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Value-Based Health Care

Harvard Law School
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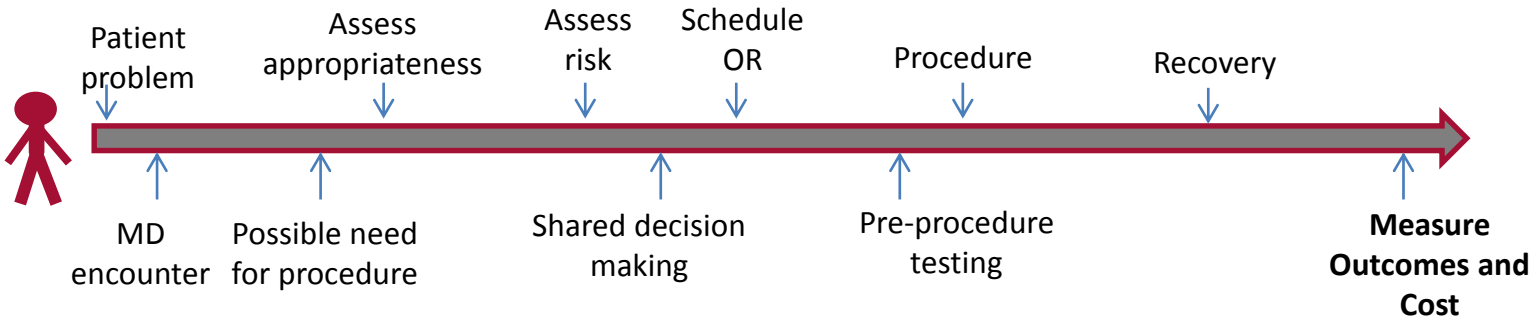
Health Care Value-Based Delivery
Use Competition to Drive the Greatest Value to Patients

The central goal in health care must be **value for patients**, not access, volume, convenience, quality, or cost containment

$$\text{Value} = \frac{\text{Health outcomes}}{\text{Costs of delivering the outcomes}}$$

The unit of analysis for creating and measuring value is the treatment of a patient's **medical condition** over a complete **cycle of care**.



Creating a Value-Based Health Care System

1. **Organize Multi-disciplinary teams around the patient's medical condition**
   - For primary and preventive care, the multi-disciplinary team serves a **distinct patient segment**
2. **Measure and communicate Outcomes by medical condition**
3. **Measure and improve Costs by medical condition**

4. **Develop Bundled Payments to compensate providers for treating the medical condition**

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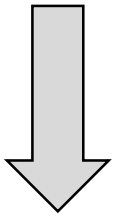

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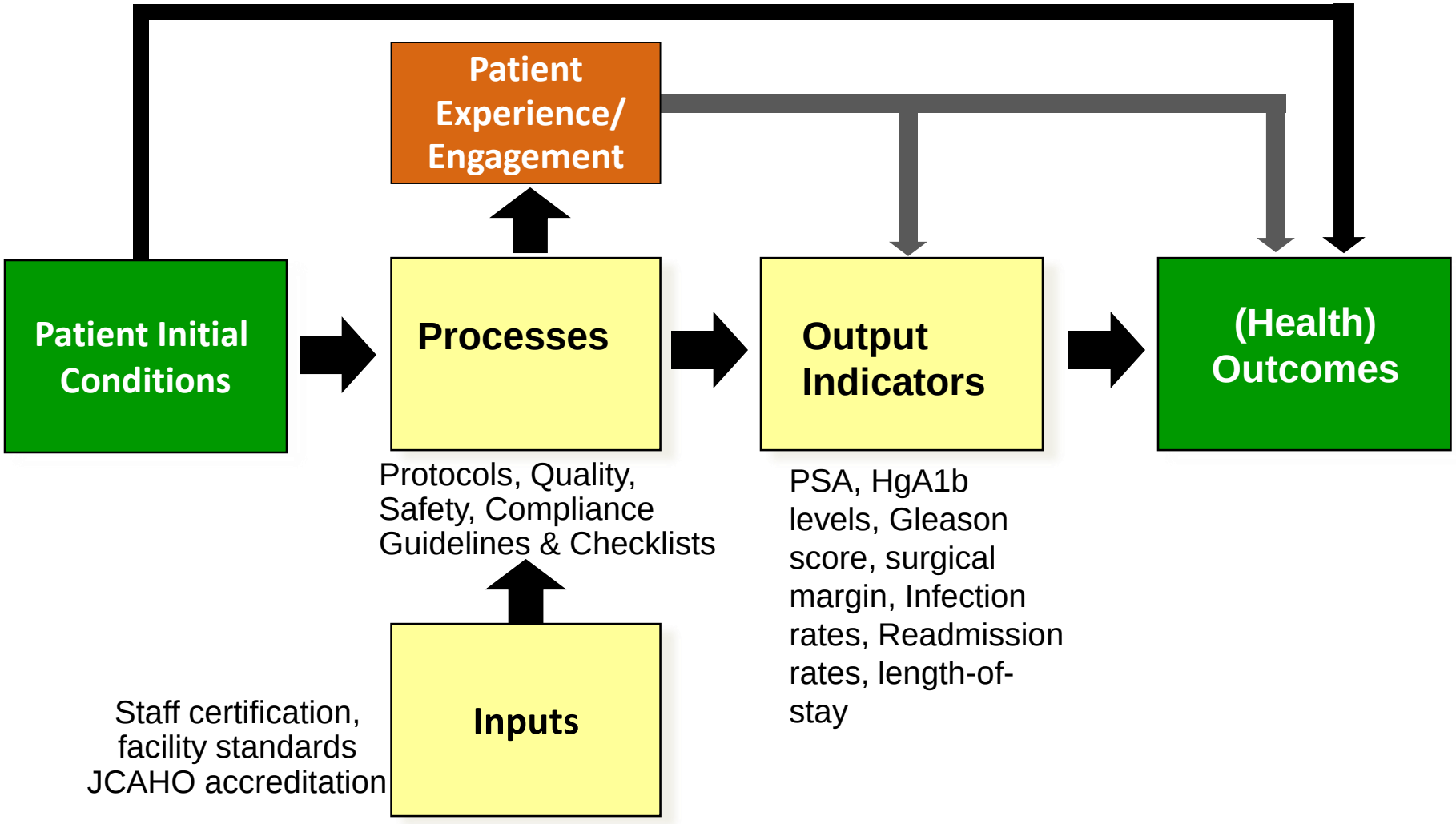
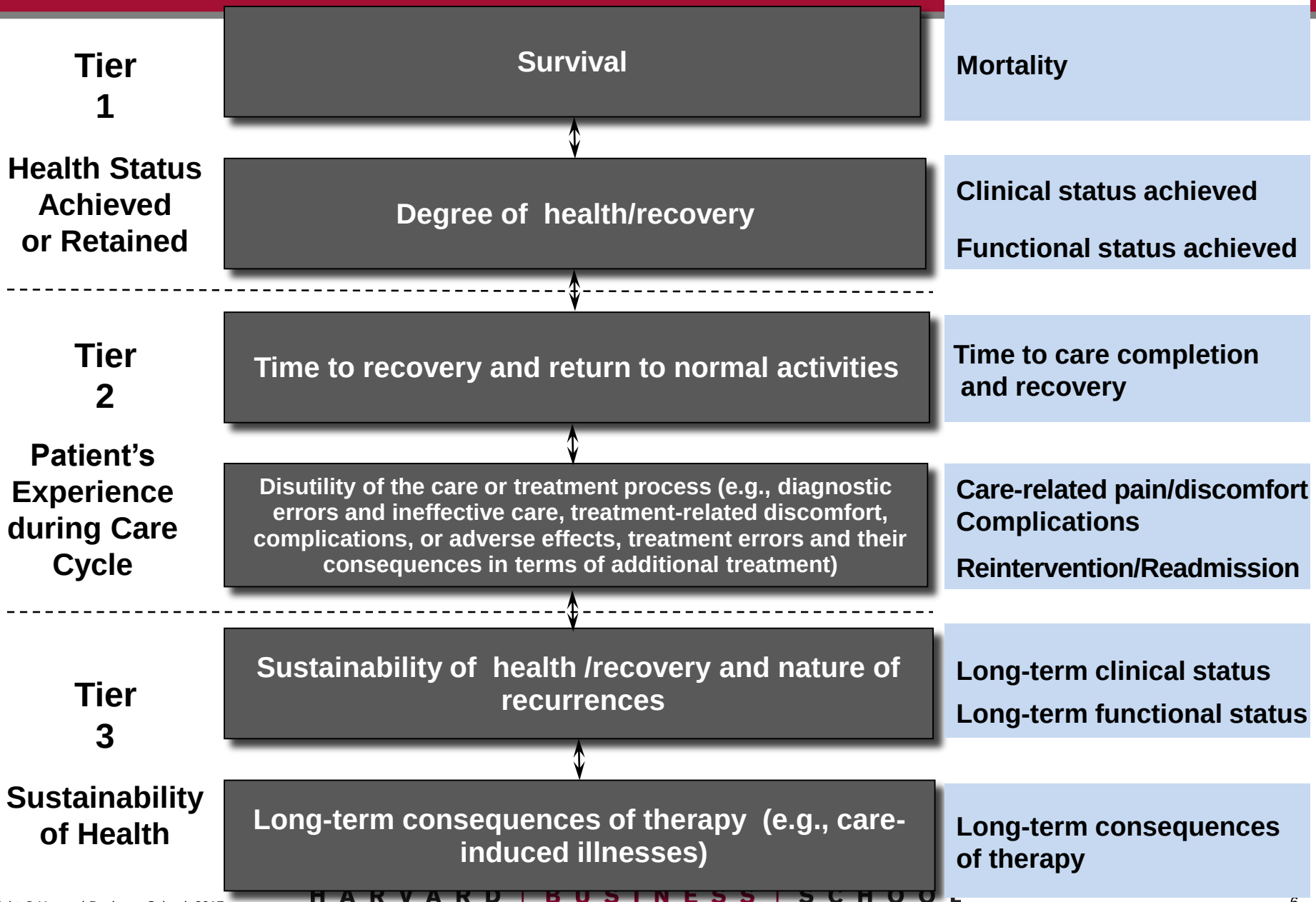
Measure Outcomes for a Patient's Medical Condition



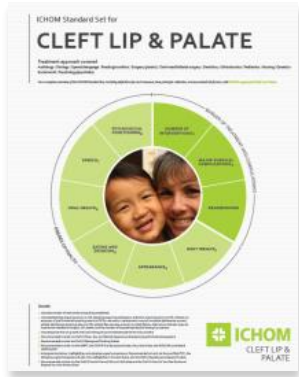
Measure Outcomes that Matter to Patients

M. Porter, NEJM Dec 2010



ICHOM (International Consortium for Health Outcomes Measurement) has developed Standard Sets, covering 55% of the disease burden

ICHOM



- Dementia
- Older persons
- Heart Failure
- Pregnancy and childbirth
- Breast cancer
- Colorectal cancer
- Overactive bladder
- Craniofacial microsomia
- Inflammatory bowel disease
- Chronic kidney disease
- Hypertension

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A case study in multi-disciplinary care and outcomes measurement: The Martini Klinik Prostate Cancer Surgery Center in Hamburg

Professor Dr. Hartwig Huland
Founder and Chief of Martini Klinik

Clinical and Staff Resources Contained within Martini Klinik

Personnel

- Faculty: Urological Surgeons (9)
- Peri-operative staff: nurses (39) [dedicated to prostate cancer]
- Physiotherapists
- Psychologists *
- Oncologists *
- Anesthesiologists *
- Social Workers
- Biostatisticians for clinical trials and outcomes measurement

Facilities

- Operating rooms (4) [dedicated]
- Inpatient ward
- Physiotherapy unit
- Outpatient clinic
- Central Administration and Scheduling

* Employed by Hospital Department but dedicated to Martini Klinik

Outcome Measures Collected at Martini Klinik

Clinical Outcomes	Patient Outcomes
Length of Stay	Mortality
Post-surgery PSA level (annually)	Patient-reported erectile function (Int'l Index of Erectile Function)
Tumor volume	Patient-reported urinary function (Int'l Prostate Symptom Score)
High-grade cancer volume	Patient-reported general quality of life (European Cancer QLQ-C30 Survey)
Number of positive lymph nodes	Incontinence (ICS Score)
Positive surgical margin	Surgical complications up to three months post-op (Clavien/Dindo)
	Radiotherapy complications
	Metastasis

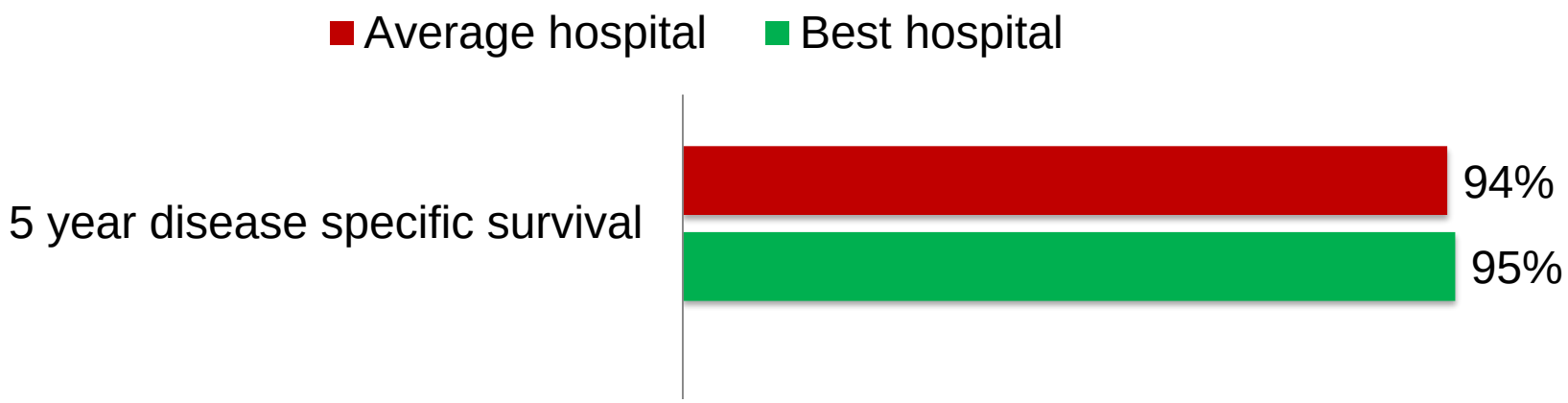
Outcomes Measurement at Martini Klinik Prostate Cancer Surgery Center in Hamburg

- Outcomes data measured pre-surgery, at discharge from MK, and, post-discharge, 3 months, 1 year, 2 years, and 3 years.
- 1,200 surveys per month; 90% return rate (multiple phone reminders)
- Data base on 20,000 prostate cancer patients
- Now collecting molecular genetic data for every tumor tissue sample

MK clinicians participate in a semi-annual meeting to compare clinical and patient outcomes by surgeon

- Dr. Huland, at one meeting, learns that his incidence of positive surgical margins had increased from 5% to 8%.
- He enters training with junior surgeons who had better performance.
- Dr. Huland's subsequent incidence of positive margins dropped to 3.5%.

Prostate Cancer Outcomes in Germany



Martini Klinik Outcomes versus the average German hospital

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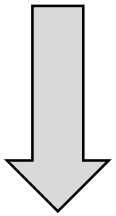
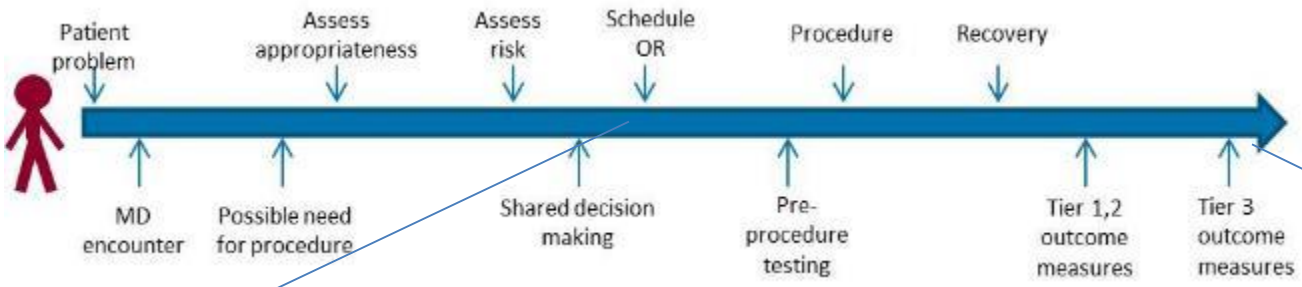


4. Develop Bundled Payments to compensate providers for treating the medical condition

Measuring Costs Correctly
Develop process maps for the care cycle

Level 1: Overall care cycle

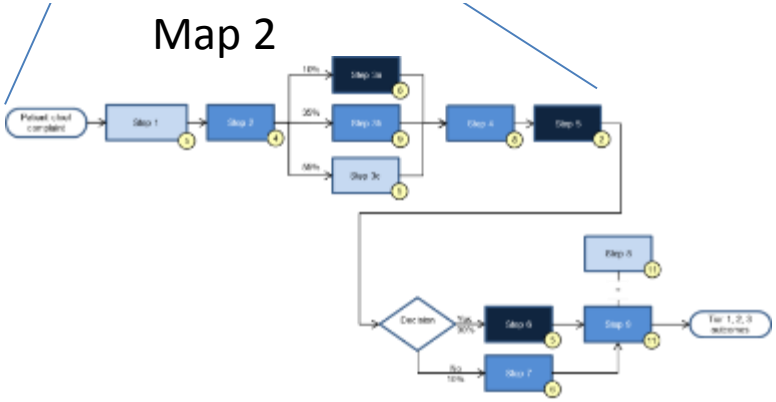


Level 2: Studied care cycle

Map 1: Surgical consultation	Map 2 : Pre-operative testing	Map 3: Day of surgery pre-operative prep	Map 4: Operation	Map 5: Post-anesthesia care unit	Map 6: Discharge	Map 7: Rehabilitation	Map 8: Follow-up visit

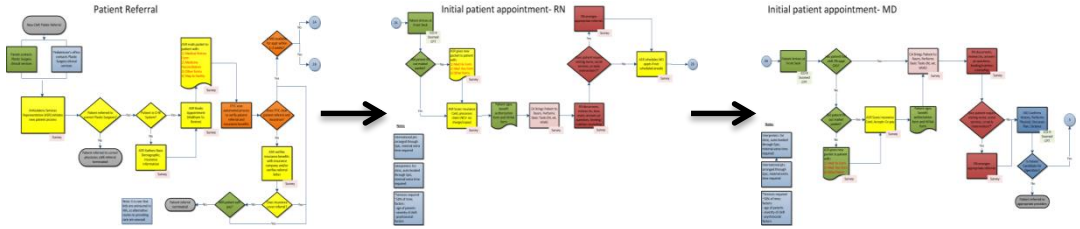
Level 3: Process maps for studied care cycle

Map 2



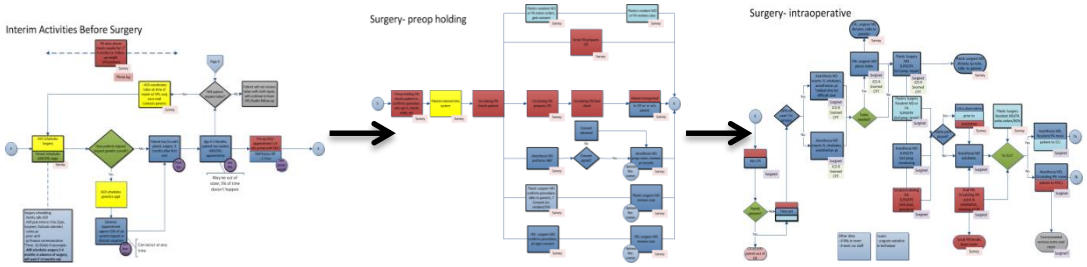
We compute total patient-level care costs by multiplying capacity cost rates by process times and summing across each patient's cycle of care

Initial consultation



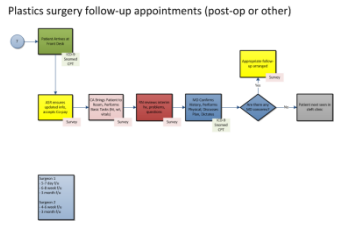
	Minutes	Cost/ minute	*Total
MD	X_1	Y_1	136.13
RN	X_2	Y_2	68.04
CA	X_3	Y_3	6.17
ASR	X_4	Y_4	15.74
			$266.08

Surgical procedure



MD	X_1	Y_1	584.99
Anes.	X_2	Y_2	603.89
RN	X_3	Y_3	136.29
Tech	X_4	Y_4	97.82
OR	X_5	Y_5	329.16
			$1752.15

Follow-up or post-operative visit



MD	X_1	Y_1	55.19
RN	X_2	Y_2	13.61
CA	X_3	Y_3	3.09
ASR	X_4	Y_4	1.77
			$73.66

Source: Meg Abbott, MD & John Meara, MD Boston Children's Hospital

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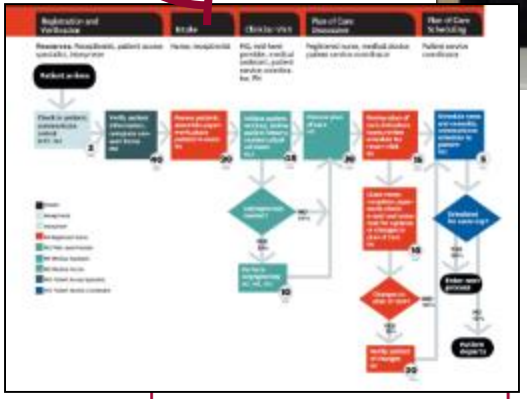
Time-Driven ABC provides a common platform – a single version of truth – for productive discussions among clinical & administrative personnel.

By standardizing on this procedure and we can achieve consistently excellent outcomes at lower cost.

We can skip this process and save $120 per patient.



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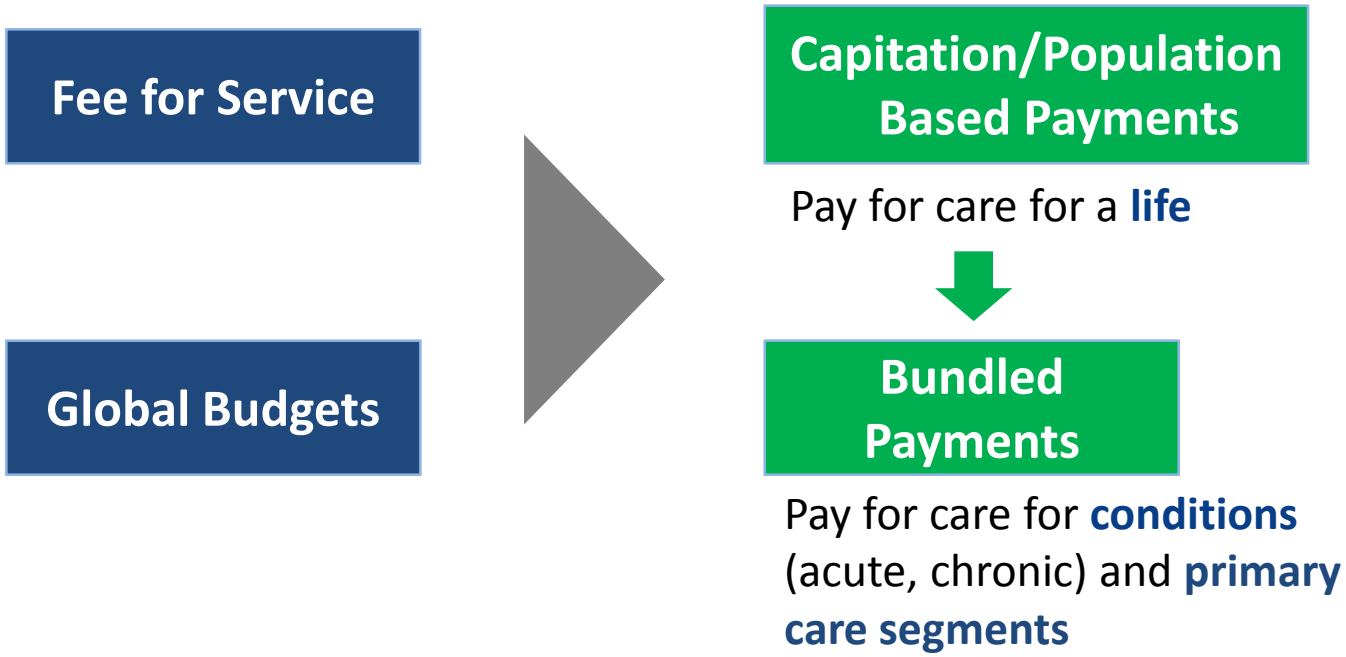
The Movement to Value-Based Payment Models



- Both capitation (ACOs) and bundled payments create positive incentives to **reduce costs** and give clinicians flexibility in the provision of care
- Capitation at the hospital or system level can **coexist** with bundle payment at the condition level

Value-Based Payment Models

Bundled Payment

- A single risk adjusted payment for the care of a **condition** (or patient segment for primary care)
- Covers the full set of services and products needed to treat the **condition over the full care cycle**
- Contingent on **condition-specific outcomes**
- At risk for bundled payment versus the **cost of** all included products and services for the **condition**
  - **limits of responsibility** for unrelated care and outliers

- Accountable for outcomes and cost **condition** by **condition**

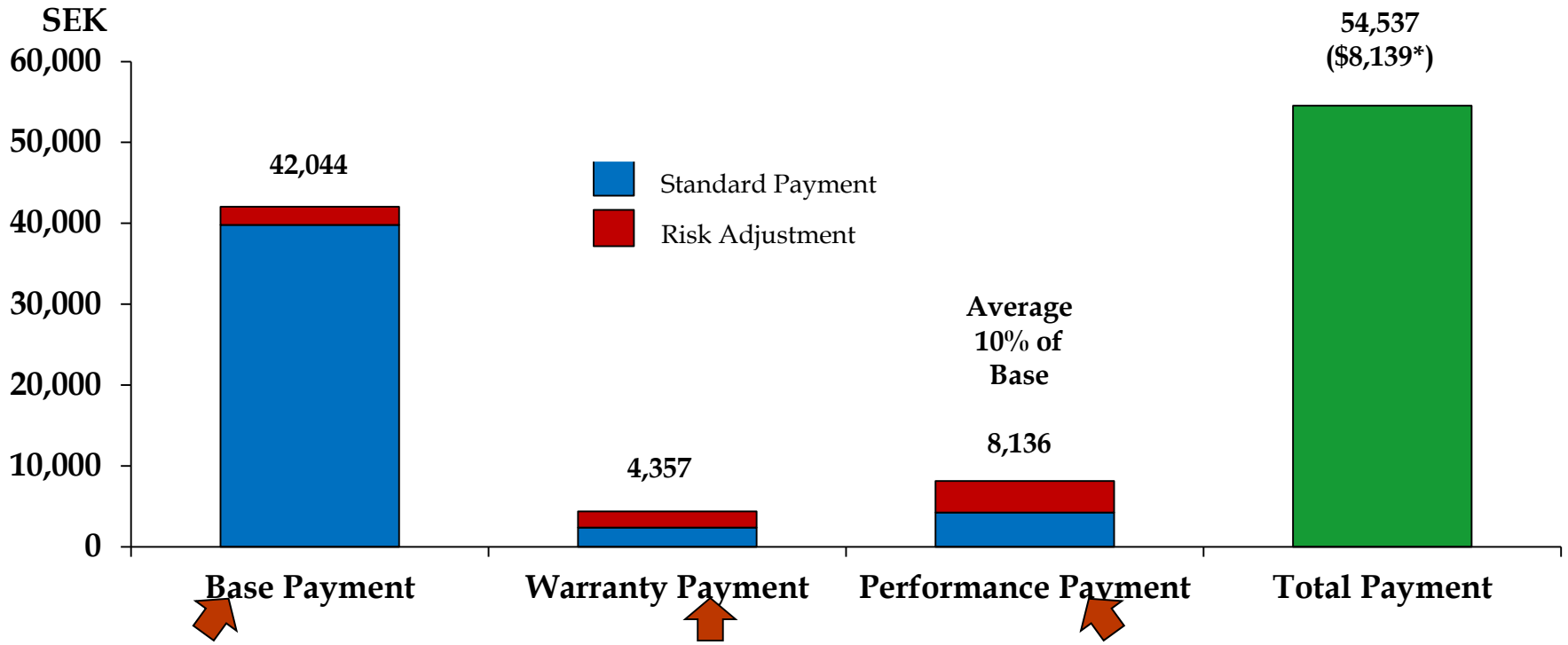
Capitation (Population-Based)

- A single risk-adjusted payment for the overall care for a **life**
- Responsible for **all needed care** in the covered population
- Accountable for **population level quality metrics**
- At risk for the difference between **overall spending** and the sum of payments

- Accountable for **population total cost** and **population quality outcomes**

Outcome-Based Bundled Payment

Swedish Spine Bundle



Base Payment

Covered: Preoperative consultation, surgery, inpatient stay, implants, medications, laboratories, radiology, physical therapy, and follow-up care.

Risk adjustment: Age, gender, patient-reported pre-operative pain measured by Visual Analog Scale (VAS)

Warranty Payment

Covered:
- Surgery wrong level
- Disk herniation
- Re-stenosis
- Mechanical complication
- Pseudoarthrosis
- Cerebrospinal fluid leak
- Ongoing Bleeding
- Infection
- Pain in neck/arm/back
- Wound dehiscence
- Implant related pain

Risk adjustments: Age, gender, preoperative VAS, pain duration, smoking, comorbidities, operative treatment, employment status

Performance Payment

Amount: Target average of 10 percent of base reimbursement

Criteria: Based on the **actual** improvement in pain at 1 year after surgery (Global Assessment Scale) versus **expected** pain outcome based on registry data for similar patients

*Based on Jan 1, 2012 exchange rate of 6.8 SEK to 1 USD

Bundled Payments are more Aligned with Value

- **Accountability** condition by condition
- Drives **multidisciplinary care** (IPUs) and directly rewards **good outcomes**
- Strong incentives to **improve efficiency**
- Providers focus on **areas of excellence**
- Enables **transparency** condition by condition
- Expands and informs **patient choice**

- **Competition on value** by condition

Bundled Payments: Implications for Suppliers

Device and Pharma Suppliers

- Drug, device, test, or IT/AI is embedded within cycle of care for bundled procedures
- Suppliers must **compete on value** for patients; demonstrate how their product or service improves patient outcomes at lower total costs
- Be accountable for patient outcomes; share the risk with providers and payers
- This may require some regulatory changes to facilitate full collaboration between supplier and providers

Regulation Issues in a Value-Based World

- Current regulations (e.g., Anti-Kickback Statute, Stark Law) may inhibit productive collaboration and risk-sharing between Suppliers and Providers
- Pharmaceutical pricing in a VBHC world with bundled payment contracts?
- JCAHO accreditation could inhibit creation of innovative Integrated Practice Units that offer high-outcome care for a specific medical condition.
    - Today: standards focus on the credentials and qualification of people and facilities; i.e., **inputs**
    - Tomorrow, in a VBHC World: emphasize accountability for the **outcomes produced** by the institution or (better) the Integrated Practice Unit