Value Based Health Care Delivery: Implications for Global Health

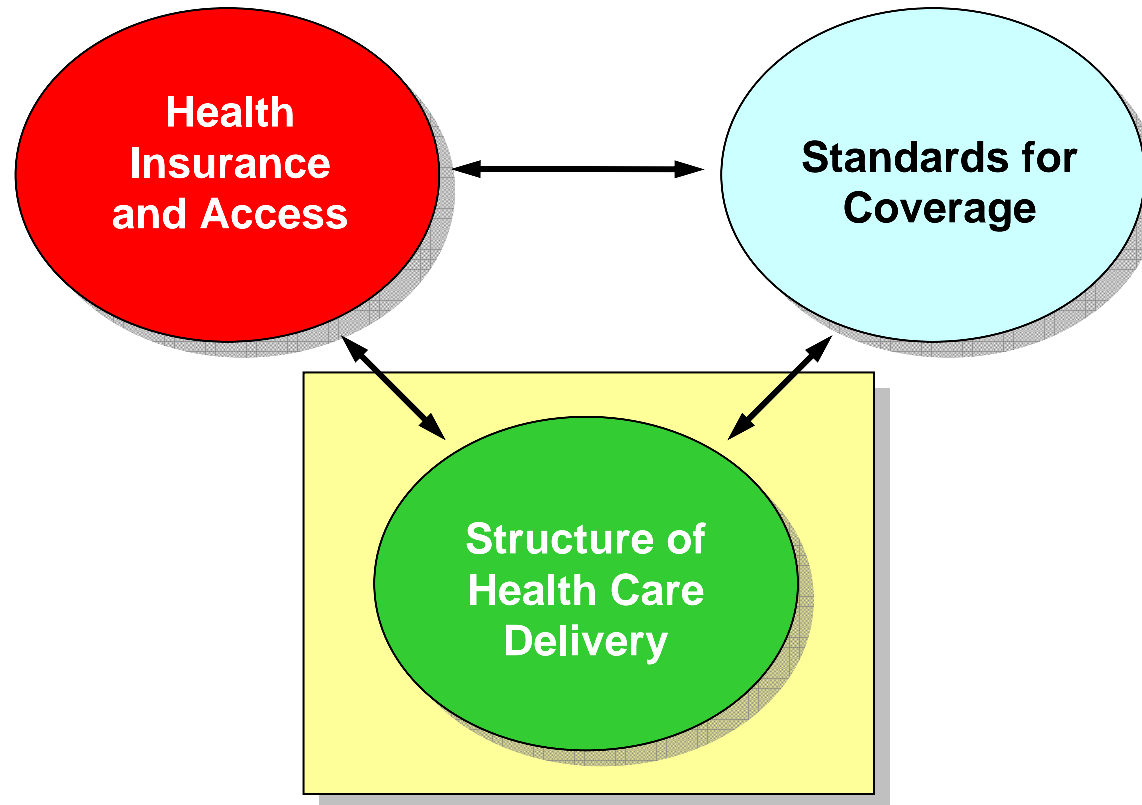
Professor Michael E. Porter

Intro. to Global Health Care Delivery
January 15, 2008

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.

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Issues in Health Care Reform

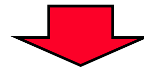


Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Redefining Health Care

- Universal coverage **is 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. government vs. non-profit vs. for profit)
- How to create a **dynamic system** that keeps rapidly improving

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

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 improvement, and safety initiatives are beneficial but **not sufficient** to substantially improve value

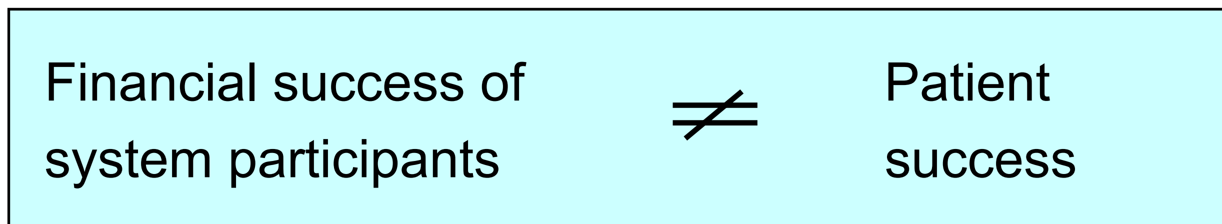
Process → Structure, organization

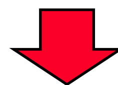
Interventions → Systems

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Creating a Value-Based Health Care System

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





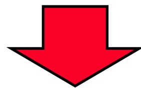
- Creating **competition on value** is the central challenge in health care reform

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Zero-Sum Competition in Health Care

Bad Competition

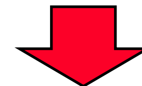
- Competition to **shift costs** or capture a **bigger share of revenue**
- Competition to **increase bargaining power**
- Competition to **capture patients** and **limit choice**
- Competition to **restrict services** in order to maximize revenue per visit or reduce costs



Zero or Negative Sum

Good Competition

- Competition to **increase value for patients**



Positive Sum

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Principles of Value-Based Competition

1. The goal should be **value for patients**, not lowering costs or offering every service
   - Health **outcomes**: objective outcomes, not only patient perceptions
   - Costs of achieving outcomes: **total costs**, not the costs borne by any one party

- Improving value will require going **beyond waste reduction** and **administrative savings**

Value > Volume > Closest local access

Focus on value will drive equity

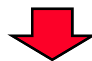
Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Principles of Value-Based Competition

1. The goal should be **value for patients**, not lowering costs or offering every service
2. The best way to **contain costs** is to **improve quality**

Quality = Health outcomes

- Prevention
- Early detection
- Right diagnosis
- Early treatment
- Treatment earlier in the causal chain of disease
- Right treatment to the right patients
- Fewer delays in the care delivery process
- Fewer complications
- Fewer mistakes and repeats in treatment
- 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

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

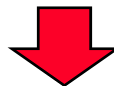
Principles of Value-Based Competition

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

Value:	Patient health outcomes / Total cost of achieving those outcomes

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

- Reward **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 them **across locations**

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

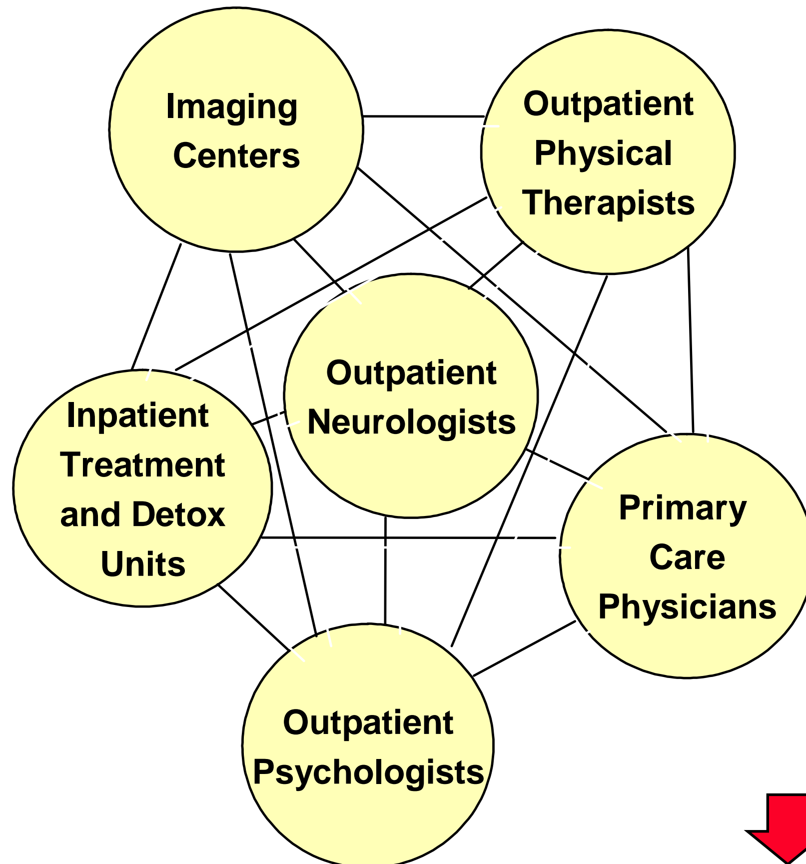
Principles of Value-Based Competition

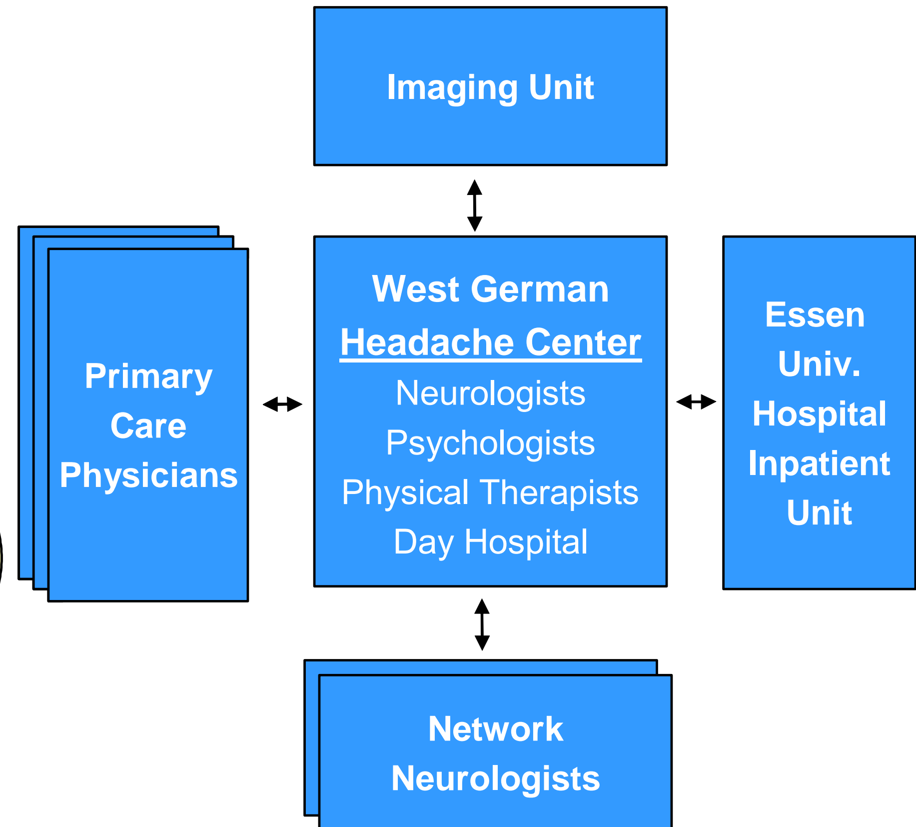
1. The goal should be **value for patients**, not lowering costs or offering every service
2. The best way to contain costs is to drive improvement in **quality**
3. There must be **unrestricted competition** based on **results**
4. Competition should center on **medical conditions** over the **full cycle of care**

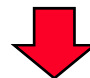
 Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Restructuring Health Care Delivery

Migraine Care in Germany





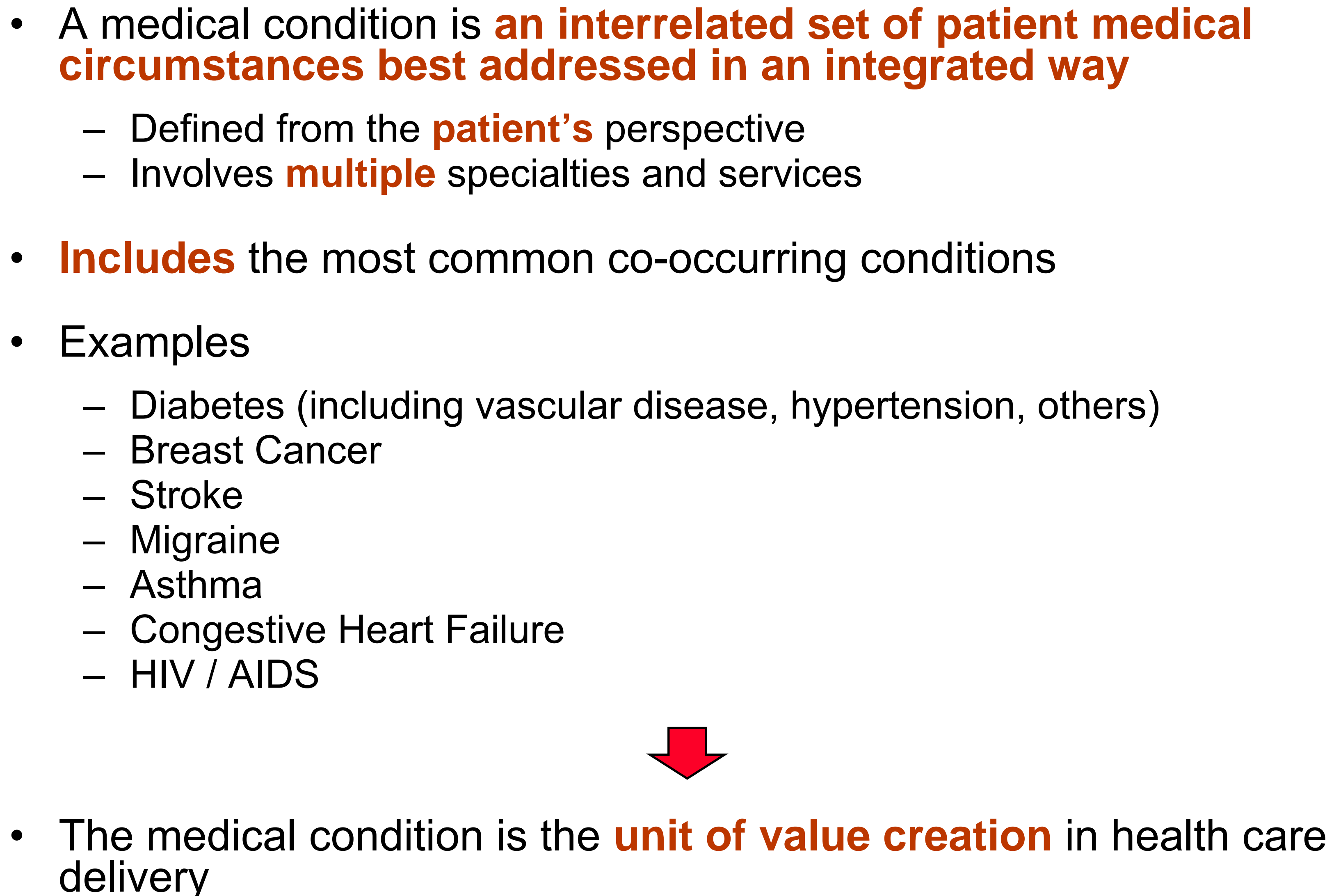


- **Organize around the patient over the care cycle**, not by specialist/intervention/department

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

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

What is a Medical Condition?



- A medical condition is **an interrelated set of patient medical circumstances best addressed in an integrated way**
  - Defined from the **patient's** perspective
  - Involves **multiple** specialties and services
- **Includes** the most common co-occurring conditions
- Examples
  - Diabetes (including vascular disease, hypertension, others)
  - Breast Cancer
  - Stroke
  - Migraine
  - Asthma
  - Congestive Heart Failure
  - HIV / AIDS
- The medical condition is the **unit of value creation** in health care delivery

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

The Cycle of Care

Care Delivery Value Chain for Breast Cancer

	MONITORING/ PREVENTING	DIAGNOSING	PREPARING	INTERVENING	RECOVERING/ REHABING	MONITORING/ MANAGING
INFORMING AND ENGAGING	• Advice on self screening • Consultation on risk factors	• Counseling patient and family on the diagnostic process and the diagnosis	• Explaining patient choices of treatment • Achieving compliance	• Counseling on treatment and prognosis • Achieving compliance	• Counseling on rehabilitation options, process • Achieving compliance	• Counseling on long term risk management • Achieving compliance
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 psycholo-gical 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 the care cycle

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

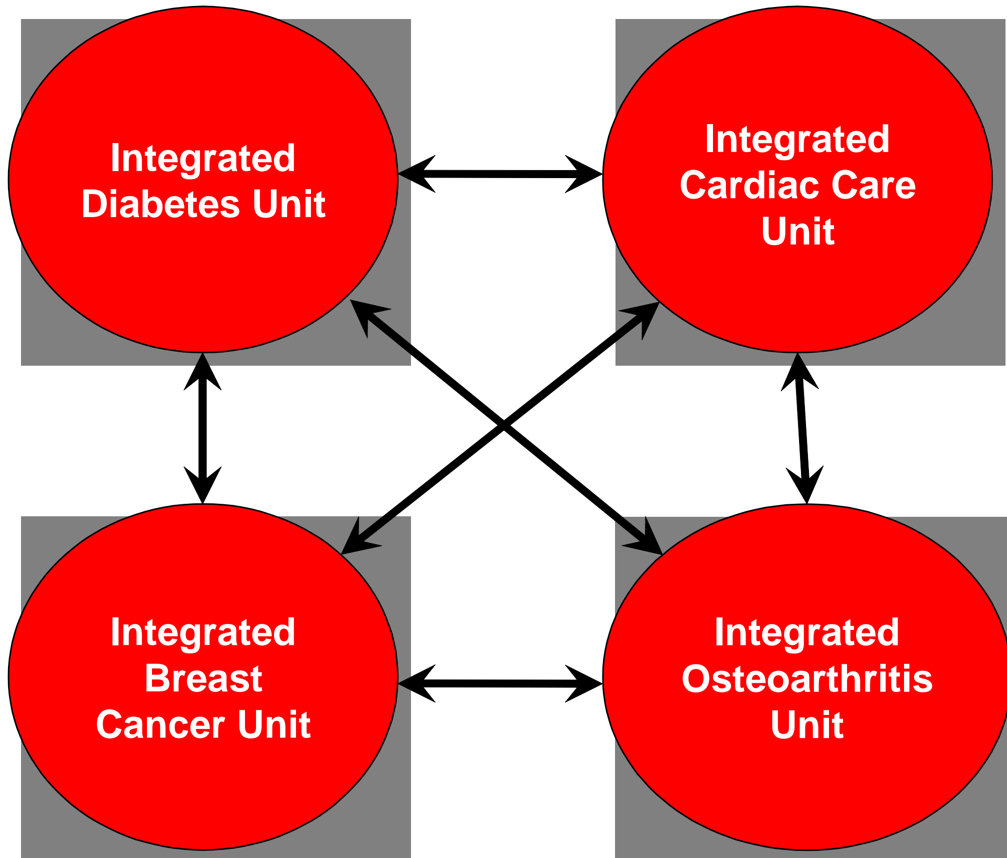
Analyzing the Care Delivery Value Chain

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?

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Patients with Multiple Medical Conditions

Integrating Care Across IPUs



- The primary organization of care delivery should be around the integration required for **every patient**
- This will greatly **simplify the coordination** of care for patients with multiple medical conditions
- The patient with multiple conditions will be **better off**

 Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

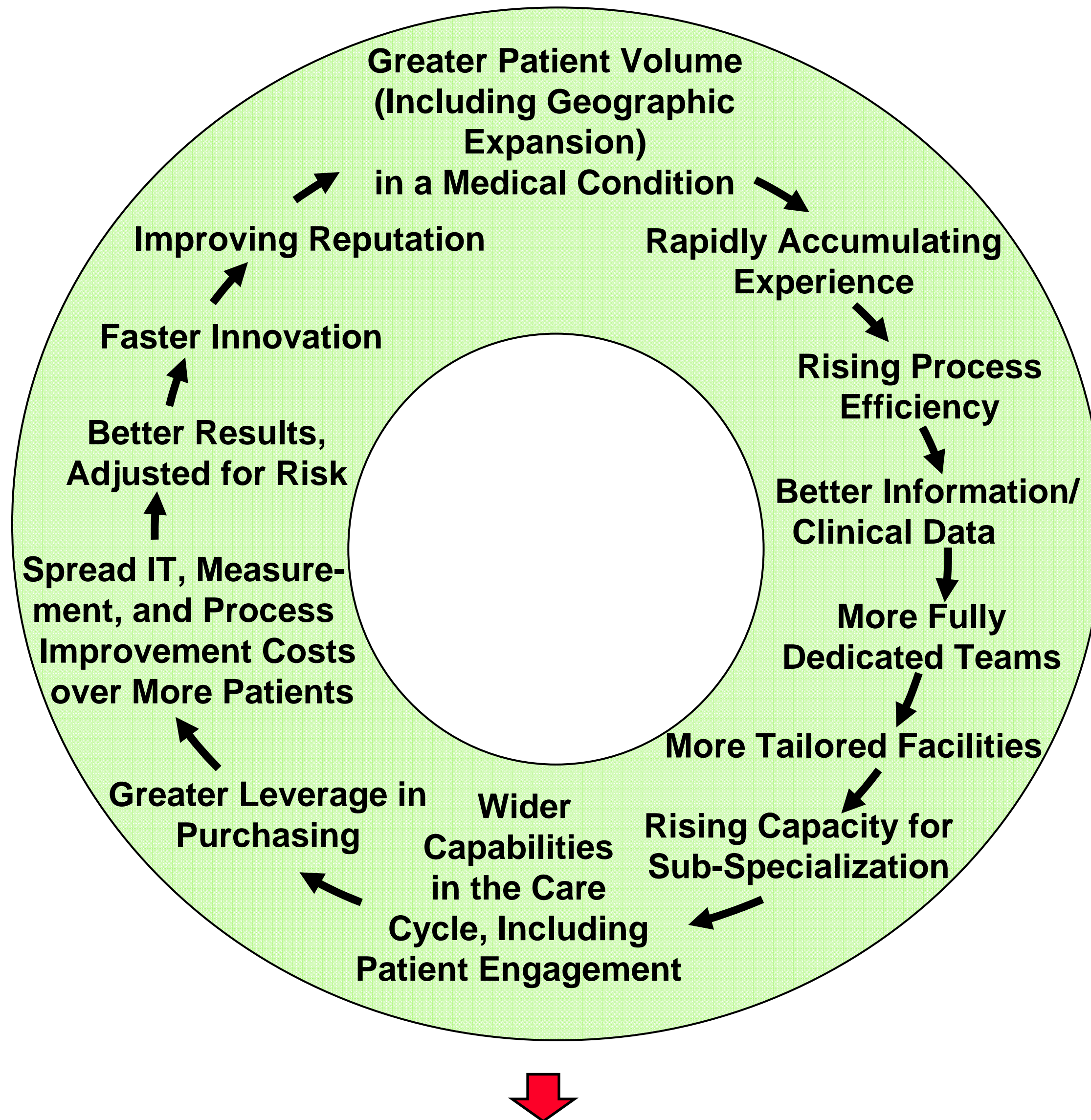
Principles of Value-Based Competition

1. The goal should be **value for patients**, not lowering costs or offering every service
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

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Experience, Scale, and Value in Health Care Delivery

The Virtuous Circle in a Medical Condition



- The virtuous cycle **extends across geography** within **integrated** organizations

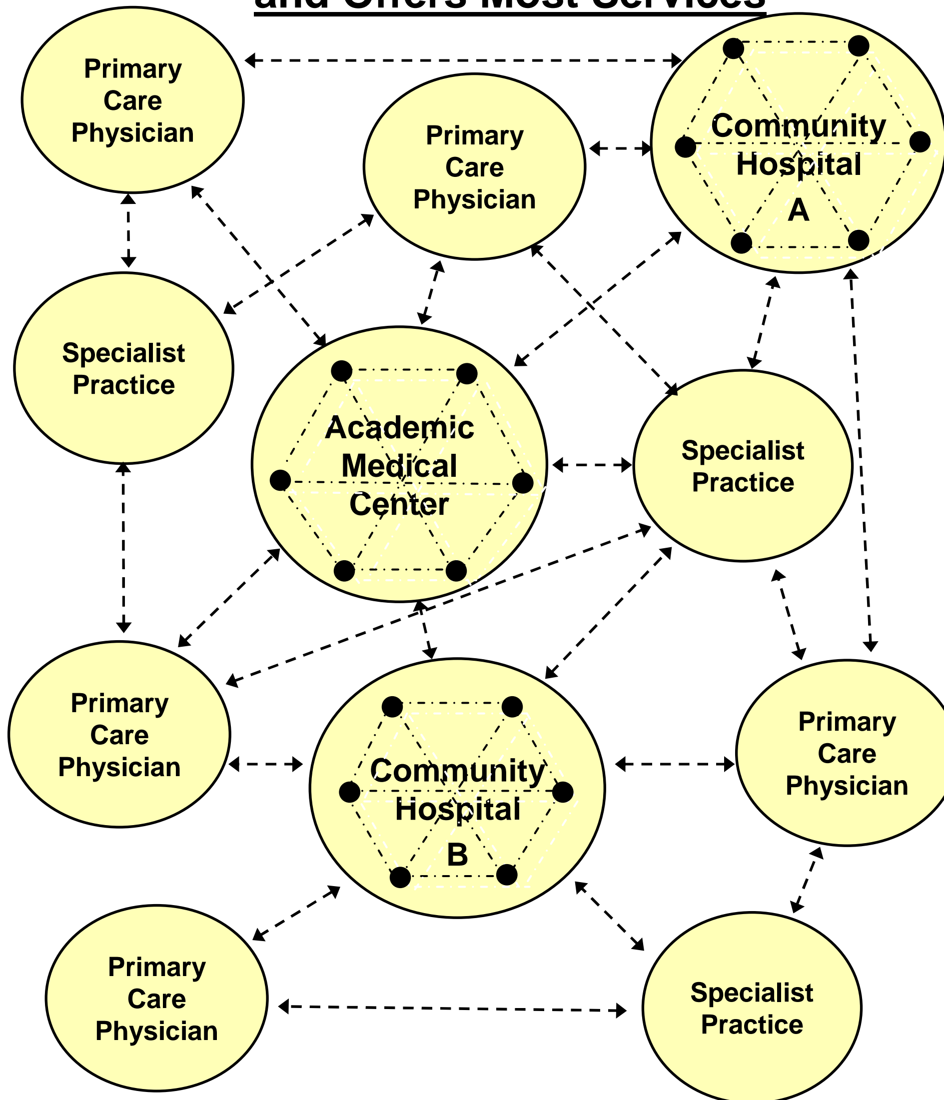
Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

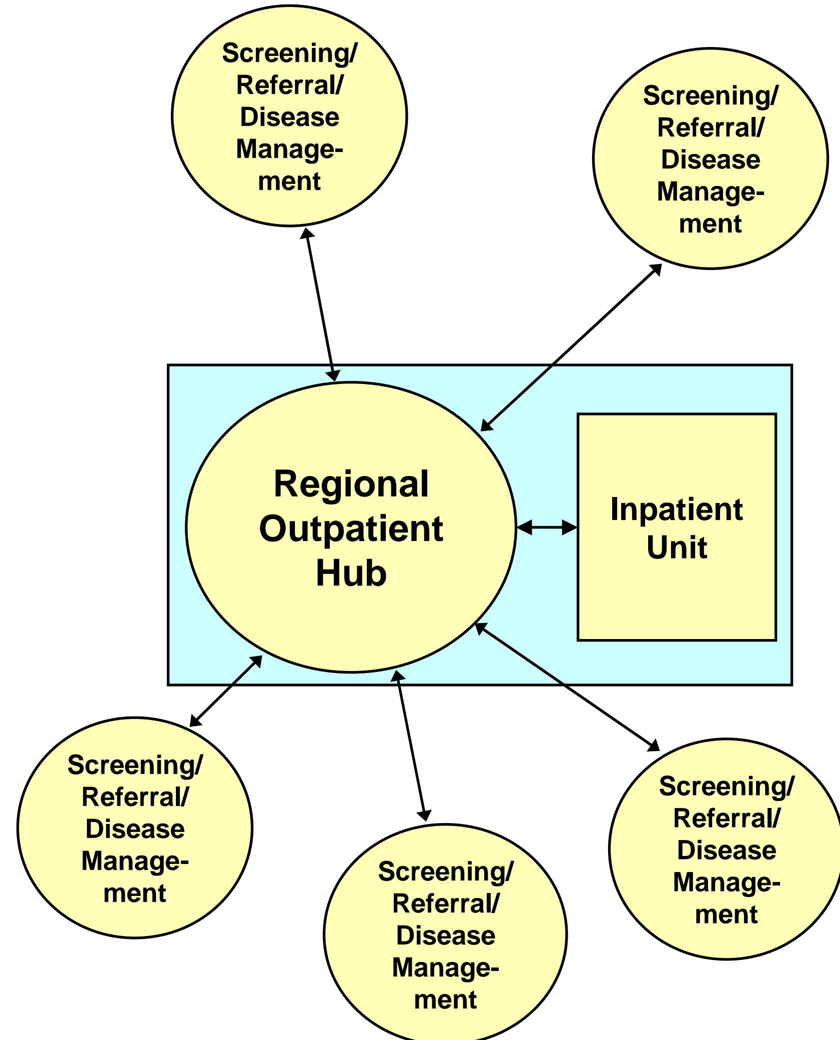
Principles of Value-Based Competition

1. The goal should be **value for patients**, not lowering costs or offering every service
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
6. Competition should be **regional** and **national**, not just local
   - Patients select excellent providers in the region for their medical condition, rather than the closest provider for all services
   - Excellent providers manage delivery **across multiple geographies**
   - Utilize partnerships to integrate care across separate institutions

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Integrating Services Across Geography

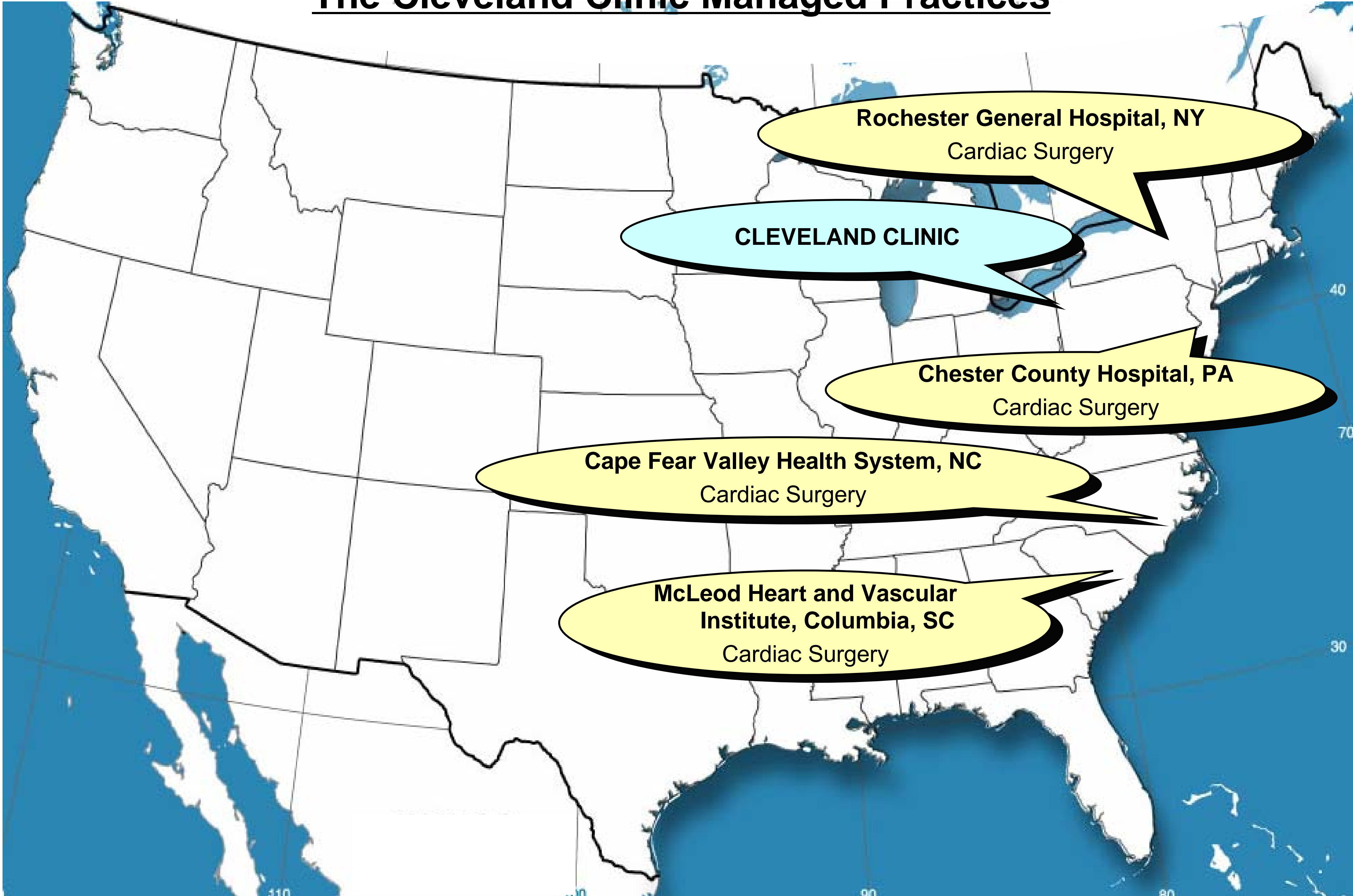




Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Managing Care Across Geography

The Cleveland Clinic Managed Practices



Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

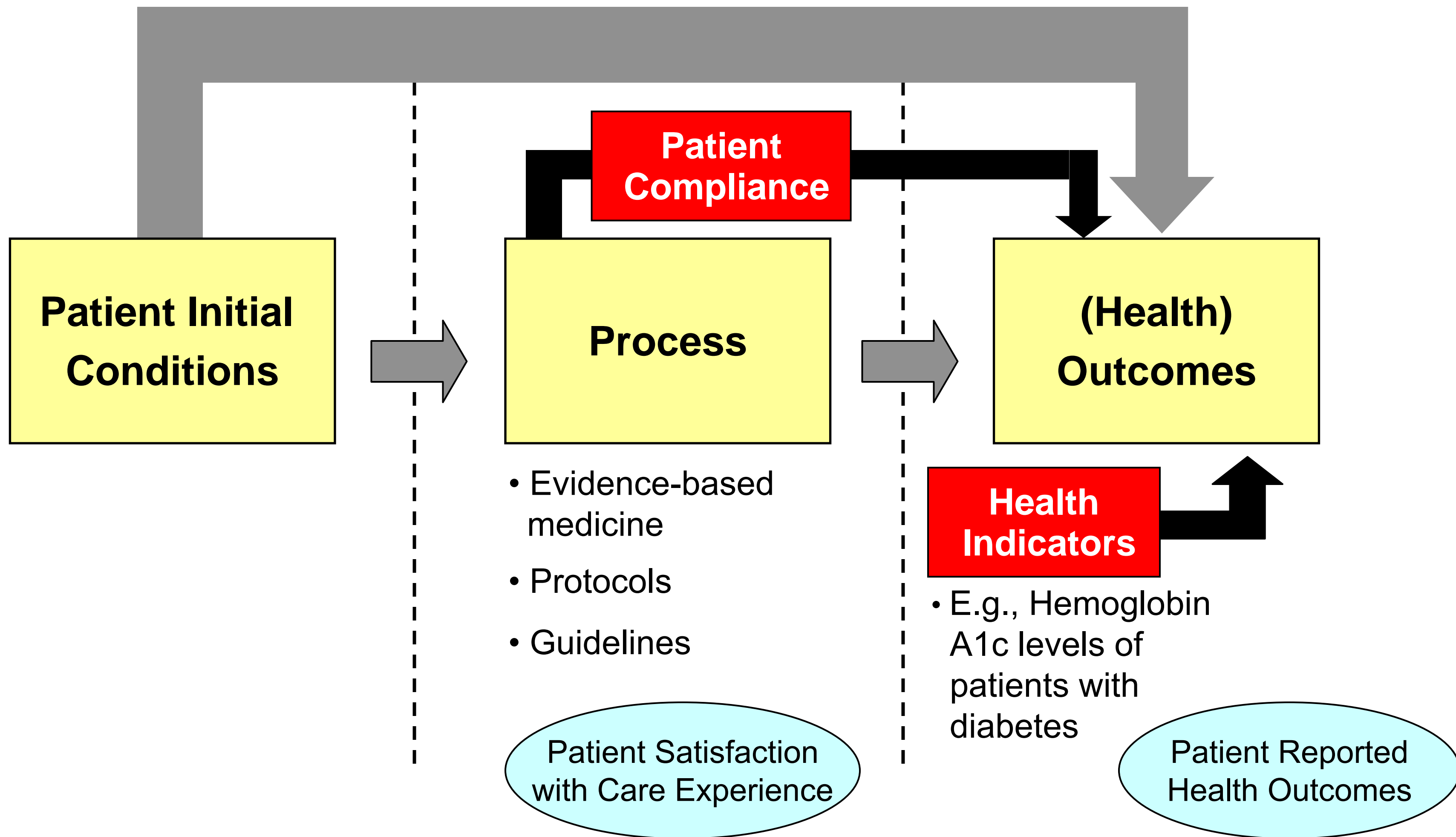
Principles of Value-Based Competition

1. The goal should be **value for patients**, not lowering costs or offering every service
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
6. Competition should be **regional** and **national**, not just local
7. **Results** must be universally measured and reported

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

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Measuring Value



Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

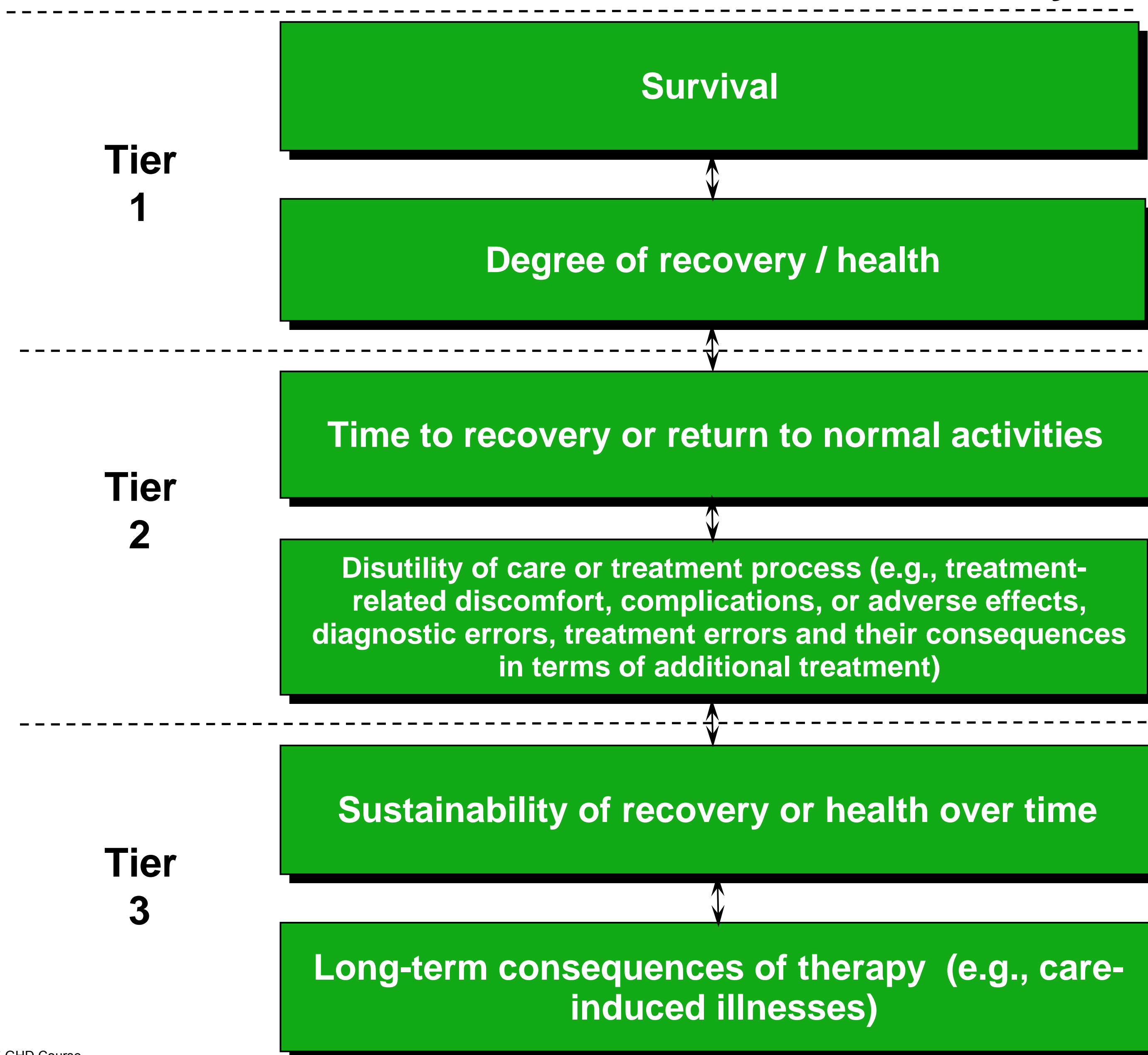
Measuring Results
Fundamentals

- Measure **outcomes**, not just 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

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

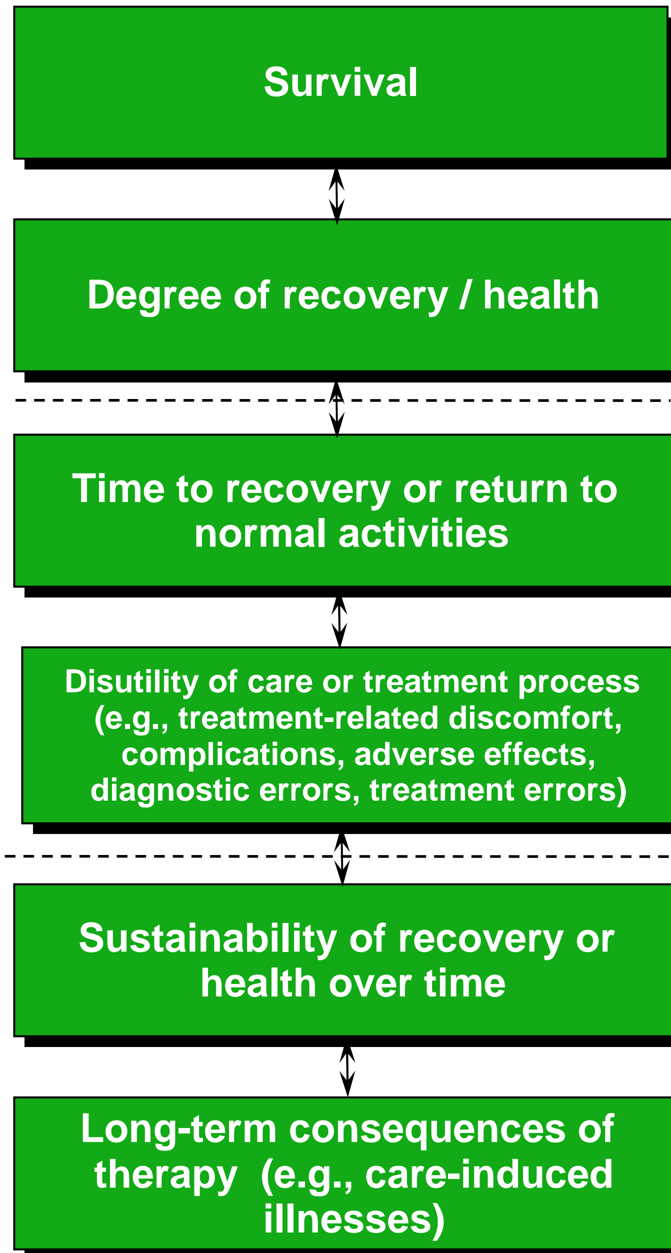
Measuring Outcomes

The Outcome Measures Hierarchy



08 © Michael E. Porter and Elizabeth Olmsted Teisberg

Measuring Breast Cancer Outcomes



- **Survival rate**
  (One year, three year, five year, longer)

- **Remission**
- **Functional status**
- **Breast conservation surgery outcome**

- **Time to remission**
- **Time to achieve functional status**

- **Nosocomial infection**
- **Nausea**
- **Vomiting**
- **Febrile neutropenia**
- **Limitation of motion**
- **Depression**

- **Cancer recurrence**
- **Sustainability of functional status**

- **Incidence of secondary cancers**
- **Brachial plexopathy**
- **Premature osteoporosis**

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Measuring Results
Fundamentals

- 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
  - Compare each outcome **across time** and, where possible, **across provider teams**
  - Compare **absolute** outcomes rather than wait for consensus on monetizing and weighting types of outcomes

- Outcomes must be **adjusted for risk/patient initial circumstances**

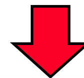
Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Measuring Initial Conditions

Breast Cancer

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

- Initial conditions should be reflected in outcome **stratification** or **risk adjustment** based on **patient mix**



- As care delivery improves, some initial conditions that once affected outcomes will **decline in importance**

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Principles of Value-Based Competition

1. The goal should be **value for patients**, not lowering costs or offering every service
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
6. Competition should be **regional** and **national**, not just local
7. **Results** must be universally measured and reported
8. Reimbursement should be aligned with **patient value** and reward **innovation**
   - Reimbursement for **care cycles**, not for discrete treatments, services, or treatment time (e.g. per diems)
   - Reimbursement for **prevention and screening**, not just treatment
   - Reimbursement for **diagnosis separately from treatment**

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Principles of Value-Based Competition

1. The goal should be **value for patients**, not lowering costs or offering every service
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
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**
9. **Information technology** will **enable** restructuring of care delivery and **measuring results**, but is **not a solution by itself**
   - Common data definitions
   - Interoperability standards
   - Patient-centered database
   - Covering the full care cycle
   - Accessible across the care cycle, including by referring and follow-up entities
   - Accessible to patients

eisberg

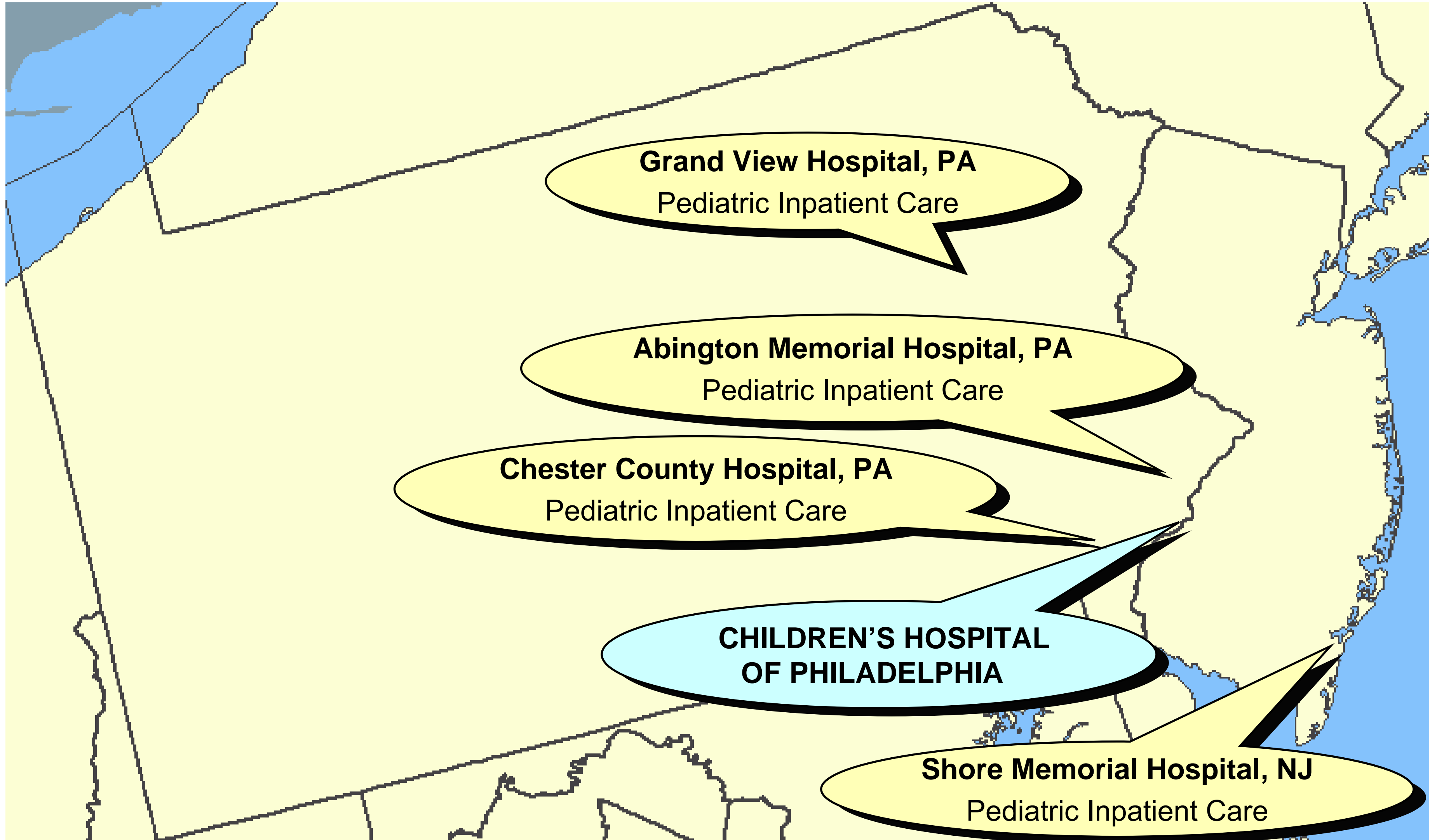
Moving to Value-Based Competition
Implications for Providers

- Organize around **integrated practice units** (IPUs) for each medical condition and bundles of medical conditions
- Choose the appropriate **scope of services** in each facility based on excellence in **patient value**
  - Scale effect
- **Integrate services** for each IPU / medical condition **across geographic locations**
- Employ formal **partnerships** and **alliances** with the independent practices involved in the care cycle to integrate care, improve capabilities, and/or obtain consultations
- Measure **outcomes** and **costs** for every medical condition over the full care cycle
- Implement a **single, integrated, patient-centric electronic medical record system** which is utilized by every unit and accessible to partners, referring physicians, and patients
- Lead the development of **new contracting models** with health plans based on bundled reimbursement for care cycles
- Expand high-performance IPUs **across geography** using an integrated model
  - Instead of a federation of broad line, stand-alone facilities

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

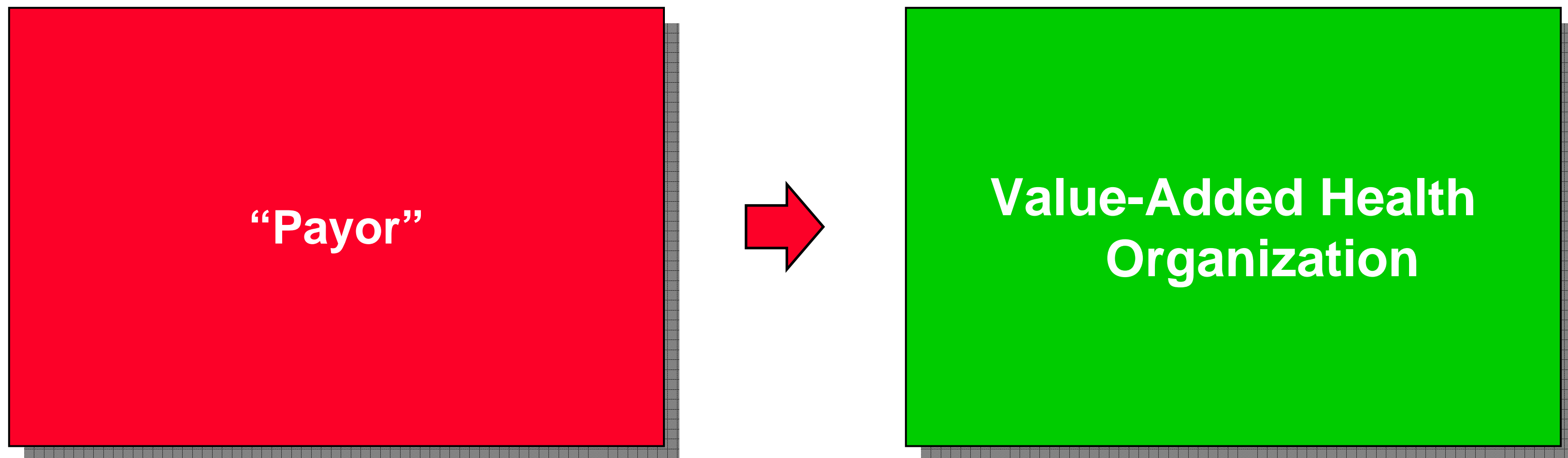
Managing Care Across Geography

The Children's Hospital of Philadelphia (CHOP) Affiliations



Moving to Value-Based Competition

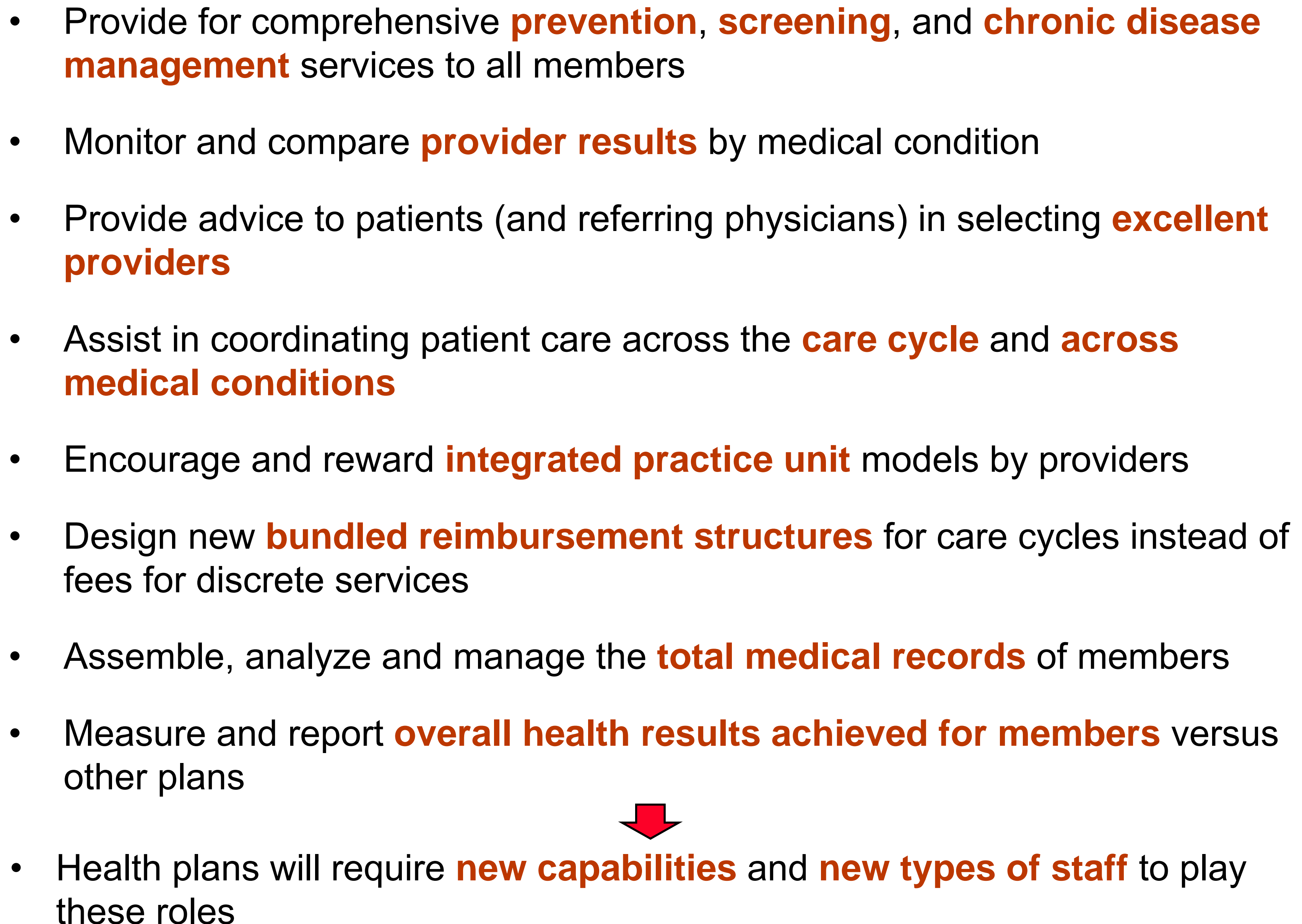
Health Plans



Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Moving to Value-Based Competition

Value-Adding Roles of Health Plans



Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

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

Employers

- Set the goal of **employee health**
  - Goal alignment with patients
- Assist employees in **healthy living** and **active participation in their own care**
- Provide for convenient and high value **prevention, screening,** and **disease management** services
  - On site clinics
- Set **new expectations for health plans**, including self-insured plans
  - Plans should assist subscribers in **accessing excellent providers** for their medical condition
  - Plans should contract for care **cycles rather** than discrete services
- Provide for **health plan continuity** for employees, rather than plan churning
- Find ways to **expand insurance coverage** and advocate **reform of the insurance system**

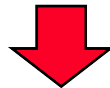
- Measure and hold employee benefit staff accountable for the company's **health value received**

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

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 or amenities
- **Comply** with treatment and preventative practices
- Work with the health plan in **long-term health management**
  - Shifting plans frequently is not in the consumer's interest

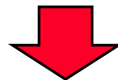


- But "consumer-driven health care" is the **wrong metaphor** for reforming the system

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

How Will Redefining Health Care Begin?

- It is **already happening** in the U.S. and other countries
- Providers, as well as health plans and employers, can take **voluntary** steps in these directions, and will **benefit** irrespective of other changes
- The changes will be **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** and **health plans** can and should take the lead

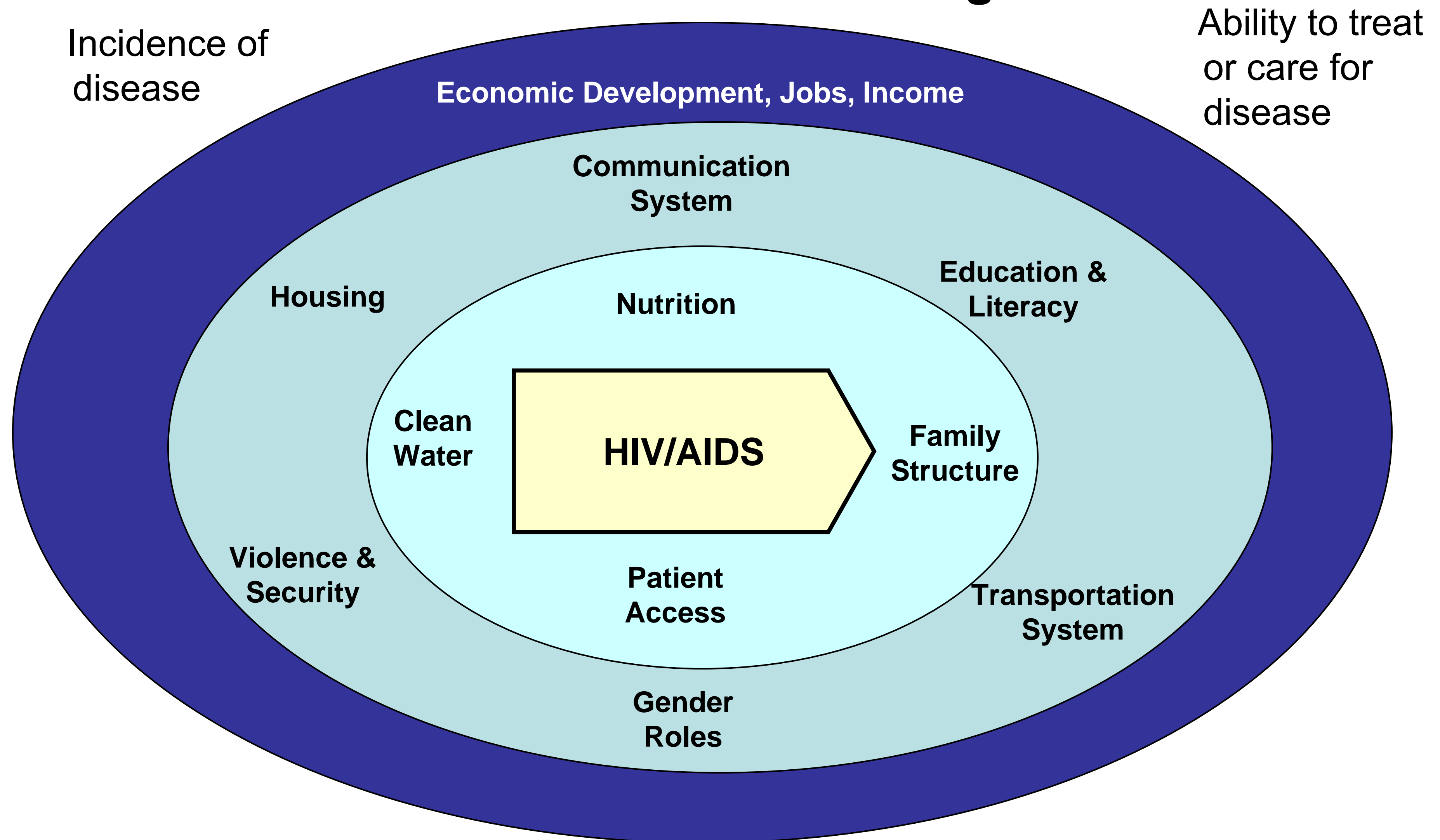
Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Health Care Delivery in Resource-Poor Settings

Current Model		New Model
• The product is treatment		• The product is **health**
• Measure volume of services (# tests, treatments)		• Measure **value** of services (health outcomes per unit of cost)
• Focus on specialties or types of practitioners		• **Integrated** care delivery
• Discrete interventions		• **Care cycles**
• Individual disease stages		• **Sets** of prevalent co-occurrences
• Fragmentation of programs and entities		• Integrated care delivery **systems**
• Localized pilots		• Integrated systems **across communities and regions**

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

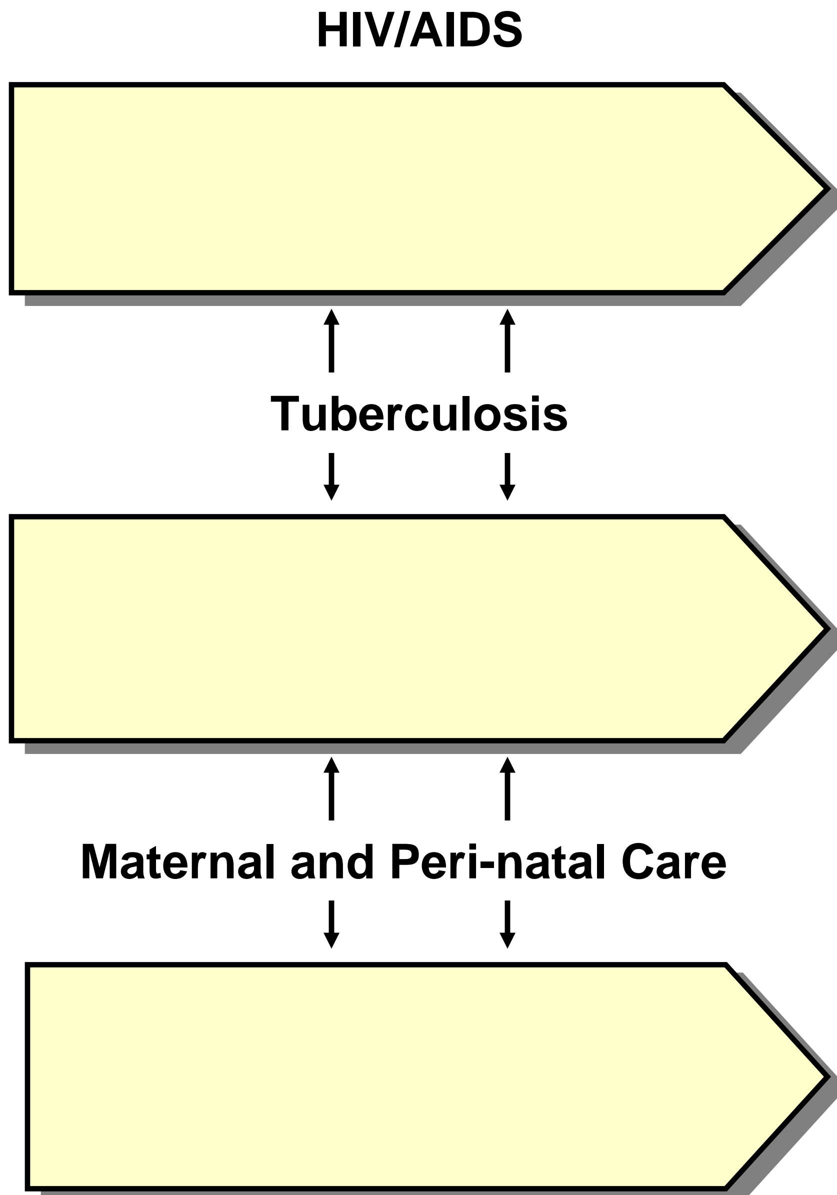
Integrating Delivery System and Context
Resource-Poor Settings



- Health care delivery must incorporate the **realities of patient circumstances**
- Health care system development should maximize the leverage of the health system to **positively impact the broader context**

Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg

Designing the Health Care System



Copyright 2008 © Michael E. Porter and Elizabeth Olmsted Teisberg