Value-Based Health Care Delivery

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This presentation draws on Michael E. Porter and Elizabeth Olmsted Teisberg: Redefining Health Care: Creating Value-Based Competition on Results, Harvard Business School Press, May 2006, and "How Physicians Can Change the Future of Health Care," *Journal of the American Medical Association*, 2007; 297:1103:1111. Further information about these ideas, as well as case studies, can be found on the website of the Institute for Strategy & Competitiveness at http://www.isc.hbs.edu.

Redefining Health Care Delivery

- Universal coverage and access to care are **essential**, **but not enough**
- The core issue in health care is the **value of health care delivered**

Value: Patient health outcomes per dollar spent

- How to design a health care system that **dramatically improves value**
  - Ownership of entities is secondary (e.g. non-profit vs. for profit vs. government)
- How to create a **dynamic system** that keeps rapidly improving

Creating a Value-Based Health Care System

- Significant improvement in value will require **fundamental restructuring of health care delivery**, not incremental improvements

> Today, 21st century medical technology is delivered with 19th century organization structures, management practices, and pricing models

  - TQM, process improvements, safety initiatives, pharmacy management, and disease management overlays are beneficial but **not sufficient** to substantially improve value

  - Consumers **cannot fix the dysfunctional structure** of the current system

Harnessing Competition on Value

- Competition is a powerful force to encourage **restructuring of care** and **continuous improvement in value**
  - Competition for patients
  - Competition for health plan subscribers
- Today's competition in health care **is not aligned with value**

Financial success of system participants	≠	Patient success

- Creating **competition to improve value** is a central challenge in health care reform

Zero-Sum Competition in U.S. Health Care

Bad Competition

- Competition to **shift costs** or **capture more revenue**
- Competition to **increase bargaining power** and secure discounts or price premiums
- Competition to **capture patients** and **restrict choice**
- Competition to **restrict services** in order to maximize revenue per visit or reduce costs

Zero or Negative Sum

Good Competition

- Competition to **increase value for patients**

Positive Sum

Principles of Value-Based Health Care Delivery

1. Set the goal as **value for patients**
   - Not volume
   - Not access
   - Not equity
   - Not cost reduction
   - Not "profit" in the current system

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

- Outcomes are the **full set of health outcomes** achieved by the patient
- Costs are the **total costs**, including costs not necessarily borne by any one provider or even within the health care system

Principles of Value-Based Health Care Delivery

1. Set the goal as **value for patients**
2. The best way to improve value and contain cost is to **improve quality**, where quality is health **outcomes**

- Prevention of disease
- Early detection
- Right diagnosis
- Early and timely treatment
- Right treatment to the right patients
- Treatment earlier in the causal chain of disease
- Rapid care delivery process with fewer delays
- Less invasive treatment methods
- Fewer complications
- Fewer mistakes and repeats in treatment
- Faster recovery
- More complete recovery
- Less disability
- Fewer relapses or acute episodes
- Slower disease progression
- Less need for long term care
- Less care induced illness

- **Better health** is the goal, not more treatment
- Better health is **inherently less expensive** than poor health

Principles of Value-Based Health Care Delivery

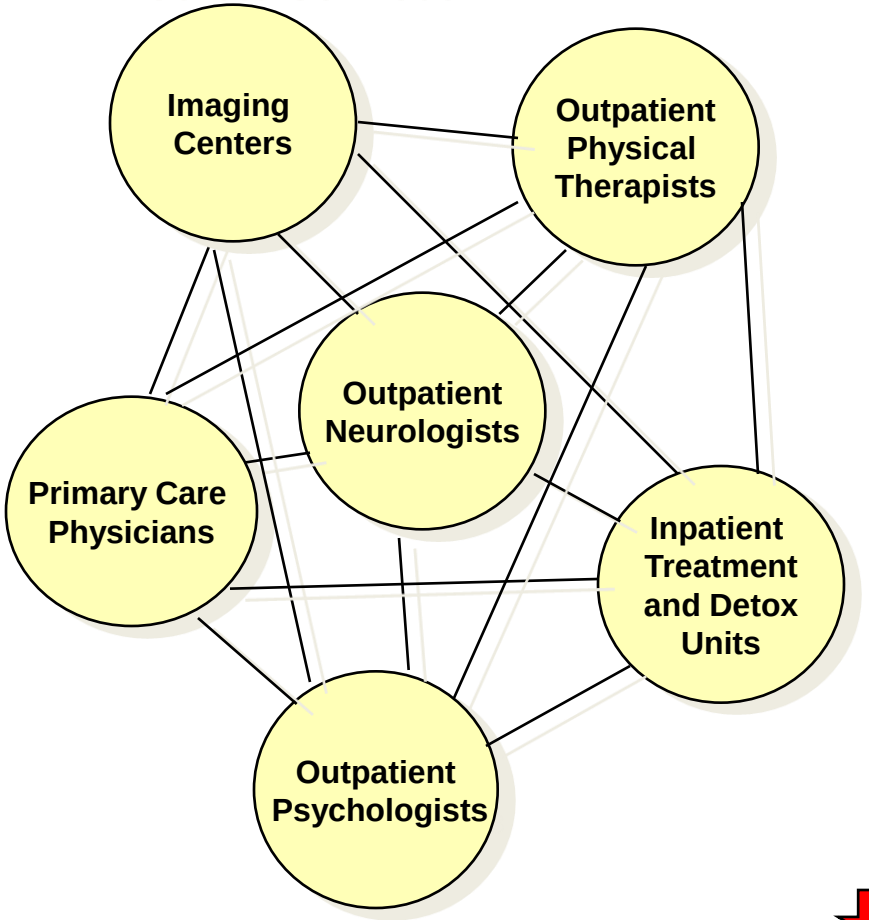
1. Set the goal as **value for patients**
2. The best way to improve value and contain cost is to **improve quality**, where quality is health **outcomes**
3. To maximize value health care delivery must be organized around **medical conditions** over the **full cycle of care**

- A medical condition is **an interrelated set of patient medical circumstances best addressed in an integrated way**
  - Defined from the **patient's** perspective
  - **Includes** the most common co-occurring conditions
  - Involving **multiple** specialties and services

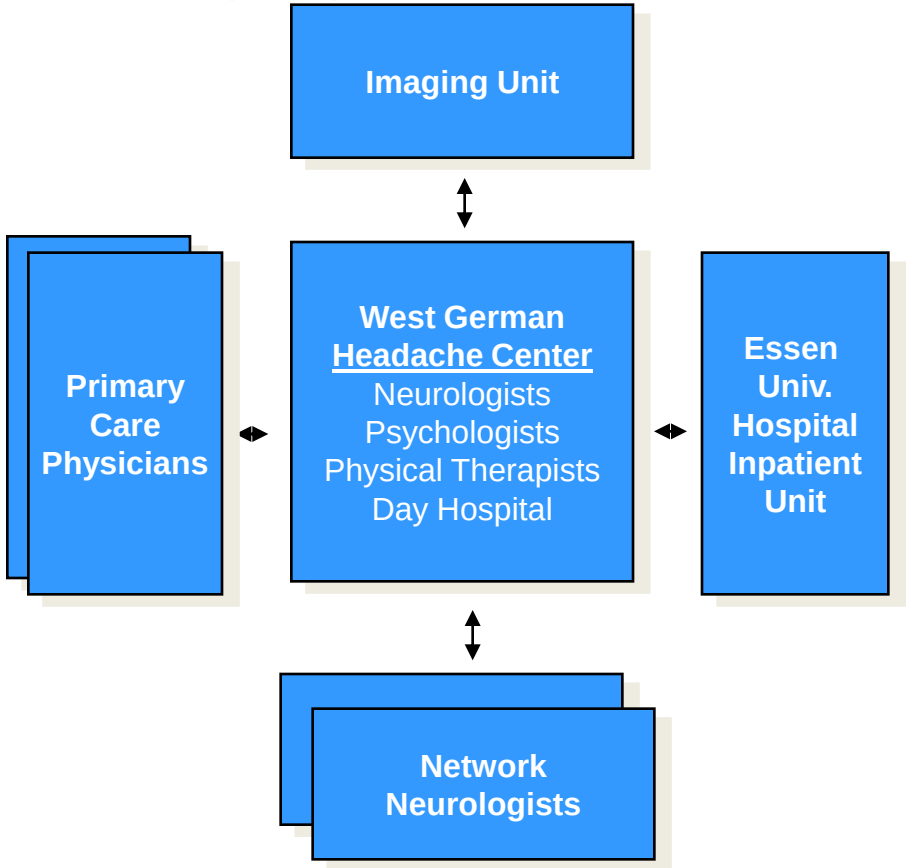
- The medical condition is the **unit of value creation** in health care delivery

Restructuring Care Delivery
Migraine Care in Germany

Existing Model:
Organize by Specialty and Discrete Services



New Model:
Organize into Integrated Practice Units (IPUs)

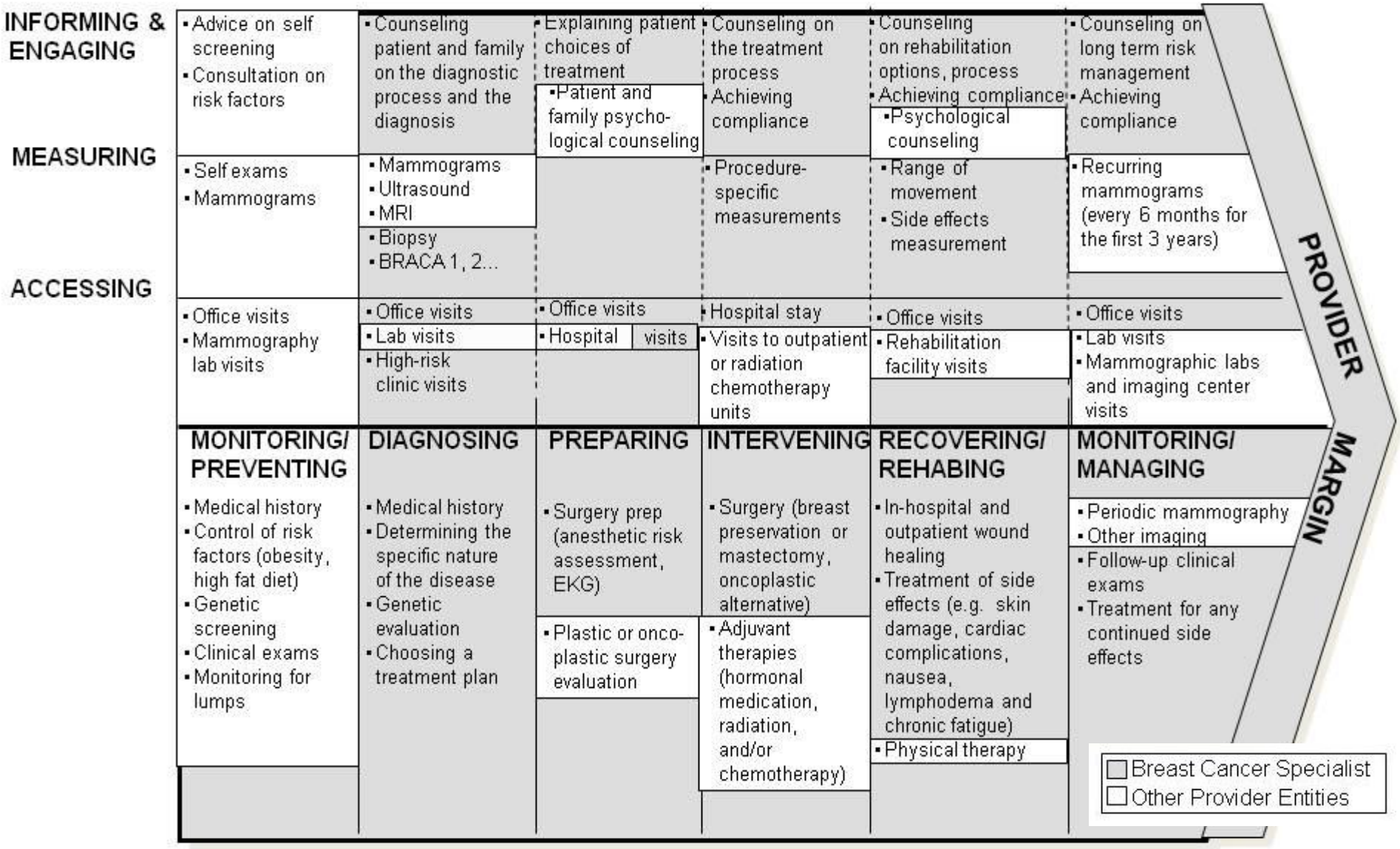


- The health plan was crucial to this transformation

Source: Porter, Michael E., Clemens Guth, and Elisa Dannemiller, *The West German Headache Center: Integrated Migraine Care*, Harvard Business School Case 9-707-559, September 13, 2007

The Cycle of Care

Breast Cancer



Analyzing the Care Delivery Value Chain

1. Are the **set of activities** and the **sequence of activities** in the CDVC aligned with value?
2. Is the appropriate **mix of skills** brought to bear on each activity and across activities, and do individuals work as a **team**?
3. Is there **appropriate coordination** across the discrete activities in the care cycle, and are handoffs seamless?
4. Is care structured to **harness linkages** (optimize overall allocation of effort) across different parts of the care cycle?
5. Is the **right information** collected, integrated, and utilized across the care cycle?
6. Are the activities in the CDVC performed in **appropriate facilities and locations**?
7. What provider departments, units and groups are involved in the care cycle? Is the provider's **organizational structure** aligned with value?
8. What are the **independent entities** involved in the care cycle, and what are the relationships among them? Should a provider's **scope of services** in the care cycle be expanded or contracted?

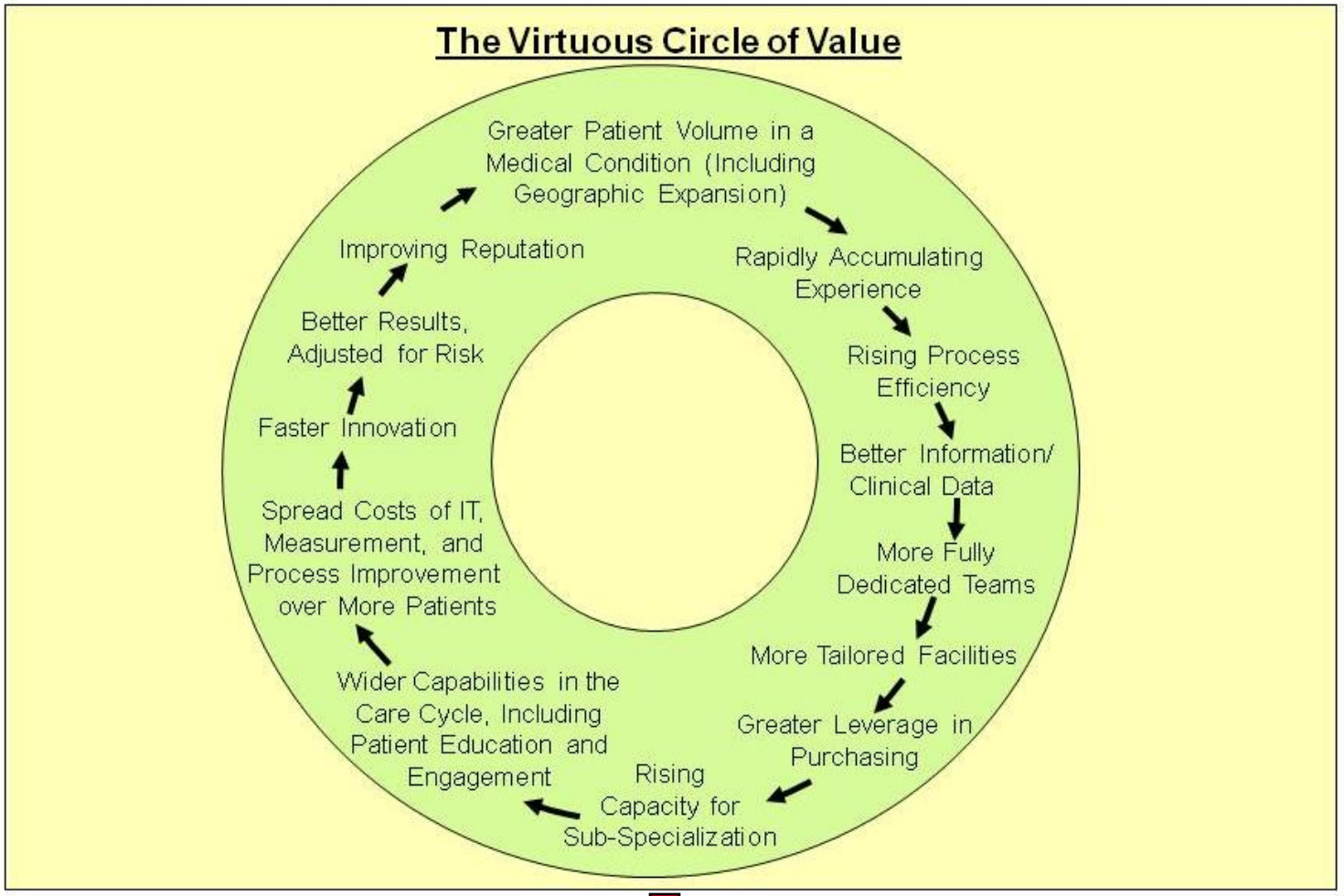
Integrated Care Delivery Includes the Patient

- Value in health care is **co-produced** by patients and clinicians
- Unless patients **comply** with care and treatment plans and take steps to improve their health, even the best delivery team will fail
- For chronic care, patients **are often the best experts** on their own health and personal barriers to compliance
- Today's fragmented system creates **obstacles** to patient education, involvement, and adherence to care
- Simply forcing consumers to pay more is a **false solution**

- **IPUs** will improve patient engagement

Principles of Value-Based Health Care Delivery

4. Value is enhanced by increasing provider **experience**, **scale**, and **learning** at the **medical condition level**



- The virtuous circle **extends across geography** when care for a medical condition is integrated across locations

Fragmentation of Hospital Services

Sweden

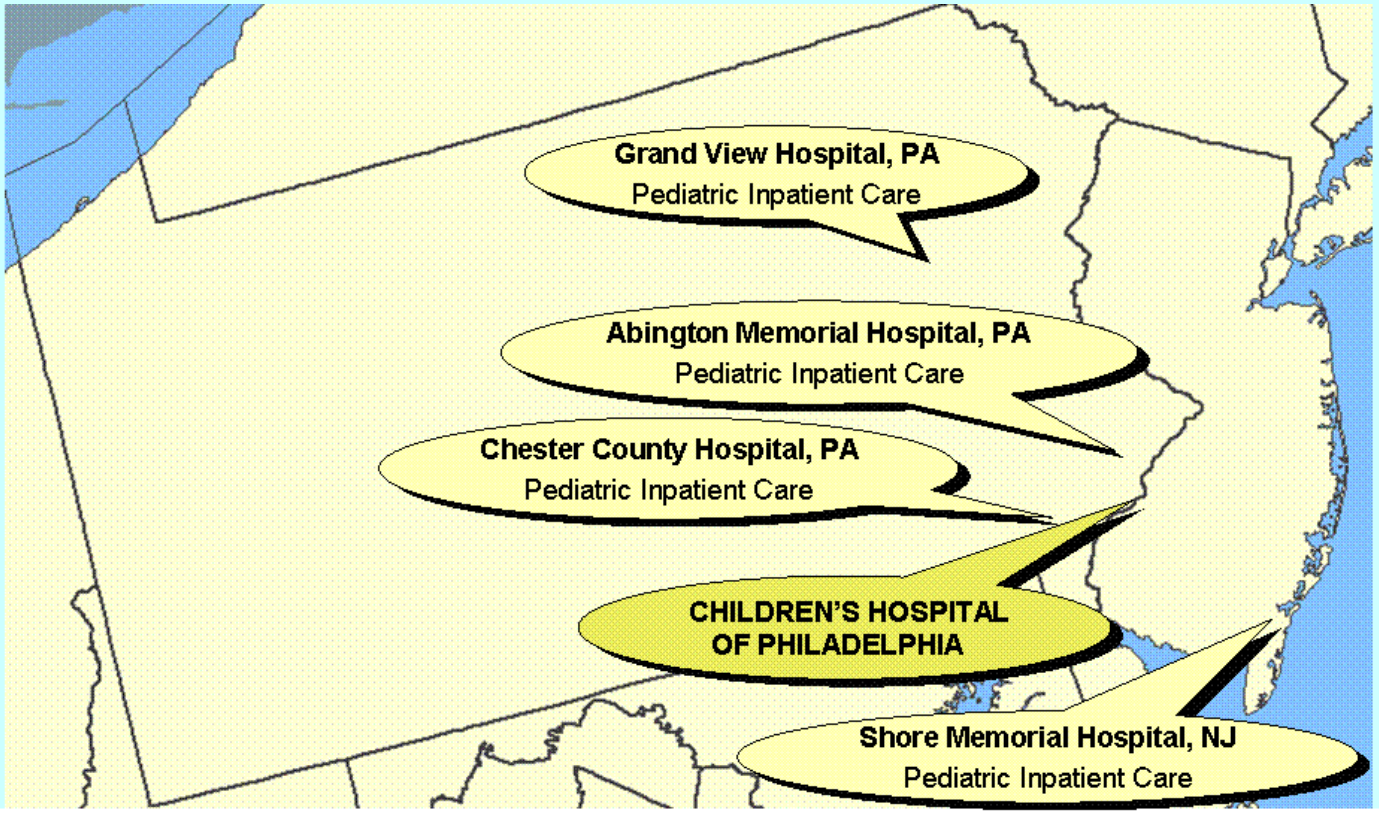
Procedure	Number of hospitals performing the treatment (of 116)	Average number of procedures per provider per year	Average number of procedures per provider per month
Heart transplants	3	13	1.1
Cardiac valve procedures with cardiac catheter	5	11	0.9
Coronary bypass with cardiac catheter	6	56	4.7
Cleft lip and palate repair	8	67	5.6
Splenectomy, Age >7	39	4	0.3
Total Mastectomy (without complications)	66	45	3.8
Iguinal & femoral hernia procedures, Age >17 (without complications)	67	47	3.9

Source: Compiled from The National Board of Health and Welfare Statistical Databases – DRG Statistics, Accessed September 27, 2007.

Principles of Value-Based Health Care Delivery

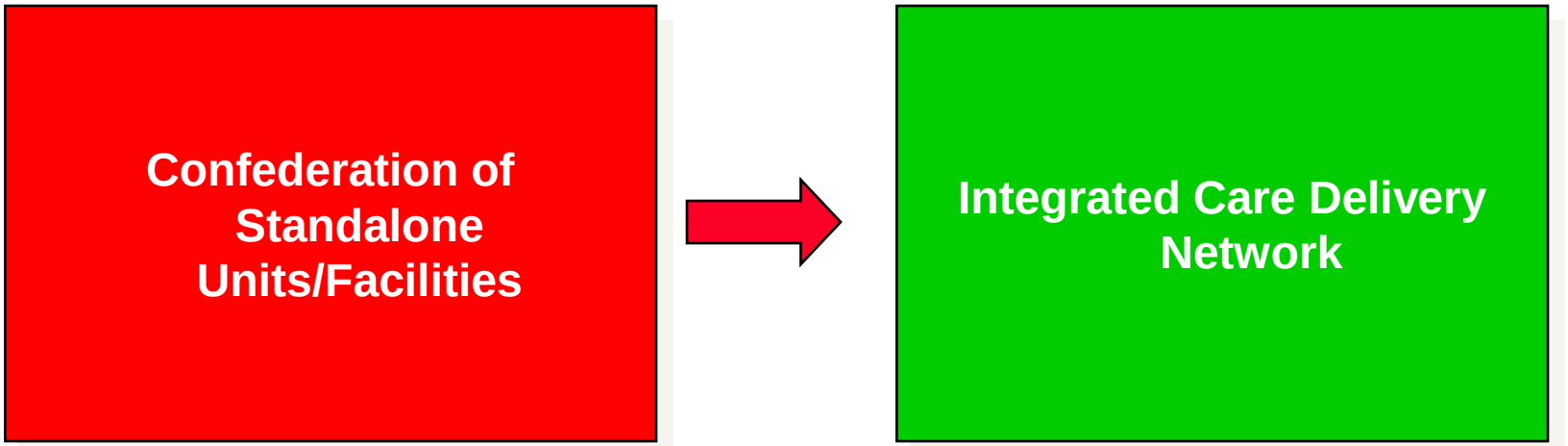
5. Care should be **integrated across facilities** and **across regions**, rather than duplicate services in stand-alone units

Children's Hospital of Philadelphia (CHOP) Affiliations



- Excellent providers can manage care delivery **across multiple geographies**

System Integration



- **Rationalize service lines/ IPUs** across facilities to improve volume, avoid duplication, and achieve excellence
- Offer specific services at the **appropriate facility**
  - e.g. acuity level, cost level, importance of convenience
- Clinically **integrate care across facilities,** but within IPUs
  - Clinical coordination
  - Common organizational unit across facilities
- Link **primary care** to IPUs

Growth Across Geography
The Cleveland Clinic

- Stand Alone Hospitals in Other Regions
- Community Hospitals in the Region
- Affiliate Programs in Cardiac Surgery and Urology
- Telemedicine Second Opinion Services
- Hospital Management in Other Countries

Principles of Value-Based Health Care Delivery

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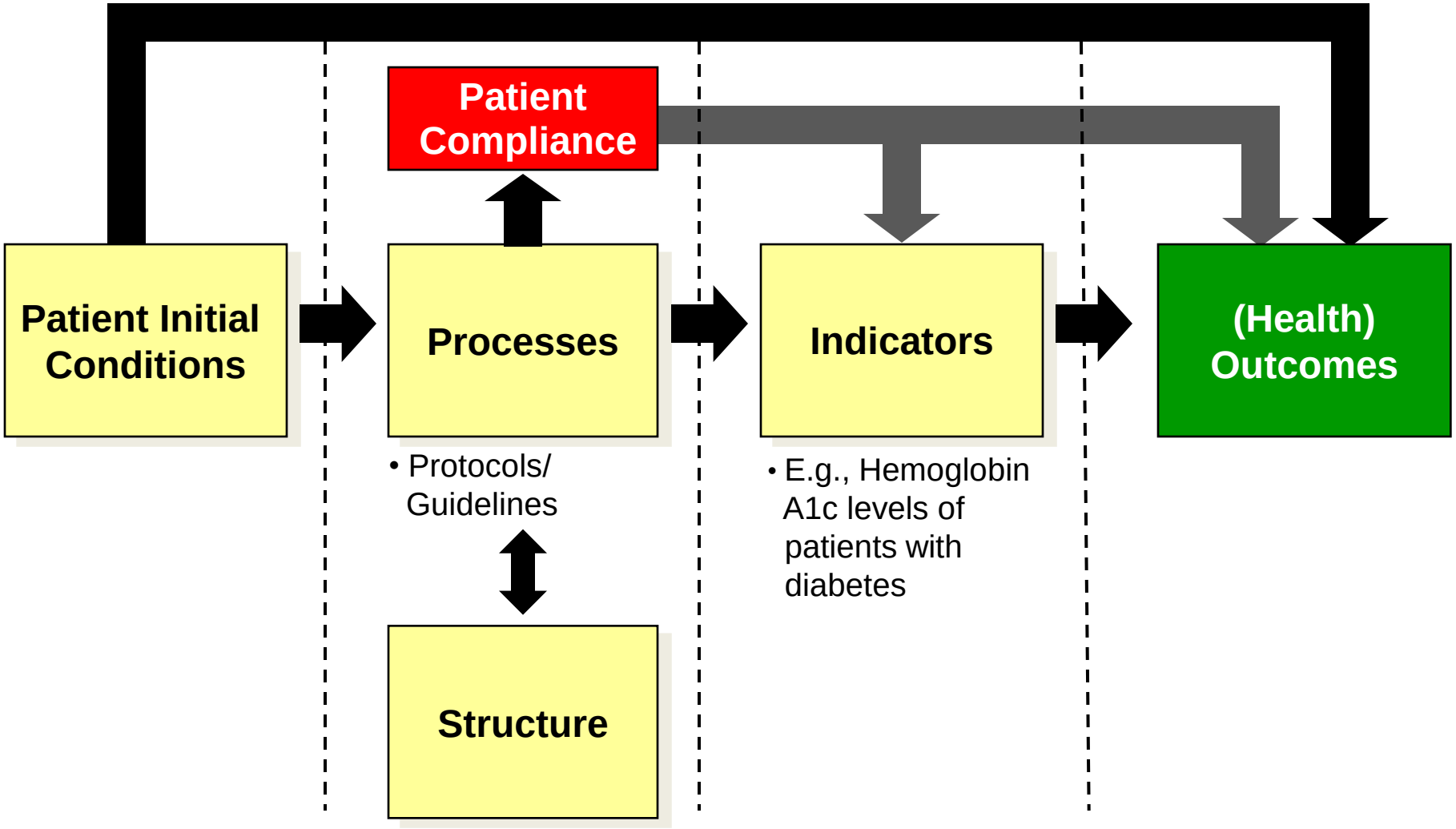
2. The best way to improve value and contain cost is to **improve quality**, where quality is health **outcomes**
3. To maximize value, health care delivery must be organized around **medical conditions** over the **full cycle of care**
4. Drive value improvement by increasing provider **experience**, **scale**, and **learning** at the **medical condition level**
5. Care should be **integrated across facilities** and **across regions**, rather than duplicate services in stand-alone units
6. **Measure** and **report** outcomes for every provider for every medical condition

- **For** medical conditions over the cycle of care
  - Not for interventions or short episodes
  - Not for practices, departments, clinics, or hospitals
  - Not separately for types of service (e.g. inpatient, outpatient, tests, rehabilitation)

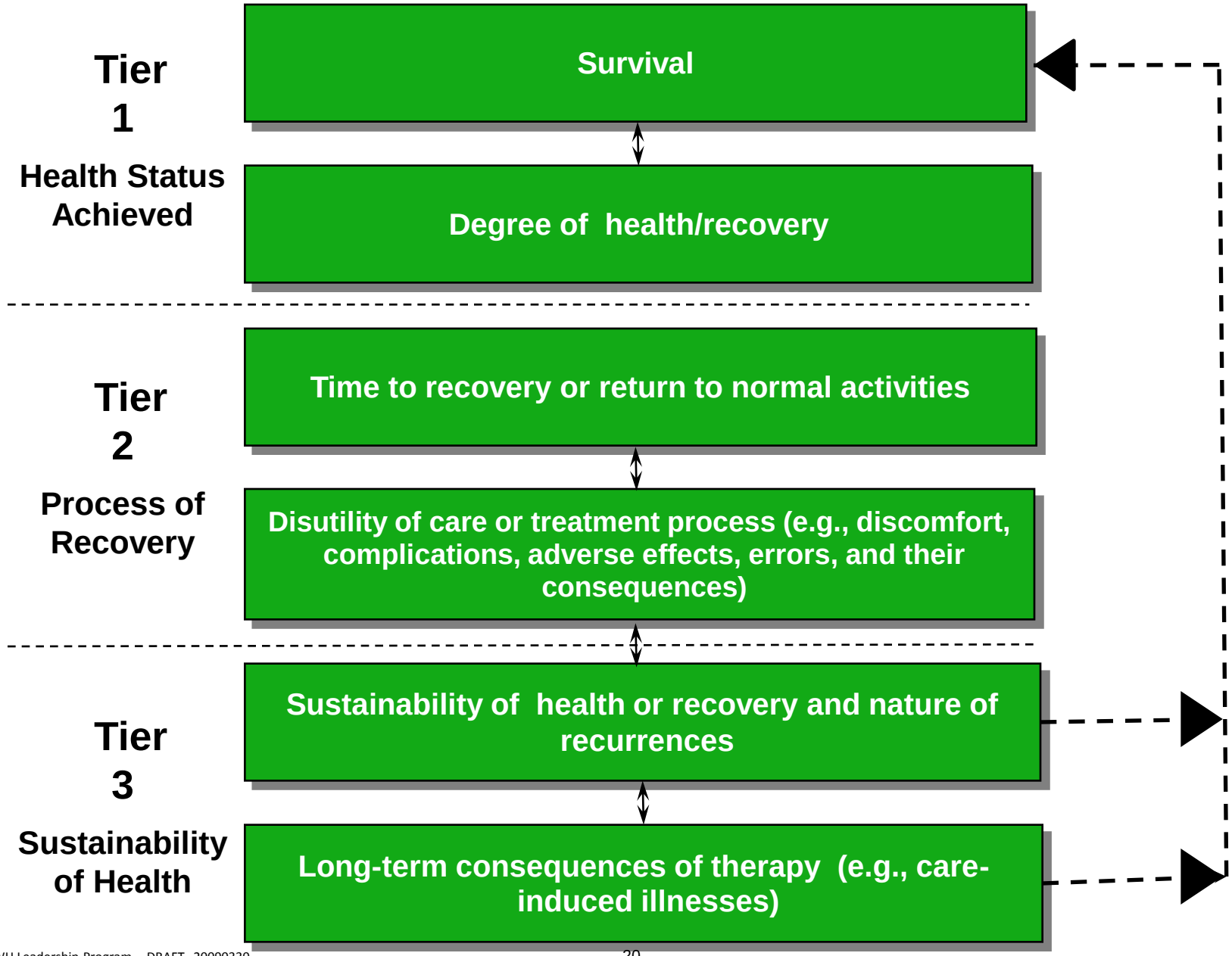
- Results should be measured at **the level at which value is created**

Measuring Value in Health Care

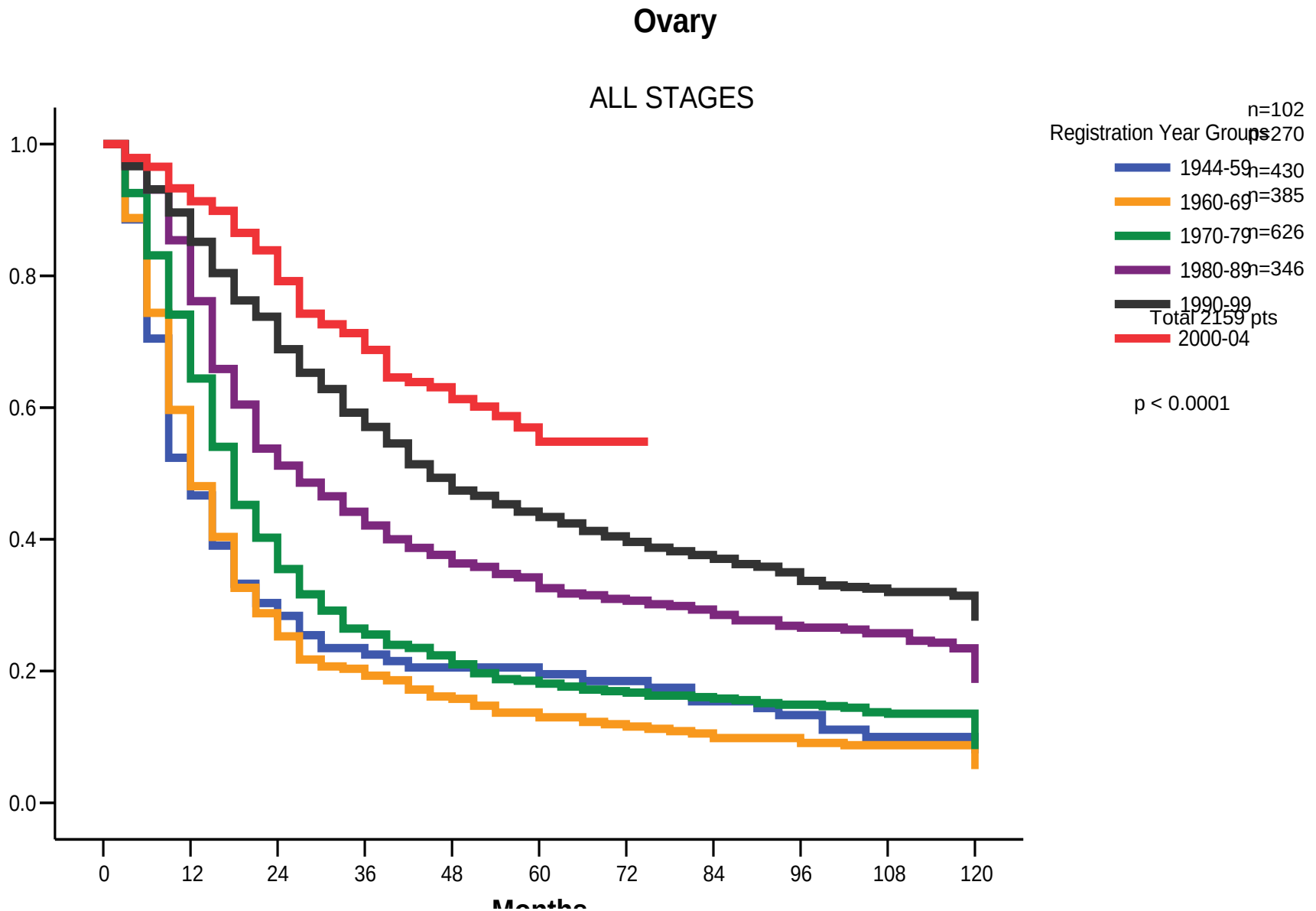


- Value is co-produced by clinicians and the patient

The Outcome Measures Hierarchy



Gyn Onc MCC: Ovarian Cancer Outcomes



Swedish Obesity Registry Indicators

Initial Conditions

- Demographics (age, sex, height, weight, BMI, waist circumference etc)
- Baseline labs – HbA1c (a measure of long-term blood glucose control), Triglycerides, Low Density Lipoprotein (bad cholesterol),High Density Lipoprotein (good cholesterol) Comorbidities (sleep apnea, diabetes, depression, etc)
- SF-36/OP-9 (validated quality of life measures)

Surgery

- Background (Previous surgeries, anesthesia risk class)
- Operation type and concurrent operations (gall bladder removal, appendix removal, etc)
- Perioperative complications
- Surgery data (surgery/anesthesia times, blood loss, etc)
- 6 week follow-up

Source: SOReg: Swedish National Obesity Registry

6-week follow-up

- Length of stay
- <30d surgical complications (bleeding, leakage, infection, technical complications, etc)
- <30d general complications (blood clot, urinary infection, etc)
- Other operations required (gall bladder, plastic surgery, etc)
- Repetition of anthropometric measurements (height, weight, waist, BMI, and change from initial)
- Diabetes labs (HbA1c)

1,2 & 5-year follow-up

- Anthropometrics and change from initial
- Labs (diabetes, triglycerides & cholesterol)
- Comorbidities, and ongoing treatments
- Delayed complications of operation (hernia, ulcer, treatment related malnutrition or anemia, etc)
- Other surgeries since registration
- SF-36/OP-9 (validated quality of life measures)

Source: SOReg: Swedish National Obesity Registry

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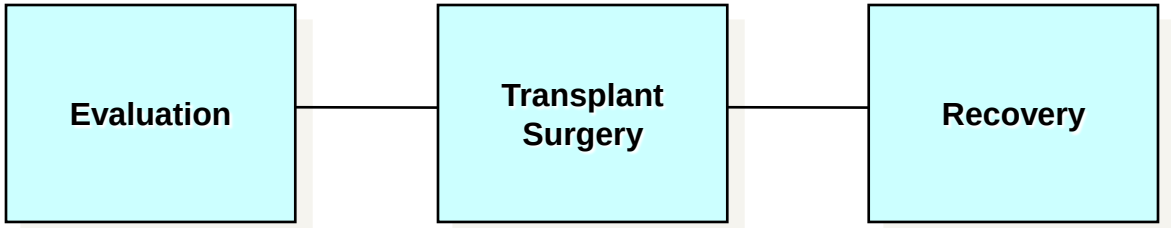
4. Drive value improvement by **increasing** provider **experience**, **scale**, and **learning** at the **medical condition level**
5. Care should be **integrated across facilities** and **across regions**, rather than duplicate services in stand-alone units
6. Value must be **measured** and ultimately **reported** by every provider for each medical condition
7. Reimbursement must be aligned with **value** and reward **innovation**

- Bundled reimbursement for care cycles, not payment for discrete treatments or services
  - Most DRG systems are **too narrow**
  - Adjusted for **patient complexity**
- Time base bundled reimbursement for **managing chronic conditions**
- Reimbursement for **prevention** and **screening** service bundles, not just treatment

- **Providers** and **health plans** must be proactive in driving new reimbursement models, not wait for government

Reimbursement for the Cycle of Care

Organ Transplantation



- **Addressing organ rejection**
- **Fine-tuning the drug regimen**
- **Adjustment and monitoring**

- Leading transplantation centers offer a **single bundled price**

- UCLA Medical Center was a pioneer
- In dividing the revenue from transplantation, some UCLA physicians **bear risk** and capture some of the value improvement, while others are compensated with conventional charges

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8. Information technology can enable **restructuring of care delivery** and **measuring results**, but is not a solution by itself

- Common data definitions
- Precise interoperability standards
- Patient-centered data warehouse
- Include all types of data (e.g. notes, images)
- Cover the full care cycle, including referring entities
- Accessible to all involved parties
- Templates for medical conditions

Value-Based Health Care Delivery: Implications for Providers

- Organize around **integrated practice units** (IPUs)
  - Integrate care for each IPU **across geographic locations**
  - Employ formal **partnerships** and **alliances** with other organizations involved in the care cycle
- Measure **outcomes** and **costs** for every patient
- Lead the development of **new IPU reimbursement models**
- **Specialize** and **integrate** health systems
- Grow high-performance practices **across regions**
- Develop an integrated **electronic medical record** system to support these functions

Value-Based Health Care Delivery: Implications for Government

- Establish **universal measurement** and **reporting** of provider **health outcomes**
- Require universal reporting by health plans of **health outcomes for members**
- Create mandatory IT standards including **data architecture and definitions**, **interoperability standards**, and **deadlines for system implementation**
- Remove obstacles to the **restructuring of health care delivery** around the integrated care of medical conditions
- **Open up competition** among providers and across geography
- Shift reimbursement systems to **bundled prices for cycles of care** instead of payments for discrete treatments or services
- Encourage greater **responsibility of individuals** for their health and their health care

How Will Redefining Health Care Begin?

- It is **already happening** in the U.S. and other countries
- Steps by pioneering institutions will be **mutually reinforcing**
- Once competition begins working, value improvement will **no longer be discretionary**
- Those organizations that **move early** will gain major benefits

- **Providers** can and should take the lead