Value-Based Health Care Delivery: Implications for Providers

Professor Michael E. Porter
Harvard Business School

Tosteson Lecture
Harvard Medical School
October 4, 2007

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. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means — electronic, mechanical, photocopying, recording, or otherwise — without the permission of Michael E. Porter and Elizabeth Olmsted Teisberg. 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.

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Value-Based Competition in Health Care

- Value-Based Health Care Delivery is an intensive, week-long course on the fundamental principles of value-based competition in health care delivery and examining organizations working to implement those principles in practice
- The graduate-level course will be held at Harvard Business School from **January 7 – 11, 2008**
- The course is open by application to Harvard MBA students, MD students, Health Policy PhD students, and others pursuing health care-related courses of study
- Applications are due by **9am November 1, 2007**. The online application weblink is: **http://poll.hbs.edu/poll/open/pollTakerOpen.jsp?poll=117808** (please cut and paste the complete weblink into your browser window)

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Rev. 10/4/07

Immersion Course on Value-Based Health Care Delivery

January 7-11, 2008

	Monday, January 7	Tuesday, January 8	Wednesday, January 9	Thursday, January 10	Friday, January 11
8:30-9:30am	Welcome & Course Overview				
9:00-10:30am	**Session 1: Introduction to Value-Based Health Care Delivery** Case: ThedaCare: System Strategy	**Session 3: Integrated Care Delivery** Case: The West German Headache Center: Integrated Migraine Care	**Session 5: Integrated Primary Care Models** Case: Commonwealth Care Alliance	**Session 7: Integrated Practice Units** Case: MD Anderson Cancer Center: The Head and Neck Center	**Session 9: Care Delivery in Resource-Poor Settings** Case: Rural HIV Care in Rwanda
10:30-11:00am	Break	Break	Break	Break	Break
11:00am-12:30pm	Guest: John Toussaint, CEO, ThedaCare Lecture	Guest: Klaus Boettcher, CEO, KKH Lecture	Guest: CEO, Commonwealth Care Alliance Lecture	Guest: Chief Medical Officer, MD Anderson Lecture	Guest: TBA Lecture
12:30-1:30pm	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
1:30-3:00pm	**Session 2: Medical Conditions/Care Cycles** Case: Diabetes Care in Minneapolis	**Session 4: Results Measurement** Case: In-Vitro Fertilization: Outcomes Measurement	**Session 6: Role of Health Plans and Employers** Case: Aetna: Health Plan Strategy	**Session 8: Integrated Care Delivery** Case: Cardiovascular Care at Brigham and Women's Hospital: Shapiro Center	**Session 10: Provider Growth Strategy** Case: Cleveland Clinic: Growth Strategy
3:00-3:15pm	Break	Break	Break	Break	Break
3:15-4:45pm	Guest: TBA Lecture	Guest: Dr. James Goldfarb, Cleveland Clinic Lecture	Guests: Senior Management, Aetna Lecture	Guests: Brigham and Women's Leadership Lecture	Guest: Toby Cosgrove, CEO, Cleveland Clinic Lecture
4:45-5:00pm				Break	Course Wrap-Up
5:00-6:30pm				**Guest Lecture on Health Policy & Medicare Reimbursement *(Tentative)***	

- The course schedule can be found at: **http://www.hbs.edu/rhc/health_care_course.html**

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Proposals for Reform

- Single Payer System
- Consumer-Driven Health Care
- Pay for Performance
- Electronic Medical Records
- Integrated Payer-Provider Systems

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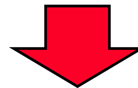
The Paradox of U.S. Health Care

The United States has a **private system** with **intense competition**

But

- Costs are **high** and **rising**
- Services are **restricted** and often **fall well short** of recommended care
- In other services, there is **overuse** of care
- Standards of care often **lag** and fail to follow accepted benchmarks
- **Diagnosis errors** are common
- Preventable **treatment errors** are common
- Huge **quality** and **cost differences** persist across **providers**
- Huge **quality** and **cost differences** persist across **geographic areas**
- Best practices are **slow** to spread
- Innovation is **resisted**



- Competition is **not** working
- How is this state of affairs possible?

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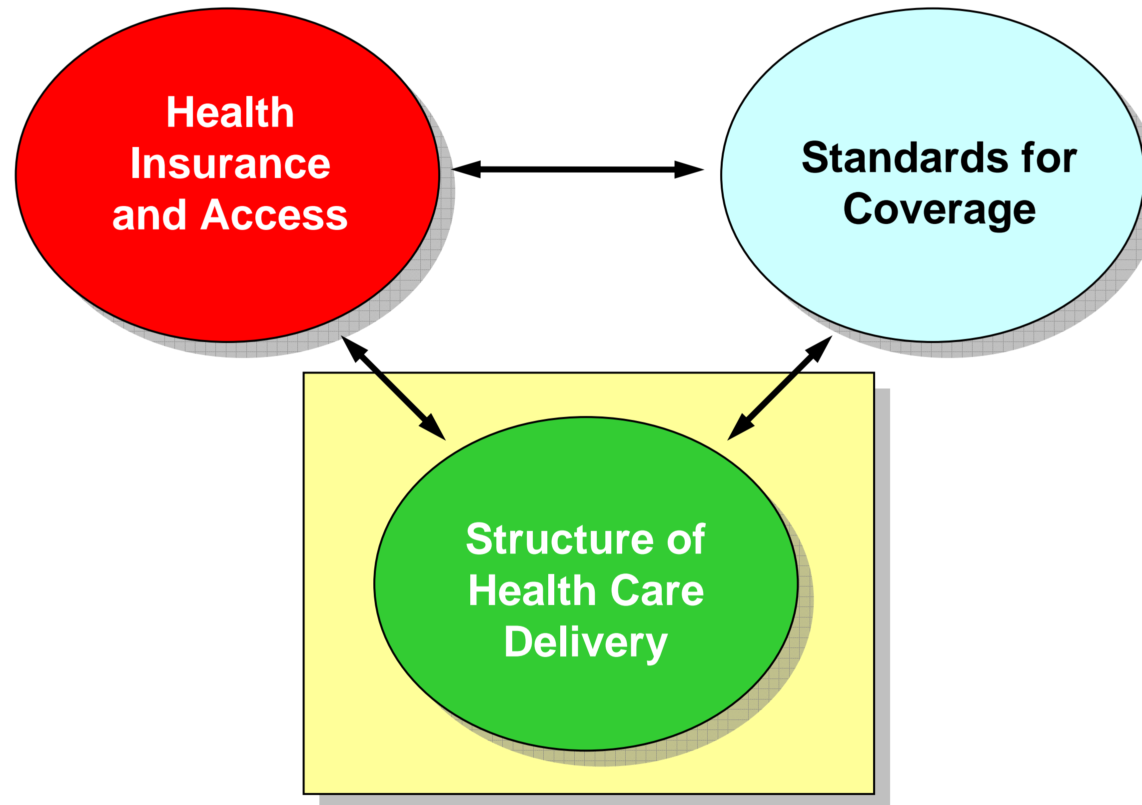
Issues in Health Care Reform



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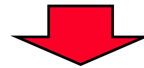
Redefining Health Care

- Universal insurance **is not enough**
- The core issue in health care is the **value of health care delivered**

Value: Patient outcomes per dollar spent



- How to design a health care system that **dramatically improves value**
  - Ownership of entities is secondary
- How to create a **dynamic system** that keeps rapidly improving

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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, and safety initiatives are beneficial but **not sufficient**

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Creating a Value-Based Health Care System

- Competition is a powerful force to encourage **restructuring** of care and **continuous improvement** in value

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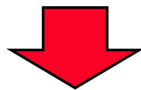
Zero-Sum Competition in U.S. Health Care

Bad Competition

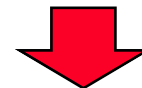
- Competition to **shift costs** or **capture a bigger share of revenue**
- Competition to **increase bargaining power**
- Competition to **capture patients** and **restrict choice**
- Competition to **restrict services** in order to maximize revenue per visit or reduce costs



Zero or Negative Sum

Good Competition

- Competition to **increase value for patients**



Positive Sum

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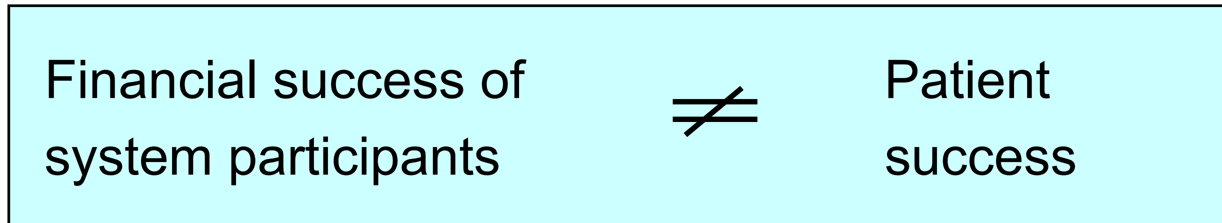
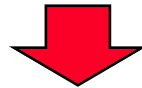
Creating a Value-Based Health Care System

- Today's **competition** in health care is often **not aligned with value**





- Creating **competition on value** is the central challenge in health care reform

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Principles of Value-Based Competition

1. The goal should be **value for patients**, not just lowering costs
   - This will require going **beyond cost containment** and **administrative savings**

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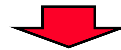
Principles of Value-Based Competition

1. The goal should be **value for patients**, not just lowering costs

2. The best way to **contain costs** is to drive **improvement in quality**

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



- Better health is **inherently less expensive** than poor health

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Principles of Value-Based Competition

1. The goal should be **value for patients**, not just lowering costs
2. The best way to contain costs is to drive improvement in **quality**
3. There must be **unrestricted competition** based on **results**

$$\text{Value: } \frac{\text{Patient health outcomes}}{\text{Total cost of achieving those outcomes}}$$

- Results vs. supply control
- Results vs. process compliance

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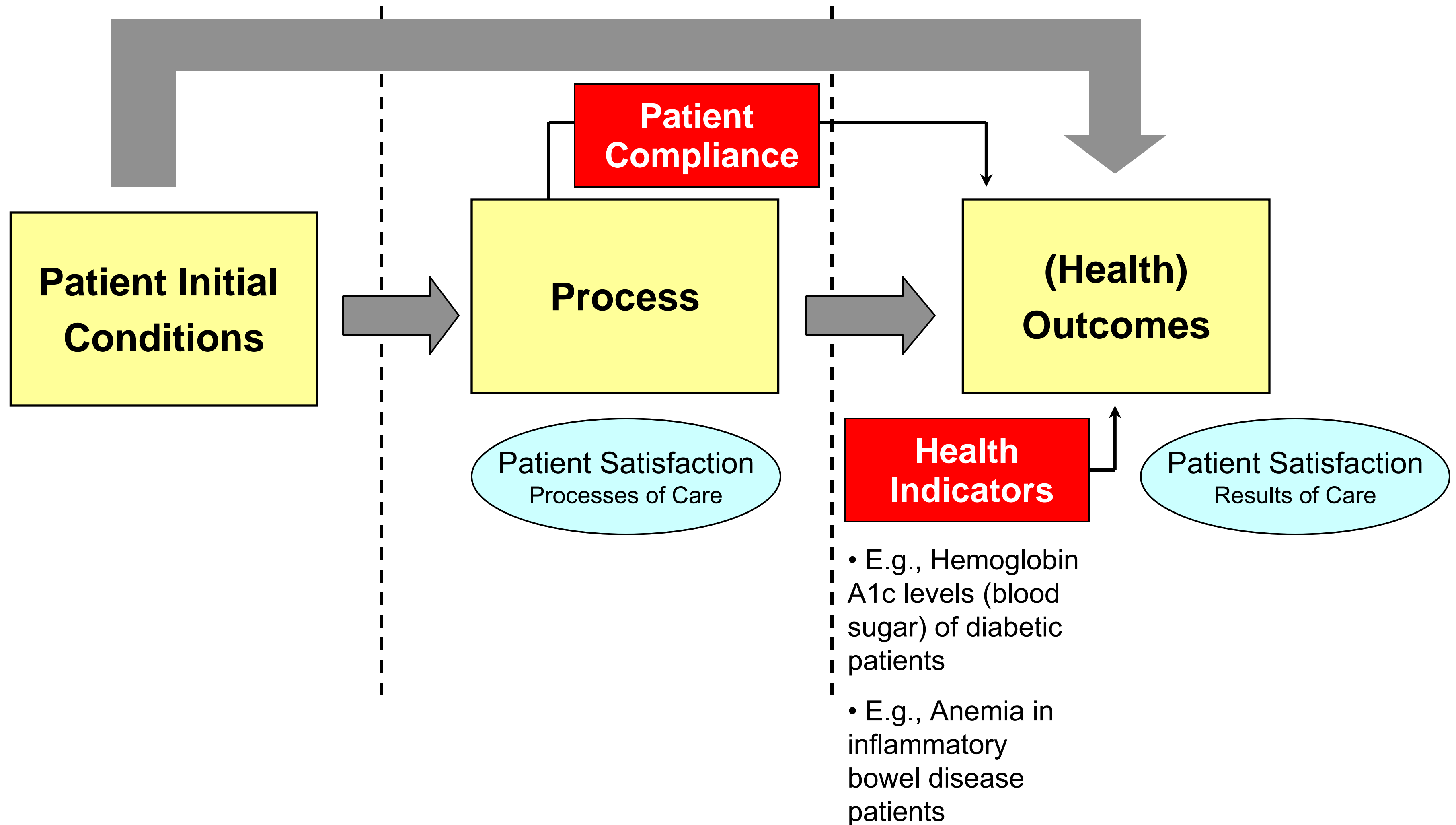
Measuring Results



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Principles of Value-Based Competition

3. There must be **unrestricted competition** based on **results**

$$\text{Value:} \quad \frac{\text{Patient health outcomes}}{\text{Total cost of achieving those outcomes}}$$

- Results vs. supply control
- Results vs. process compliance
- Get patients to excellent providers vs. “lift all boats” or “pay for performance”
- Expand the proportion of patients cared for by the most effective teams
- Grow the excellent teams by reallocating capacity and expanding across locations

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4. Competition should center on **medical conditions** over the **full cycle of care**

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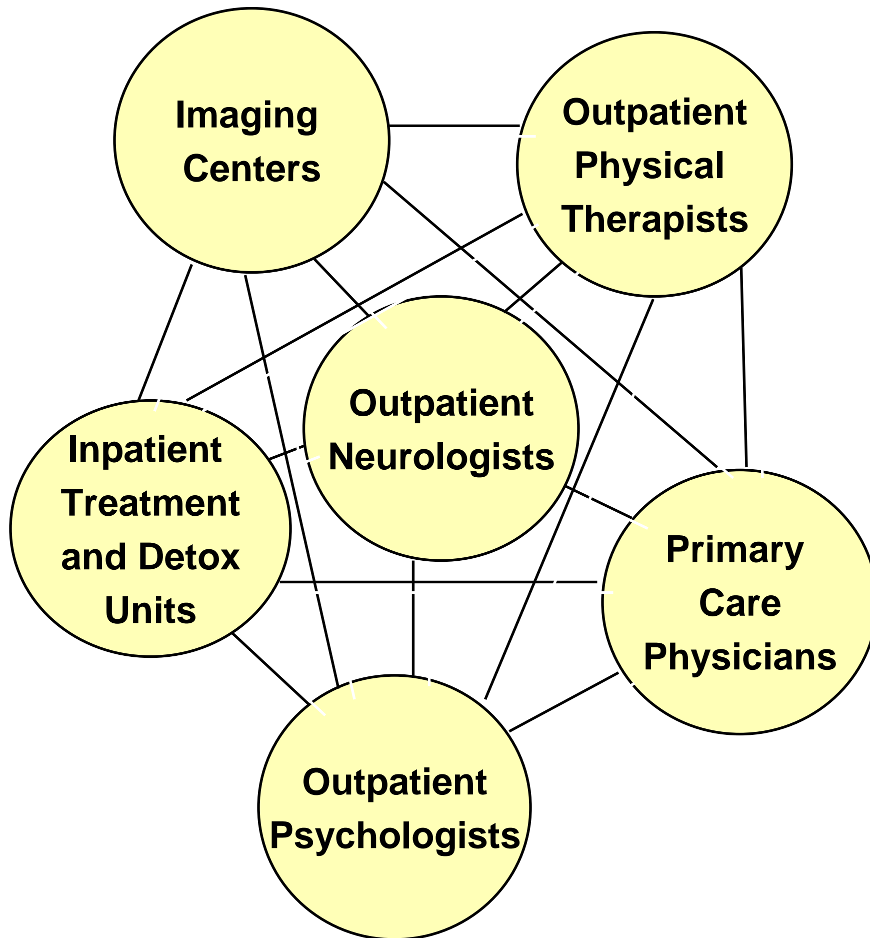
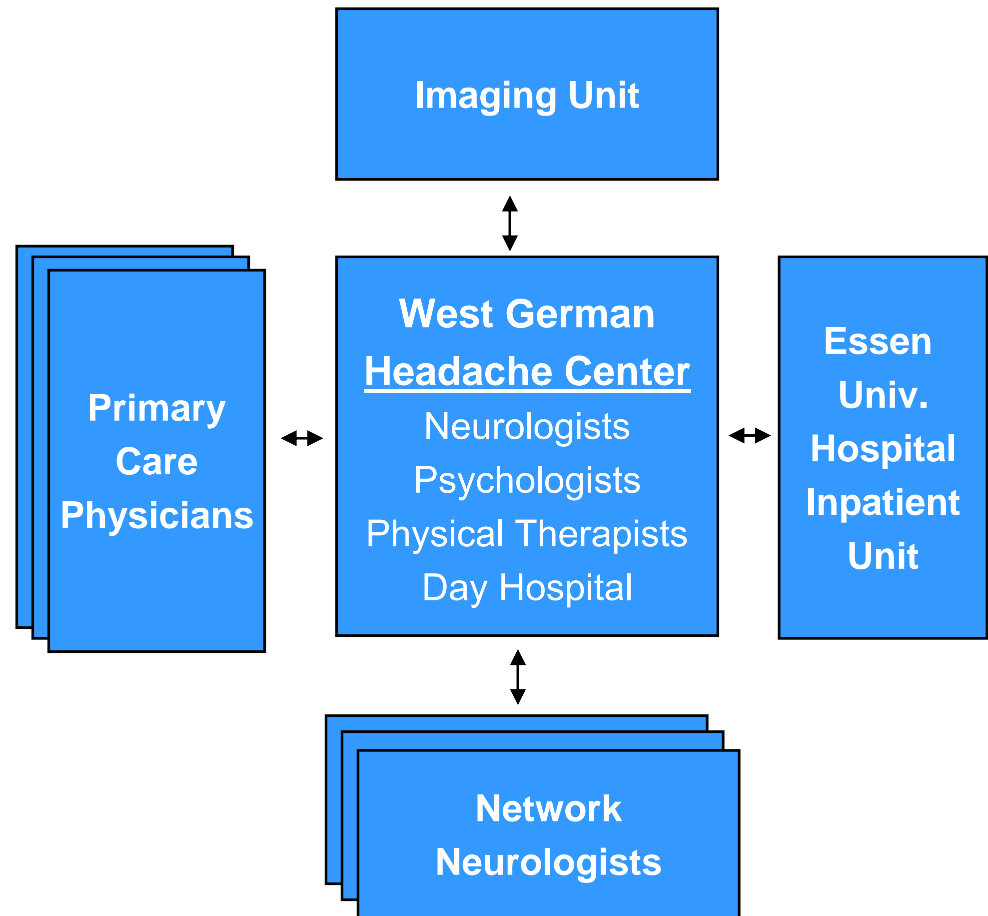
Restructuring Health Care Delivery
Migraine Care in Germany

Old Model: Organize by Specialty and Discrete Services



New Model: Integrated Practice Unit (IPU)



Source: KKH, Westdeutsches Kopfschmerzzentrum

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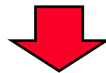
What is a Medical Condition?

- A medical condition is **an interrelated set of patient medical circumstances best addressed in an integrated way**
  - From the patient's perspective

- **Includes** the most common co-occurrences

- Examples
  - Diabetes (including vascular disease, hypertension, others)
  - Breast Cancer
  - Stroke
  - Migraine
  - Asthma
  - Congestive Heart Failure
  - HIV/AIDS



- The boundaries of a medical condition can depend on a provider's **patient population**

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The Care Delivery Value Chain
Breast Cancer

	MONITORING/ PREVENTING	DIAGNOSING	PREPARING	INTERVENING	RECOVERING/ REHABING	MONITORING/ MANAGING
INFORMING & ENGAGING	• Advice on self screening • Consultation on risk factors	• Counseling patient and family on the diagnostic process and the diagnosis	• Explaining and supporting patient choices of treatment	• Counseling patient and family on treatment and prognosis	• Counseling patient and family on rehabilitation options and process	• Counseling patient and family on long term risk management
MEASURING	• Self exams • Mammograms	• Mammograms • Ultrasound • MRI • Biopsy • BRACA 1, 2...		• Procedure-specific measurements	• Range of movement • Side effects measurement	• Recurring mammograms (every 6 months for the first 3 years)
ACCESSING	• Office visits • Mammography lab visits	• Office visits • Lab visits • High-risk clinic visits	• Office visits • Hospital visits	• Hospital stay • Visits to outpatient or radiation chemotherapy units	• Office visits • Rehabilitation facility visits	• Office visits • Lab visits • Mammographic labs and imaging center visits
	• Medical history • Control of risk factors (obesity, high fat diet) • Genetic screening • Clinical exams • Monitoring for lumps	• Medical history • Determining the specific nature of the disease • Genetic evaluation • Choosing a treatment plan	• Medical counseling • Surgery prep (anesthetic risk assessment, EKG) • Patient and family psychological counseling • Plastic or onco-plastic surgery evaluation	• Surgery (breast preservation or mastectomy, oncoplastic alternative) • Adjuvant therapies (hormonal medication, radiation, and/or chemotherapy)	• In-hospital and outpatient wound healing • Psychological counseling • Treatment of side effects (skin damage, neurotoxic, cardiac, nausea, lymphodema and chronic fatigue) • Physical therapy	• Periodic mammography • Other imaging • Follow-up clinical exams • Treatment for any continued side effects

PROVIDER MARGIN

- **Primary care providers** are often the beginning and end of care cycles

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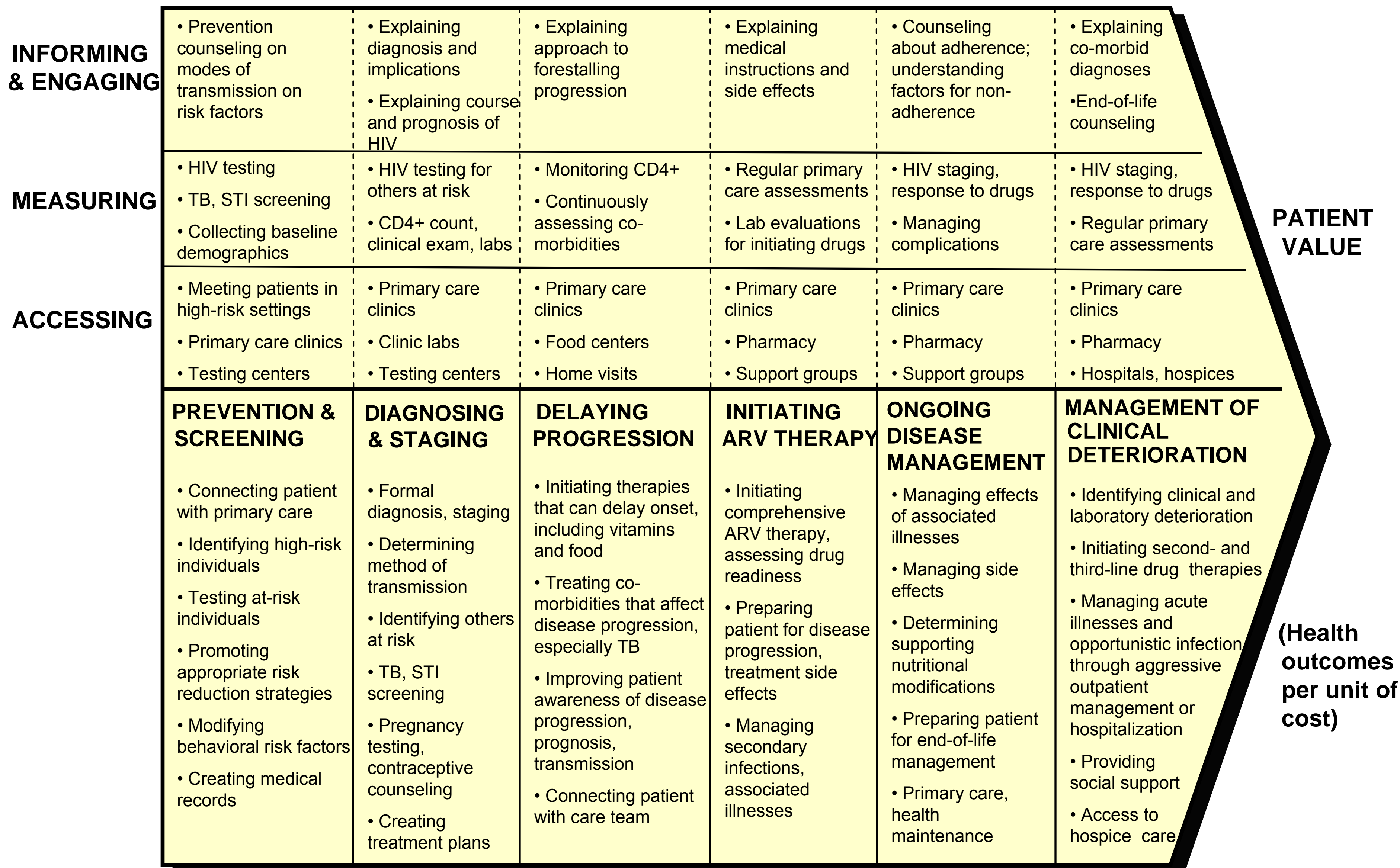
The Care Delivery Value Chain

HIV/AIDS



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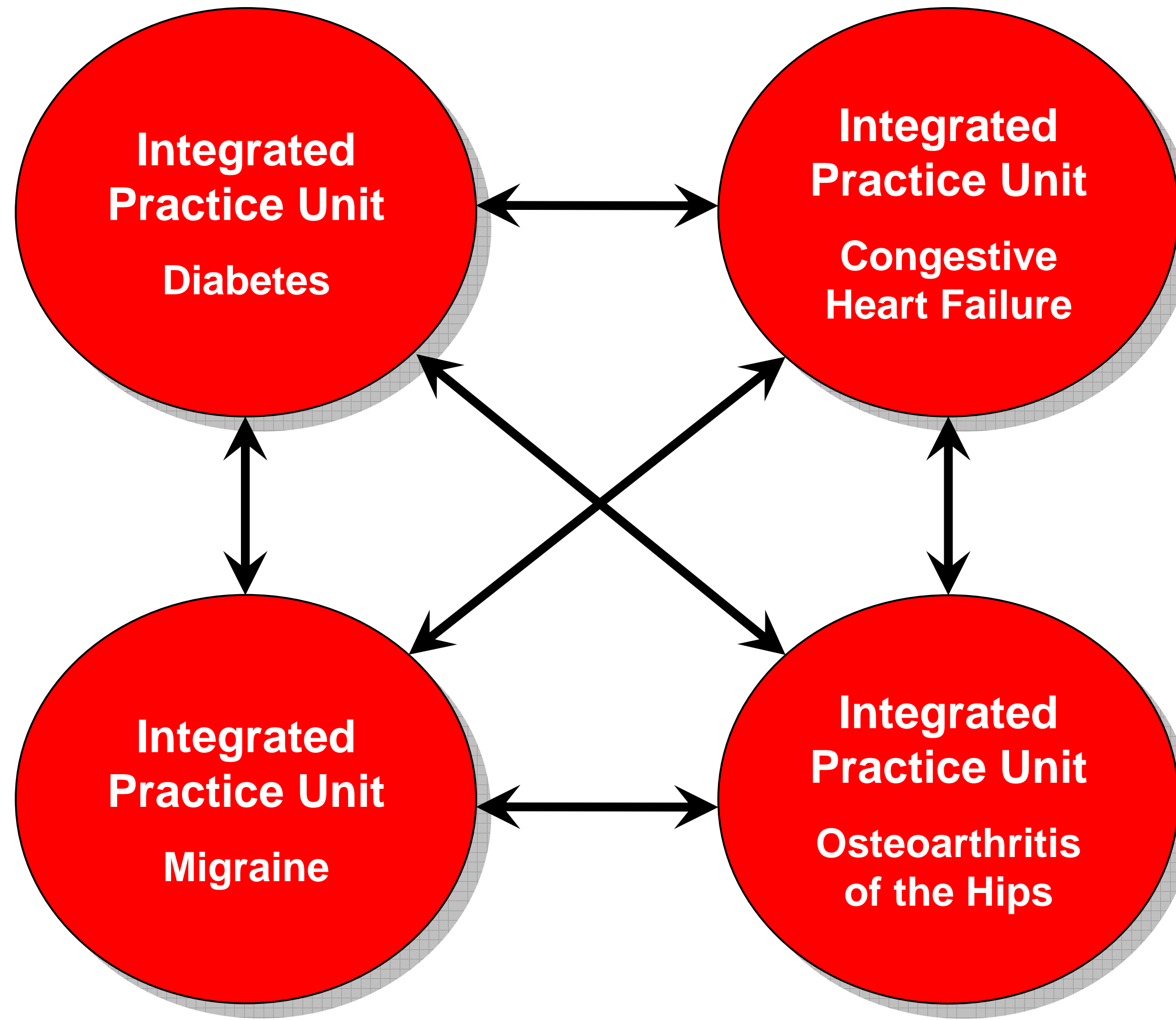
Integrating Care Delivery: Patients With Multiple Medical Conditions



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Principles of Value-Based Competition

1. The goal should be **value for patients**, not just lowering costs
2. The best way to contain costs is to drive improvement in **quality**
3. There must be **unrestricted competition** based on **results**
4. Competition should center on **medical conditions** over the **full cycle of care**
5. Value is driven by provider **experience**, **scale**, and **learning** at the medical condition level

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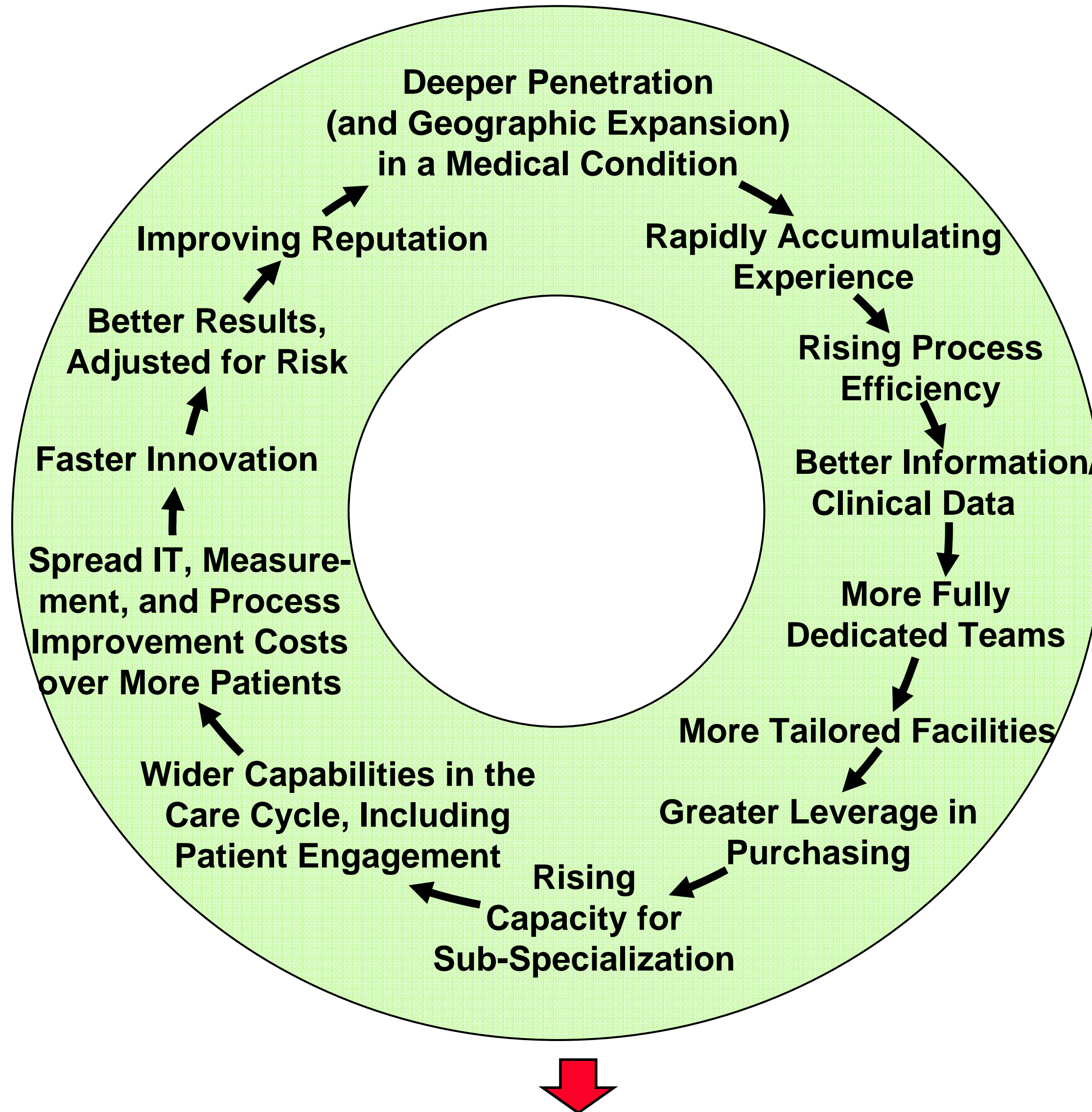
The Virtuous Circle in a Medical Condition



- The virtuous cycle extends **across geography**
- Fragmentation of provider services works against patient value

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5. Value is driven by provider **experience**, **scale**, and **learning** at the medical condition level
6. Competition should be **regional** and **national**, not just local
   - Manage care cycles **across geography**
   - Utilize partnerships and inter-organizational integration among separate institutions

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6. Competition should be **regional** and **national**, not just local
7. **Results** must be universally measured and reported

$$\text{Value:} \quad \frac{\text{Patient health outcomes over the care cycle}}{\text{Total cost of achieving those outcomes}}$$

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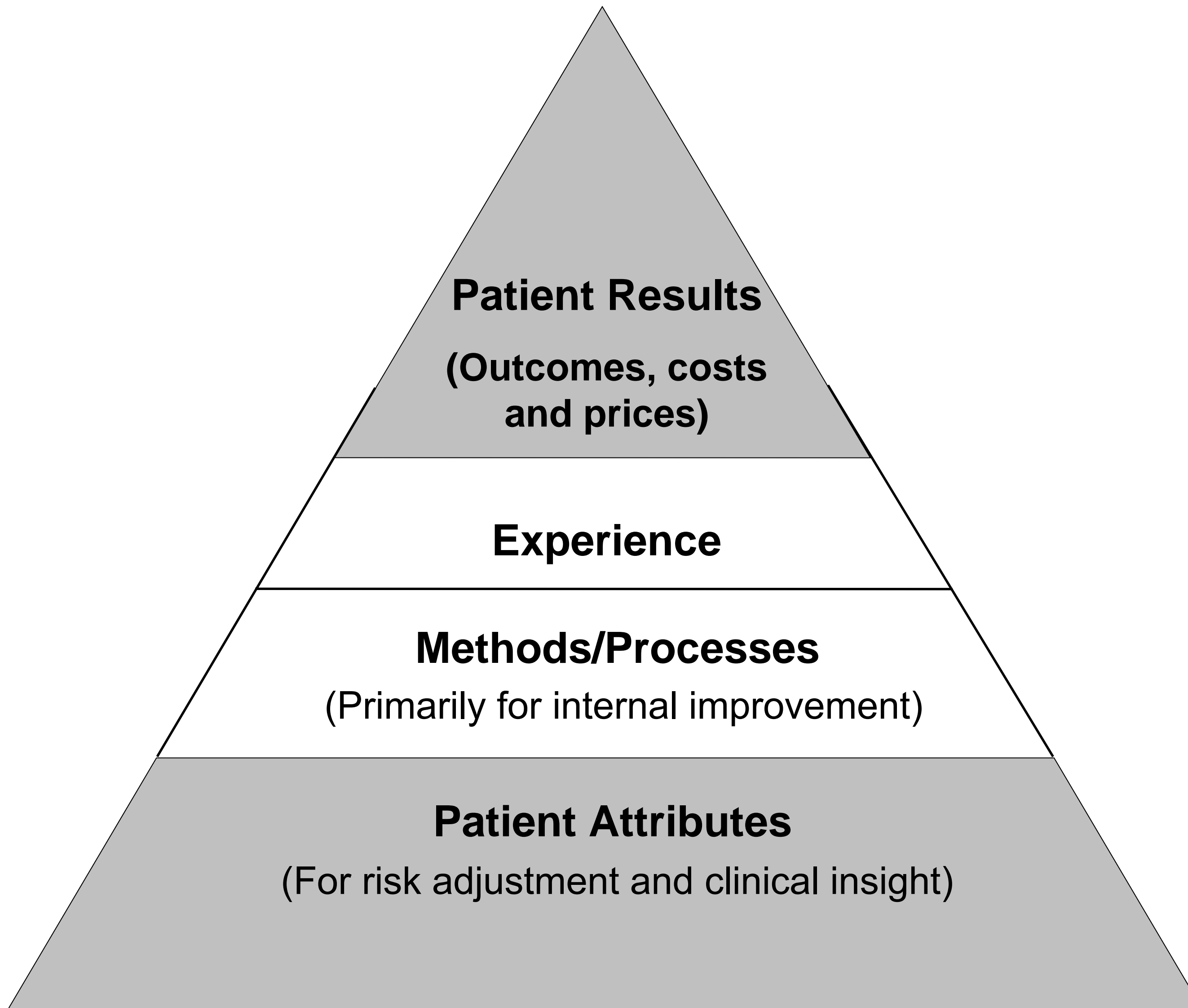
Measuring Results
The Information Hierarchy



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Measuring Results
Principles

- Measure **outcomes** versus processes of care
- Outcome measurement should take place:
  - At the **medical condition** level
  - Over the **cycle of care**
- There are **multiple outcomes** for every medical condition

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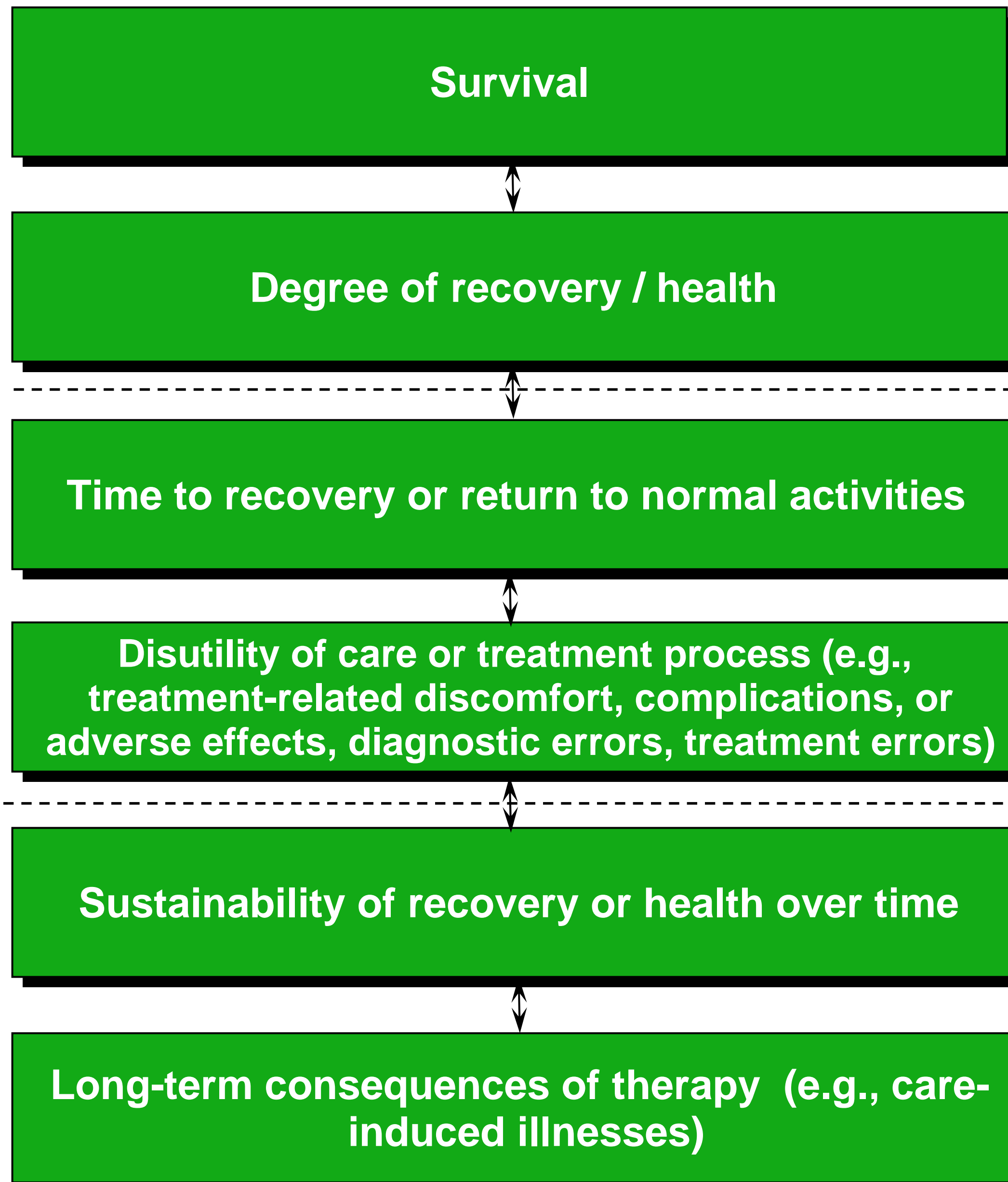
Measuring Outcomes

The Outcome Measures Hierarchy



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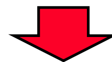
Outcome Measures Hierarchy for Breast Cancer
Initial Conditions

- Stage of disease
- Type of cancer (infiltrating ductal carcinoma, tubular, medullary, lobular, etc.)
- Sites of metastases
- Estrogen and progesterone receptor status (positive or negative)
- Age
- Menopausal status
- General health, including co-morbidities



- **Patient initial conditions** affect both treatment options and results

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Outcome Measures Hierarchy for Breast Cancer, cont'd.

Survival

Degree of recovery / health

Time to recovery and/or return to normal activities

- **Overall survival**
- **Remission**
- **Functional status**
- Results of **breast conservation surgery**
- Time to **remission**
- Time to achieve **functional status**

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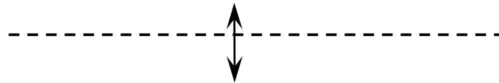
Outcome Measures Hierarchy for Breast Cancer, cont'd.

Disutility of care or treatment process (e.g., treatment-related discomfort, complications, or adverse effects, diagnostic errors, treatment errors)



Sustainability of recovery or health over time

Long-term consequences of therapy (e.g., care-induced illnesses)

- **Nosocomial infection** (by type)
- **Nausea**
- **Vomiting**
- **Febrile neutropenia**
- **Limitation of motion** from surgery
- **Depression**
- **Disease free survival**
- **Sustainability of functional status**
- **Incidence of secondary cancers**
- **Brachial plexopathy**
- **Premature osteoporosis** due to early menopause from chemotherapy

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6. Competition should be **regional** and **national**, not just local
7. **Results** must be universally measured and reported
8. Reimbursement should be aligned with **value** and reward **innovation**
   - Reimbursement for care cycles, not discrete treatments or services
   - Most DRG systems are **too narrow**

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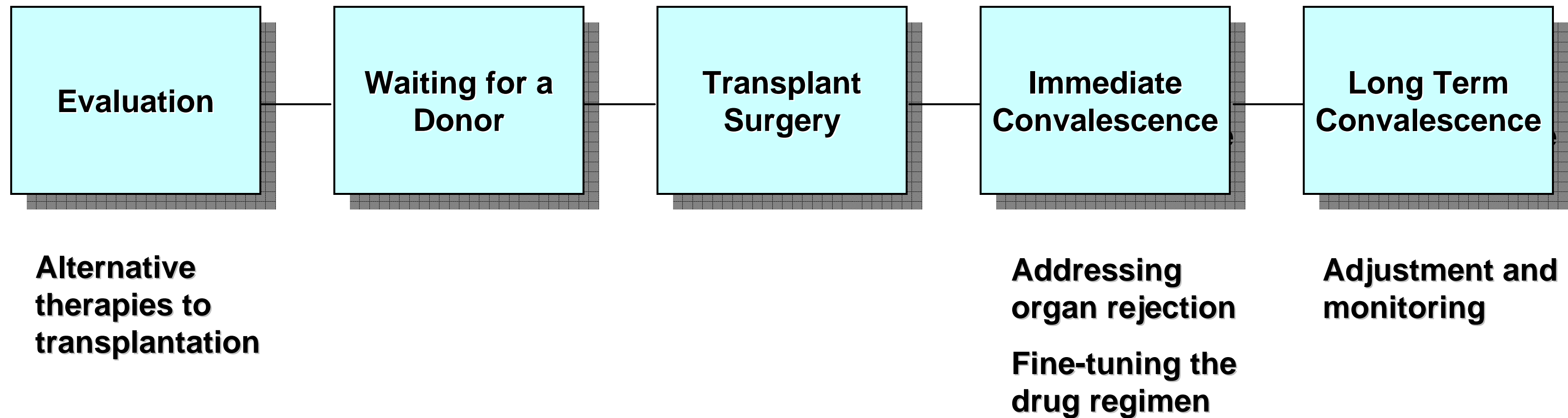
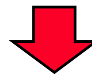
Organ Transplantation Care Cycle





- Leading transplantation centers quote a **single price**

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7. **Results** must be universally measured and reported
8. Reimbursement should be aligned with **value** and reward **innovation**
9. **Information technology** is an **enabler** of restructuring care delivery and measuring results, **not a solution itself**
   - Common data definitions
   - Interoperability standards
   - Patient-centered database

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Moving to Value-Based Competition

Implications for Providers

- Organize around **integrated practice units** (IPU) for each medical condition
- Choose the appropriate **scope of services** in each facility based on excellence in **patient value**
- Integrate services for each medical condition **across geographic locations**
- Employ formal **partnerships** and **alliances** across entities involved in the care cycle to integrate care and improve capabilities
- Measure **results** by medical condition
- Expand high-performance IPUs **across geography** using an integrated model
  - Instead of merging broad line, stand-alone facilities
- Lead the development of **new contracting models** with health plans based on care cycle reimbursement

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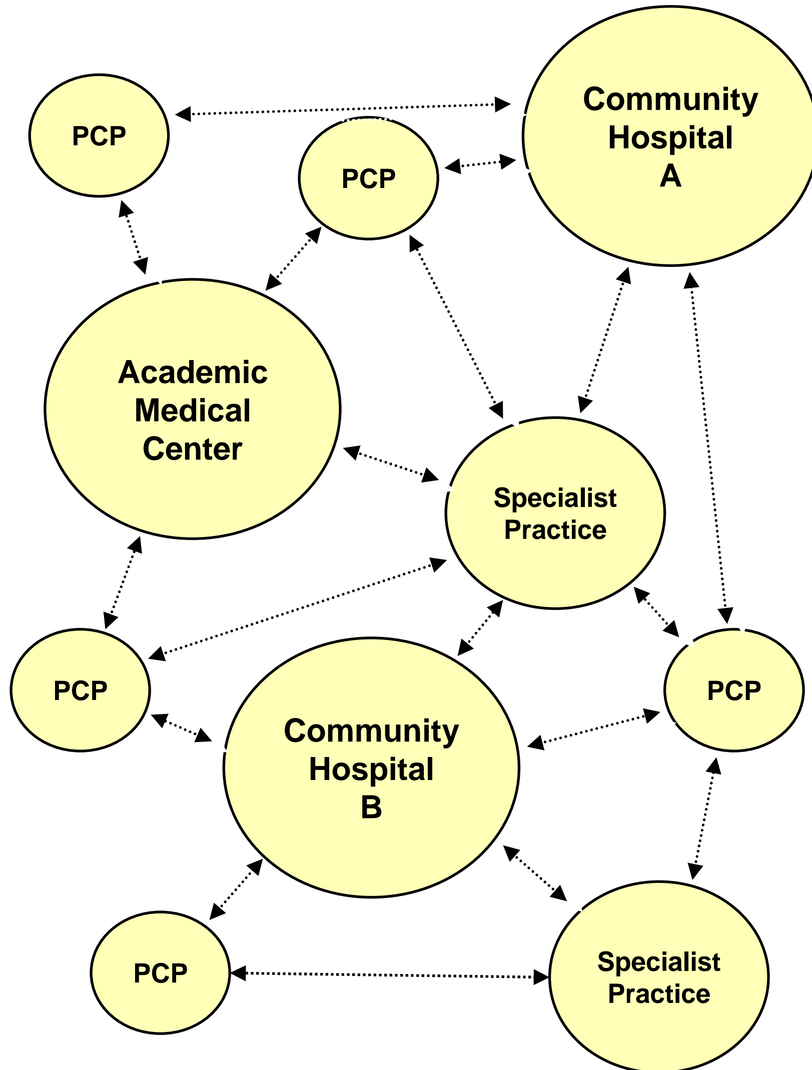
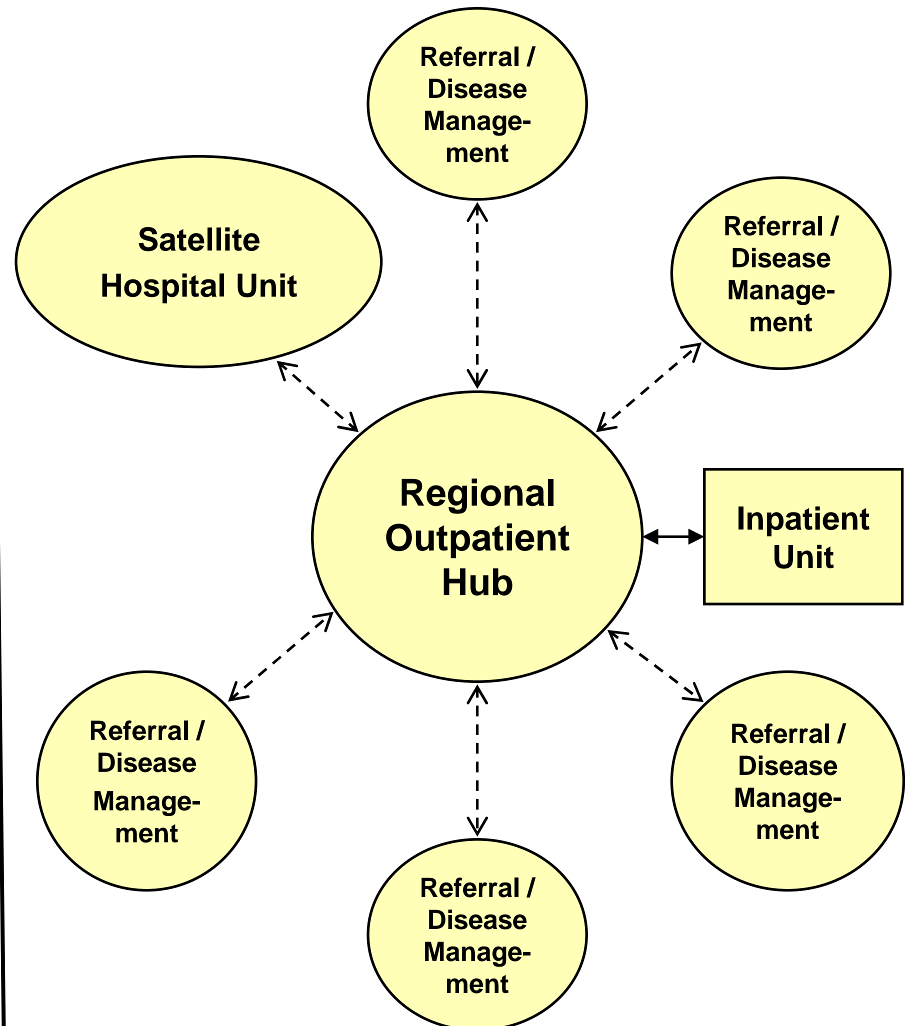
Integrating Services Across Geography

Current Model: Each Unit is Stand Alone and Offers Most Services



New Model: Care is Specialized and Integrated Across Geographic Units By Medical Conditions



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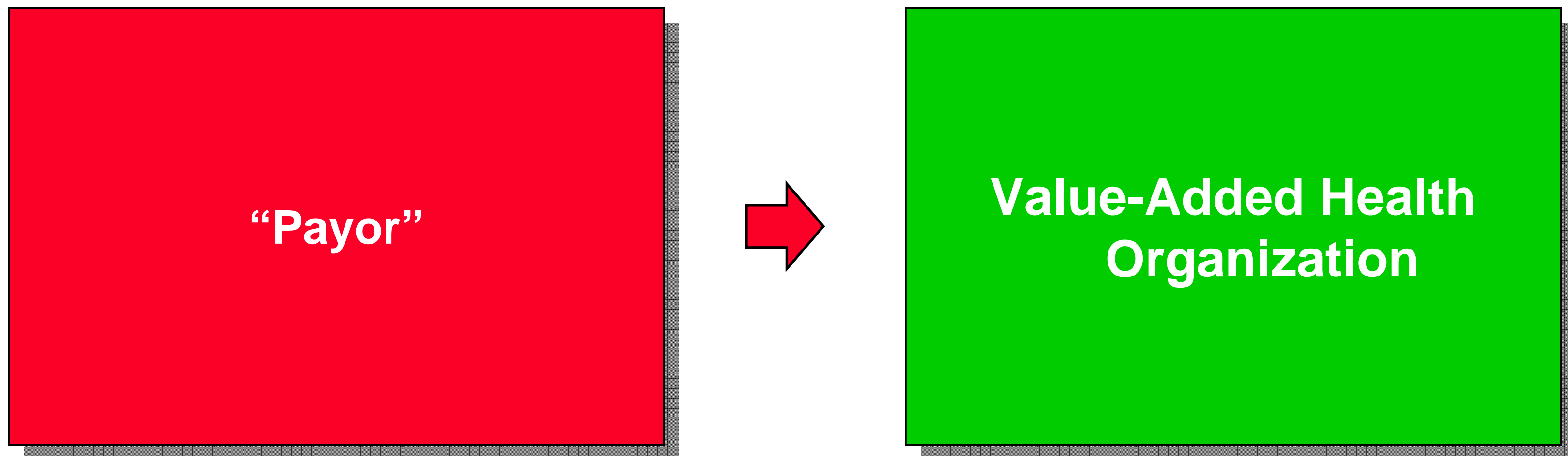
Moving to Value-Based Competition

Health Plans



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Moving to Value-Based Competition

Value-Adding Roles of Health Plans

- Monitor and compare **provider results** by medical condition
- Provide advice to patients (and referring physicians) in selecting **excellent providers**
- Assist in coordinating patient care across the **full care cycle** and **across medical conditions**
- Provide for comprehensive **prevention** and **chronic disease management** services to all members
- Design new reimbursement models **for care cycles**
- Assemble and manage the **total medical records** of members
- Measure and report **overall health results** for members

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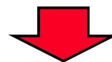
Creating a High-Value Health Care System: Roles and Responsibilities

Consumers

- Participate actively in **managing personal health**
- Expect **relevant information** and seek advice
- Make treatment and provider **choices** based on **outcomes**, not convenience, waiting time, or amenities
- Get informed and **comply** with care
- Work with the health plan in **long-term health management**



- But “consumer-driven health care” is the **wrong metaphor** for reforming the system

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Moving to Value-Based Competition
Government

- Measure and report health **results**
- Create IT standard **data definitions** and **interoperability standards** to enable the collection and exchange of medical information for every patient
- Enable the **restructuring of health care delivery** around the integrated care of **medical conditions** across the **full care cycle**
- Shift reimbursement to **bundled prices for cycles of care** instead of payments for discrete treatments or services
- End **provider price discrimination** across patients
- **Open up competition** among providers and across geography

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Moving to Value-Based Competition

Government – cont'd.

- Require health plans to measure and report **health outcomes** for members
- Encourage the **responsibility of individuals** for their health and their health care
- Enable **universal insurance** consistent with value-based principles
  - Create **neutrality** between employer-provided and individually-purchased health insurance
  - Establish **risk pooling adjustment vehicles** that eliminate incentives for cherry picking healthier patients
  - Move towards an **individual mandate** to purchase health insurance
  - All health insurance plans should include **screening and preventive care** in addition to **disease management** for chronic conditions

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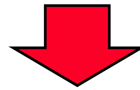
How Will Redefining Health Care Begin?

- It is **already happening**
- Each **system** participant can take **voluntary** steps in these directions, and will **benefit** irrespective of other changes
- The changes are **mutually reinforcing**
- Once competition begins working, value improvement will **no longer be discretionary** or **optional**
- Those organizations that **move early** will gain major benefits



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

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