered formularies for devices**
- **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, including consultants, GPO, staff physicians, patients**
- **This is less a public policy matter than a business matter: hospitals, device firms, and surgeons need to support benchmarking**

Conclusion

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

