# 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.

# Principles of Value-Based Health Care Delivery

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

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

- Outcomes are the **full set of *patient* health outcomes** over the care cycle
- Costs are the **total costs of care for the patient's condition**, not just the cost of a single provider or a single service

How to design a health care system that **dramatically improves patient value**

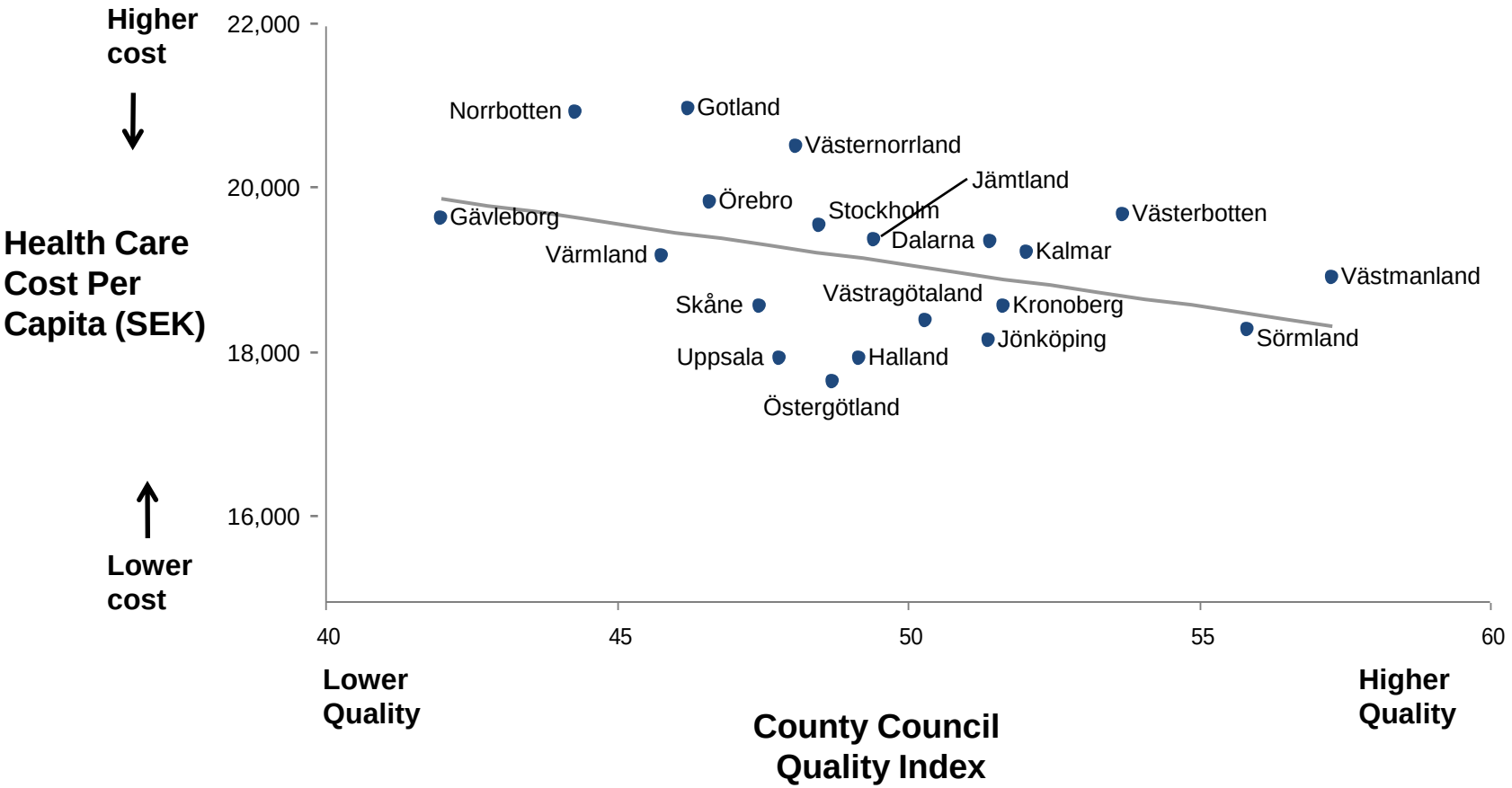
# Principles of Value-Based Health Care Delivery

**Quality improvement** is the key driver of cost containment and value improvement, where quality is **health outcomes**

- Prevention
- Early detection
- Right diagnosis
- Right treatment to the right patient
- Early and timely treatment
- Treatment earlier in the causal chain of disease
- Rapid cycle time of diagnosis and treatment
- 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

# Cost versus Quality, Sweden
# Health Care Spending by County, 2008




Note: Cost including; primary care, specialized somatic care, specialized psychiatry care, other medical care, political health- and medical care activities, other subsidies (e.g. drugs)
Source: Öpnna jämförelser, Socialstyrelsen 2008;Sjukvårdsdata i fokus 2008; BCG analysis

# Value-Based Health Care Delivery
## The Strategic Agenda

1. **Organize into Integrated Practice Units around the Patient's Medical Condition (IPUs)**
   - **Including primary and preventive care for distinct patient populations**
2. **Measure Outcomes and Cost for Every Patient**
3. **Move to Bundled Prices for Care Cycles**
4. **Integrate Care Delivery Across Separate Facilities**
5. **Grow by Expanding Excellent IPUs Across Geography**
6. **Create an Enabling Information Technology Platform**

# 1. Organize Into Integrated Practice Units

Care delivery should be organized around the patient's **medical condition** over the **full cycle of care**

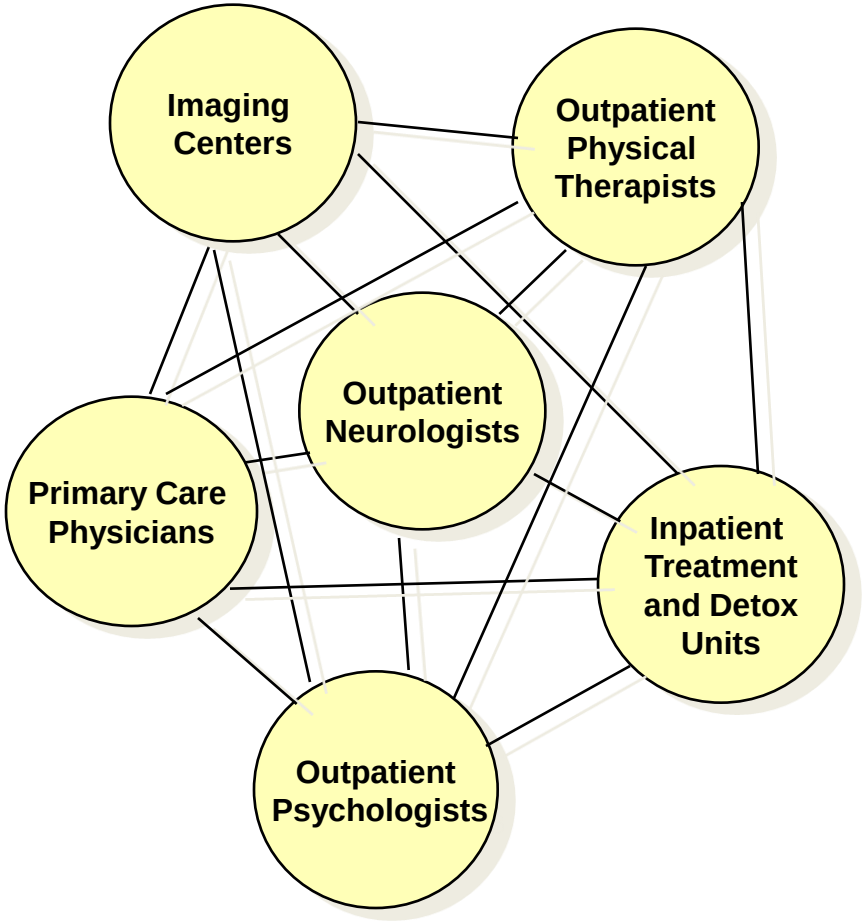
- A medical condition is **an interrelated set of patient medical circumstances best addressed in an integrated way**
  - Defined from the **patient's** perspective
  - **Including** the most common co-occurring conditions and complications
  - Involving **multiple** specialties and services

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

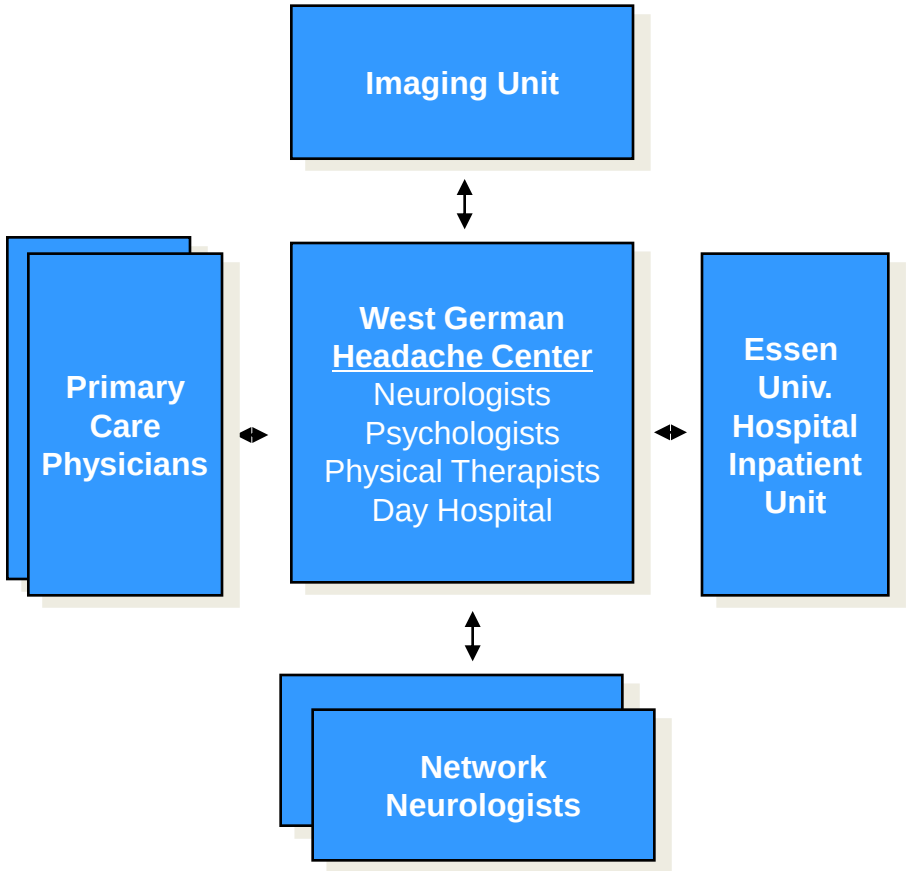
# Organize into Integrated Practice Units

## Migraine Care in Germany

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

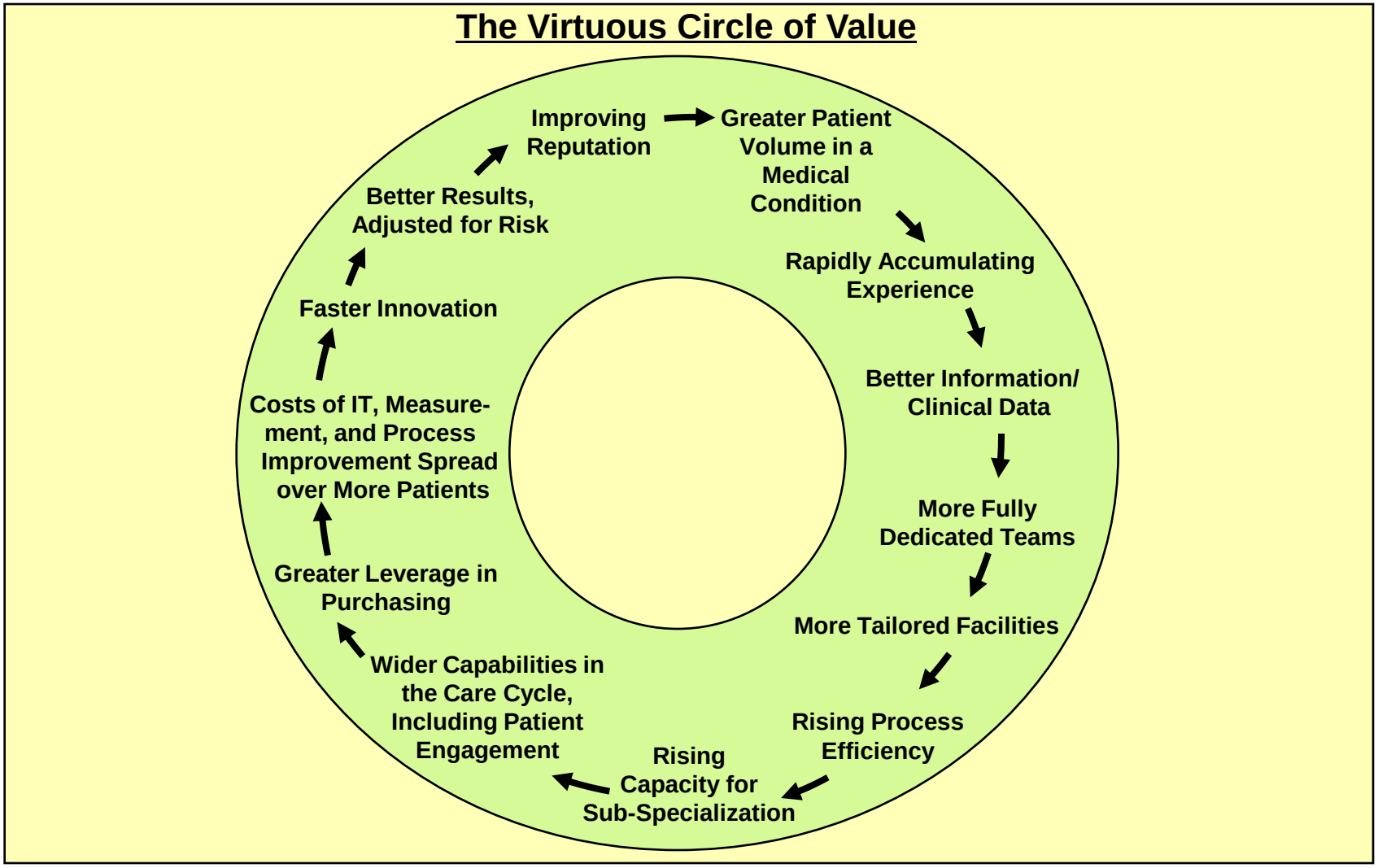



**New Model:**
**Organize into Integrated Practice Units (IPUs)**




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

# Volume and Experience in a Medical Condition Drive Patient Value



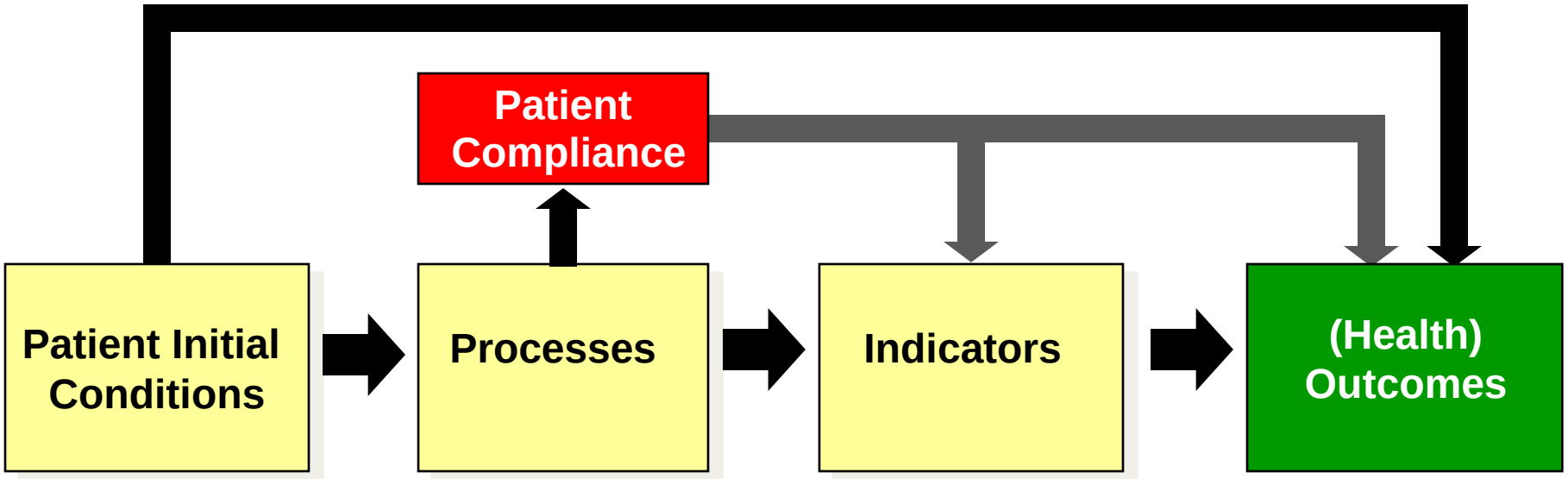

- Volume and experience have an **even greater** impact on value in an IPU structure than in the current system

# Fragmentation of Hospital Services
## Sweden

| DRG | Number of admitting providers | Average percent of total national admissions | Average admissions/ provider/ year | Average admissions/ provider/ week |
|---|---|---|---|---|
| Knee Procedure | 68 | 1.5% | 55 | 1 |
| Diabetes age > 35 | 80 | 1.3% | 96 | 2 |
| Kidney failure | 80 | 1.3% | 97 | 2 |
| Multiple sclerosis and cerebellar ataxia | 78 | 1.3% | 28 | 1 |
| Inflammatory bowel disease | 73 | 1.4% | 66 | 1 |
| Implantation of cardiac pacemaker | 51 | 2.0% | 124 | 2 |
| Splenectomy age > 17 | 37 | 2.6% | 3 | <1 |
| Cleft lip & palate repair | 7 | 14.2% | 83 | 2 |
| Heart transplant | 6 | 16.6% | 12 | <1 |

Source: Compiled from The National Board of Health and Welfare Statistical Databases – DRG Statistics, Accessed April 2, 2009.

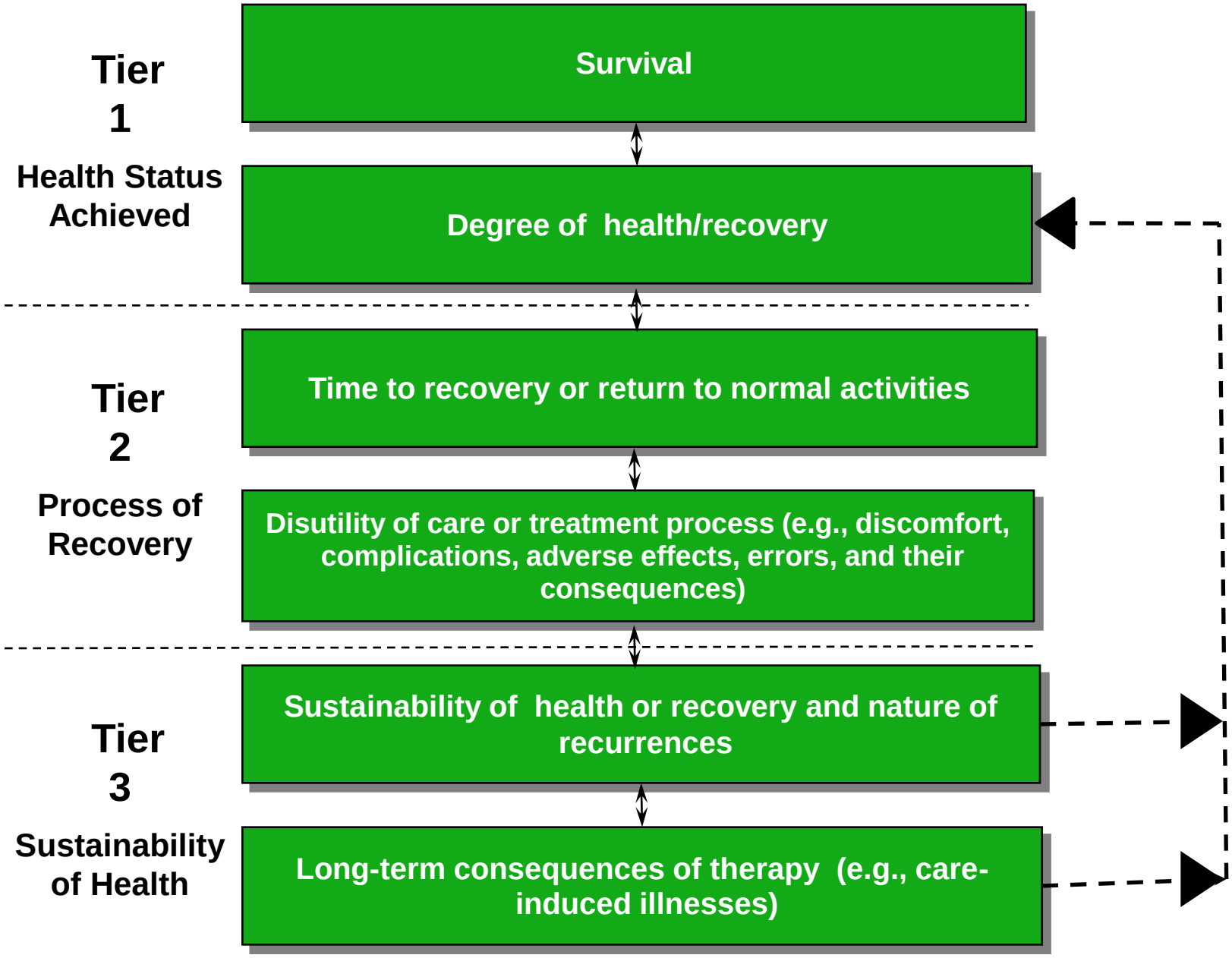
# 2. Measuring Outcomes and Cost for Every Patient



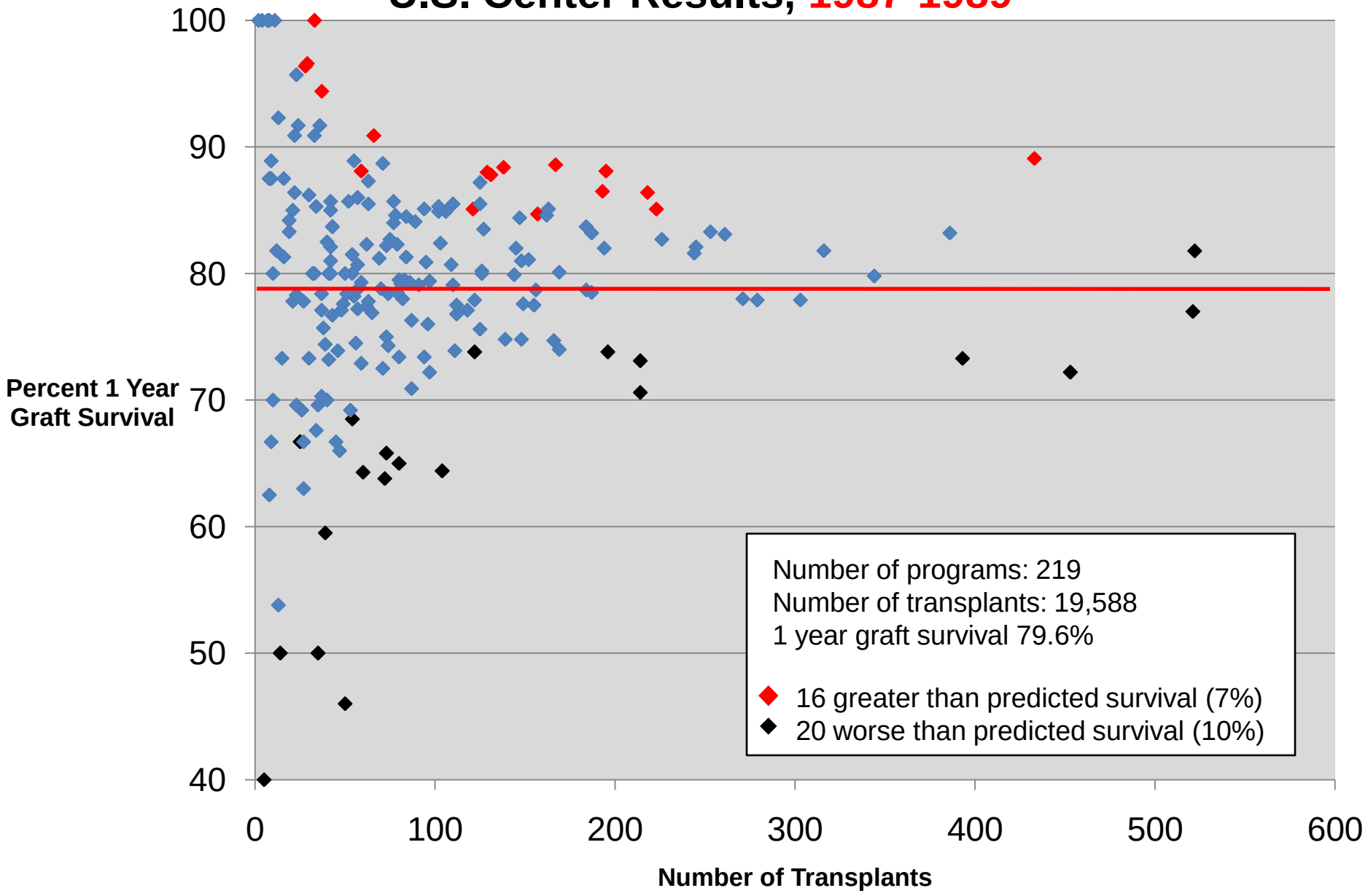

Protocols/ Guidelines

E.g., Hemoglobin A1c levels for diabetics

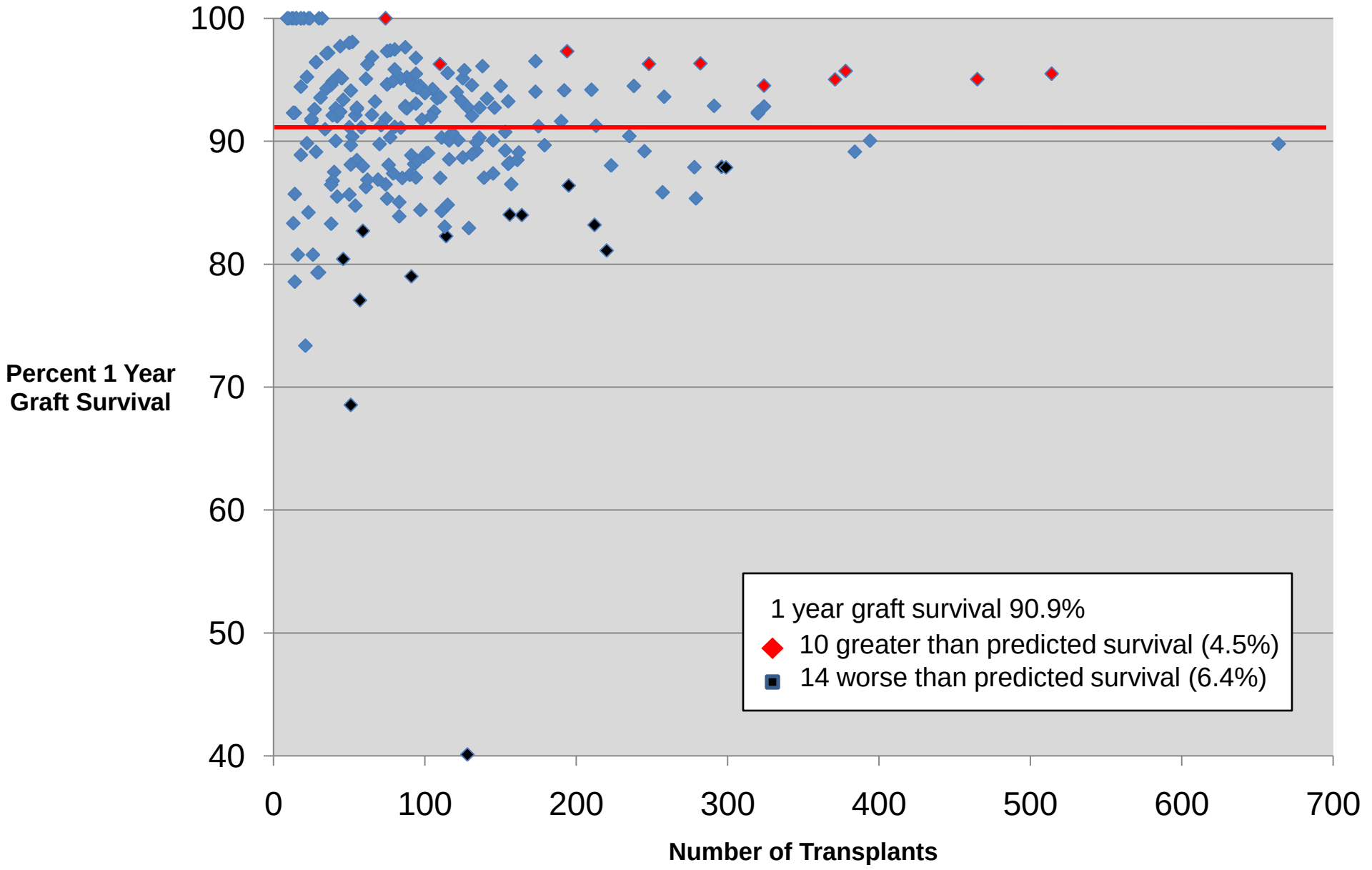
# The Outcome Measures Hierarchy



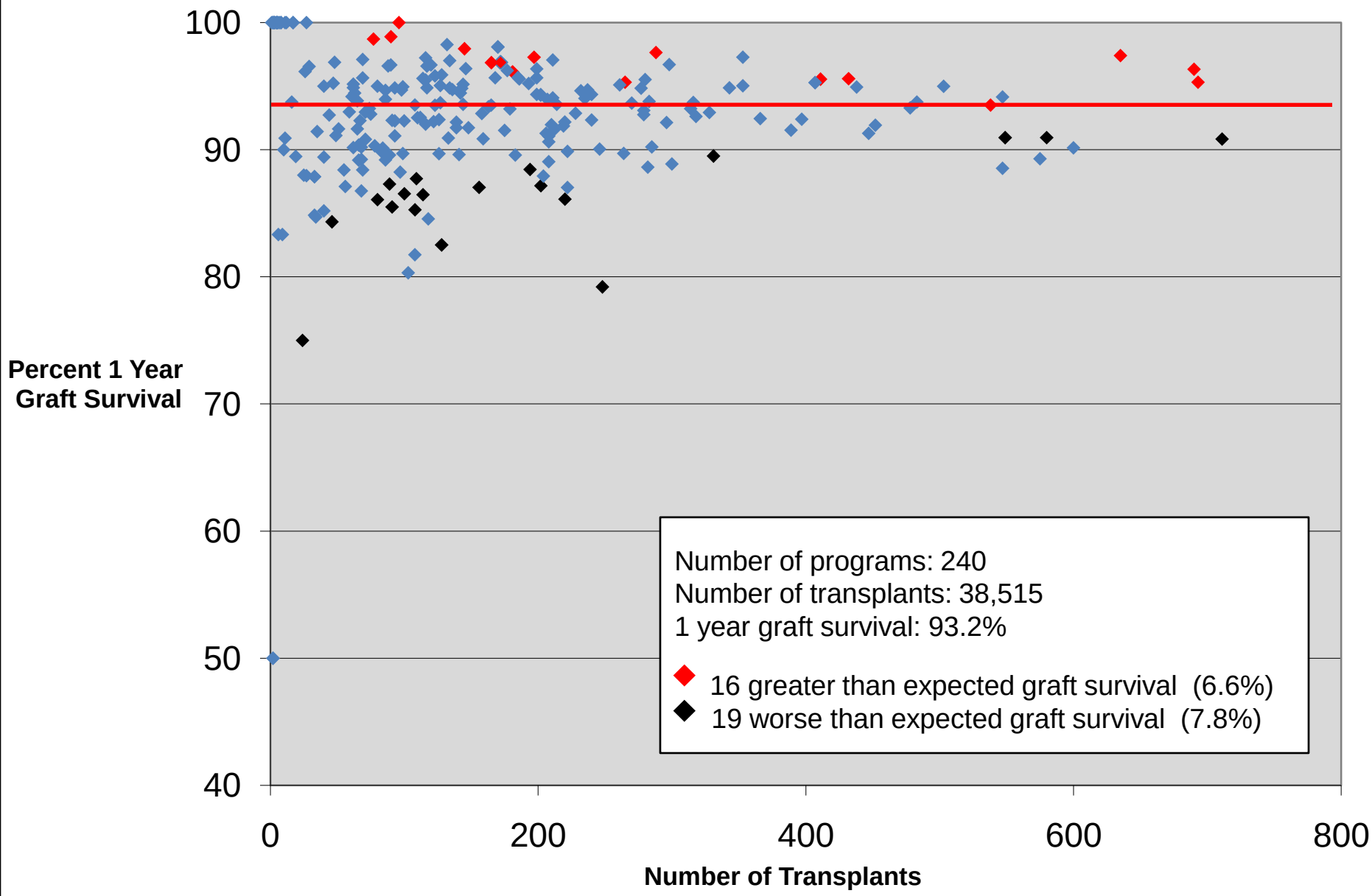
# Adult Kidney Transplant Outcomes, U.S. Center Results, 1987-1989



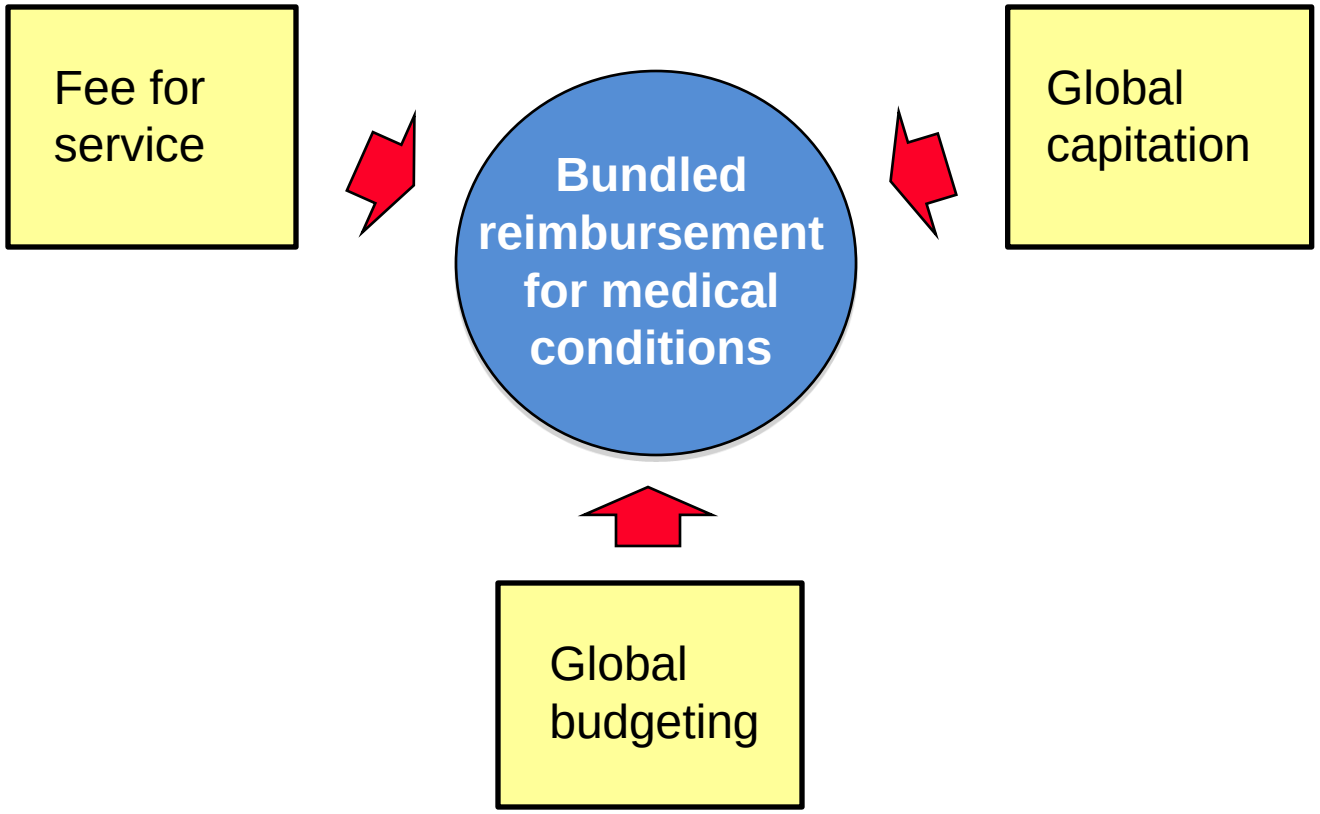
# Adult Kidney Transplant Outcomes, U.S. Center Results, 1998-2000



# Adult Kidney Transplant Outcomes
# U.S. Center Results, 2005-2007



# 3. Move to Bundled Prices for Care Cycles



# What is a Bundled Payment?

- **Total package price** for the care cycle for a medical condition
  - Includes responsibility for **avoidable complications**
  - "Medical condition capitation"
- The bundled price should be **severity adjusted**

**What is Not a Bundled Payment**

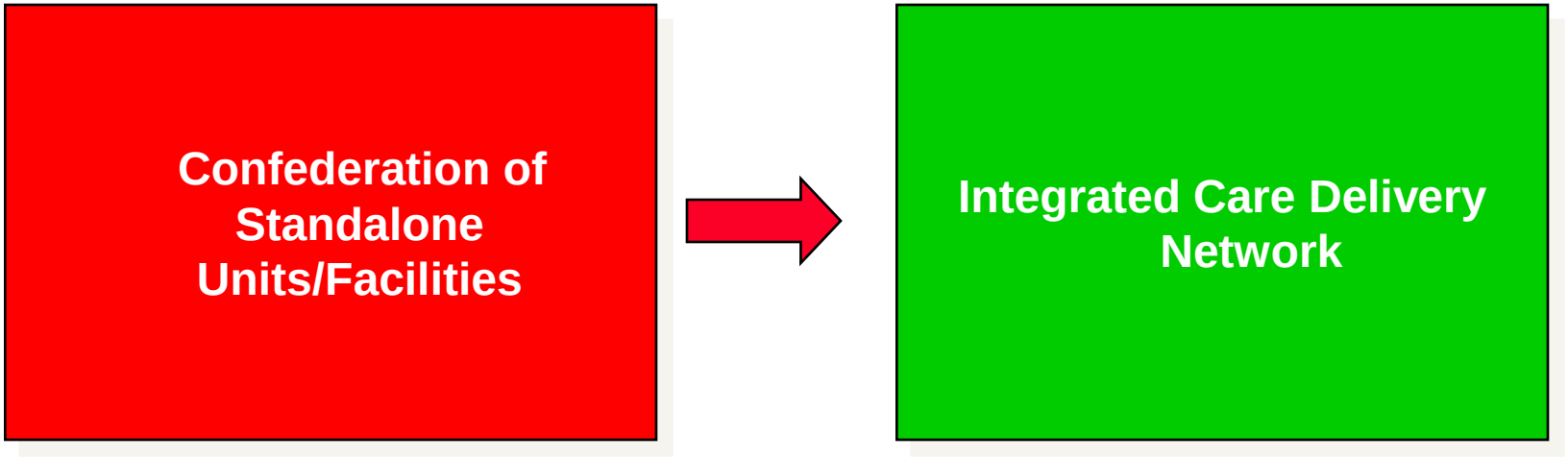
- Price for a **short** episode (e.g. inpatient only, procedure only)
- **Separate** payments for physicians and facilities
- **Pay-for-performance** bonuses
- "**Medical Home**" payment for care coordination

- DRGs can be a **starting point** for bundled payment models

# Bundled Payment in Practice
## Hip and Knee Replacement in Sweden

- Beginning in 2009, all joint replacements (hip and knee) in Stockholm County Council are reimbursed with a **bundled price** that includes:
  - Pre-op evaluation
  - Lab tests
  - Radiology
  - Surgery & related admission
  - Prosthesis
  - Drugs
  - Inpatient rehab, up to 6 days
  - 1 follow-up visit within 3 months
  - Any additional surgery to the joint within 2 years
  - If post-op infection requiring antibiotics occurs, guarantee extends to 5 years
- The bundled price applies to all **relatively healthy patients** (i.e. ASA scores of 1 or 2)
- The **same referral** process from PCPs is utilized as the traditional system
- There is **mandatory reporting** by providers to the joint registry plus supplementary reporting
- Provider participation is **voluntary** but all providers are involved
  - 6 public hospitals, 4 private hospitals
  - 3400 patients treated in 2009
- The bundled price for a knee or hip replacement is about **US $8,000**

# 4. Integrate Care Delivery Across Separate Facilities

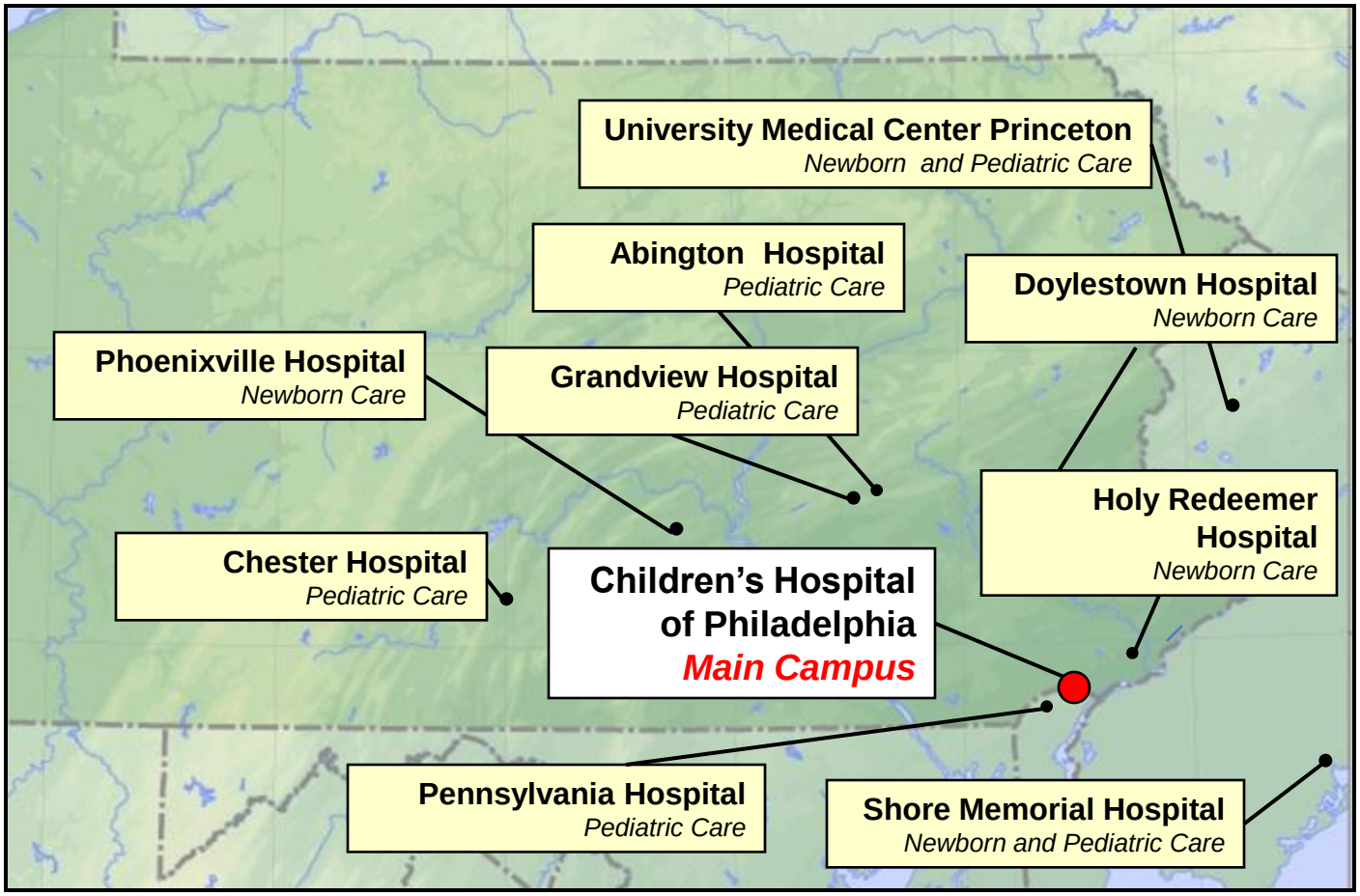



- Increase **volume**
- Benefits limited to **contracting** and **spreading limited fixed overhead**

- Increase **value**
- The network is **more than** the sum of its parts

# Children's Hospital of Philadelphia (CHOP)

## Hospital Affiliates

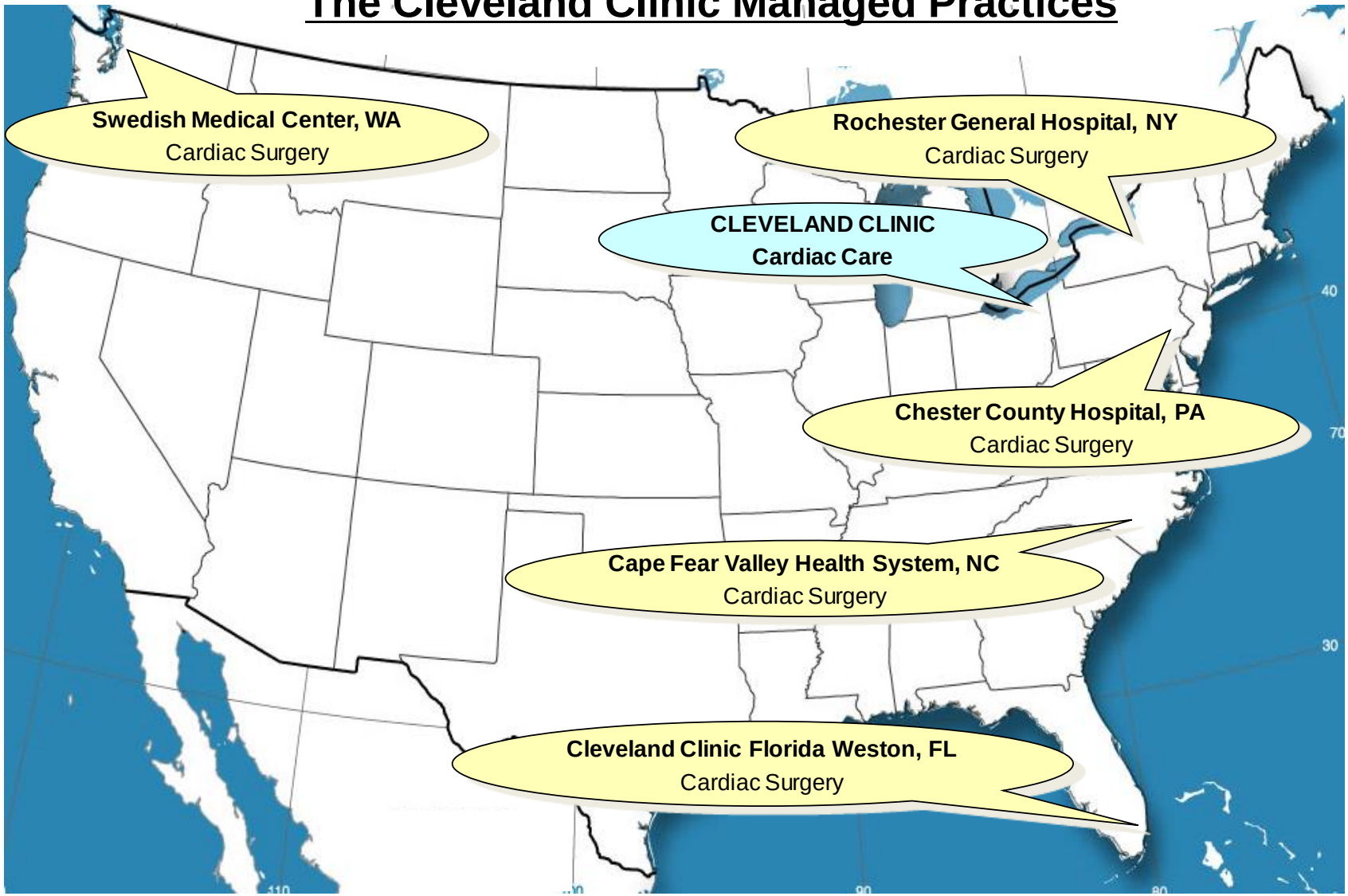


# Levels of System Integration

- **Rationalize service lines/ IPUs** across facilities to improve volume, avoid duplication, and concentrate excellence
- **Offer specific services** at the **appropriate facility**
  - E.g. acuity level, cost level, need for convenience
  - Patient referrals across units
- Clinically integrate care **across facilities,** within an IPU structure
  - **Expand** and **integrate** the care cycle
  - **Consistent protocols** and access to experts throughout the network (IT enabled)
  - Connect **ancillary service units** to IPUs
    - E.g. home care, rehabilitation, behavioral health, social work, addiction treatment (organize within service units to align with IPUs)
  - Better connect **preventive/primary care** units to specialty IPUs

# 5. Grow by Expanding Excellent IPUs Across Geography

## The Cleveland Clinic Managed Practices




- Grow in ways that improve **value**, not just volume

# 6. Create an Enabling Information Technology Platform

Utilize information technology to enable **restructuring of care delivery** and **measuring results**, rather than treating it as a solution itself

- Common **data definitions**
- Combine **all types of data** (e.g. notes, images) for each patient over time
- Data encompasses the **full care cycle**, including referring entities
- Allowing access and communication among **all involved parties**, including patients
- "**Structured**" data vs. free text
- **Templates** for medical conditions to enhance the user interface
- Architecture that allows **easy extraction of outcome, process,** and **cost measures**
- Interoperability standards enabling communication among **different provider systems**

# Value-Based Health Care: The Role of Employers

- Employer interests are **more closely aligned with patient interests** than any other system participant
  - Employers need healthy, high performing employees
  - Employers bear the costs of chronic health problems and poor quality care

  - The cost of poor health is 2 to 7 times more than the cost of health benefits
    - Absenteeism
    - Presenteeism
- Employers are **uniquely positioned** to improve employee health
  - Daily interactions with employees
  - On-site clinics for quick diagnosis and treatment, prevention, and screening
  - Group culture of wellness
  - Providers should establish **direct relationships with employers** to enable value based approaches

# Transforming the Roles of Employers

| Old Role | New Role |
| --- | --- |
| • Set the goal of **reducing health premium costs** | • Set the goal of **employee health** |
| • Focus on **direct cost** of health benefits | • Focus on the **overall cost of poor health** (e.g., productivity, lost days) |
| • Use bargaining power to negotiate **discounts** from health plans and providers | • Work with health plans and providers to improve overall **value** delivered |
| • **Shift costs to employees** via premium payments, co-payments | • Improve access to **high-value care** (e.g., wellness, prevention, screening, and disease management) |
| • Evaluate plans and providers based on **process compliance** (P4P) | • Evaluate plans and providers based on **health outcomes** |
| • **Limit or eliminate the employer role** in health insurance | • Take a leadership role in **expanding the insurance system** to encompass individually purchased plans on favorable terms |

# Value-Based Health Care Delivery: Implications for Government

- Remove obstacles to the **restructuring of health care delivery** around the integrated care of medical conditions
- Establish **universal measurement** and **reporting** of provider **health outcomes**
- Require universal reporting by health plans of **health outcomes for members**
- Shift reimbursement systems to **bundled prices for cycles of care** instead of payments for discrete treatments or services
- **Open up competition** among providers and across geography
- Mandate **EMR adoption** that enables integrated care and supports outcome measurement
  - National **standards** for data definitions, communication, and aggregation
  - **Software as a service** model for smaller providers
- Encourage greater **responsibility of individuals** for their health and their health care