

# Value-Based Health Care Delivery

Professor Michael E. Porter  
Harvard Business School

*Intro. to Social Medicine*  
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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, “How Physicians Can Change the Future of Health Care,” *Journal of the American Medical Association*, 2007; 297:1103:1111, and “What is Value in Health Care,” ISC working paper, 2008. 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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# 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. non-profit vs. for profit vs. government)
- How to create a **dynamic system** that keeps rapidly improving

# Creating a Value-Based Health Care System

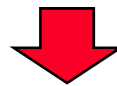
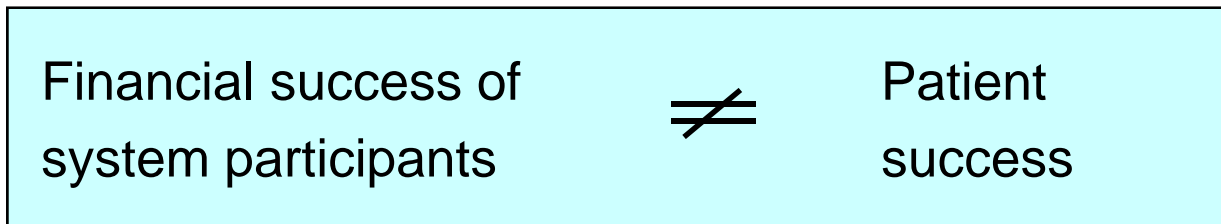
- Significant improvement in value will require **fundamental restructuring of health care delivery**, not incremental improvements

Today, 21<sup>st</sup> century medical technology is delivered with 19<sup>th</sup> 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

# Creating a Value-Based Health Care System

- 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**



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

# Zero-Sum Competition in U.S. Health Care

## Bad Competition

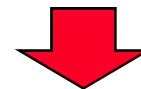
- Competition to **shift costs** or **capture more revenue**
- Competition to **increase bargaining power**
- Competition to **capture patients** and **restrict choice**
- Competition to **restrict services** in order to maximize revenue per visit or reduce costs



Zero or Negative Sum

## Good Competition

- Competition to **increase value for patients**



Positive Sum

# Principles of Value-Based Health Care Delivery

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

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

# Principles of Value-Based Health Care Delivery

1. The goal must be **value for patients**, not lowering costs
  - The best way to **contain costs** is to **improve quality**

Quality = Health outcomes


- Prevention
- Early detection
- Right diagnosis
- Early and timely treatment
- Treatment earlier in the causal chain of disease
- Right treatment to the right patients
- Rapid care delivery process with fewer delays
- 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
- **Better health** is the goal, not more treatment

# Principles of Value-Based Health Care Delivery

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

- Providers should **compete for patients** based on **value**
    - Instead of supply control, process compliance, or administrative oversight
- 
- Get **patients** to excellent providers vs. “lift all boats”
  - Expand the **proportion of patients** cared for by the most effective organizations
  - **Grow the excellent organizations** by adding capacity and expanding across locations



# Principles of Value-Based Health Care Delivery

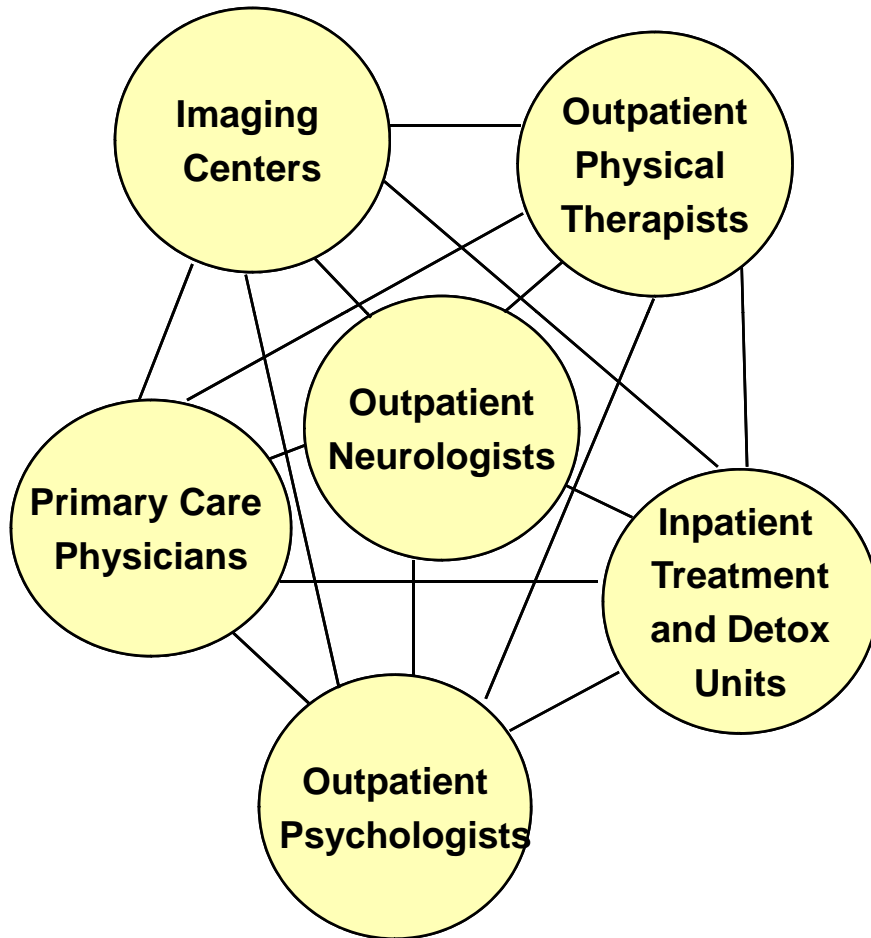
1. The goal must be **value for patients**, not lowering costs
2. Health care delivery should be organized around **medical conditions** over the **full cycle of care**

- A medical condition is **an interrelated set of patient medical circumstances best addressed in an integrated way**
  - Defined from the **patient's** perspective
  - Involving **multiple** specialties and services
- **Includes** the most common co-occurring conditions
- Examples
  - Diabetes (including vascular disease, retinal disease, hypertension, others)
  - Migraine
  - Breast Cancer
  - Stroke
  - Asthma
  - Congestive Heart Failure

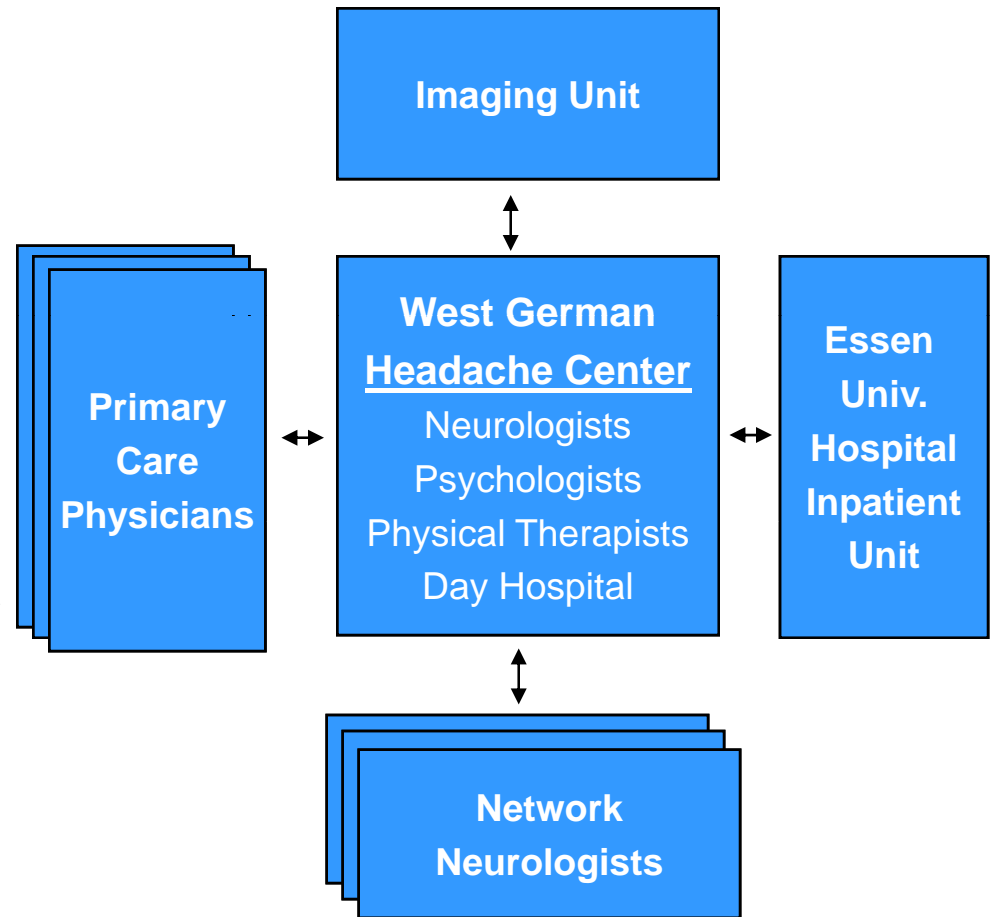
# Restructuring Health Care Delivery

## Migraine Care in Germany

### Existing Model: Organize by Specialty and Discrete Services



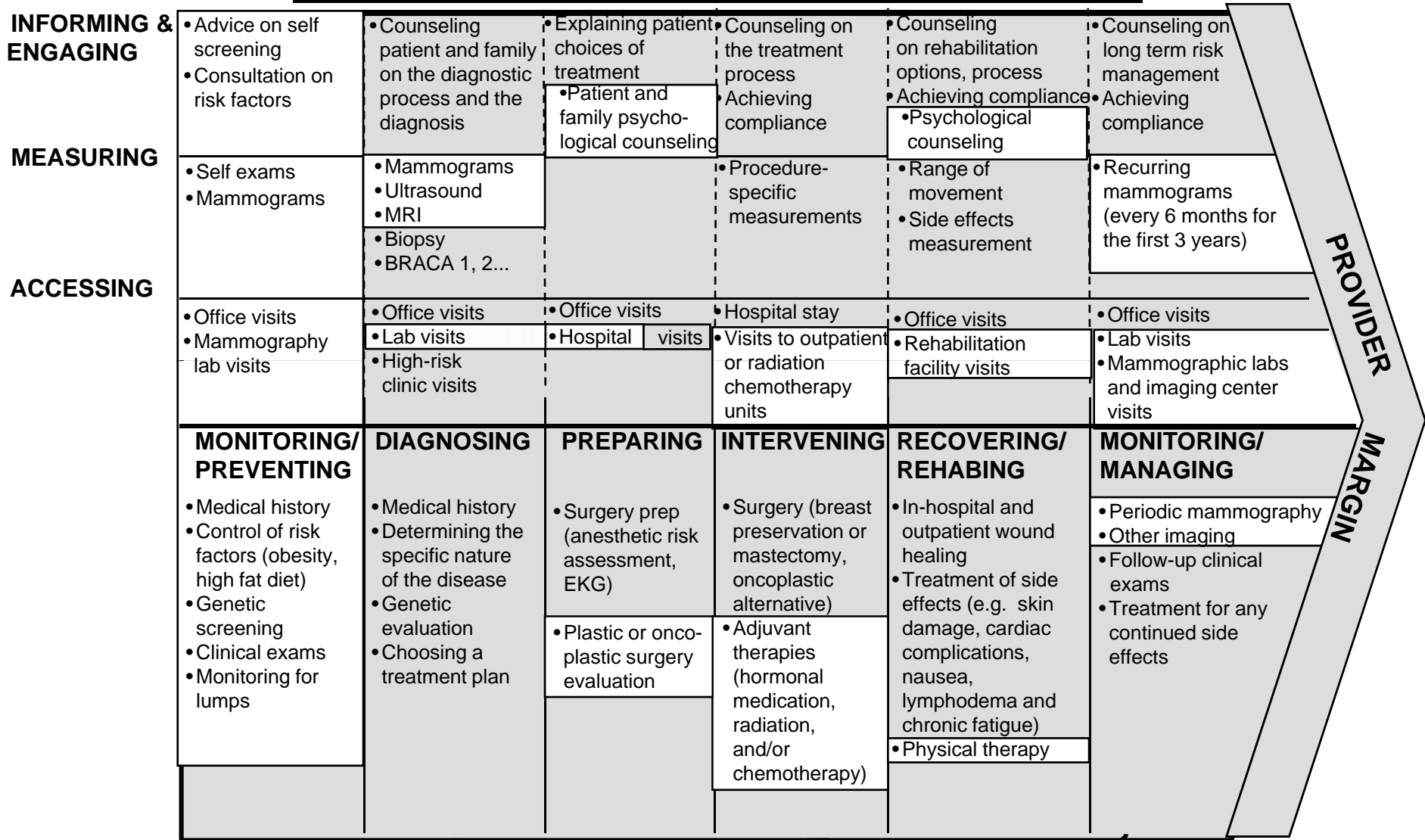
### New Model: Organize into Integrated Practice Units (IPUs)



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

## Care Delivery Value Chain for Breast Cancer



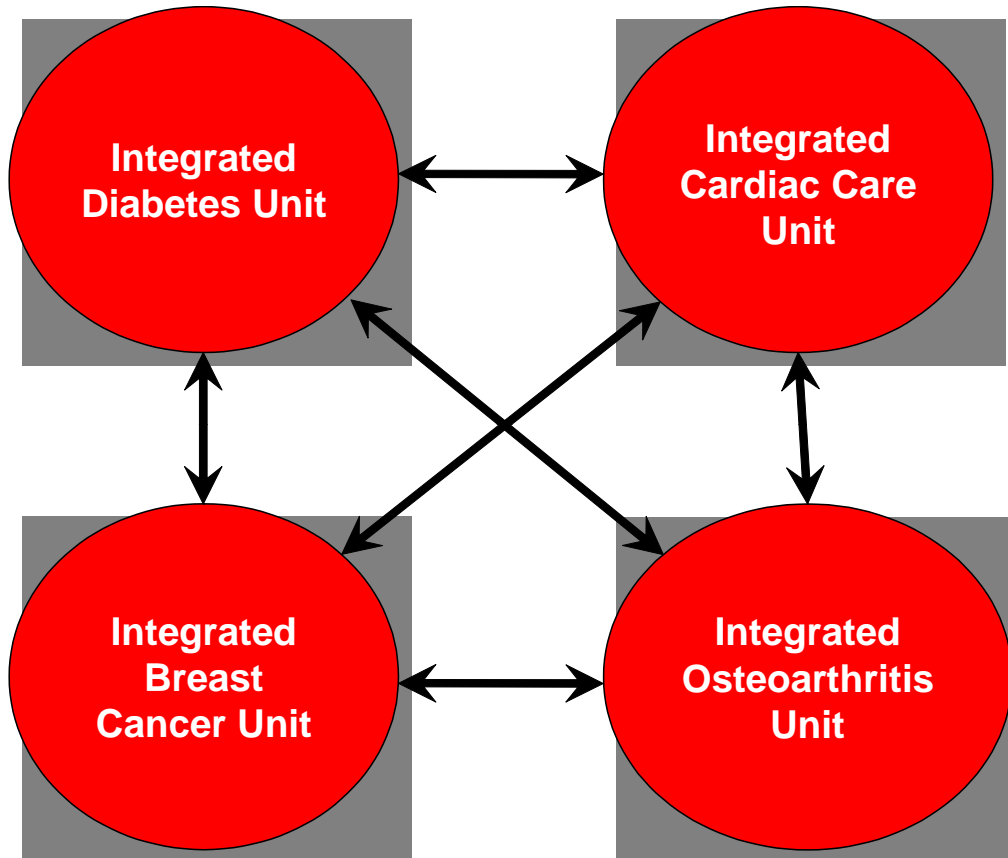
PROVIDER MARGIN

- **Primary care providers** are often the **beginning** and **end** of the care cycle
- The medical condition is the **unit of value creation** in health care delivery

<input checked="" type="checkbox"/>	Breast Cancer Specialist
<input type="checkbox"/>	Other Provider Entities

# Patients with Multiple Medical Conditions

## Coordinating Care Across IPUs



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

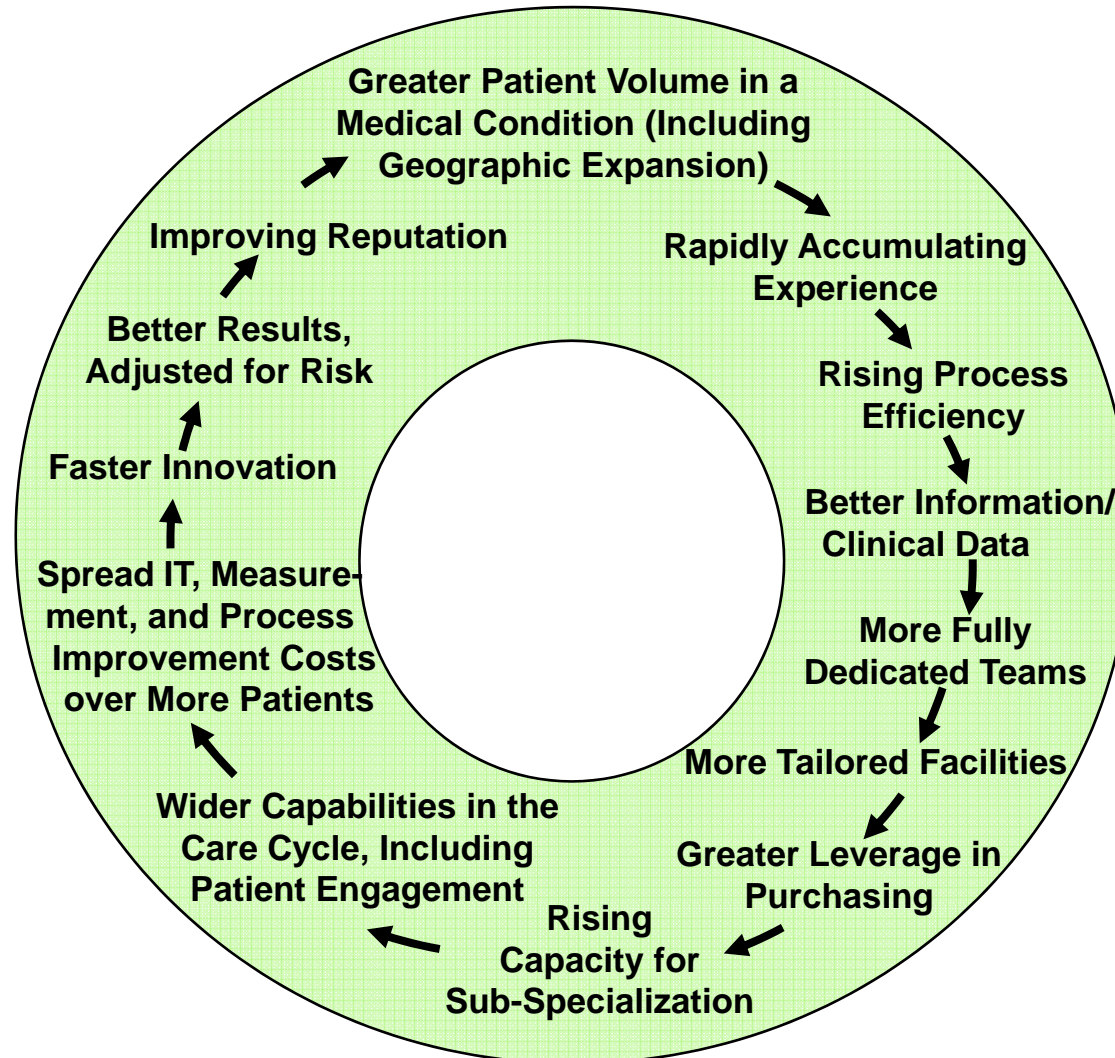
# What is Integrated Care?

- Integration of specialties and services over the **care cycle for a medical condition (IPU)**
  - Optimize the whole versus the parts
  - Providers will often operate multiple IPUs
- For some patients, coordination of care **across medical conditions**
  - A patient can be cared for by **more than one IPU**
- Integrated care is **not** just:
  - Co-location
  - Care delivered by the same organization
  - A multispecialty group practice
  - Freestanding focused factories
  - A Center
  - A Center of Excellence
  - An Institute
  - A health system


# Principles of Value-Based Health Care Delivery

- Value is driven by provider **experience**, **scale**, and **learning** at the medical condition level

## The Virtuous Circle



# Consequences of Service Fragmentation

- Health care delivery in every country is **highly fragmented**
    - Extreme duplication of services
    - Low volume of patients per medical condition per provider
    - Duplication and fragmentation are present **even within affiliated hospitals or systems**
  - Most providers **lack the scale and experience** to justify dedicated facilities, dedicated teams, and integrated care over the cycle
  - Fragmentation drives organizations into **shared units**
    - Specialties
    - Imaging
    - Procedures
- 
- Patient value suffers

# Principles of Value-Based Health Care Delivery

1. The goal must be **value for patients**, not lowering costs
2. Health care delivery should be organized around **medical conditions** over the **full cycle of care**
3. **Value** must be universally measured and reported

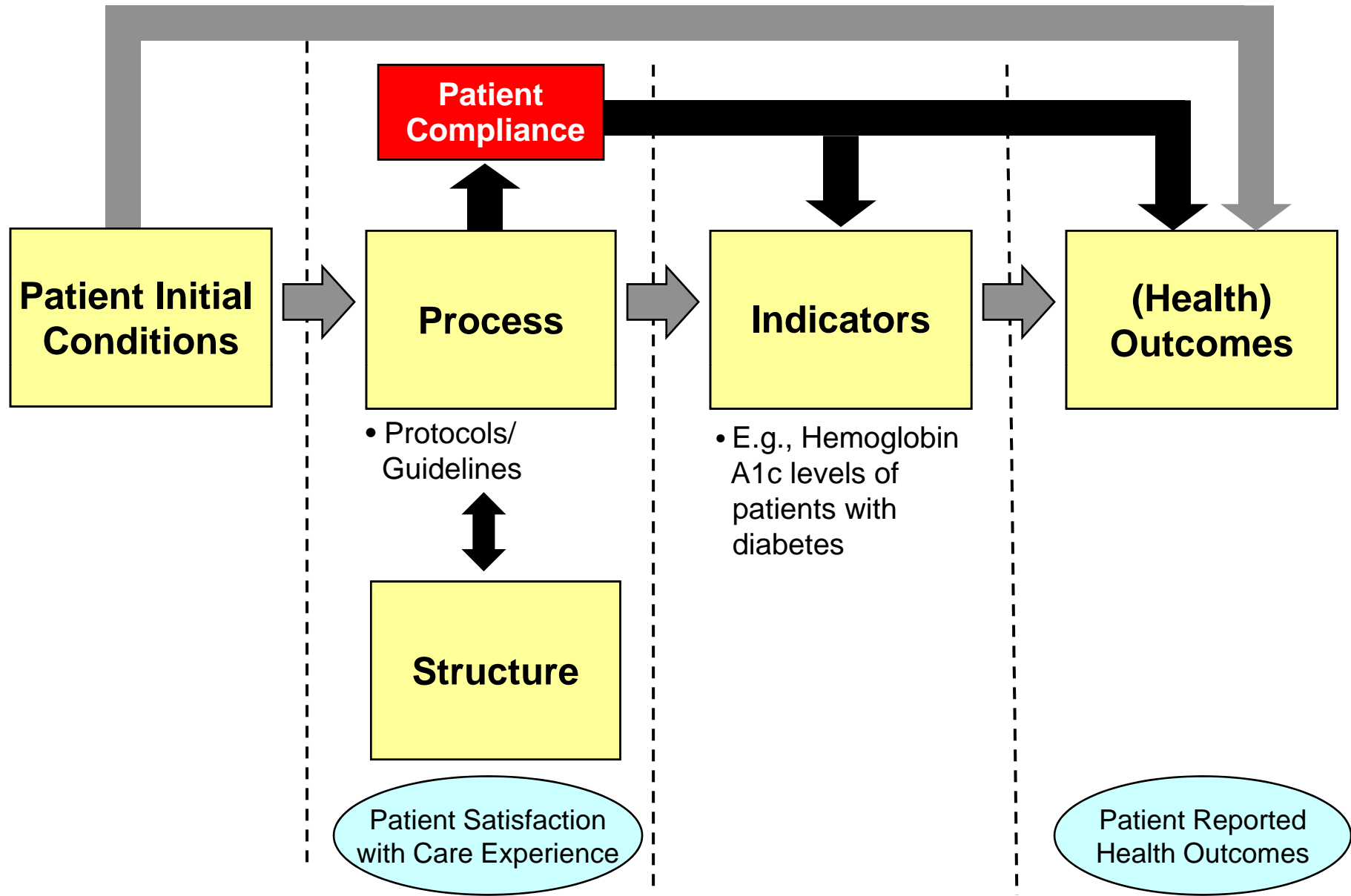
- **For** medical conditions over the cycle of care
  - Not for interventions or short episodes
  - Not for practices, departments, clinics, or hospitals
  - Not separately for types of service (e.g. inpatient, outpatient, tests, rehabilitation)



- Results must be measured at the **level at which value is created** for patients

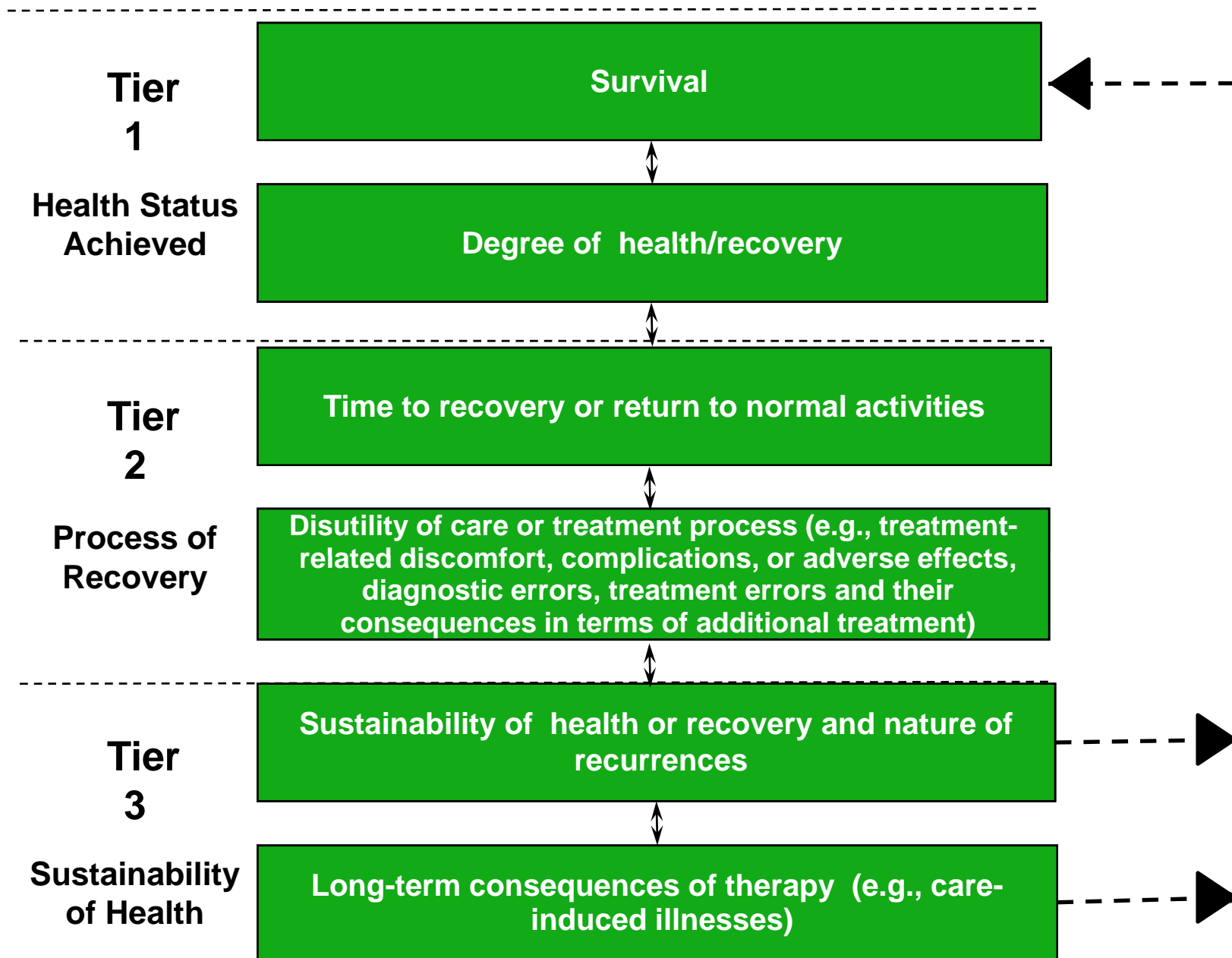


# Measuring Value in Health Care



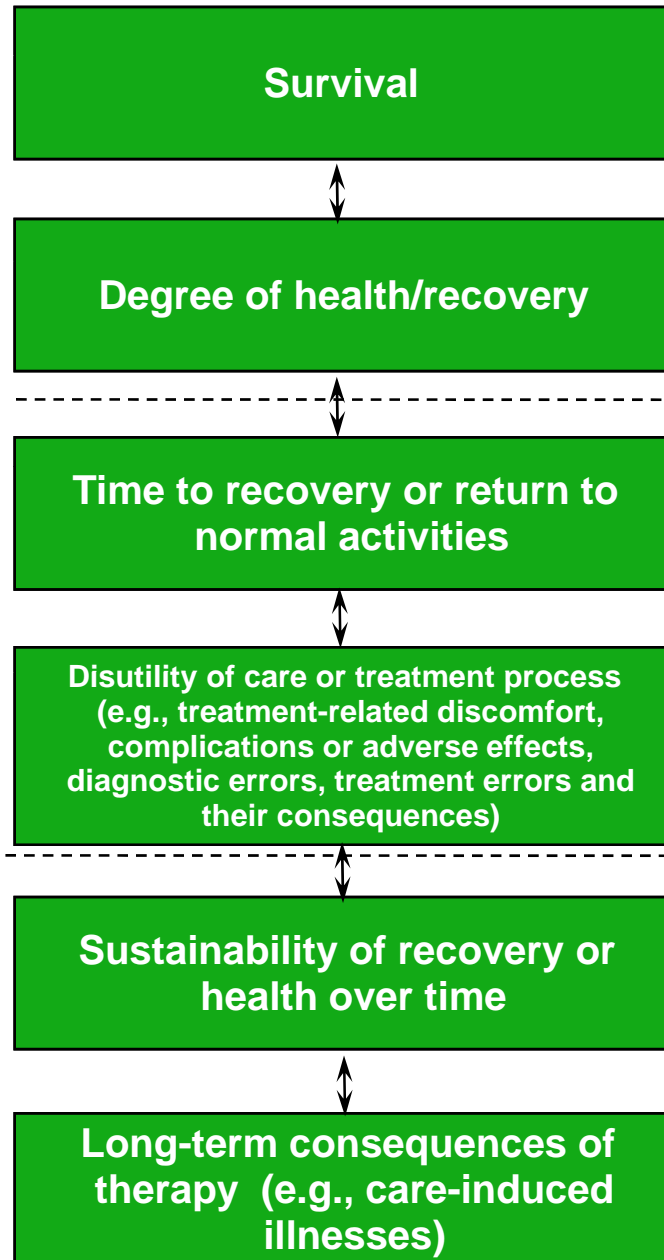
Source: Porter, Michael E., "What is Value in Health Care?" Working Paper, unpublished draft

# The Outcome Measures Hierarchy



Source: Porter, Michael E., "What is Value in Health Care?" Working Paper, unpublished draft

# Illustrative Breast Cancer Outcomes



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

- **Remission**
- **Functional status**

- **Breast preservation**
- **Breast conservation surgery outcomes**

- **Time to remission**

- **Time to achieve functional and cosmetic status**

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

- **Nosocomial infection**
- **Nausea**
- **Vomiting**
- **Febrile neutropenia**

- **Limitation of motion**
- **Breast reconstruction discomfort and complications**
- **Depression**

Sustainability of recovery or health over time

- **Cancer recurrence**
- **Consequences of recurrence**

- **Sustainability of functional status**

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

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

- **Premature osteoporosis**

# 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
- Previous treatments
- Age
- Menopausal status
- General health, including co-morbidities
- Psychological and social factors



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

## Measuring Value: Essential Principles

- Outcomes should be measured at the **medical condition level**
- Outcomes should be **adjusted for patient initial conditions**
- **Physicians** need results measurement to support value improvement
  - Use of measures by patients will develop more slowly
- Outcome measurement should not wait for perfection: measures and risk adjustment methods will **improve rapidly**
- The feasibility of outcome measurement at the medical condition level has been **conclusively demonstrated**



- Failure to measure outcomes will **invite further micromanagement** of physician practice

# Principles of Value-Based Health Care Delivery

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2. Health care delivery should be organized around **medical conditions** over the **full cycle of care**
3. **Value** must be universally measured and reported
4. Reimbursement should 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**
- Reimbursement adjusted for **patient complexity**
- Reimbursement for **overall management of chronic conditions**
- Reimbursement for **prevention and screening**, not just treatment



- **Providers** should be proactive in moving to new reimbursement models, not wait for health plans and Medicare

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5. 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
- Include all types of data (e.g. notes, images)
- Cover the full care cycle, including referring entities
- Accessible to all involved parties

# Principles of Value-Based Health Care Delivery

## Implications for Providers

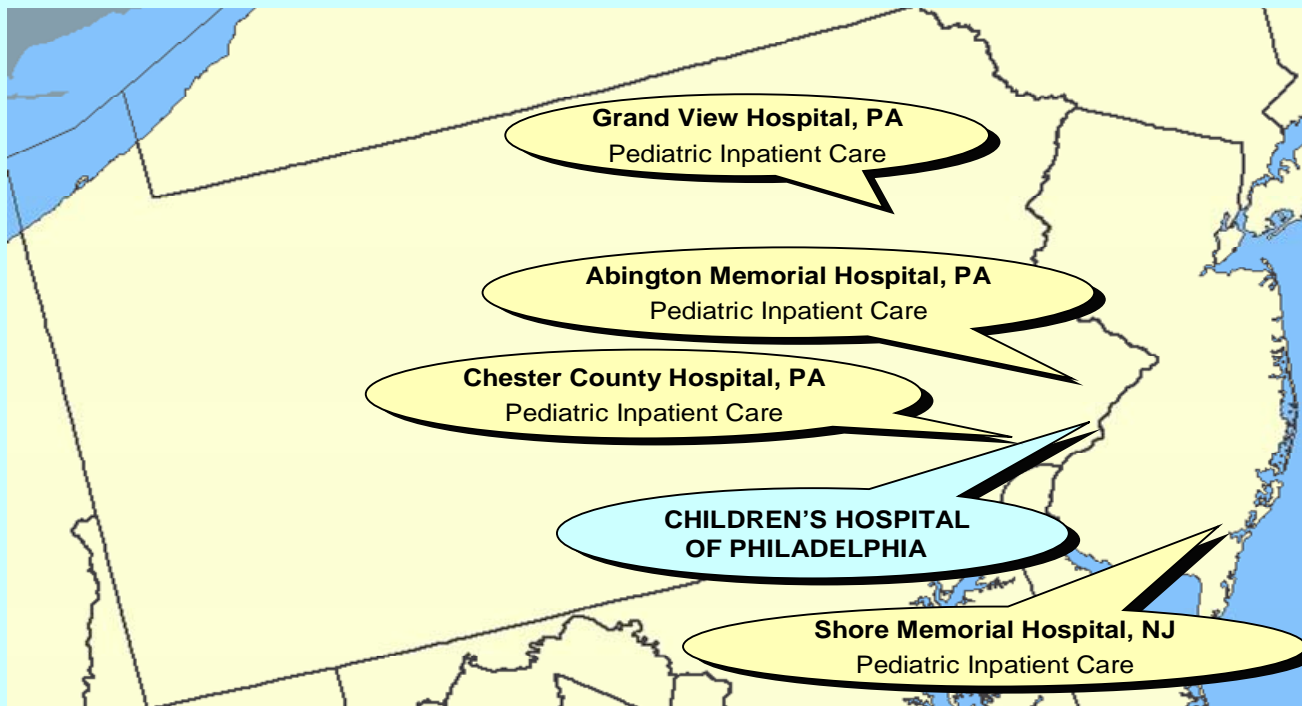
- Organize around **integrated practice units** (IPUs) for each medical condition
  - Make prevention and disease management integral to the IPU model
  - With mechanisms for cross-IPU coordination
- Choose the appropriate **scope of services** in each facility based on excellence in **patient value**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



# Principles of Value-Based Health Care Delivery

- Health care delivery should be **integrated across facilities and regions**, rather than take place in stand-alone units

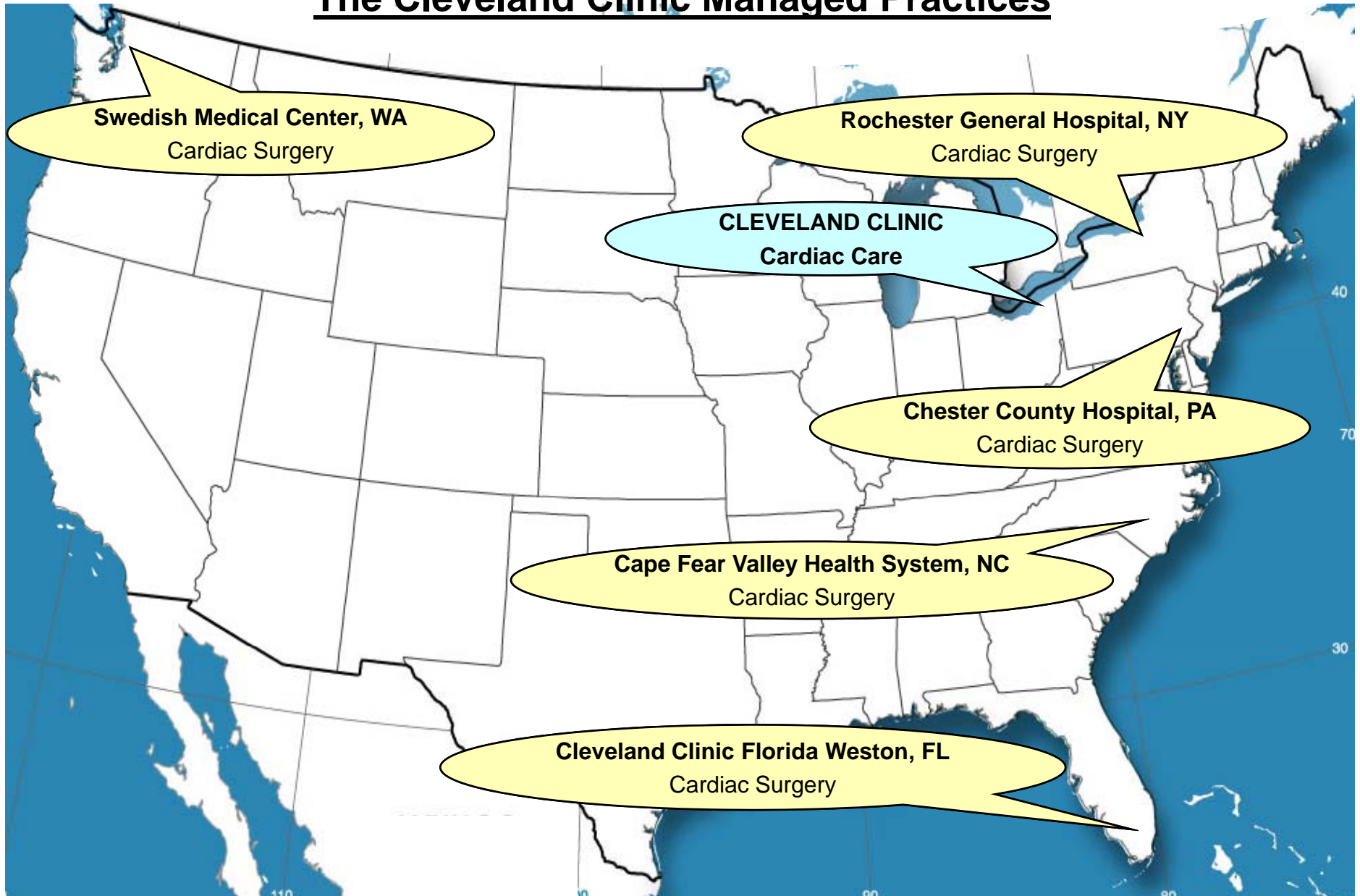
## Children's Hospital of Philadelphia (CHOP) Affiliations



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

# Managing Care Across Geography

## The Cleveland Clinic Managed Practices



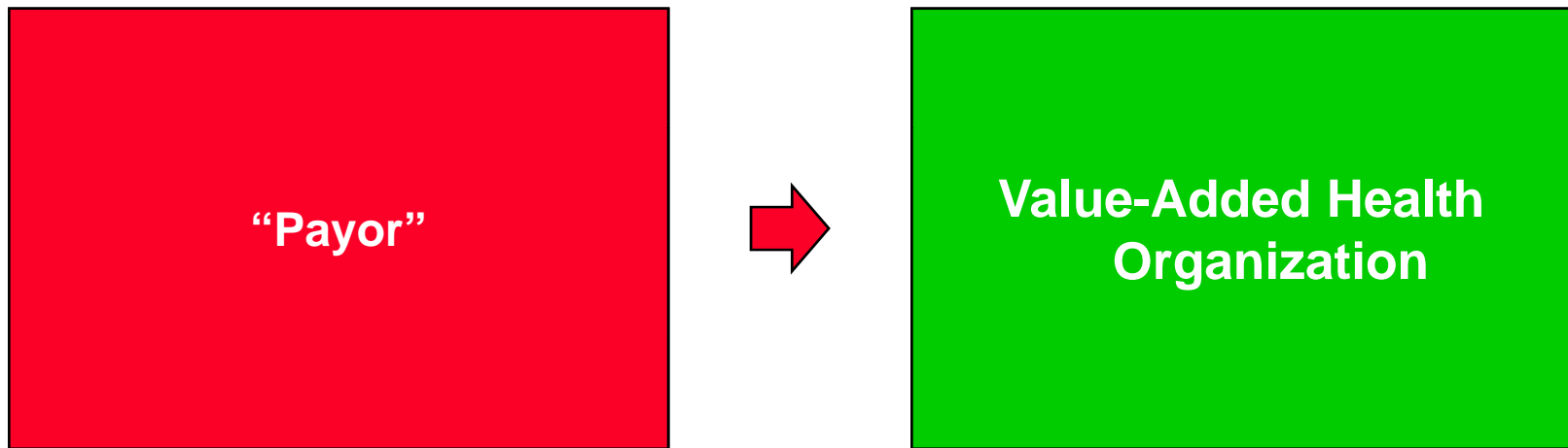
# Principles of Value-Based Health Care Delivery

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# Creating a High-Value Health Care System

## Health Plans



# Value-Adding Roles of Health Plans

- Assemble, analyze and manage the **total medical records** of members
  - Provide for comprehensive **prevention, screening, and chronic disease management** services to all members
  - 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 **care cycle** and **across medical conditions**
  - Encourage and reward **integrated practice unit** models by providers
  - Design new **bundled reimbursement structures** for care cycles instead of fees for discrete services
  - Measure and report **overall health results** for members by medical condition versus other plans
- 
- Health plans will require **new capabilities** and **new types of staff** to play these roles

# Developed World and Resource-Poor Settings Suffer from Similar Delivery Problems

## Current Model

- The product is **treatment**
- Measure **volume** of services (# tests, treatments)
- Focus on **specialties** or **types** of practitioners
- Discrete **interventions**
- Individual disease **stages**
- **Fragmented** programs and entities
- **Localized** pilots and demonstration projects



## New Model

- The product is **health**
- Measure **value** of services (health outcomes per unit of cost)
- **Coordinated** and **integrated** care delivery
- **Care cycles**
- Sets of prevalent **co-occurrences**
- **Integrated** care delivery systems
- Integrated **systems across communities** and **regions**