Capitation a bad word?
Episode Management is not?
Condition Based Payment is not?

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2019 AAHKS business meeting

Duke Orthopaedics

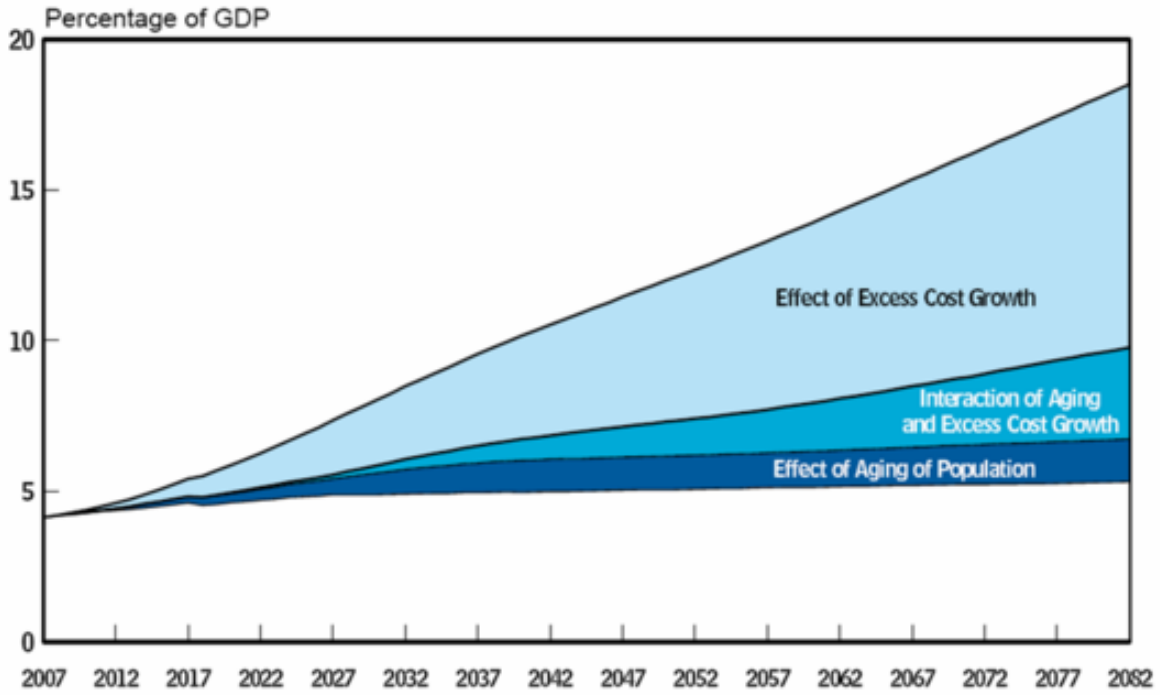
Adult Reconstruction

Disclosure

- Personal
  - Royalties
    - Depuy
  - Consultant
    - Depuy
  - BOD and Committee
    - AAHKS, Hip Society
- Institution
  - Research and clinical support:
    - Depuy
    - Zimmer/Biomet
    - TJO
    - Stryker

Current Cost Growth is unsustainable

Projected Federal Spending on Medicare and Medicaid (% GDP)



- It is the *rate* of spending per individual that will have the most impact, rather than the *quantity* / demographics of an aging population.
- "Excess cost growth" refers to the extent to which the increase in health care spending for an average individual exceeds the growth in per capita GDP.
- "Interaction…" refers to effects of excess cost growth and the aging of the population, which result in greater growth in spending than would result from either factor separately.
- "Aging of population" refers to demographic shifts, such as an increasing average population age and life expectancy.

Source: Congressional Budget Office

Vision for Care Reform

Significant opportunity to improve comprehensive care for chronic musculoskeletal conditions

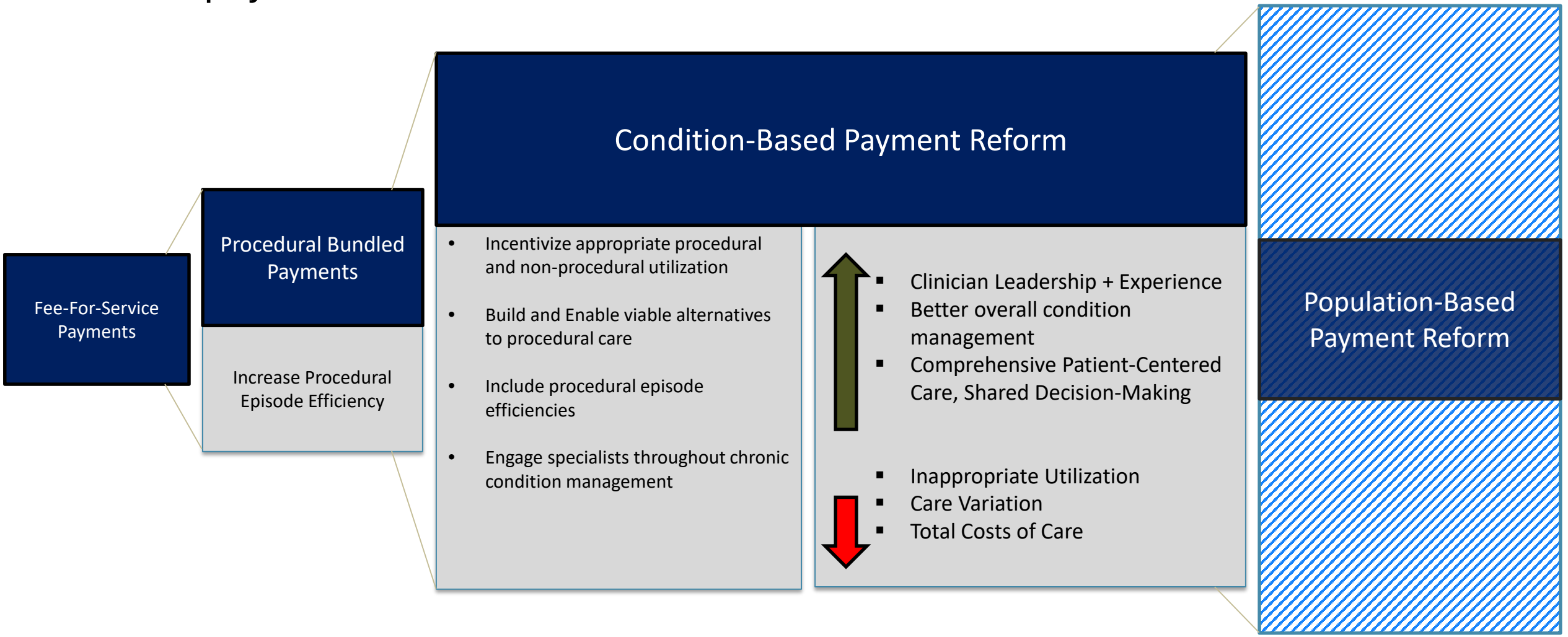
Development of Alternative Payment Models that align with comprehensive management

Aren’t Bundles enough?

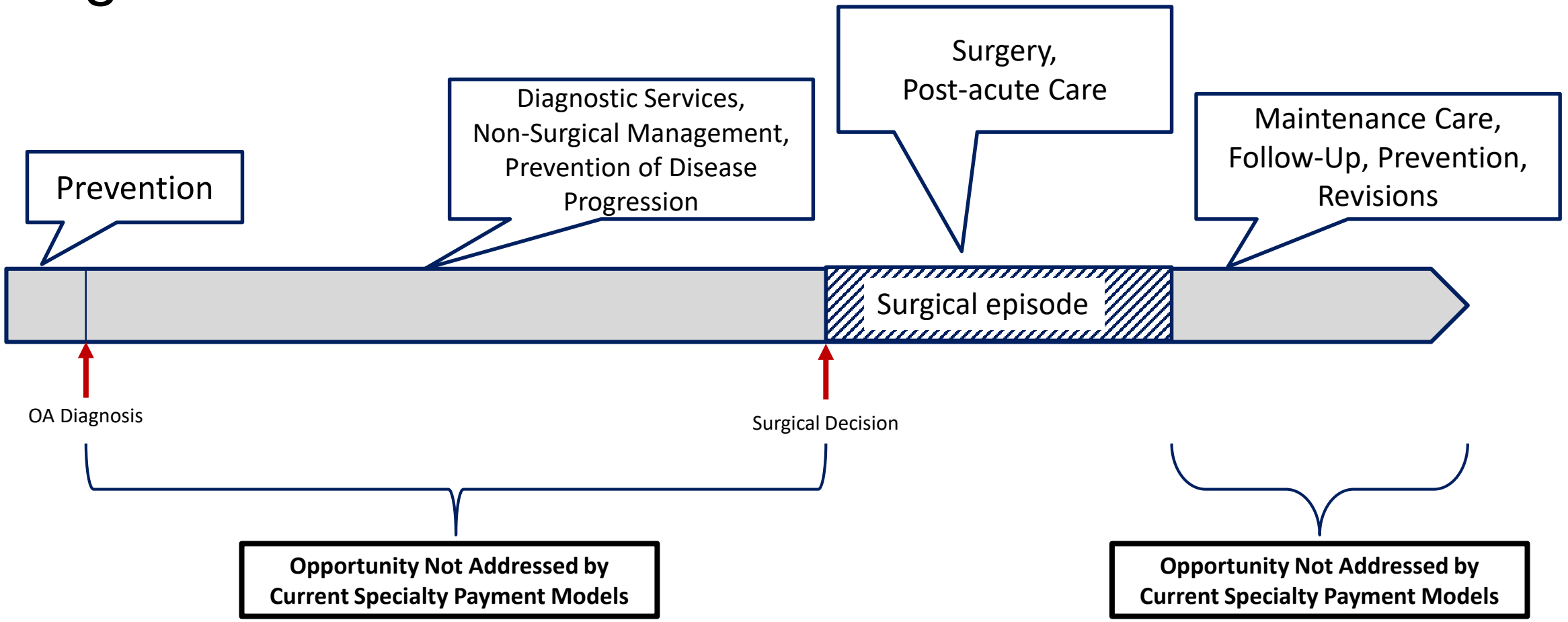
- They have produced cooperation between different providers
- They have reduced the cost of the episode
- Improved the quality of the product

- But they have not decreased utilization (in fact it may have increased)
- They have not contributed to comprehensive mgmt. of the disease

Expand upon procedural bundles and better engage specialists in population-based payment reform



Longitudinal Care Continuum



Condition-Based Orthopaedic Payment Reform

Duke | MARGOLIS CENTER for Health Policy

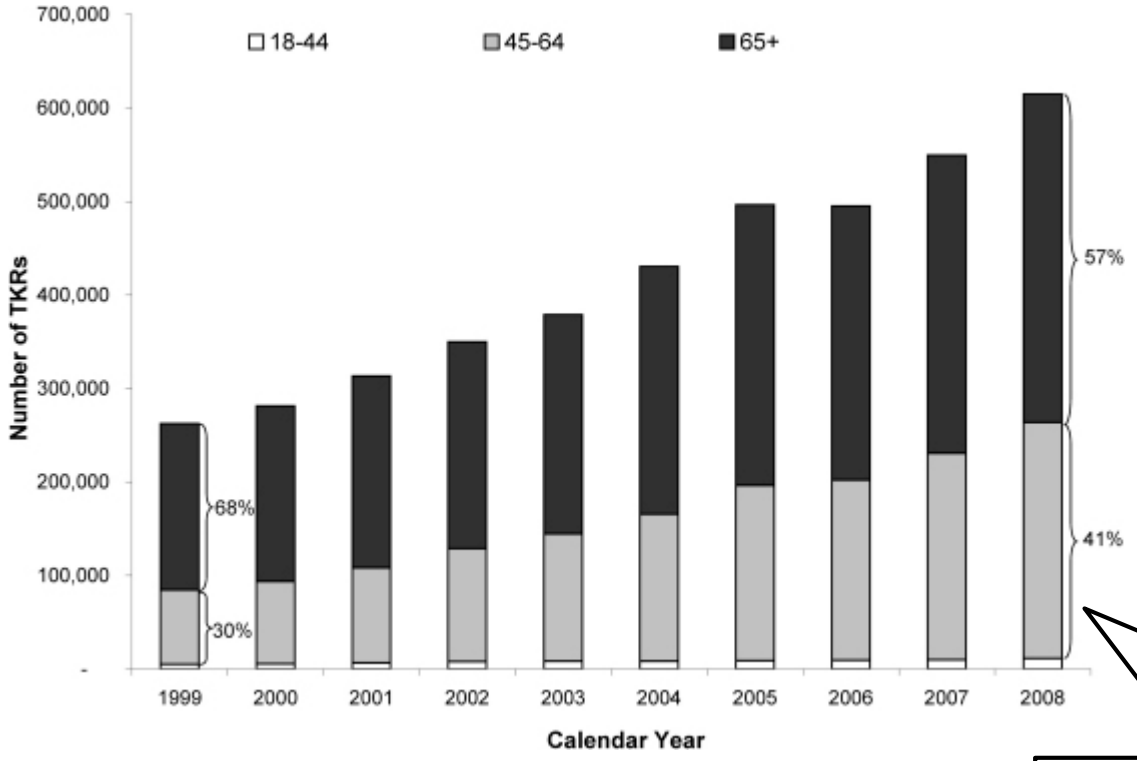
The University of Texas at Austin Dell Medical School

Duke Orthopaedic Surgery
Duke University School of Medicine

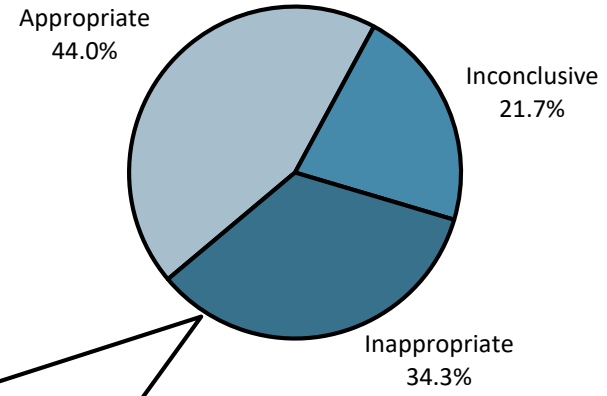
Prepared for: October 21, 2019

Condition-based bundles address *appropriateness* of surgical treatment

TKA Incidence, 1999-2008 [1]



Appropriateness of TKA[2]



~ 1 in 3 TKA may be inappropriate based on:

- WOMAC Pain and Physical Function
- Radiographic (K/L Grade)
- Knee range of motion and laxity
- Age

- Greater than **130% increase in TKA**, 1999-2008
- Obesity and Population Growth fail to explain increase
- Growing proportion of TKR in patients <65 years old

TKA = Total Knee Arthroplasty

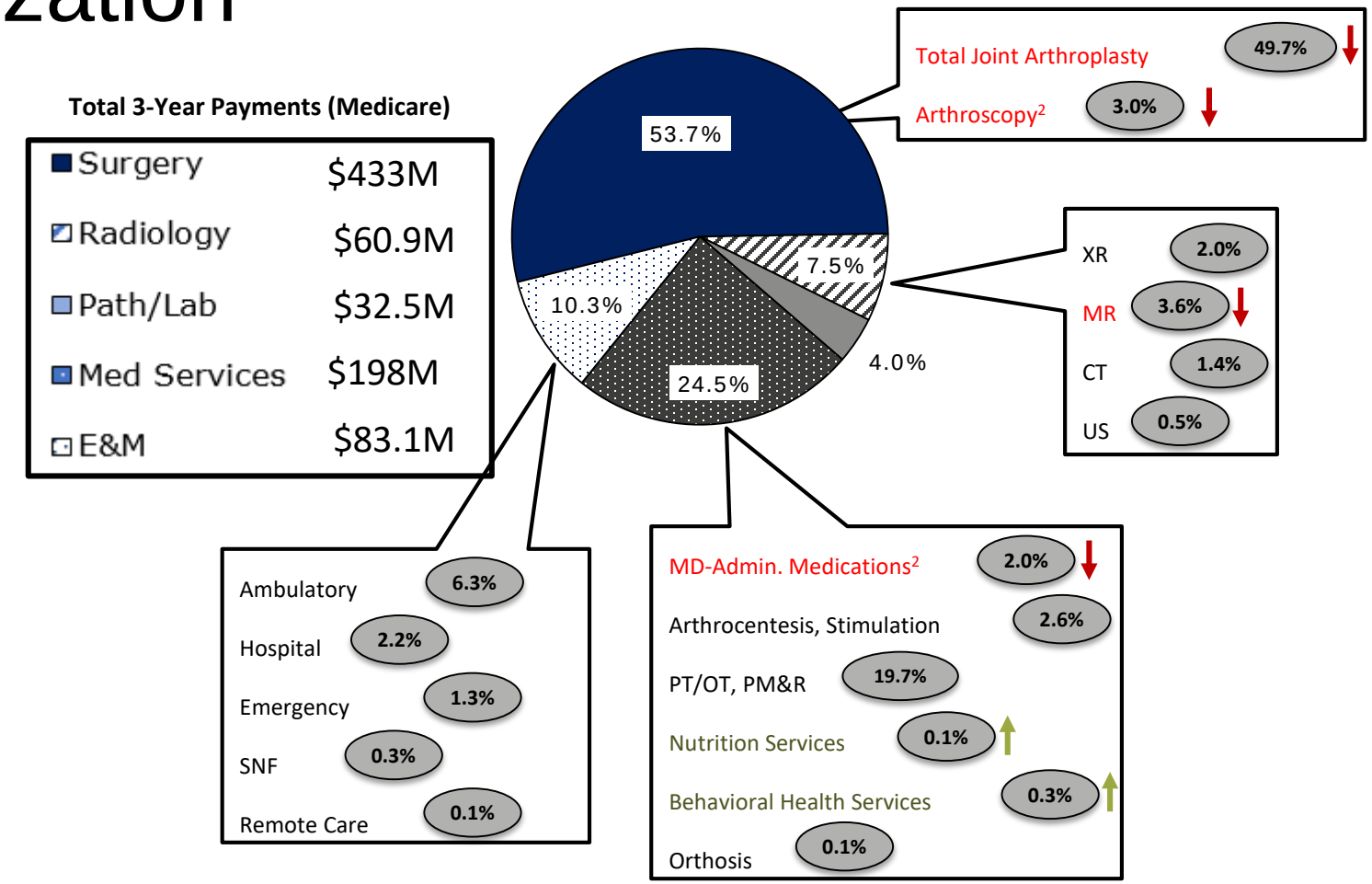
[1]PLosina, Elena et al. "The Dramatic Increase In Total Knee Replacement Utilization Rates In The United States Cannot Be Fully Explained…". JBJS 94(3), 2012.
[2]Riddle, Daniel L. et al. "Use Of A Validated Algorithm To Judge The Appropriateness Of Total Knee Arthroplasty In The United States: A Multicenter Longitudinal Cohort Study". *Arthritis & Rheumatology* 66(8), 2014.

There are also opportunities for resource reallocation from non-surgical utilization

Concrete opportunities to shift care from **Surgical Procedures** and **Non-Evidence-Based Services** toward **Clinical Practice Guidelines**

Decrease:
- Hyaluronic acid injection
- Arthroscopy
- Magnetic Resonance Imaging
- Inappropriate joint arthroplasty

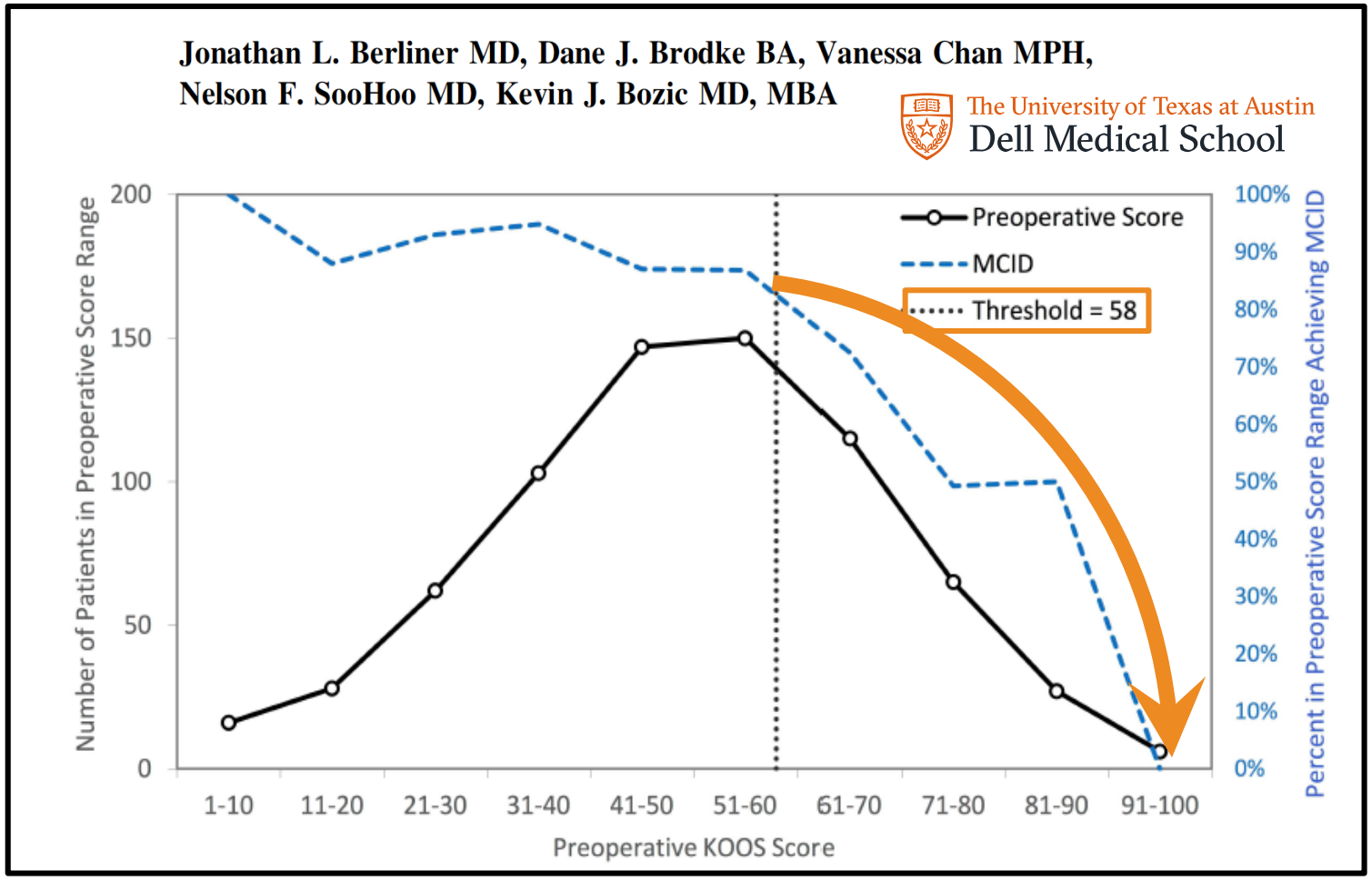
Increase:
- Nutrition services
- Behavioral health services
- Physical and Occupational Therapy
- Care coordination, case management



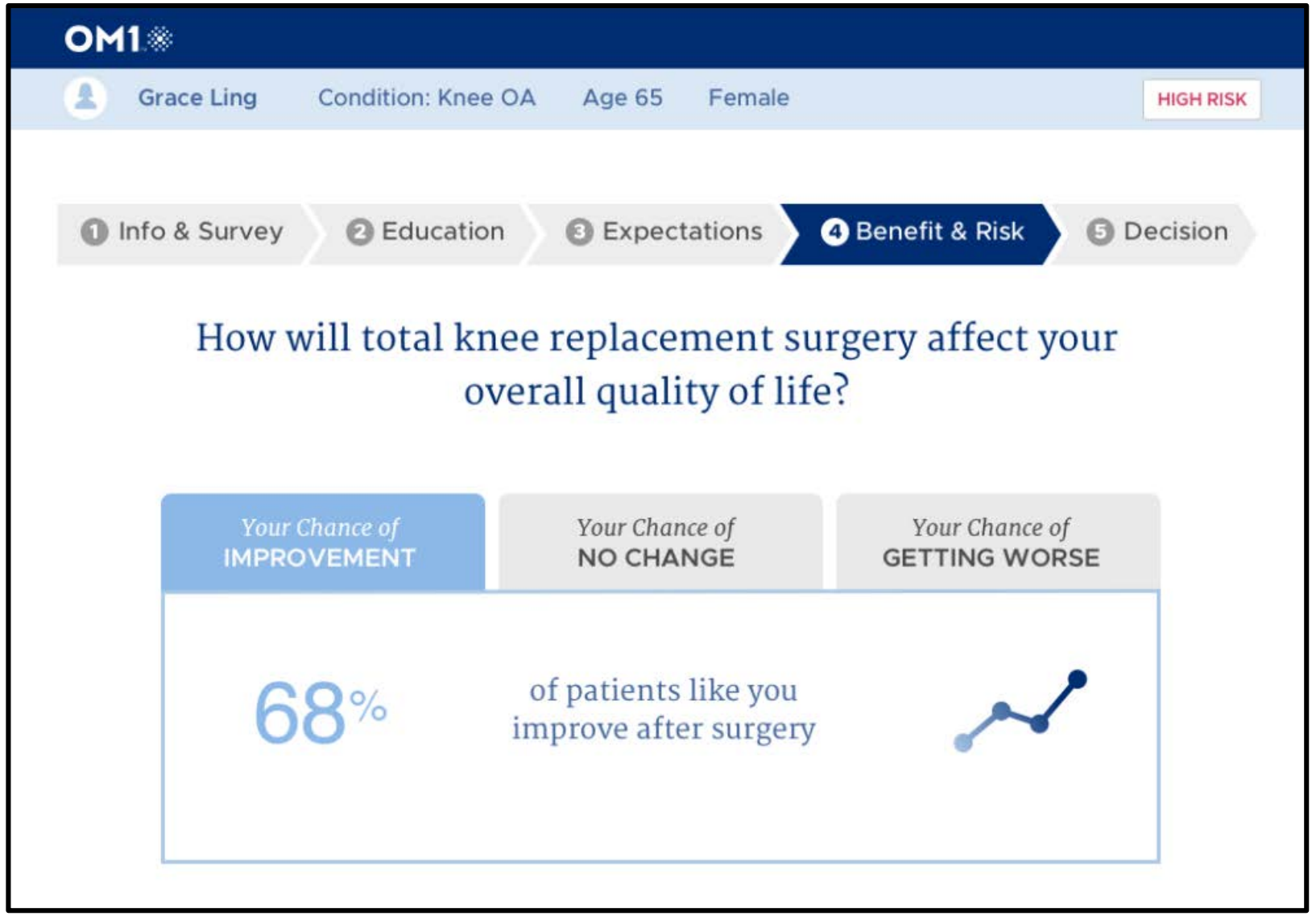
[1]PearlDiver Patient Database
[2]Significantly higher among commercial payer cohort

Opportunity to incorporate Patient Reported Outcome Measures to inform appropriate clinical decision making

Knee injury & osteoarthritis outcome score (KOOS) threshold predicts the likelihood of benefit with knee replacement surgery→ score of 58+ lowers chance of benefit.



Drill down to personalized Shared Decision Making

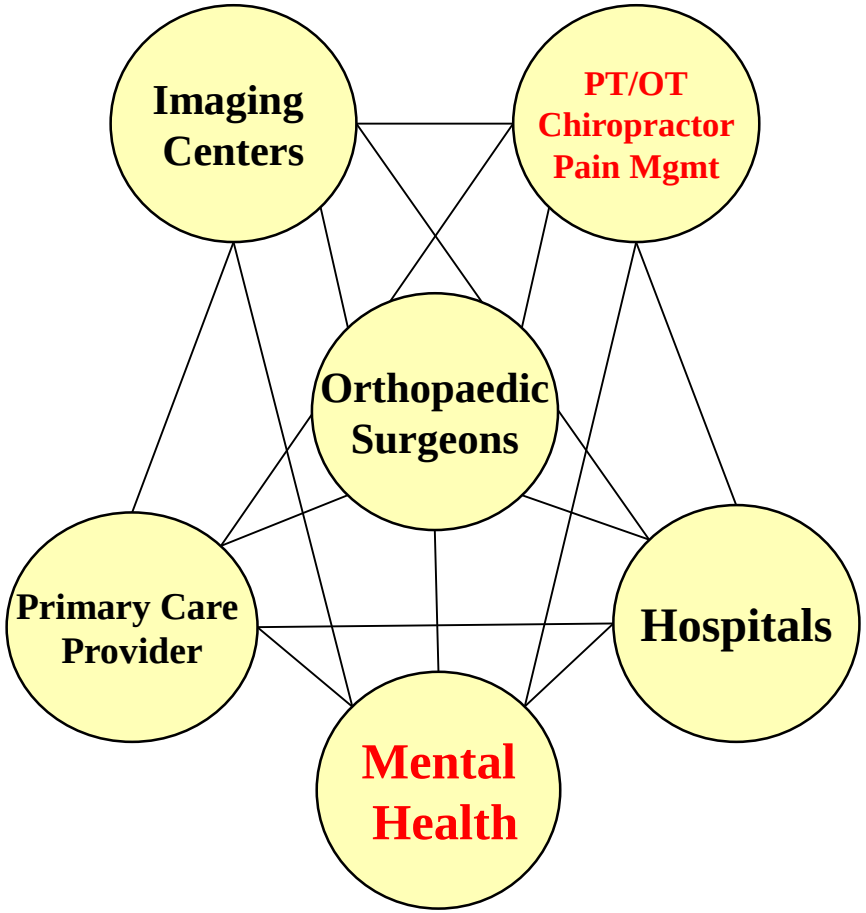


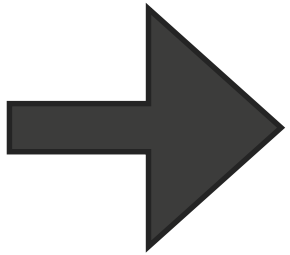
The University of Texas at Austin
Dell Medical School

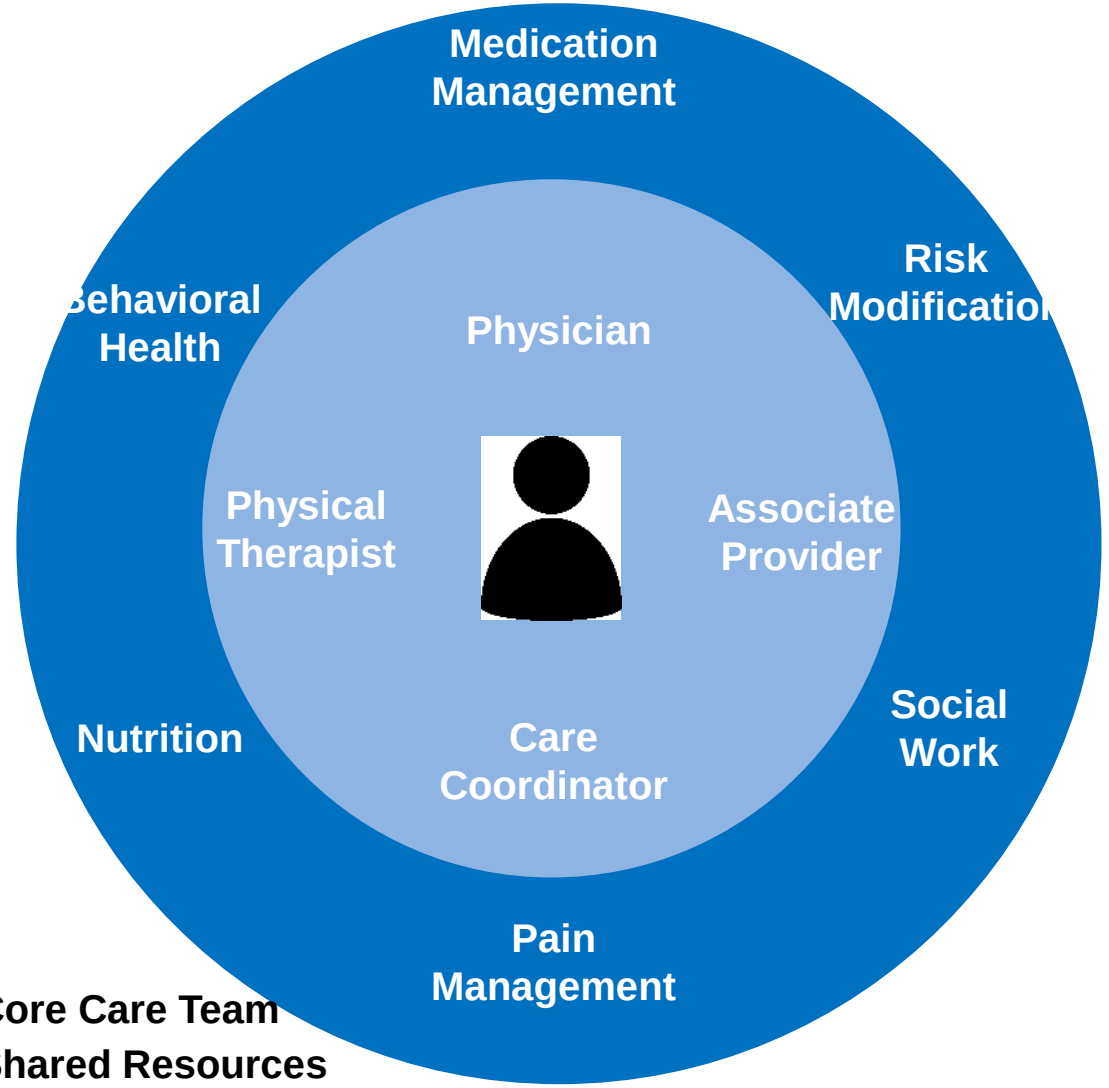
OM1

Condition-based bundles incentivize greater coordination of care across providers, care settings

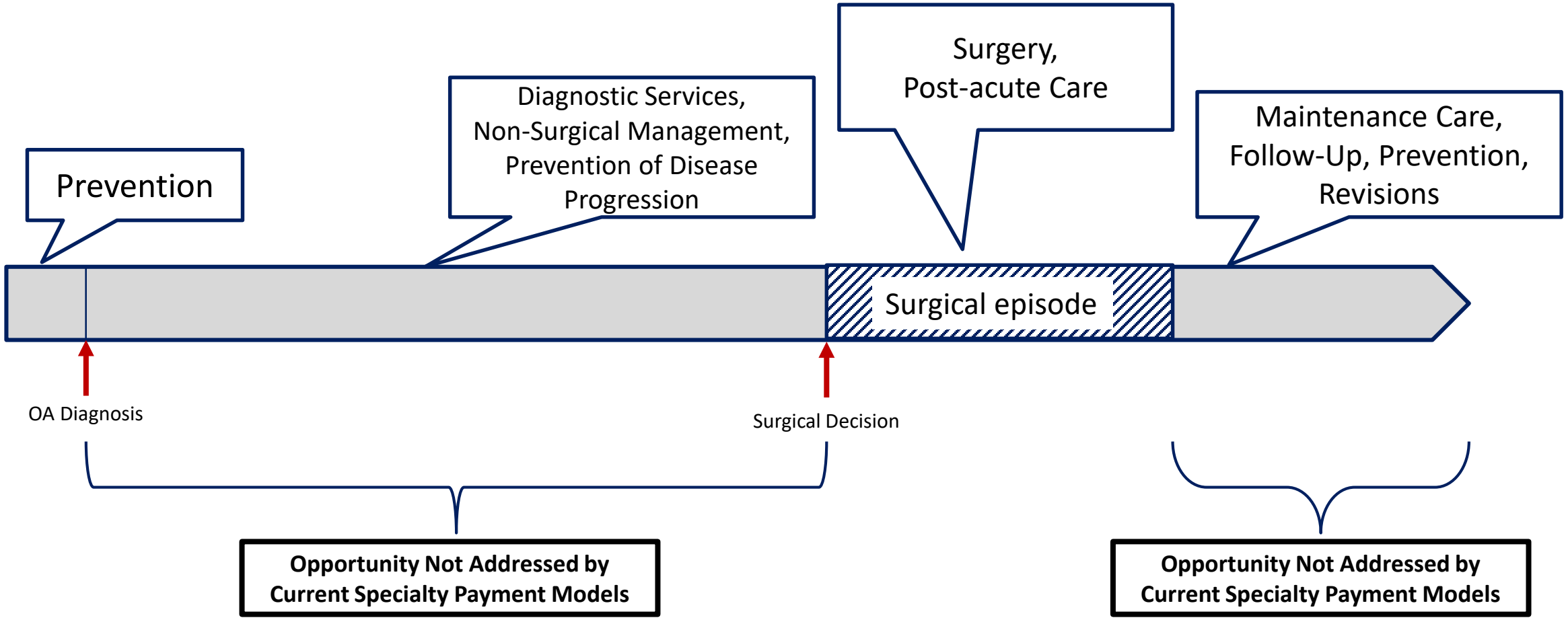
Existing Model :Organized by Specialty and Discrete Service



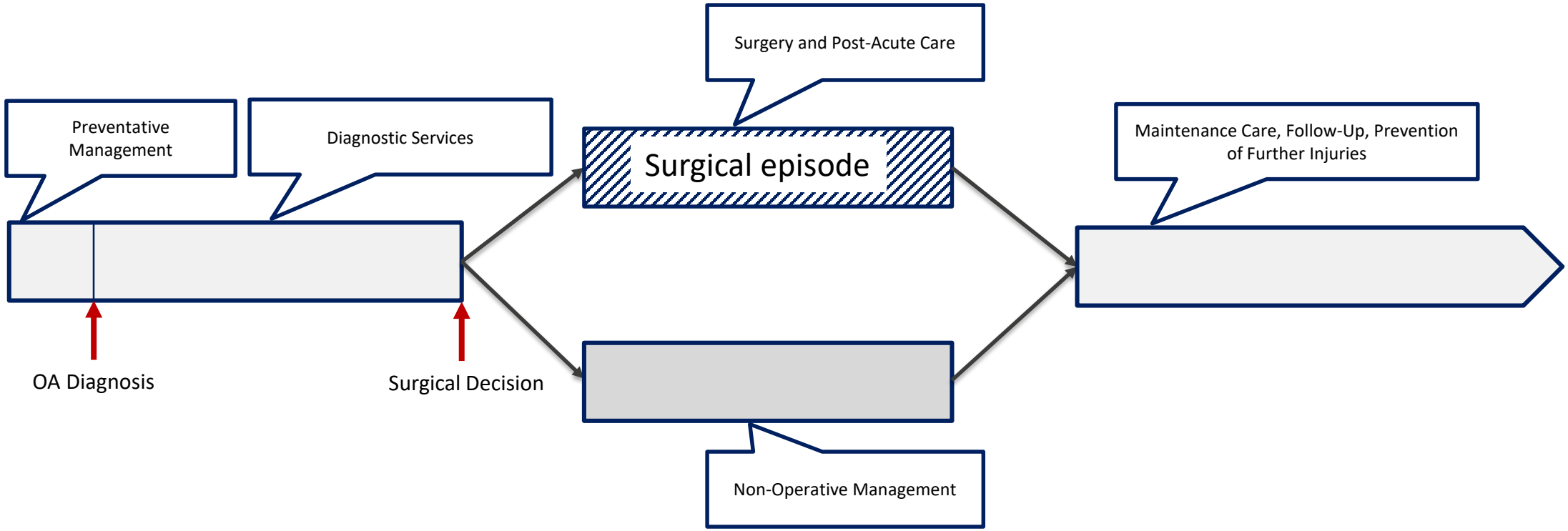




Longitudinal Care Continuum Concept 1



Longitudinal Care Continuum - Concept 2



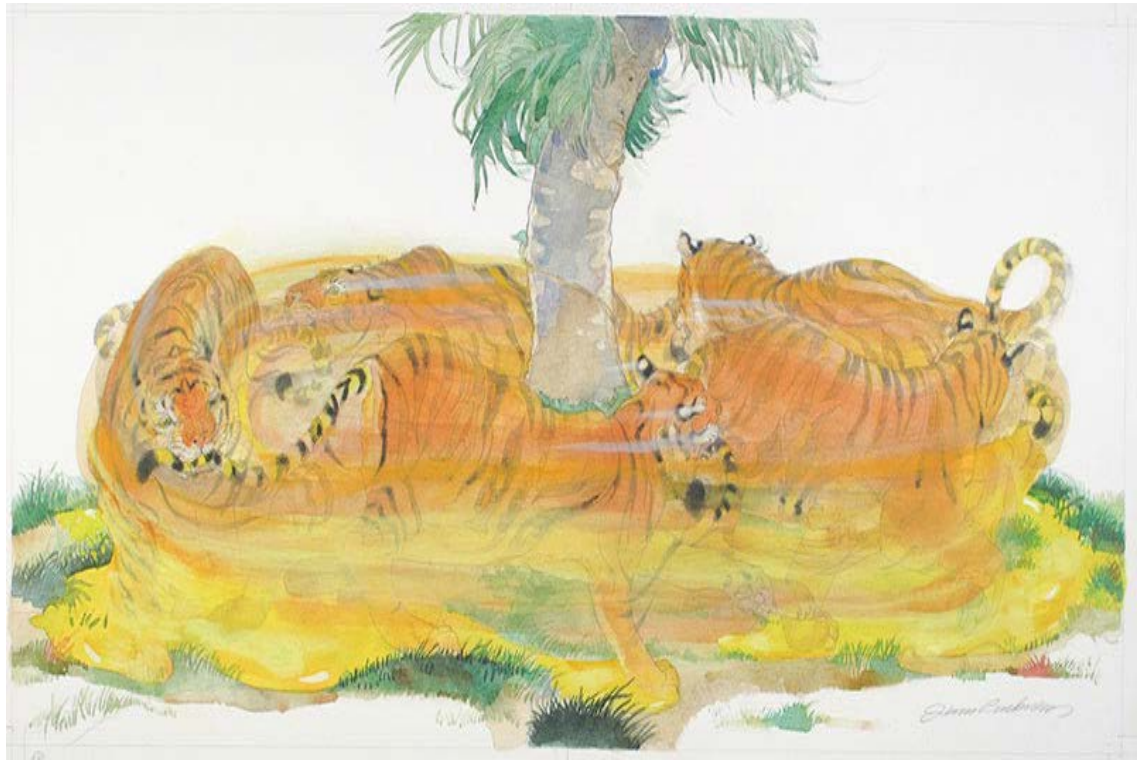
Evidence-Based Guidelines = Reductions in Unwarranted Clinical Variation

Opportunity Not Addressed by Current Payment Models

- Reduce inappropriate surgical utilization
- Reduce Non-Evidence-Based Services
- Enhance OA and Spine care through PROs, shared-decision-making, care coordination, lifestyle and behavioral health support

Turn to butter?

- System has allowed us to compensate for decreased reimbursement by increasing volume
- Evidence of less indicated surgeries
- Evidence of patient dissatisfaction after surgery (TKA)
- Evidence of complication and readmission rates

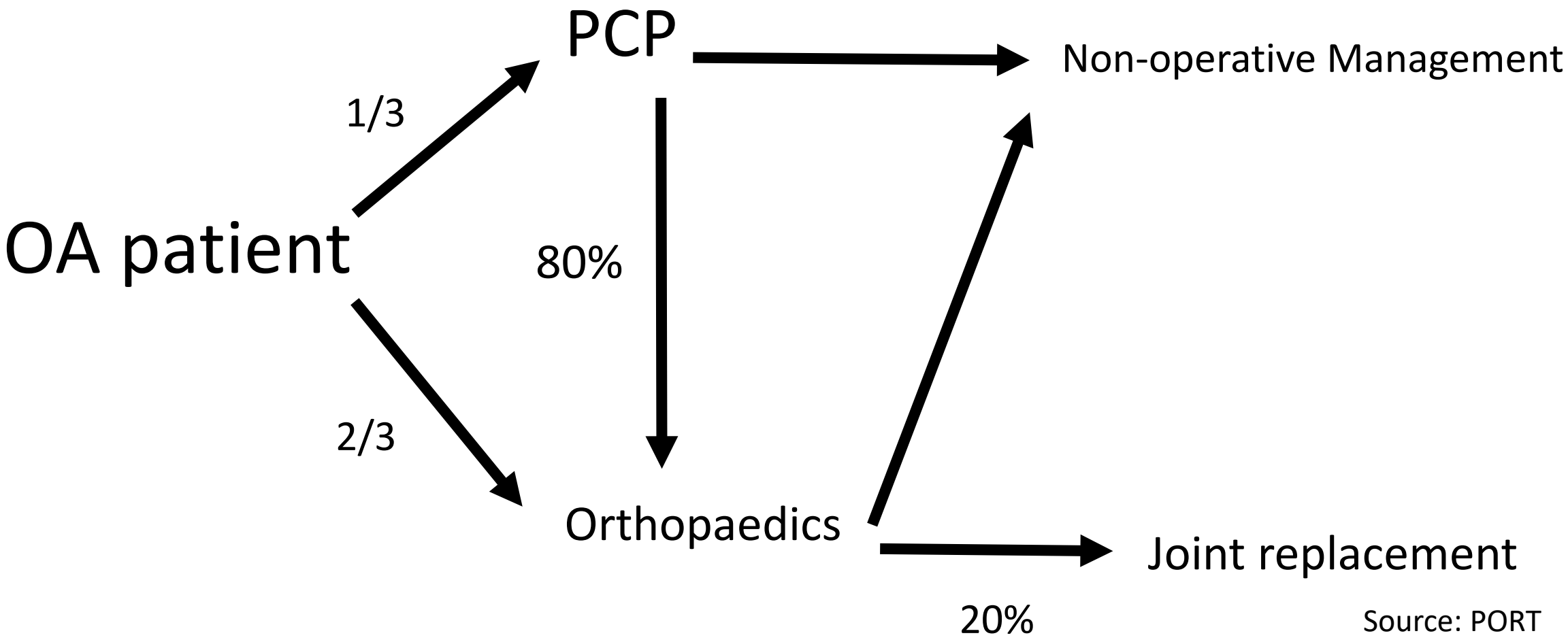


Sam and the Tigers – 1996 Jerry Pinkney

Current State of OA Care

Surgeons are Primary Providers

Minority undergo joint replacement

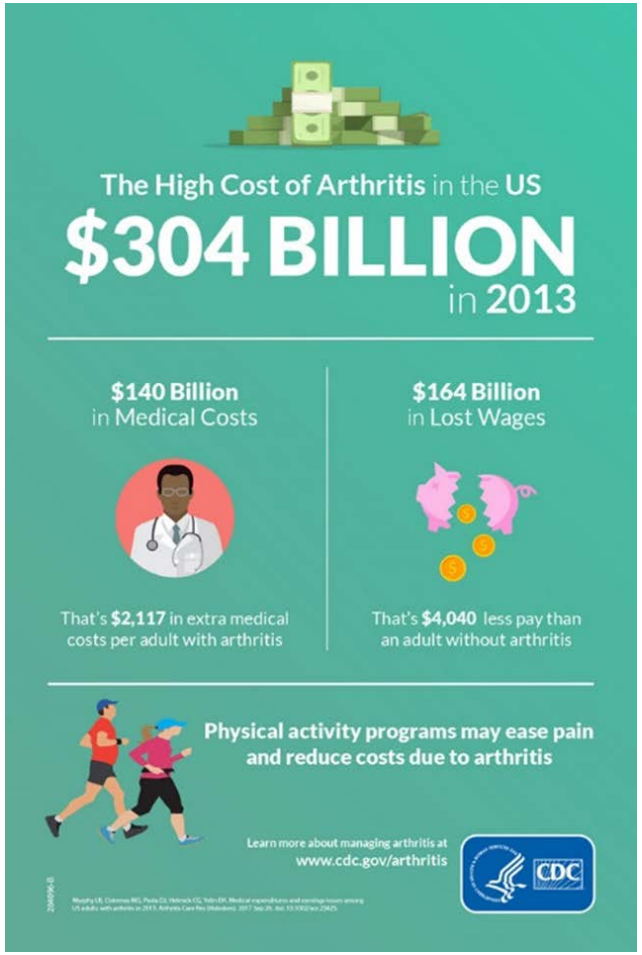


Source: PORT

All arthritis compared to other conditions

Table 4: Total Expenses and Percent Distribution for Selected Conditions by Source of Payment: United States, 2014

Conditions [a]	Total Expenses (in millions)	Percent distribution of total expenses by source of payment				
		Out of pocket	Private insurance [b]	Medicare	Medicaid	Other [c]
Mental disorders	110,015.77	11.0	26.5	23.7	30.1	8.7
Heart conditions	105,411.90	5.7	27.1	54.1	7.2	5.8
Trauma-related disorders	100,169.81	6.7	39.6	29.1	8.4	16.2
Diabetes mellitus	91,262.16	7.8	24.6	30.9	15.8	20.8*
Cancer	87,818.46	4.4	44.1	32.5	4.4	14.6*
COPD, asthma	82,392.43	8.3	28.7	38.4	19.1	5.6
Osteoarthritis and other non-traumatic joint disorders	80,250.21	10.6	30.4	37.5	12.7	8.8
Hypertension	50,351.12	12.8	24.4	45.0	9.9	7.9
Back problems	47,736.54	12.0	34.6	30.3	8.8	14.4
Infectious diseases	40,846.56	6.2	46.6	27.9	13.1*	6.3*



Payment Model Key Design Features

Target Patient Population

1. hip or knee osteoarthritis
2. low back pain with radiculopathy

Payment Model Key Design Features

Trigger Criteria

1) **Diagnosis**: Target dx

2) **Management**: Eval & Mgmt Visit

3) **Patient-reported dysfunction**: Documented patient-reported functional limitations (e.g. PROMIS, HOOS, KOOS, ODI)

4) **Objective evidence**: e.g. of joint degeneration through radiograph including severity

5) **Localized orthopaedic disability**: documented localized dysfunction by physical exam

Payment Model Key Design Features

Accountable Entity & Duration

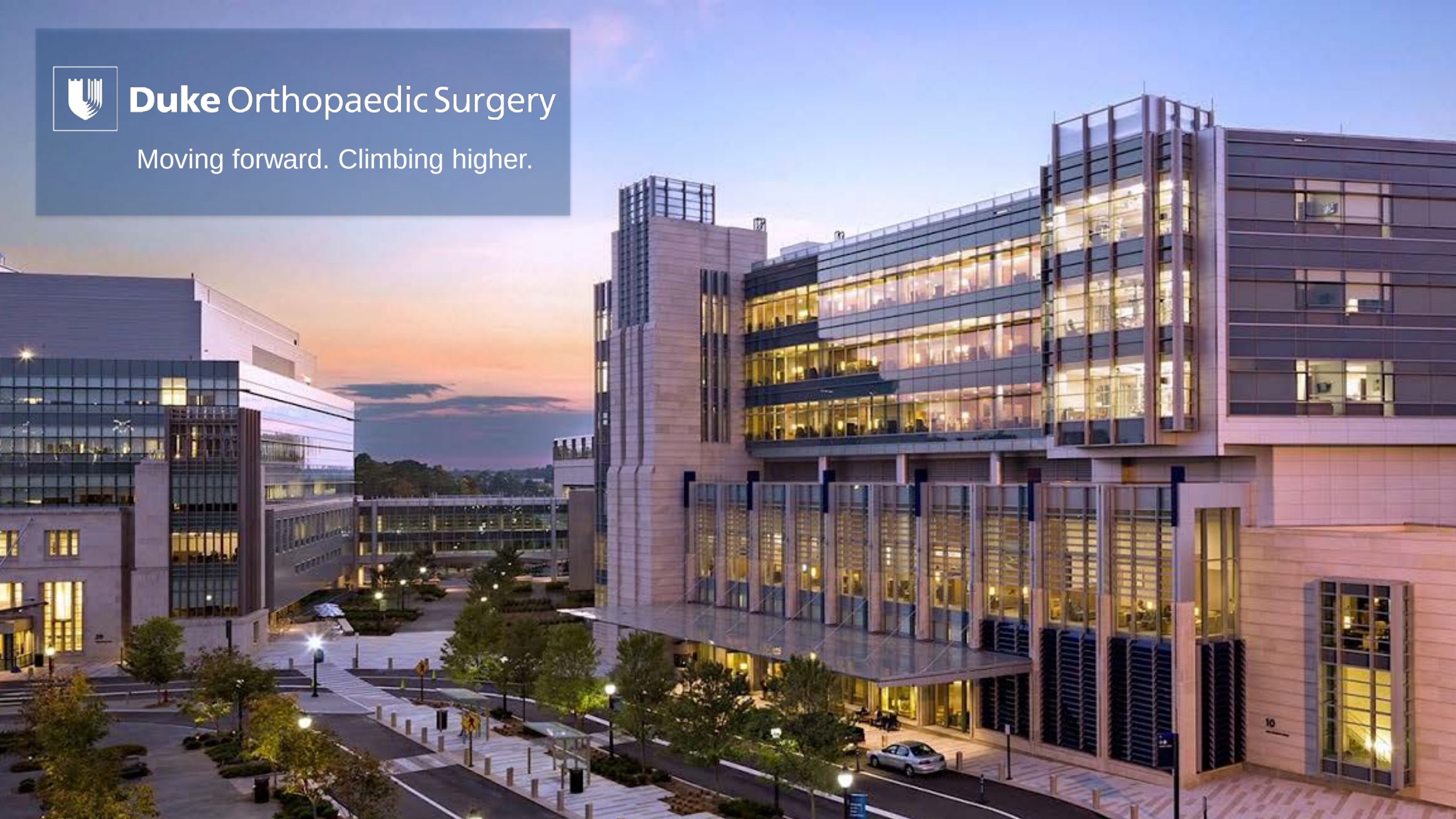
Voluntary Participation

Surgeon (orthopaedic) included in Accountable Entity

One-year episode, renewed for subsequent years at appropriate (lower) rate

Conclusion

- CMS (through CMMI) and Private Insurers feel Alternative Payment Models are the way forward
- Expect to see pilots in the next 2 years
- Consider strongly building a network that can exist in the current FFS environment, but can help you manage larger cohorts of patients
  - Complete evaluation (psychologic and other comorbidities)
  - Diagnostic modalities
  - Musculoskeletal and Cognitive Behavioral Strategies


Duke Orthopaedic Surgery
Moving forward. Climbing higher.

Conceptual Payment Model Design

Episode Objective: Condition-based management of chronic orthopaedic conditions, including non-operative and operative services

Target Patient Population

1. hip or knee osteoarthritis
2. low back pain with radiculopathy

Trigger Criteria

1) Target dx

2) Eval & Mgmt Visit

3) Documented patient-reported functional limitations (e.g. PROMIS, HOOS, KOOS, ODI)

4) Objective evidence of joint degeneration (e.g. radiograph)

5) Documented localized dysfunction by physical exam

Accountable Entity & Duration

Voluntary Participation

Surgeon (orthopaedic) included in Accountable Entity

One-year episode, renewed for subsequent years at appropriate (lower) rate

Relationship to existing APM initiatives

Generalizable to wide variety of patients with specialized chronic care needs

Expands upon CJR & BPCI successes, shortcomings, and structure

Fills gap between primary care APMs and procedural bundles

What is an **Alternative Payment Model**?

An **Alternative Payment Model (APM)** is a payment approach that ties payments to the delivery of high-quality and cost-efficient care.

APMs can apply to a specific clinical condition, a care episode, or a population.

- Slides about Hip/Knee replacement is CMS's biggest line item
- Their goal is to decrease their number of TJA paid for
  - Bundles have not done that – provider and hospital still incentivized to do more

Discussion – key payment model parameters

- Episode parameters
- Episode Payment
- Data and Quality Measurement

Discussion – Episode Payment (1/2)

Accountability and Attribution

- *Q11. Who exactly should be accountable for the episode?*

Structure

- *Q12. Should the discrete components of longitudinal care be paid distinctly, or lumped together?*
- *Q13. What should be done for a patient who appropriately needs surgery at the start of an episode?*
- *Q14. What should happen in cases where relevant services are sought with other providers during episode?*

Model Overlap

- *Q15. How can condition-based episode payment nest or co-exist with ACOs / primary care risk model?*
- *Q16. How can condition-based episode payment nest or co-exist with procedural bundled payments?*

Discussion – Episode Payment (2/2)

Episode Risk Adjustment

- *Q17. How do we best stratify risk, perform risk adjustment using metrics collected in current systems?*
- *Q18. From what data can / will risk-adjustment be calculated?*
- *Q19. How should we stratify risk and perform risk adjustment ideally?*

Episode Pricing and Incentives

- *Q20. How can we incorporate site of services and facilities into the payment structure?*
- *Q21. Reaction to single, risk-adjusted pre-defined episode price irrespective of admission status?*
- *Q22. How should we reconcile current variations in contract rates in the benchmark?*
- *Q23. What are the optimal incentive structures for these payment models (e.g. nature, timing)?*

Discussion – Data and Quality Measurement

Data and Operations

- *Q24. What should the data / outcome measurement infrastructure look like?*
- *Q25. Extent PCPs / orthopaedic practices have inter-operable systems with each other & payers?*

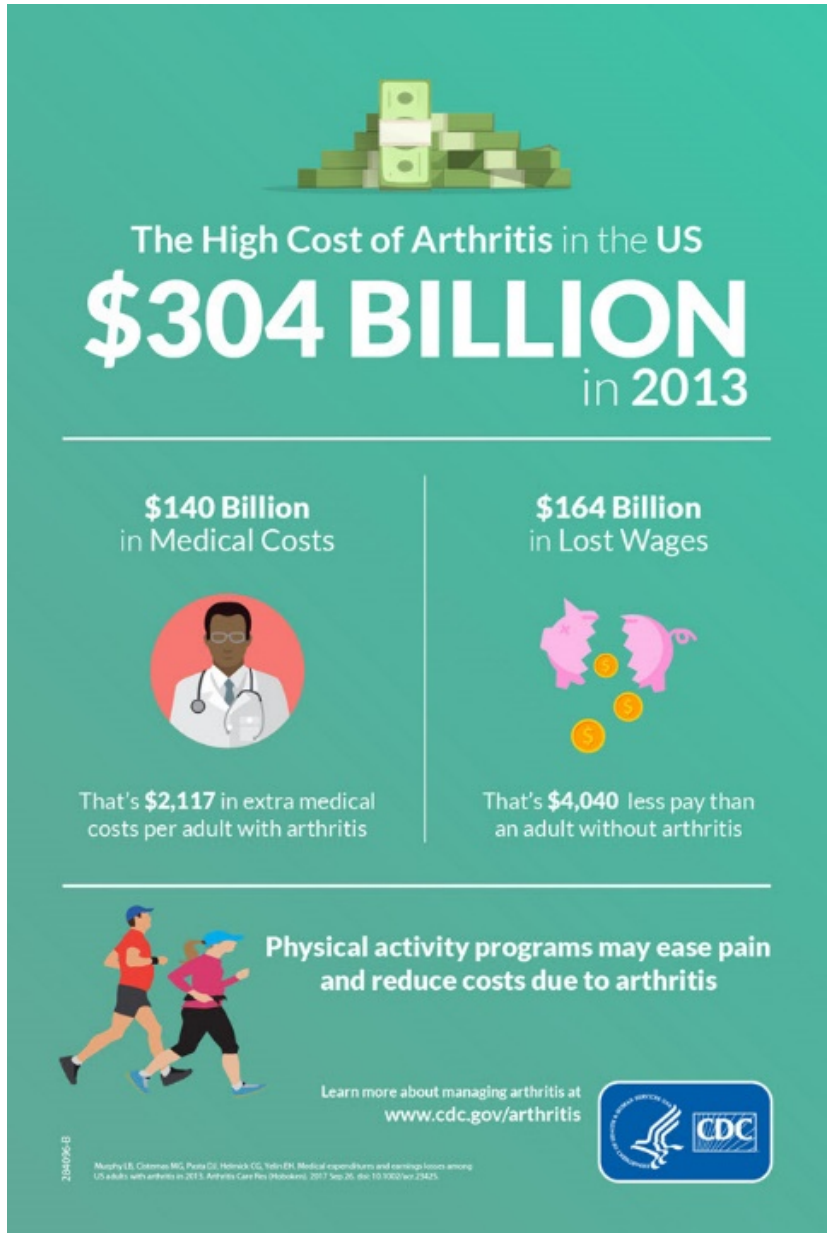
Quality Metrics

- *Q26. What quality metrics are critical for clinical success? What is currently used for MSK payments?*
- *Q27. Which data should be standardized / available (in EMRs), and which acquired from other sources?*
- *Q28. What meaningful data could (and should) be shared between payer and provider?*

Ongoing Private and Public Development of APM

- Duke/Dell Model Development
  - January 2018: Duke-Margolis initial payment model meeting in Washington, DC
  - Ongoing meetings with payers, providers, other stakeholders for input
    - September 2018
    - February 2019
    - April 2019
    - June 2019

- CMMI Listening Sessions
  - May 2019
  - June 2019


The High Cost of Arthritis in the US
$304 BILLION
in 2013
$140 Billion
in Medical Costs
That's $2,117 in extra medical costs per adult with arthritis
$164 Billion
in Lost Wages
That's $4,040 less pay than an adult without arthritis
Physical activity programs may ease pain and reduce costs due to arthritis
Learn more about managing arthritis at
www.cdc.gov/arthritis
CDC

Discussion – Episode Parameters

Trigger

- *Q1. What would be suitable episode trigger(s) in this model?*
- *Q2. Which provider types can trigger an episode of care?*

Duration and Conclusion

- *Q3. How long should the episode of care be?*
- *Q4. What happens to patients still needing care after episode ends?*
- *Q5. What happens when payment is cancelled / there are enrollment changes while still seeking care?*

Relevant Services

- *Q6. How should desired (i.e. appropriate, high-value) services be identified / included / increased?*
- *Q7. How should undesired (i.e. inappropriate, low-value) services be identified / excluded / decreased?*
- *Q8. Should the condition-based payment model enforce a minimum service requirement?*
- *Q9. How should patients meeting appropriateness criteria for surgery be managed in the model?*
- *Q10. How should patient engagement / risk factor modification be fostered within the care plan?*

Current payment models do not effectively address needed specialized reform

Appropriateness	• Increase evidence-based, non-operative services • Incentivize appropriate use of surgical services	• **Up to ~1/3 TJA inappropriate nationally[1]** • **6-9% of payments for non-evidence-based care[2]** • Bundled payment, FFS models do not address appropriateness
Comprehensive Care	• Patient education and activation for weight loss, exercise, nutrition, pain management skills, tobacco cessation, and cognitive and behavioral th erapy	• Lack of incentives for building multi-disciplinary teams focused on outcomes that matter to patients
Longitudinal Management of Chronic Condition	• Establishing provider accountability for coordinated care from diagnosis through definitive treatment, maintaining patient choice	• Fragmentation of MSK Care (PCP, Ortho, PT, other)
Patient-Centered Approaches	• Use of clinical tools and aids to focus decision-making and treatment goals • Supporting clinicians through selection, timing, sequence, duration, and intensity of services	• Lack of incentives for PROs, patient preferences, shared decision-making tools

[1]Riddle, et al. Arthritis Rheum. 2014.
[2]Internal analysis of Medicare claims data.