

Value-Based Health Care Delivery : Implications for the Taiwanese System

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Doctors Jason Wang and Andrew Huang, and Senior Researcher Jennifer Baron made a substantial contribution to this presentation, 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>.

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

Creating a Value-Based Health Care System

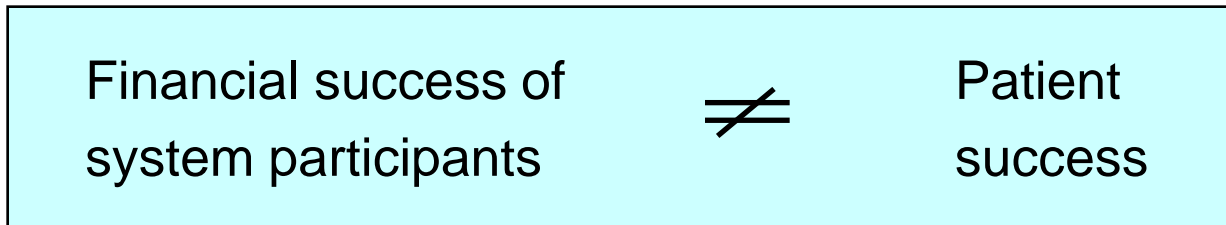
- Significant improvement in value will require **fundamental restructuring of health care delivery**, not incremental improvements

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

- Process improvements, care pathways, lean production, safety initiatives, disease management and other overlays to the current structure are beneficial but **not sufficient**
- “Consumers” **cannot fix the dysfunctional structure** of the current system

Creating Competition on Value

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



- Creating positive-sum **competition on value** is a central challenge in health care reform in every country

Principles of Value-Based Health Care Delivery

The central goal in health care must be **value for patients**, not access, equity, 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

Principles of Value-Based Health Care Delivery

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

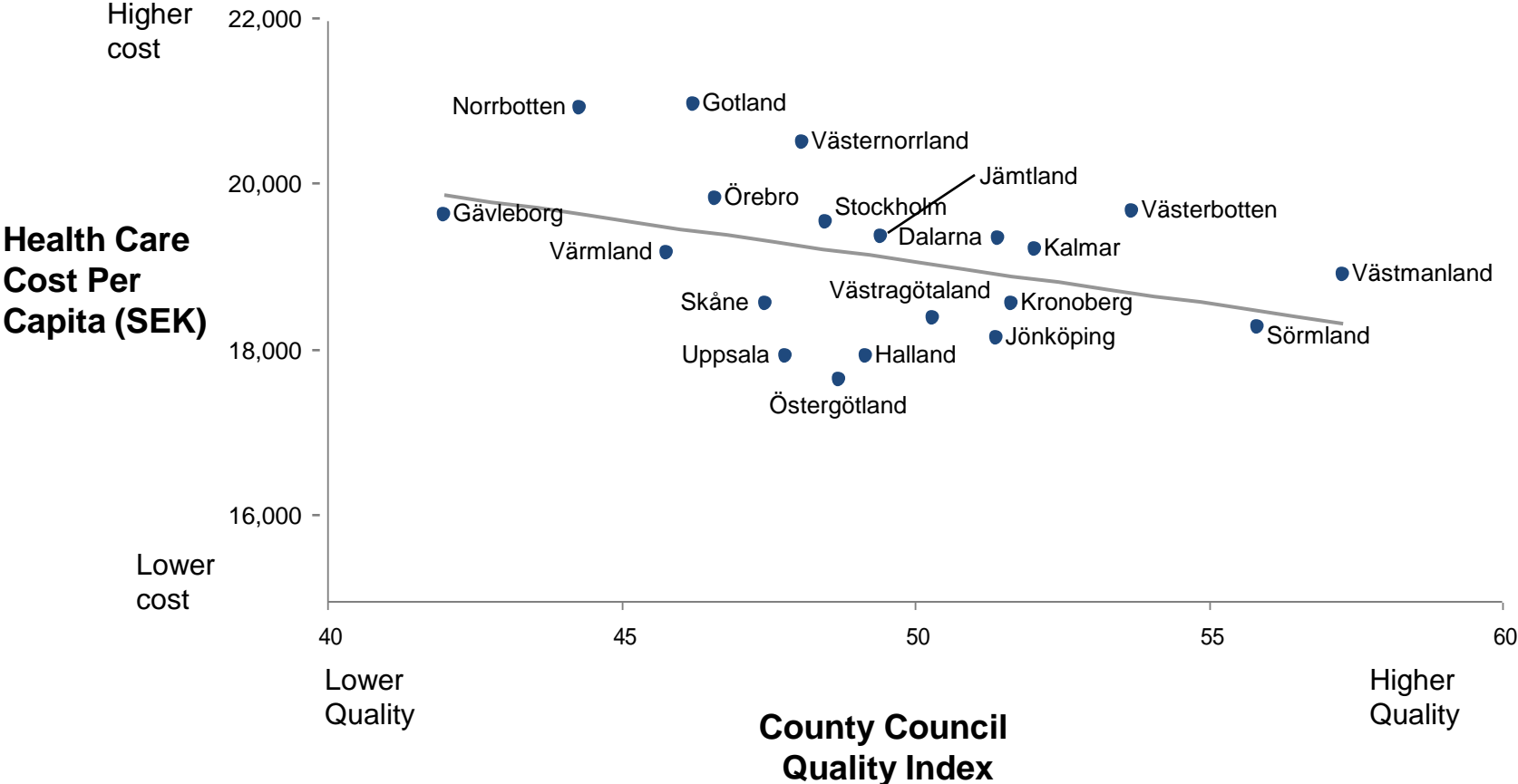
- Prevention
- Early detection
- Right diagnosis
- Right treatment to the right patient
- Early and timely treatment
- Treatment earlier in the causal chain of disease
- Rapid cycle time of diagnosis and treatment
- Less invasive treatment methods
- Fewer complications
- Fewer mistakes and repeats in 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: Öppna 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



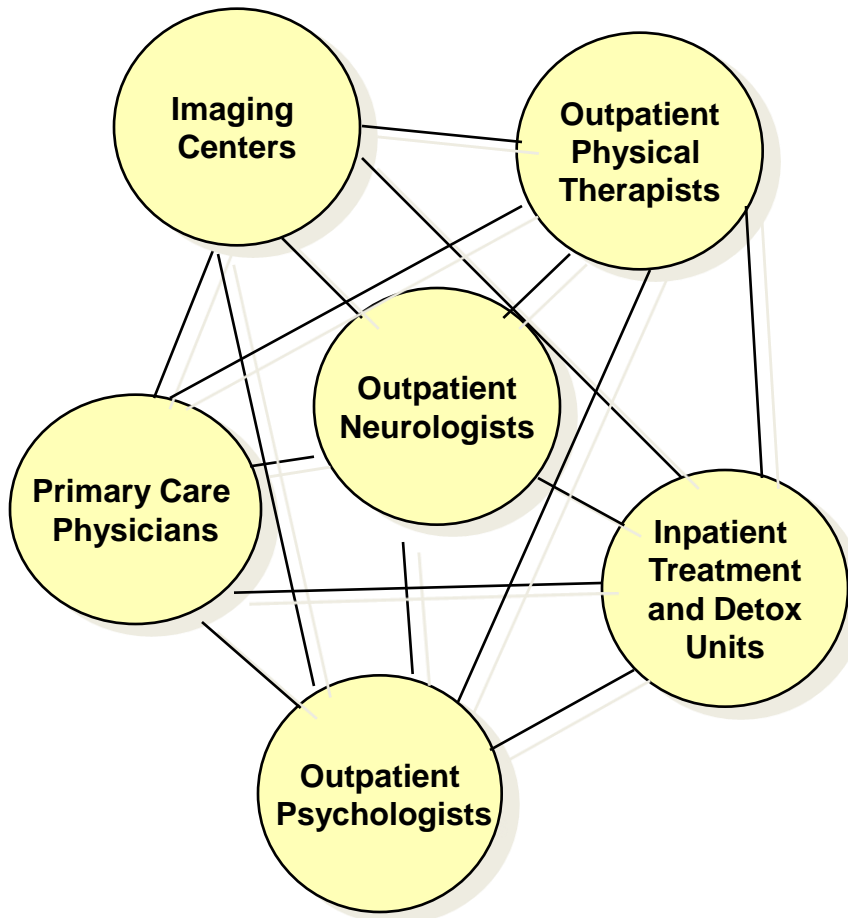
- The patient's medical condition is the **unit of value creation** in health care delivery

1. Organize into Integrated Practice Units

Migraine Care in Germany

Existing Model:

Organize by Specialty and Discrete Services

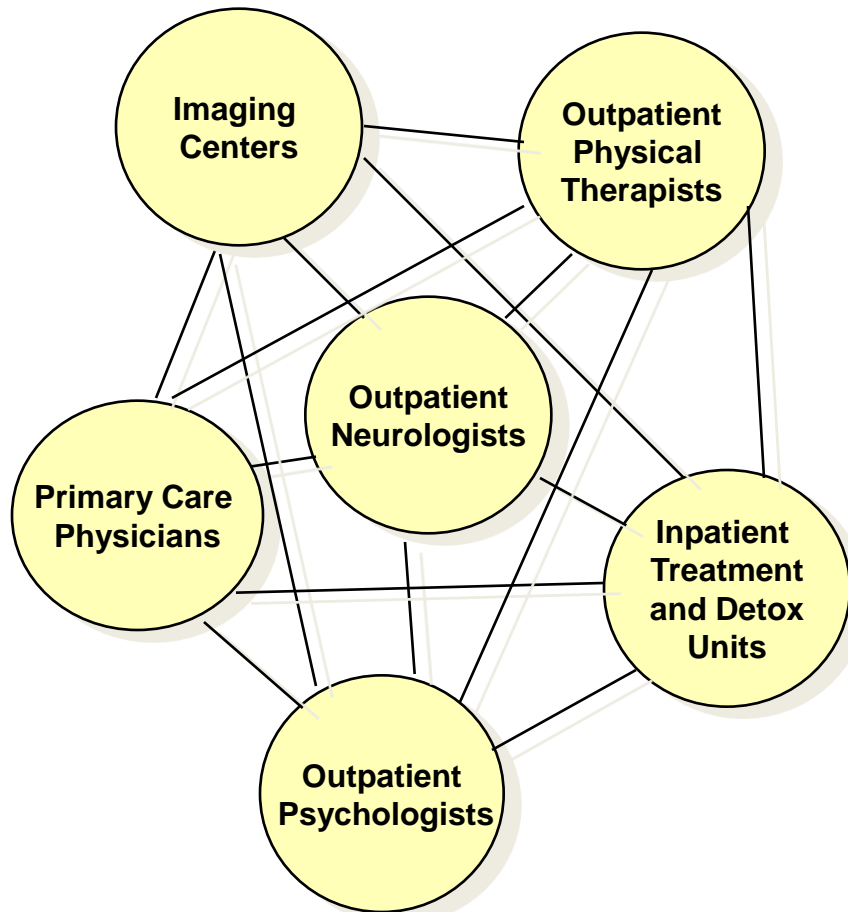


1. Organize into Integrated Practice Units

Migraine Care in Germany

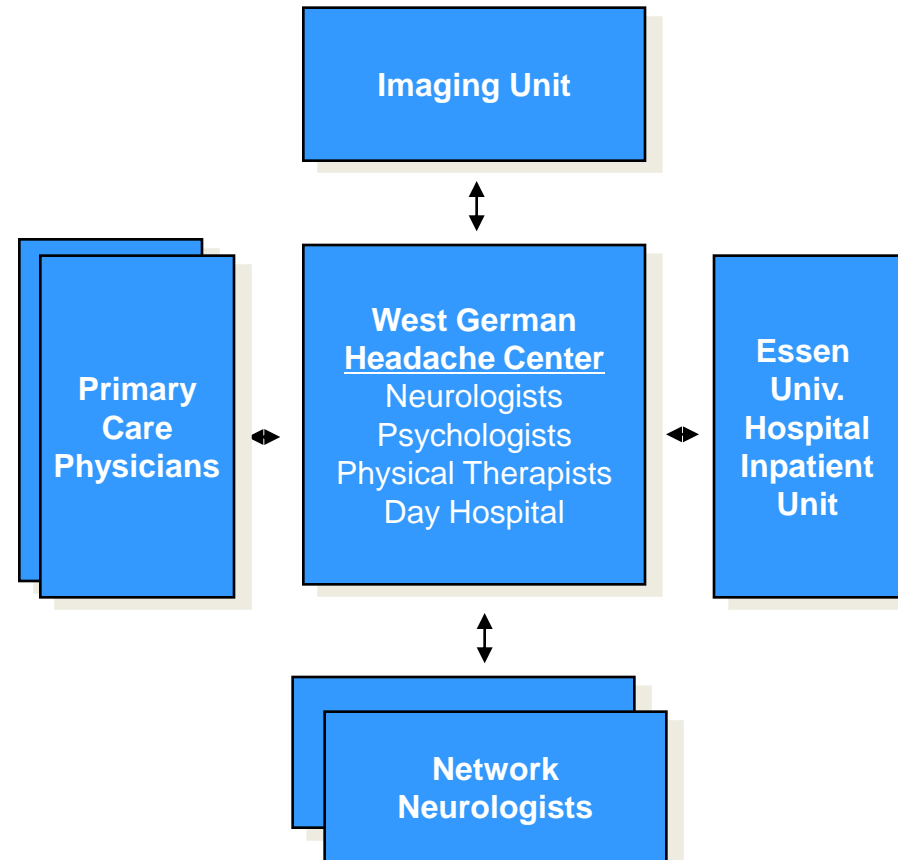
Existing Model:

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

Integrating Across the Cycle of Care

Breast Cancer

| | | | | | | |
|--|---|--|--|---|---|--|
| INFORMING AND ENGAGING | <ul style="list-style-type: none"> Advice on self screening Consultations on risk factors | <ul style="list-style-type: none"> Counseling patient and family on the diagnostic process and the diagnosis | <ul style="list-style-type: none"> Explaining patient treatment options/shared decision making | <ul style="list-style-type: none"> Counseling on the treatment process Education on managing side effects and avoiding complications of treatment Achieving compliance | <ul style="list-style-type: none"> Counseling on rehabilitation options, process Achieving compliance Psychological counseling | <ul style="list-style-type: none"> Counseling on long term risk management Achieving Compliance |
| | | | <ul style="list-style-type: none"> Patient and family psychological counseling | | | |
| MEASURING | <ul style="list-style-type: none"> Self exams Mammograms | <ul style="list-style-type: none"> Mammograms Ultrasound MRI Labs (CBC, Blood chems, etc.) Biopsy BRACA 1, 2... CT Bone Scans | <ul style="list-style-type: none"> Labs | <ul style="list-style-type: none"> Procedure-specific measurements | <ul style="list-style-type: none"> Range of movement Side effects measurement | <ul style="list-style-type: none"> MRI, CT Recurring mammograms (every six months for the first 3 years) |
| ACCESSING | <ul style="list-style-type: none"> Office visits Mammography lab visits | <ul style="list-style-type: none"> Office visits | <ul style="list-style-type: none"> Office visits | <ul style="list-style-type: none"> Hospital stays | <ul style="list-style-type: none"> Office visits | <ul style="list-style-type: none"> Office visits |
| | | <ul style="list-style-type: none"> Lab visits | <ul style="list-style-type: none"> Hospital visits Lab visits | <ul style="list-style-type: none"> Visits to outpatient radiation or chemotherapy units Pharmacy | <ul style="list-style-type: none"> Rehabilitation facility visits Pharmacy | <ul style="list-style-type: none"> Lab visits Mammographic labs and imaging center visits |
| | | <ul style="list-style-type: none"> High risk clinic visits | | | | |
| MONITORING/PREVENTING DIAGNOSING PREPARING INTERVENING RECOVERING/REHABING MONITORING/MANAGING | | | | | | |
| <ul style="list-style-type: none"> Medical history Control of risk factors (obesity, high fat diet) Genetic screening Clinical exams Monitoring for lumps | <ul style="list-style-type: none"> Medical history Determining the specific nature of the disease (mammograms, pathology, biopsy results) Genetic evaluation Labs | <ul style="list-style-type: none"> Choosing a treatment plan Surgery prep (anesthetic risk assessment, EKG) Plastic or onco-plastic surgery evaluation Neo-adjuvant chemotherapy | <ul style="list-style-type: none"> Surgery (breast preservation or mastectomy, oncoplastic alternative) Adjuvant therapies (hormonal medication, radiation, and/or chemotherapy) | <ul style="list-style-type: none"> In-hospital and outpatient wound healing Treatment of side effects (e.g. skin damage, cardiac complications, nausea, lymphedema and chronic fatigue) Physical therapy | <ul style="list-style-type: none"> Periodic mammography Other imaging Follow-up clinical exams Treatment for any continued or later onset side effects or complications | |

Breast Cancer Specialist
 Other Provider Entities

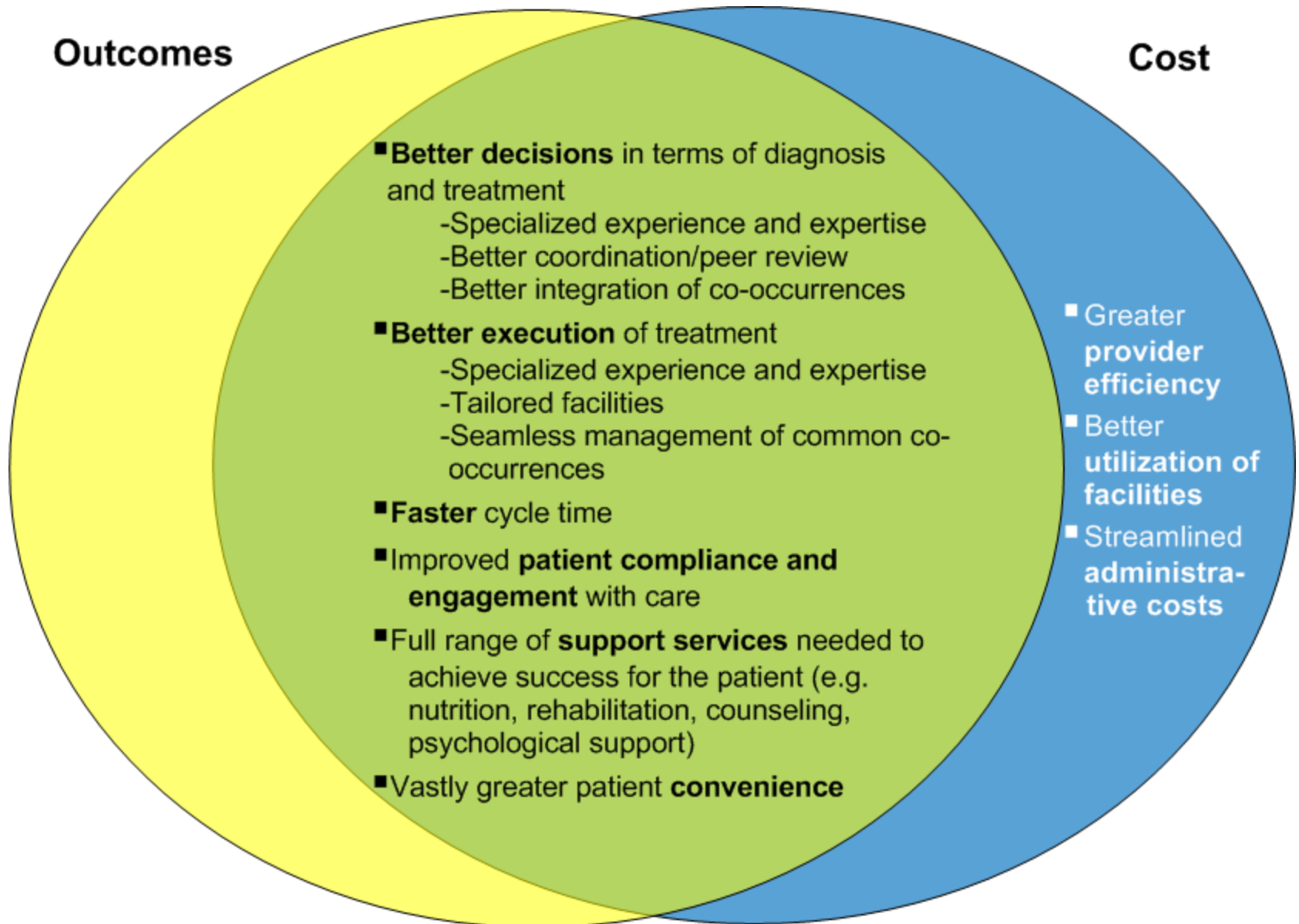
Integrating Across the Cycle of Care

Breast Cancer

| | | | | | | |
|--|---|--|--|---|---|--|
| INFORMING AND ENGAGING | Advice on self screening Consultations on risk factors | Counseling patient and family on the diagnostic process and the diagnosis | Explaining patient treatment options/shared decision making Patient and family psychological counseling | Counseling on the treatment process Education on managing side effects and avoiding complications of treatment Achieving compliance | Counseling on rehabilitation options, process Achieving compliance Psychological counseling | Counseling on long term risk management Achieving Compliance |
| MEASURING | Self exams Mammograms | <ul style="list-style-type: none"> • Mammograms • Ultrasound • MRI • Labs (CBC, Blood chems, etc.) | Labs | Procedure-specific measurements | Range of movement Side effects measurement | MRI, CT Recurring mammograms (every six months for the first 3 years) |
| ACCESSING | Office visits Mammography lab visits | Office visits | Office visits | Hospital stays | Office visits | Office visits |
| | | Lab visits | Hospital visits Lab visits | Visits to outpatient radiation or chemotherapy units Pharmacy | Rehabilitation facility visits Pharmacy | Lab visits Mammographic labs and imaging center visits |
| | | High risk clinic visits | | | | |
| MONITORING/ PREVENTING | DIAGNOSING | PREPARING | INTERVENING | RECOVERING/ REHABING | MONITORING/MANAGING | |
| 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 (mammograms, pathology, biopsy results) Genetic evaluation Labs | Choosing a treatment plan Surgery prep (anesthetic risk assessment, EKG) | Surgery (breast preservation or mastectomy, oncoplastic alternative) | In-hospital and outpatient wound healing Treatment of side effects (e.g. skin damage, cardiac complications, nausea, lymphedema and chronic fatigue) | Periodic mammography Other imaging | Follow-up clinical exams Treatment for any continued or later onset side effects or complications |
| | | Plastic or onco-plastic surgery evaluation Neo-adjuvant chemotherapy | Adjuvant therapies (hormonal medication, radiation, and/or chemotherapy) | Physical therapy | | |

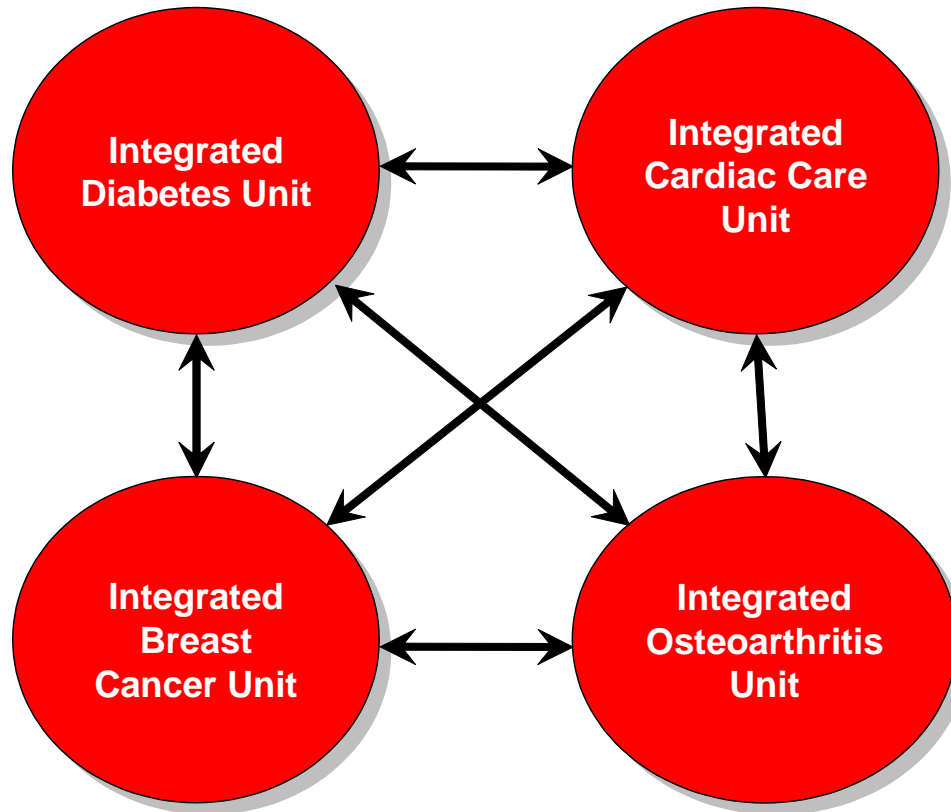
Breast Cancer Specialist
 Other Provider Entities

IPUs and Value



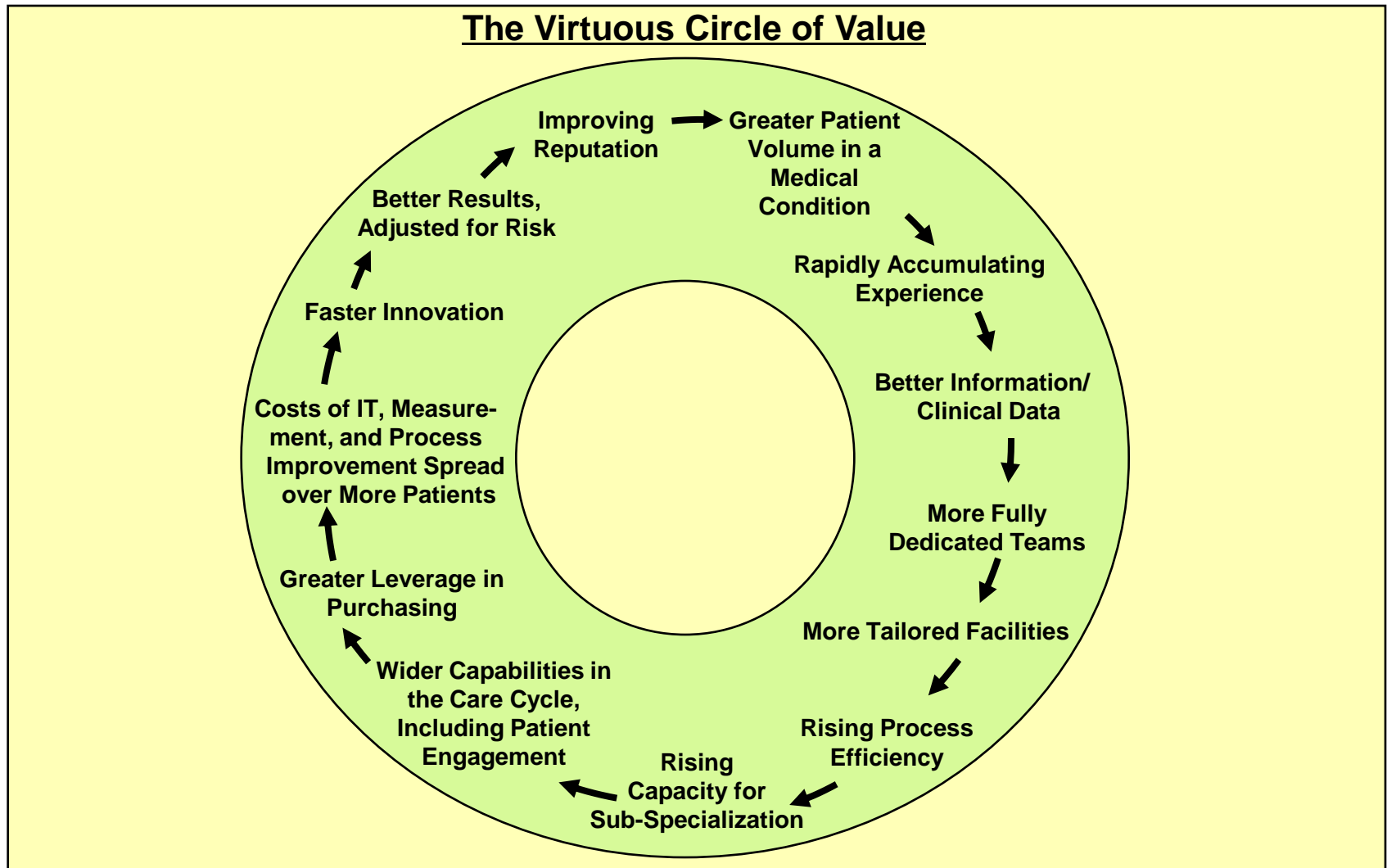
Coordinating Care Across IPUs

Patients with Multiple Medical Conditions



- The primary organizational structure for care delivery should be around the forms of integration required for **every patient**, or IPUs
 - The current system is organized around the **exception**, not the rule
 - **Overlay mechanisms** should manage **coordination across IPUs**
- ↓
- The IPU model will **greatly simplify** coordination of care for patients with multiple medical conditions

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

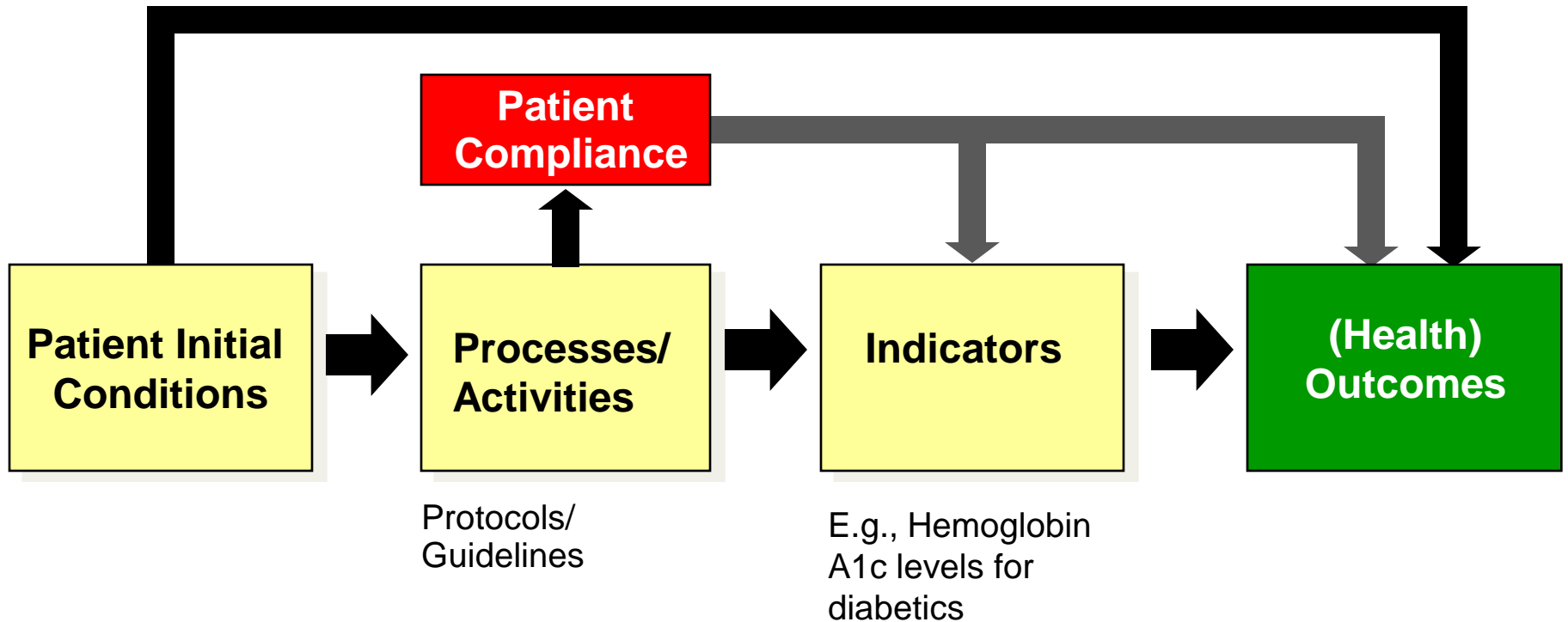
Fragmentation of Hospital Services

Japan

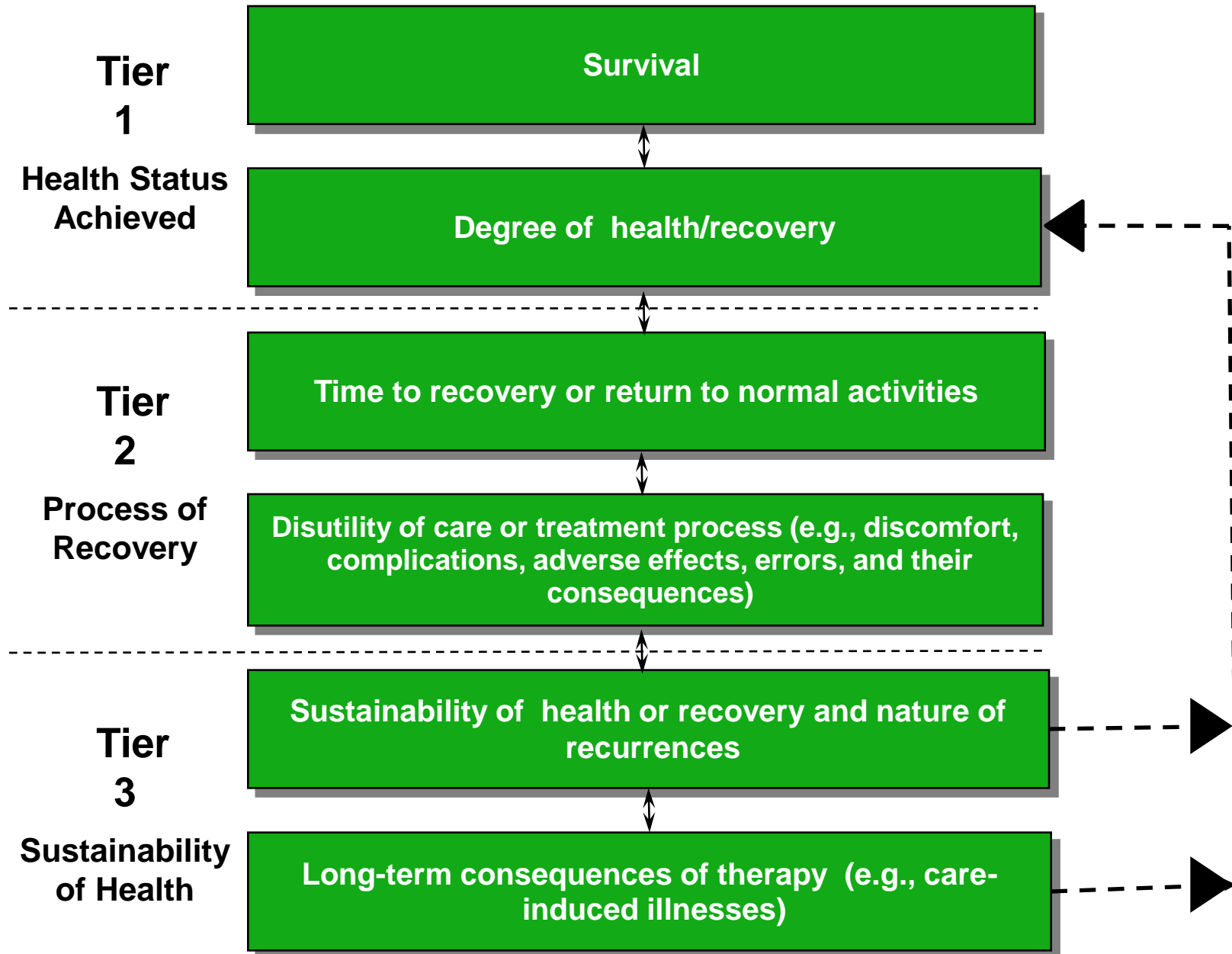
| Procedure | Number of hospitals performing the procedure | Average number of procedures per provider per year | Average number of procedures per provider per week |
|--|---|---|---|
| Craniotomy | 1,098 | 71 | 1.4 |
| Operation for gastric cancer | 2,336 | 72 | 1.4 |
| Operation for lung cancer | 710 | 46 | 0.9 |
| Joint replacement | 1,680 | 50 | 1.0 |
| Pacemaker implantation | 1,248 | 40 | 0.8 |
| Laparoscopic procedure | 2,004 | 72 | 1.4 |
| Endoscopic procedure | 2,482 | 202 | 3.9 |
| Percutaneous transluminal coronary angioplasty | 1,013 | 133 | 2.6 |

Source: Porter, Michael E. and Yuji Yamamoto, *The Japanese Health Care System: A Value-Based Competition Perspective*, Unpublished White Paper, September 1, 2007

2. Measure Outcomes and Cost For Every Patient



The Outcome Measures Hierarchy



The Outcome Measures Hierarchy

Breast Cancer

Survival

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

Degree of recovery / health

- Degree of remission
- Functional status
- Breast conservation
- Depression

Time to recovery or return to normal activities

- Time to remission
- Time to functional status

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

- Nosocomial infection
- Nausea/vomiting
- Febrile neutropenia
- Suspension of therapy
- Failed therapies
- Limitation of motion
- Depression

Sustainability of recovery or health over time

- Cancer recurrence
- Sustainability of functional status

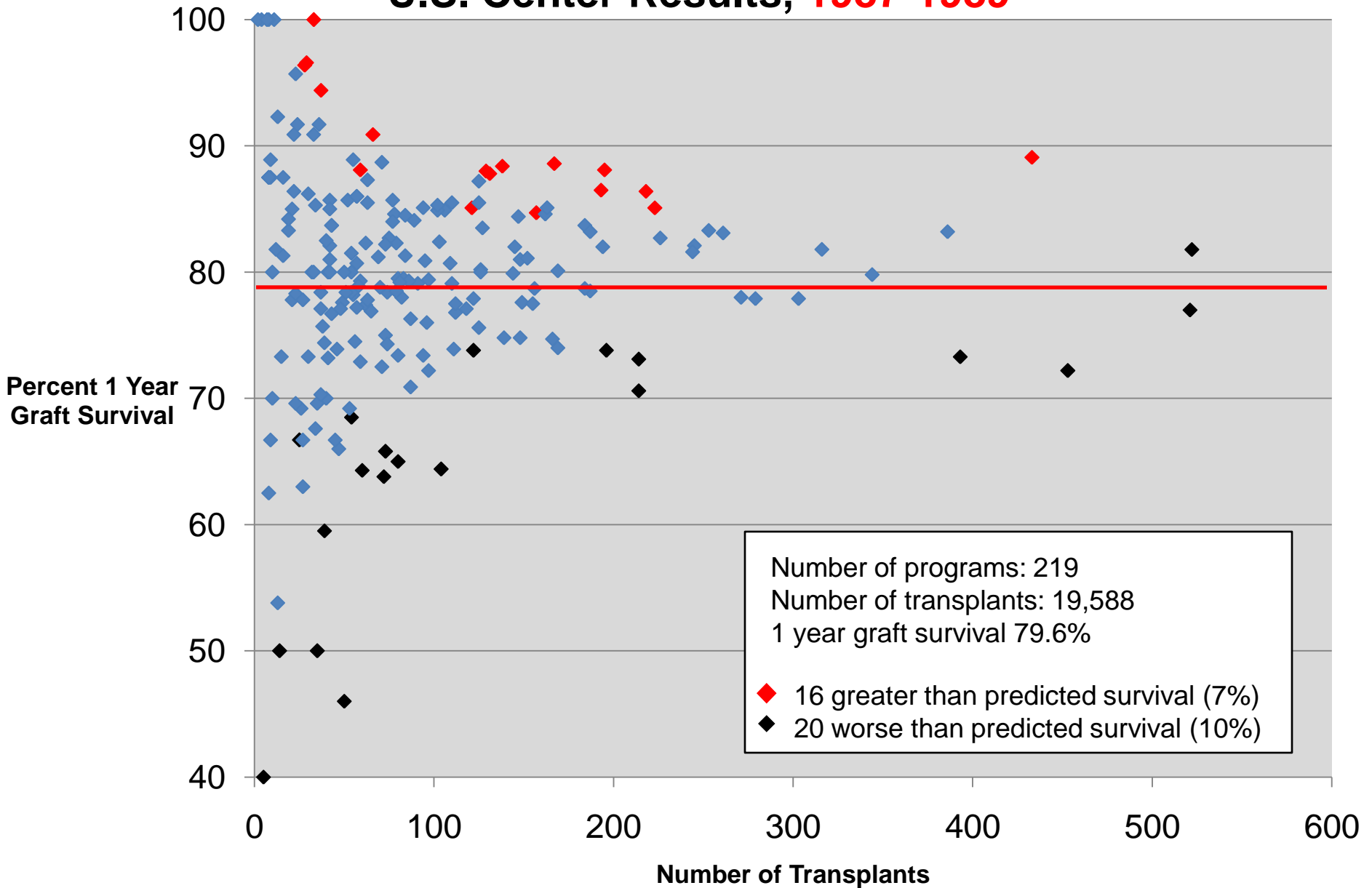
Long-term consequences of therapy (e.g., care-induced illnesses)

- Incidence of secondary cancers
- Brachial plexopathy
- Fertility/pregnancy complications
- Premature osteoporosis

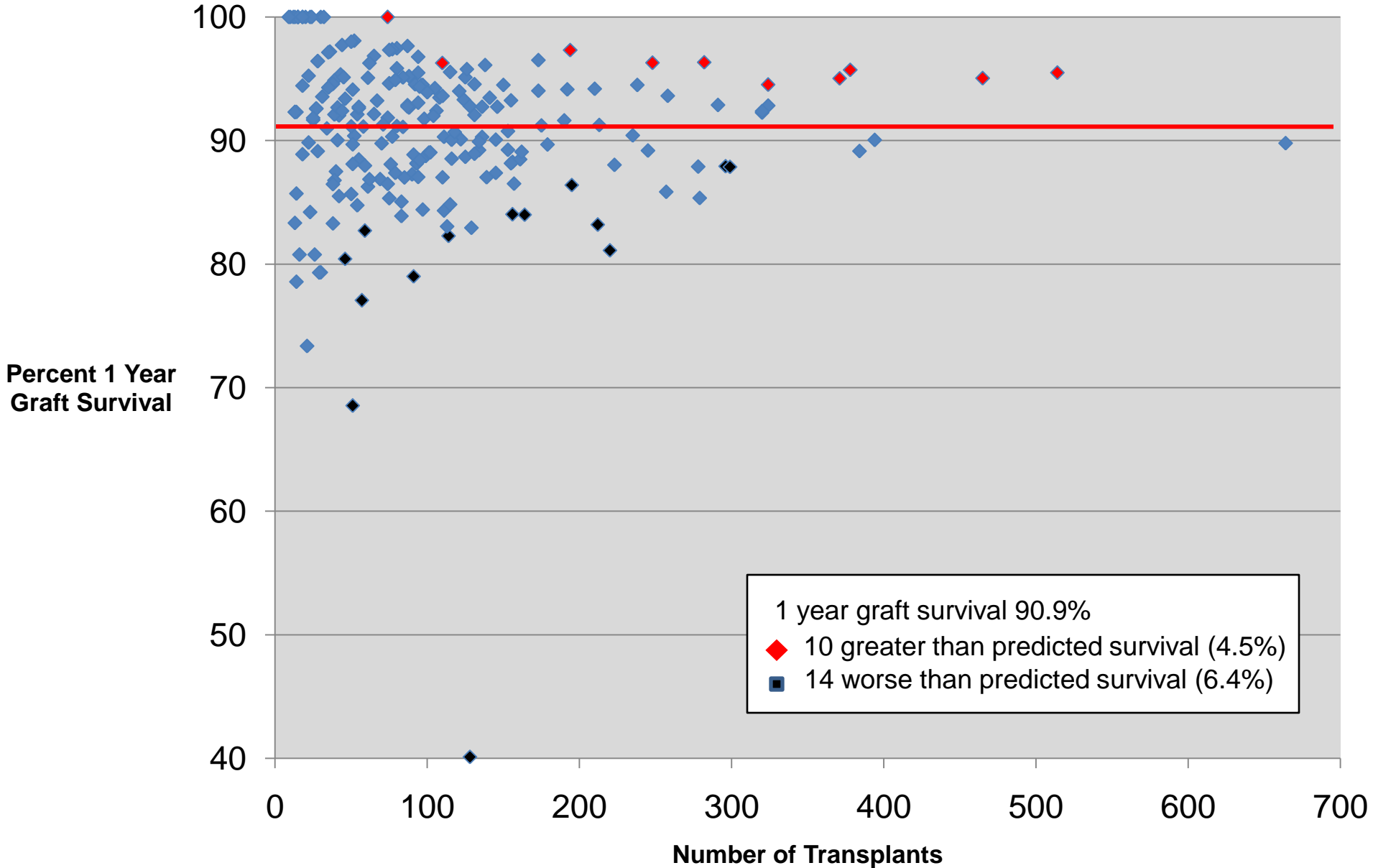
Initial Conditions/Risk Factors

- 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

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

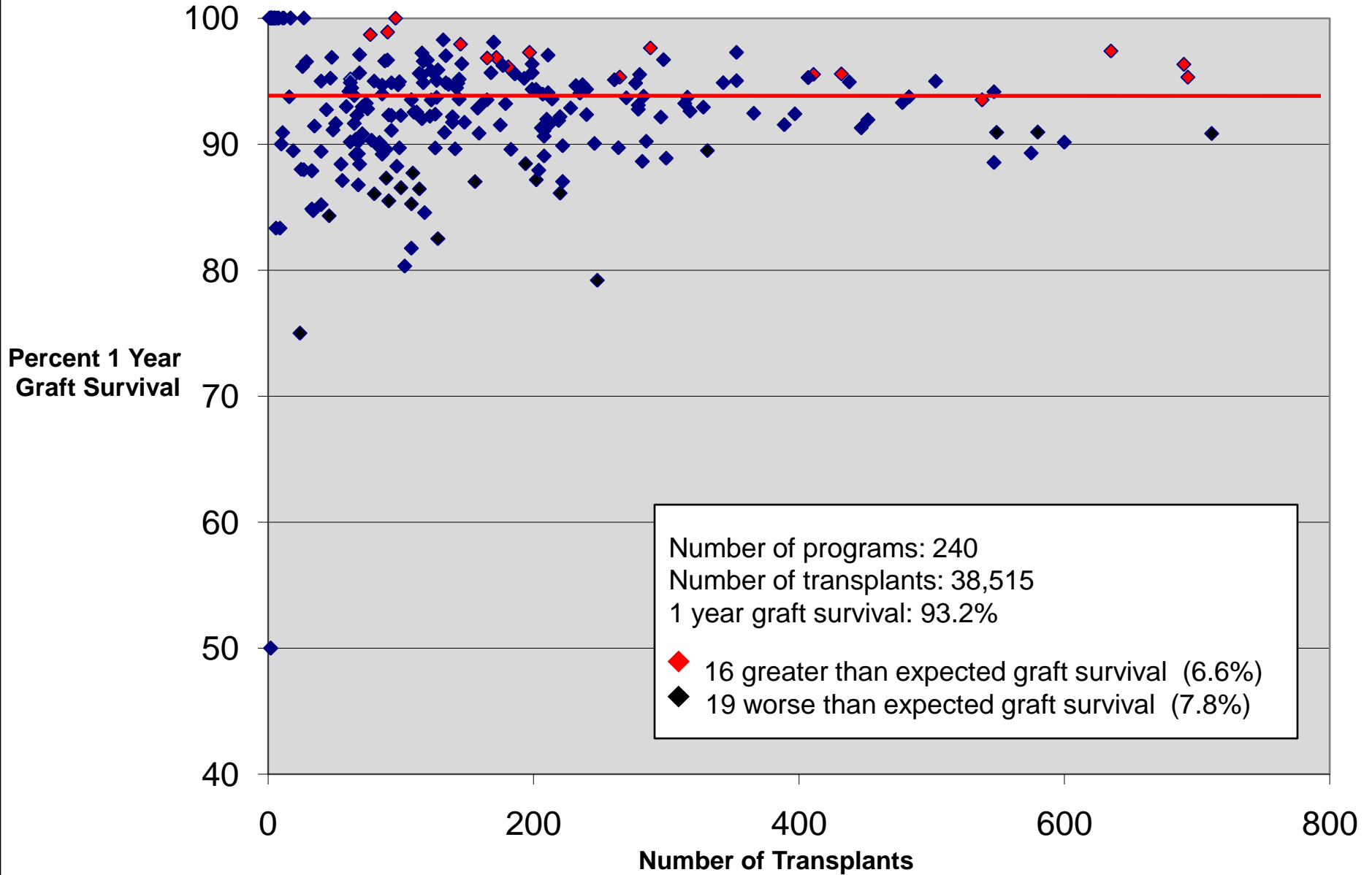


Adult Kidney Transplant Outcomes, U.S. Center Results, 1998-2000



Adult Kidney Transplant Outcomes

U.S. Center Results, 2005-2007



Measuring Cost

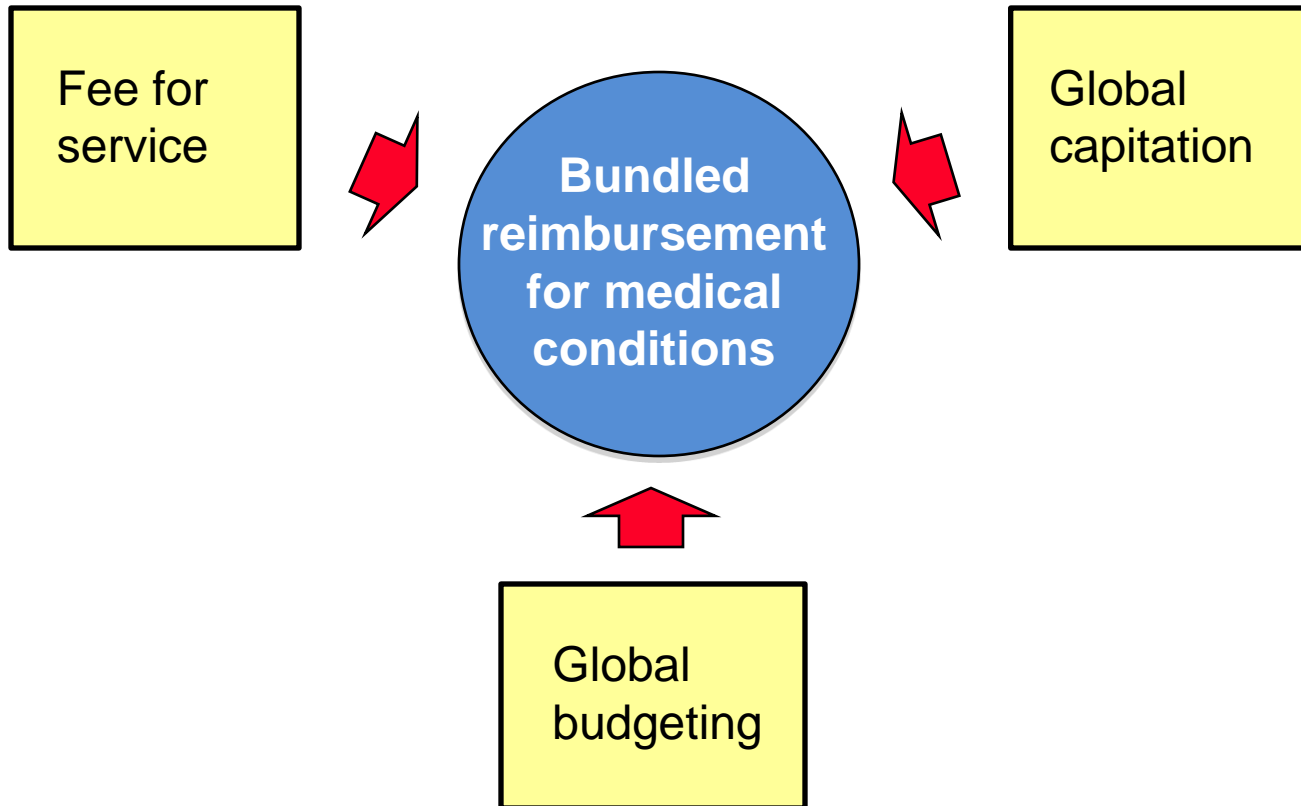
Aspiration

- Cost should be measured **for each patient**, aggregated across the **full cycle of care**
- Cost should be measured for **each medical condition** (which includes common co-occurring conditions), not for all services
- The cost of each activity or input attributed to a patient should reflect **that patient's use of resources** (e.g. time, facilities, supplies, services), not average allocations
- The only way to properly measure true cost per patient is to track the **time devoted to each patient** by providers, facilities, support services, and other shared costs

Reality

- Most providers track **charges** not costs
- Most providers track cost by **billing category**, not for medical conditions
- Most providers cannot **accumulate total costs** for particular patients
- Most providers use **arbitrary or average** allocation of shared resources, not patient specific allocations

3. Move to Bundled Prices for Care Cycles



What is 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 Bundled Payment

- Prices for **short** episodes (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 models

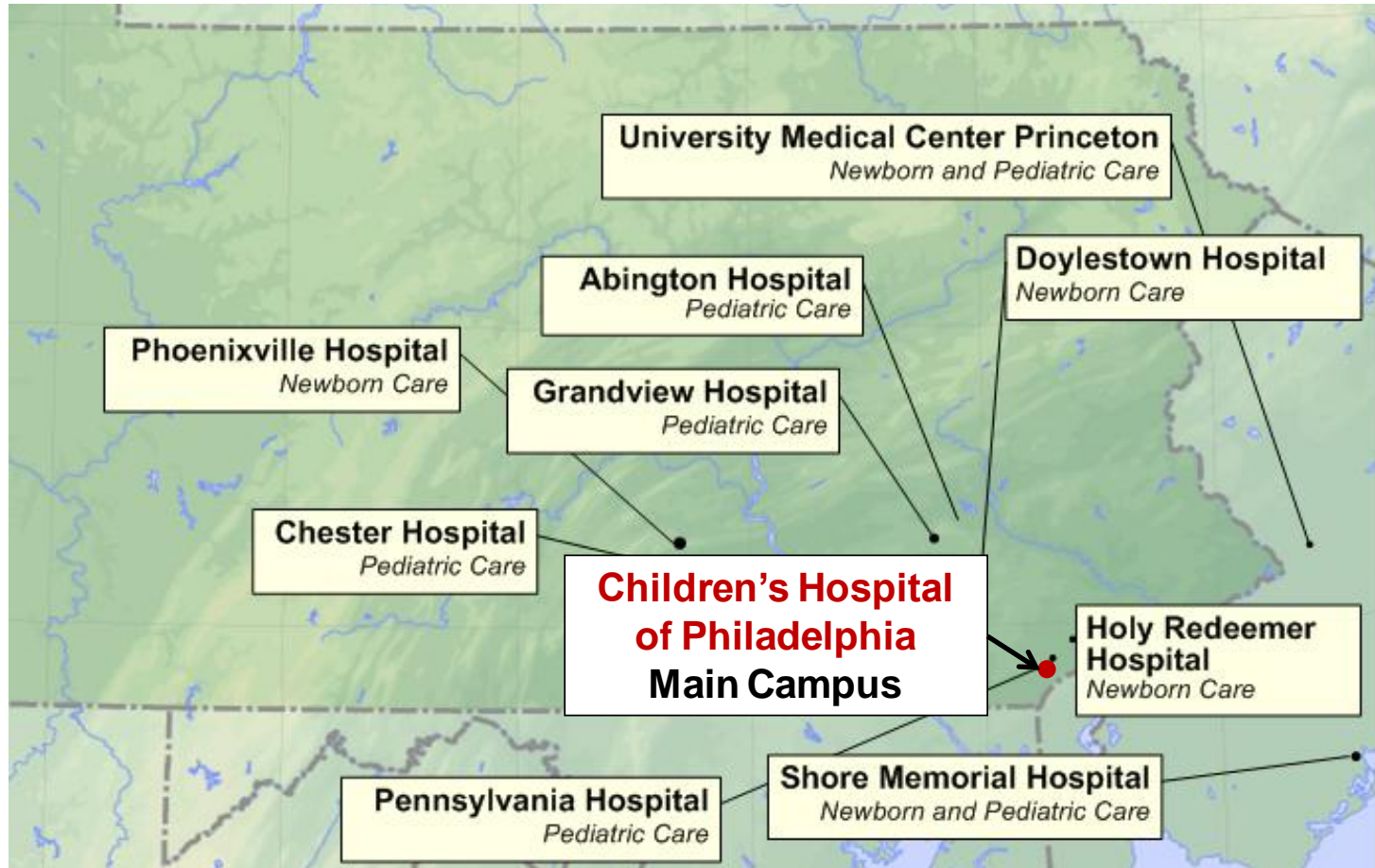
Bundled Payment in Practice

Hip and Knee Replacement in Sweden

- In 2009, Stockholm County Council began to offer a **bundled price for joint replacement** (hip and knee), 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 extended to 5 years
- **Same referral** system from primary care
- Eligibility is restricted to **relatively healthy patients** (i.e. ASA scores of 1 or 2)
- The bundled price for a knee or hip replacement is about **US \$8,000**
- **Mandatory** reporting to joint registry plus supplementary
- Provider participation is **voluntary** but all providers are involved
 - 6 public hospitals, 4 private hospitals
 - 3400 patients treated in 2009

4. Integrate Care Delivery Across Separate Facilities

Children's Hospital of Philadelphia (CHOP) Hospital Affiliates

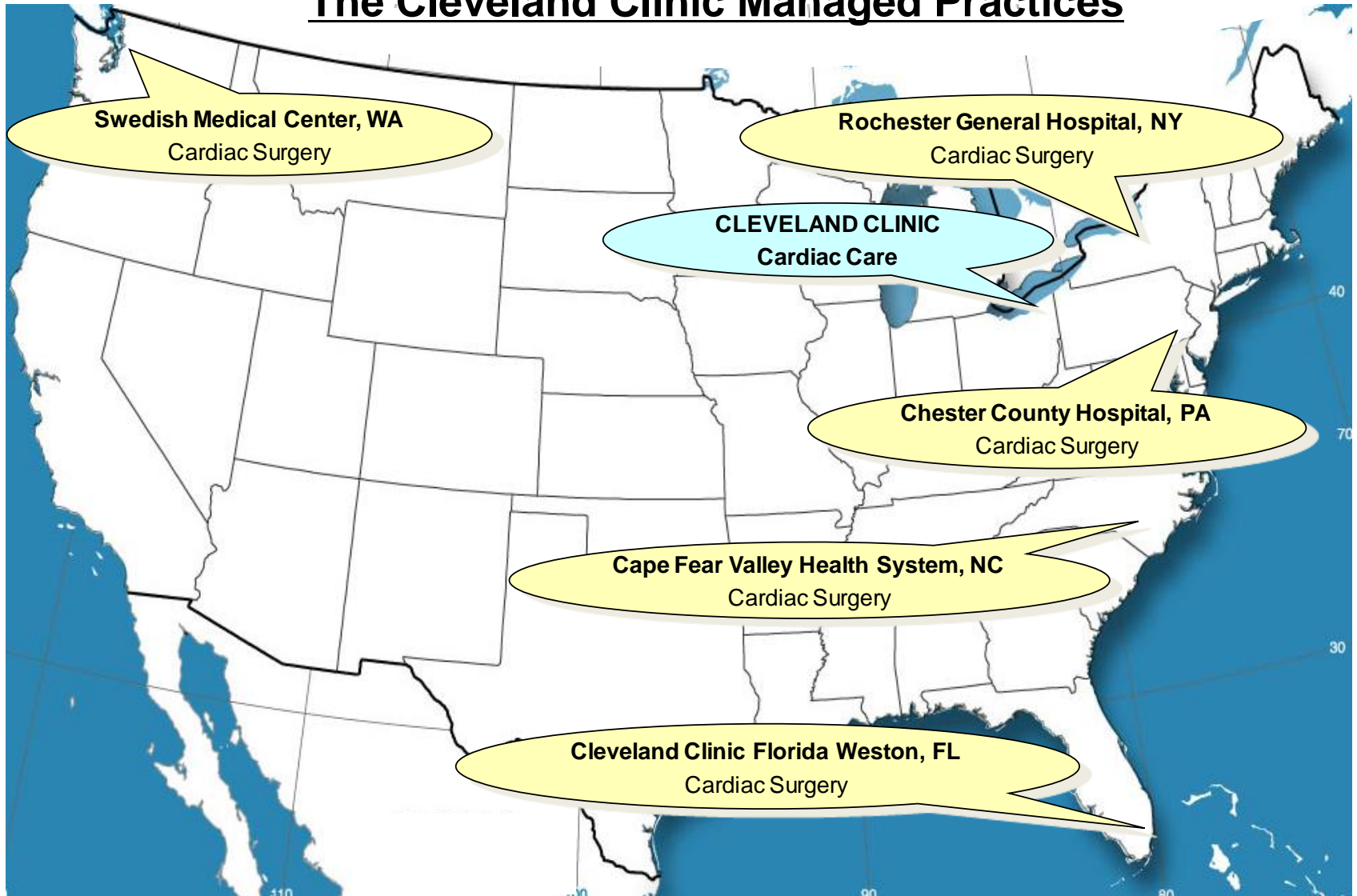


Levels of System Integration

1. **Rationalize service lines/ IPU**s across facilities to improve volume, avoid duplication, play to strength, and concentrate excellence
2. Offer specific services at the **appropriate facility**
 - E.g. acuity level, cost level, need for convenience
 - Patient referrals across units
3. Clinically integrate care **across facilities**, within an IPU structure
 - Develop consistent protocols and provide access to experts by providers throughout the network
 - **Expand coverage** of the care cycle and **integrate care** across the cycle
 - Connecting **ancillary service** units to IPUs
 - E.g. home care, rehabilitation, behavioral health, social work, addiction treatment (organize within service units to align with IPUs)
 - Linking **preventive/primary care** units to specialty IPUs

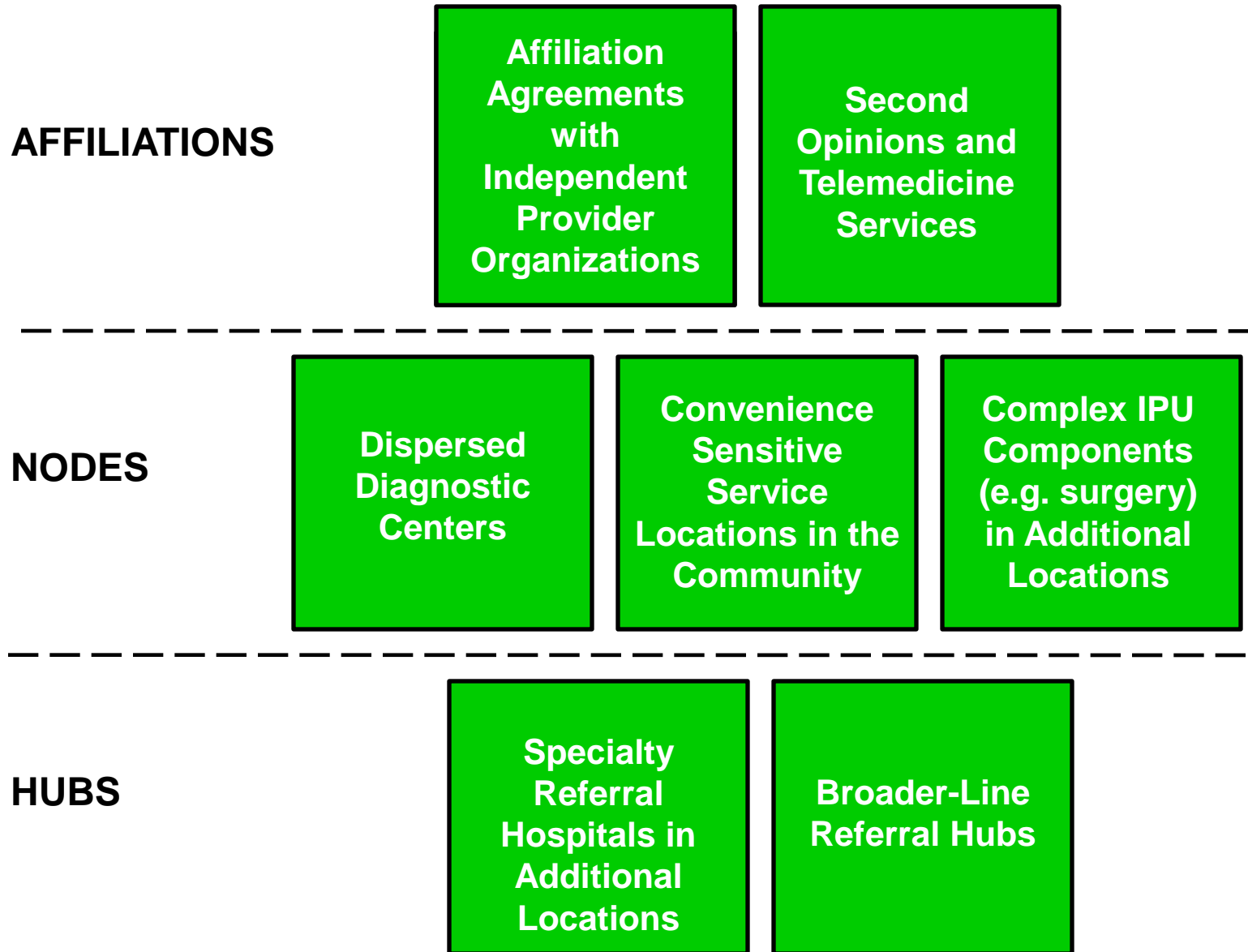
5. Grow by Expanding Excellent IPU's Across Geography

The Cleveland Clinic Managed Practices



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

Models of Geographic Expansion

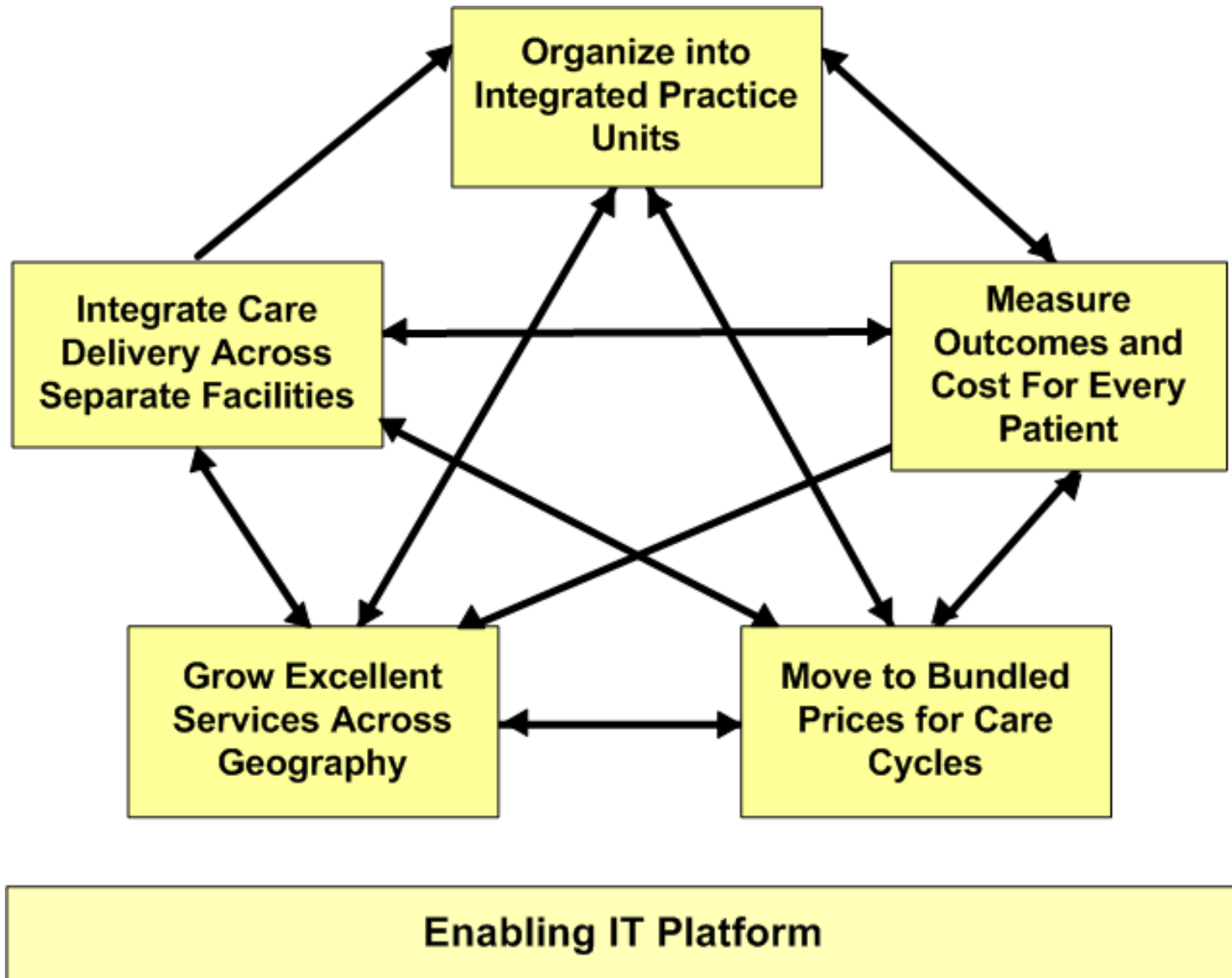


6. Create an Enabling Information Technology Platform

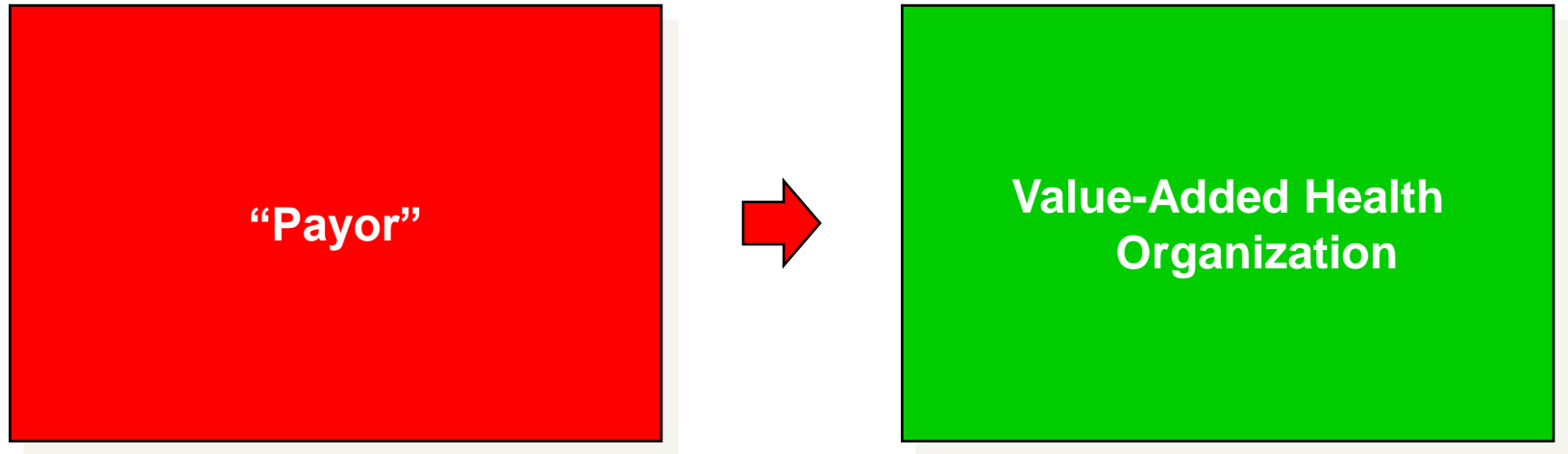
Utilize information technology to enable **restructuring of care delivery** and **measuring results**, rather than treating it as a solution itself

- 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**

A Mutually Reinforcing Strategic Agenda



Value-Based Healthcare Delivery: Implications for Contracting Parties/Health Plans



Value-Adding Roles of Health Plans

Members

- Assemble, analyze, and manage the **total medical records** of members
- Contract for integrated **prevention, wellness, screening, and disease management** services for defined member segments

Providers

- Design new **bundled reimbursement structures** for care cycles instead of fees for discrete services
- Encourage and reward **integrated practice unit** models by providers
- Assist in coordinating patient care across **care cycles** and **across medical conditions**

Evaluation

- Monitor and compare **provider results** by medical condition
- Provide advice to patients (and referring physicians) in selecting **excellent providers**
- Measure and report **member health results** by medical condition **versus other plans**



- Health plans will require **new staff** and **new capabilities** to play these roles

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


Moving to a High Value Health Care System in Taiwan

Strengths

Insurance and Coverage

- **Universal**, mandatory health insurance coverage
- **Income-based** payroll taxes (“premiums”) and employer contributions
 - Low-income residents exempt from premiums and cost sharing
- National fee-for-service payment schedule **eliminates price discrimination** across patients
- Coverage and reimbursement for a **wide scope of benefits**, including primary and preventive care

Delivery System

- **Free choice** of providers
 - Most hospital physicians are **salaried**
 - Widespread adoption of **health information technology**, including “Smart card,” electronic health record systems, electronic claims submission
 - Initial steps toward **measuring results**, e.g. disease registries and pay-for-performance reporting requirements
 - Initial steps toward **bundled reimbursement at the medical condition level** for breast cancer
- 
- Health care expenditures are relatively **low** compared to other health care systems with universal coverage
 - Achieved without rationing of care or long wait times

Moving to a High Value Health System in Taiwan

Weaknesses

Delivery System

- Focus is primarily on **access** rather than **value improvement for patients**
- Government payer is largely **passive**, missing opportunities to contribute to member health
 - No mechanisms for directing patients to **appropriate** and **excellent providers**
- Focus is on **interventions** rather than **integrated care** across the care cycle
- Lack of effective **primary** and **preventative care** and **disease management**
- **Hospital-centric** care delivery system
- **Duplication** and **fragmentation** of services across providers
- **Inefficient use of physicians**
- **Weak coordination** of care
- Lack of comprehensive **outcome measurement**
- Fee-for-service reimbursement and global budget “point” system are **misaligned with value**, encouraging over-provision of services
 - Although most physicians are salaried, a larger part of their compensation is based on a volume driven bonus
- Limited engagement of **patients** in their health and health care

Moving to a High Value Health Care System in Taiwan

Recommendations

Insurance and Coverage

- Move from a passive payer model to a **true health plan model** in which the BNHI assists members in managing their health
- The BNHI should **measure and report the health outcomes of members** by medical condition, stratified by risk
- Encourage greater **responsibility of individuals** for their health
 - E.g. through incentives for healthy behavior and co-payments that encourage use of high value services and adherence to healthy behaviors, medications, and treatment regimens

Moving to a High Value Health Care System in Taiwan

Recommendations , cont'd.

Delivery System

- Require **mandatory measurement of patient health outcomes** by medical condition for every provider, beginning with prevalent diseases
 - Including **outcomes for primary/preventive care**, for defined populations
- Shift reimbursement to **bundled prices for cycles of care** instead of payment for discrete services
 - Accelerate the roll-out of the **modified Taiwan DRG system**
 - Build upon of the **bundled payment mode** for breast cancer
 - Bundled prices should include **high value care** services and responsibility for unnecessary complications
 - Bundles should be **severity adjusted** for member health differences to minimize bias against complex patients
 - Prices should move to **price caps** instead of fixed prices over time once universal outcome measurement is in place
 - Over time, the **global budgets** and the “point” system should be eliminated
 - Results measurement will reduce duplicative and unnecessary care and determine whether over-provision is occurring

Moving to a High Value Health Care System in Taiwan

Recommendations , cont'd.

Delivery System, cont'd.

- Enable **integrated care delivery structures** for medical conditions, which encompass the full care cycle
 - Multidisciplinary and outpatient centric
 - Expanding **non-physician skilled staff**, and emphasizing **patient education** and **engagement**
 - Involving affiliations with **primary care units**
- Create new integrated **primary and preventive care models** for defined patient groups
- Open **competition on value** among providers
- Consider **minimum volume standards** for certification in more complex medical conditions, pending universal outcome measurement
- Reduce barriers and create incentives for excellent providers to **expand across multiple locations**, including local feeder facilities with telemedicine support for rural areas
- Mandate **national, interoperable EMR adoption** enabling integrated care and supporting outcome measurement within and across provider settings
 - Set **IT standards** for data definitions, data architecture, and interoperability, and set a fixed deadline within which all medical information systems must be compliant

Harvard ISC Invitation for Collaboration

- **Curriculum on value-based health care delivery**
 - Sharing case studies and video content
 - Assistance in course design and teaching

ISC Health Care Case Studies

| Title | Medical Condition | Topics | Country |
|--|--|--|---------------|
| Ledina Lushko: Navigating Health Care Delivery | Adrenal Cortical Carcinoma | IPUs, Provider System Integration | United States |
| The University of Texas MD Anderson Cancer Center: Interdisciplinary Cancer Care | Head and Neck Cancer, Endocrine Cancer | IPUs, Growth & Expansion | United States |
| The West German Headache Center: Integrated Migraine Care | Migraine | IPUs, Bundled Reimbursement | Germany |
| Dartmouth-Hitchcock Medical Center: Spine Care | Spine Care | IPUs, Results Measurement | United States |
| Koo Foundation Sun Yat-Sen Cancer Center: Breast Cancer Care in Taiwan | Breast Cancer | IPUs, Bundled Reimbursement, Results Measurement | Taiwan |
| Global Health Partner: Obesity Care | Obesity, Bariatric Surgery | IPUs, Results Measurement | Sweden |
| The Joslin Diabetes Center | Diabetes | IPUs | United States |
| In-Vitro Fertilization: Outcomes Measurement | Infertility, IVF | Results Measurement | United States |
| Partners In Health: HIV Care in Rwanda | HIV/AIDS | Resource-Poor Settings | Rwanda |
| Brigham and Women's Hospital Shapiro Cardiovascular Center | Cardiovascular Care | IPUs | United States |
| The Cleveland Clinic: Growth Strategy | Various | IPUs, Results Measurement, Provider System Integration, Growth & Expansion | United States |
| Children's Hospital of Philadelphia: Network Strategy | Various | Provider System Integration, Growth & Expansion | United States |
| ThedaCare: System Strategy | Various | IPUs, Provider System Integration | United States |
| Commonwealth Care Alliance: Elderly and Disabled Care | Various | Bundled Reimbursement, Health Plans, Primary Care | United States |
| Pitney Bowes: Employer Health Strategy | Various | Employers, Health Plans | United States |
| Highland District County Hospital: Gastroenterology Care in Sweden | Inflammatory Bowel Disease | IPUs, Results Measurement | Sweden |
| UCLA Kidney Transplantation | Organ Transplantation | Bundled Reimbursement, Outcome and Cost Measurement | USA |

Invitation for Collaboration

- **Curriculum on value-based health care delivery**
 - Sharing case studies and video content
 - Assistance in course design and teaching
- **Intensive executive workshops**
 - At Harvard
 - In Asia
- **Research collaboration**
 - Design and operation of IPUs
 - Outcome measurement
 - Bundled pricing models