Creating a Value-Based Health Care Delivery System: Implications for Japan

Professor Michael E. Porter
Harvard Business School

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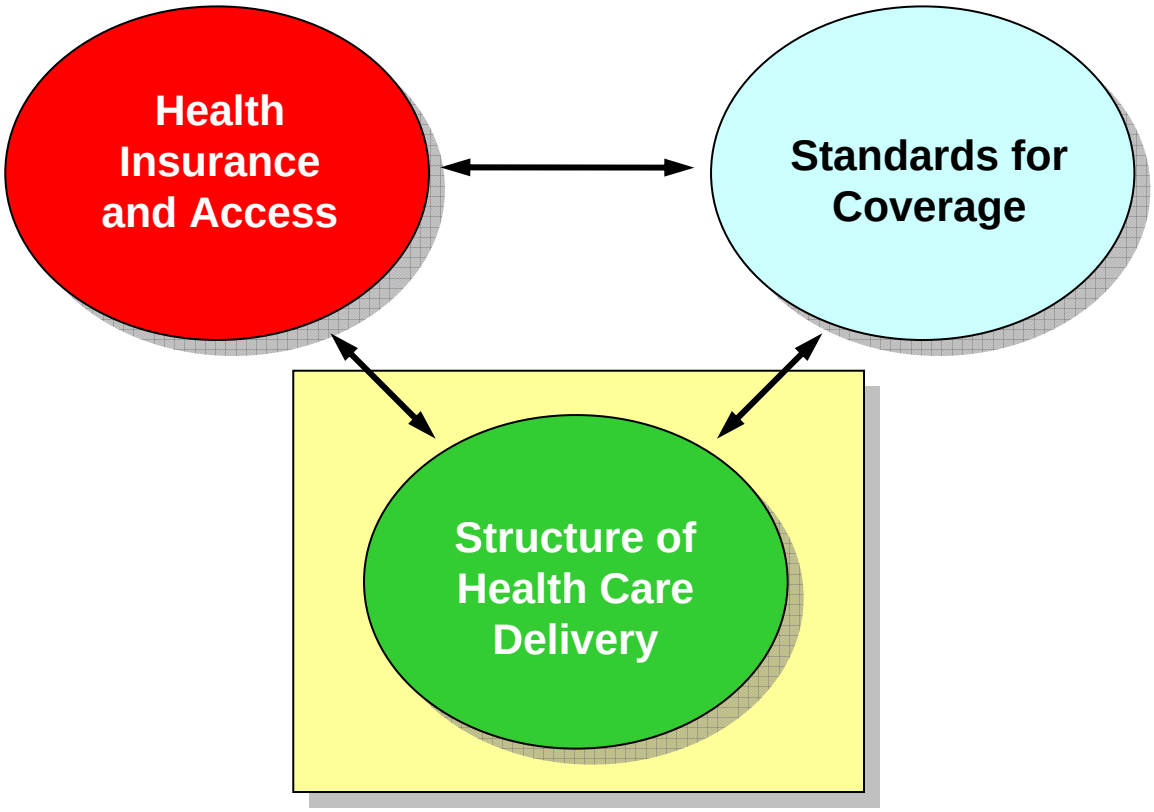
This presentation draws on Michael E. Porter and Elizabeth Olmsted Teisberg: Redefining Health Care: Creating Value-Based Competition on Results, Harvard Business School Press, May 2006, and "How Physicians Can Change the Future of Health Care," *Journal of the American Medical Association*, 2007; 297:1103:1111. 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.

Japan's Health Care Challenge

- Universal and Equitable Health Care System

Creating a high-value health care delivery system

Issues in Health Care Reform



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

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

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**

Financial success of system participants	$\neq$	Patient success

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

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

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**

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

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**

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

- 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 across locations

Principles of Value-Based Competition

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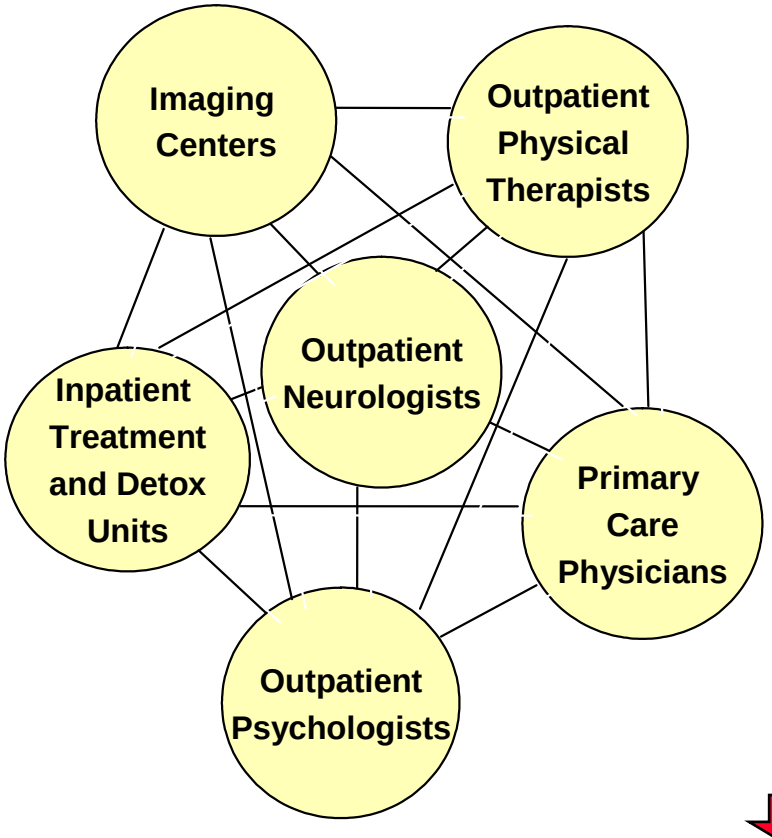
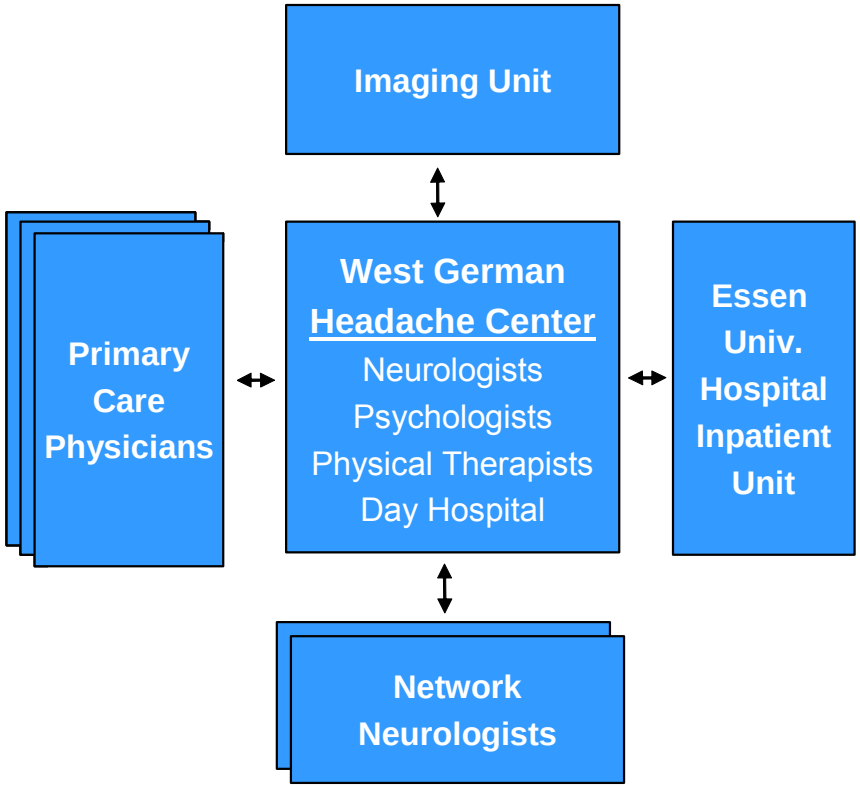
4. Competition should center on **medical conditions** over the **full cycle of care**

Restructuring Health Care Delivery
Migraine Care in Germany

Old Model: Organize by Specialty and Discrete Services



New Model: Organize into Integrated Practice Units (IPUs)



- **Organize around the patient**, not the 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

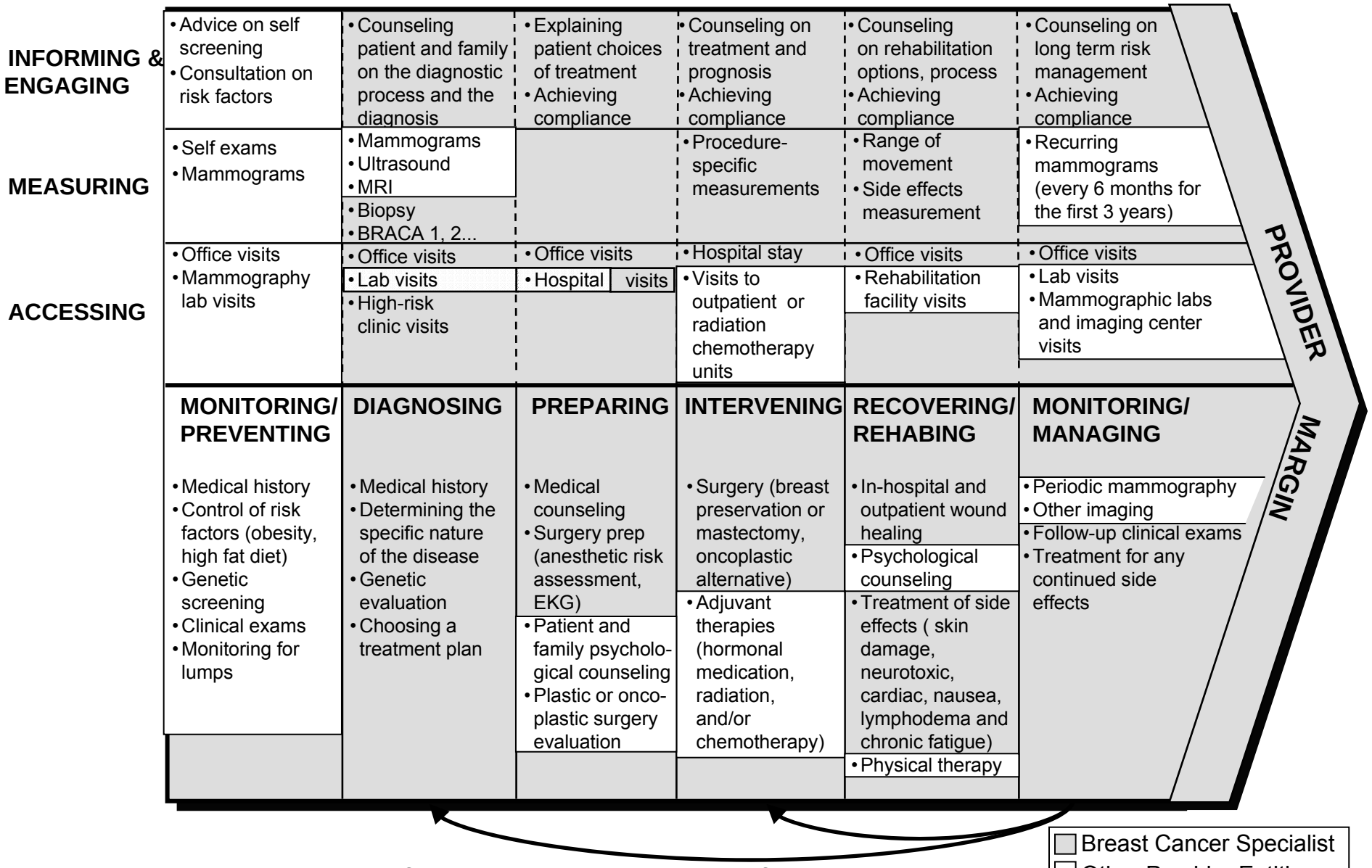
What is a Medical Condition?

- 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

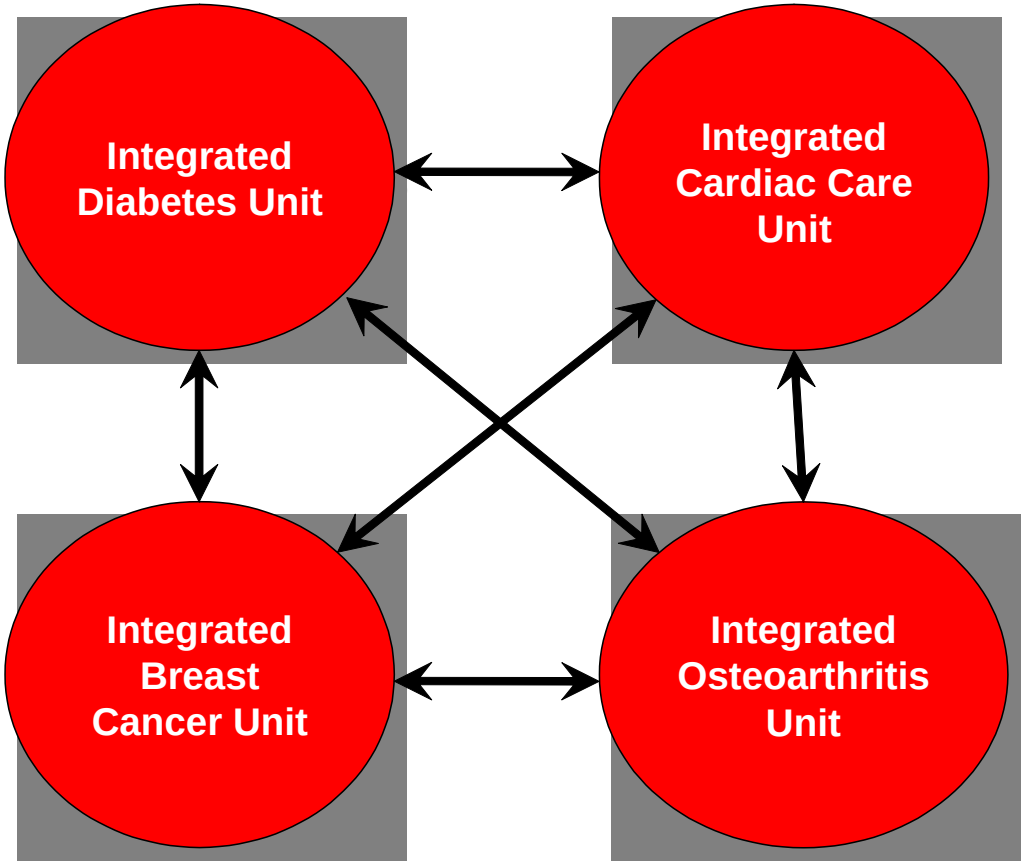
The Cycle of Care

Care Delivery Value Chain for Breast Cancer



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

Patients with Multiple Medial 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**

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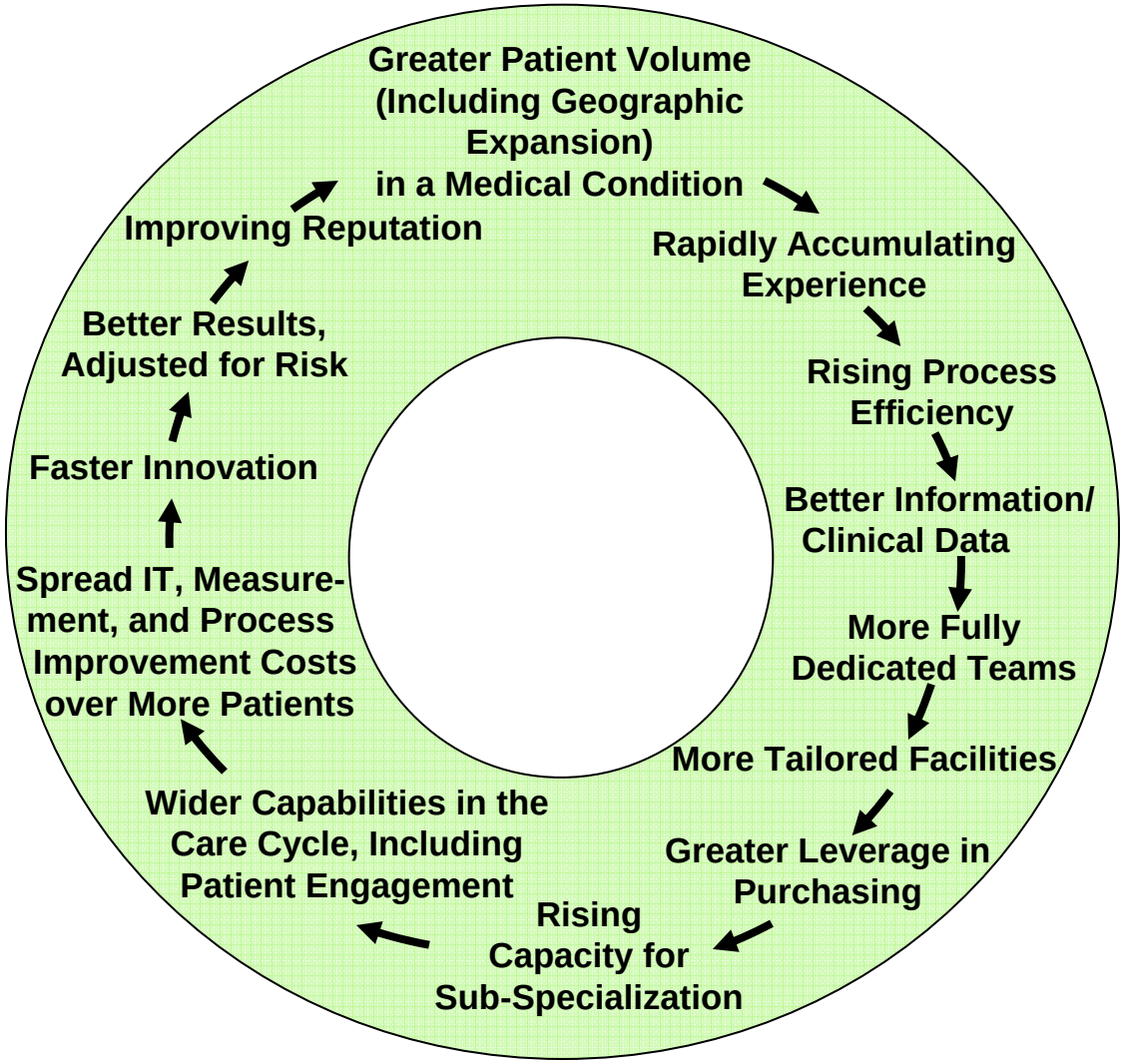
5. Value is driven by provider **experience**, **scale**, and **learning** at the medical condition level

Experience, Scale, and Value in Health Care Delivery

The Virtuous Circle in a Medical Condition



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

Fragmentation of Services in Japanese Hospitals

	Number of hospitals performing the procedure	Average number of procedures per provider per year	Average number of procedures per provider per month
General anesthesia	3,910	515	43
Craniotomy	1,098	71	6
Operation for gastric cancer	2,336	72	6
Operation for lung cancer	710	46	4
Joint replacement	1,680	50	4
Pacemaker implantation	1,248	40	3
Laparoscopic procedure	2,004	72	6
Endoscopic procedure	2,482	202	17
Percutaneous transluminal coronary angioplasty	1,013	133	11
Dialysis	2,321	7,294	608

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

Consequences of Service Fragmentation

- Health care delivery in every country is **highly fragmented**
  - Extreme duplication of services
  - Low volume of patients 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 organizations
- Fragmentation drives organizations into **shared units**
  - Specialties
  - Imaging
  - Procedures

- Patient value suffers

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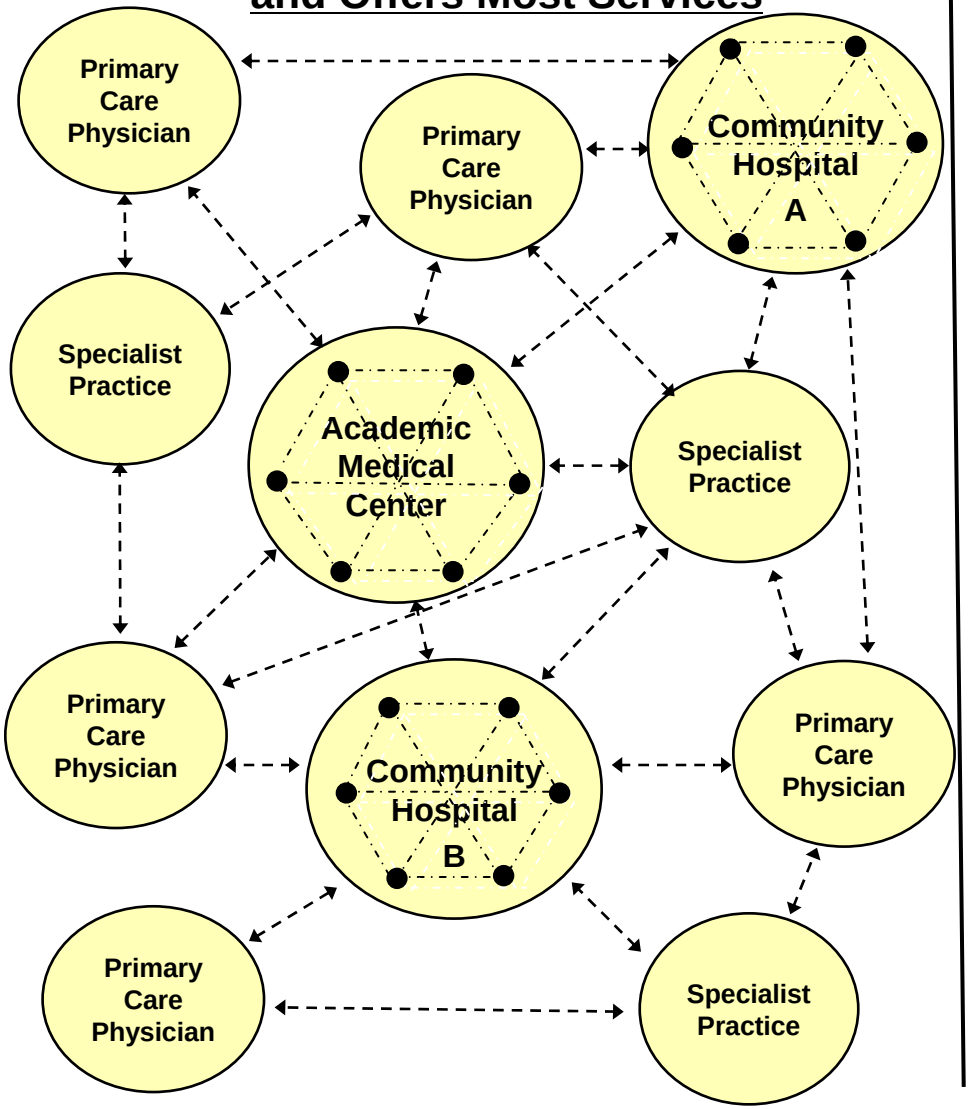
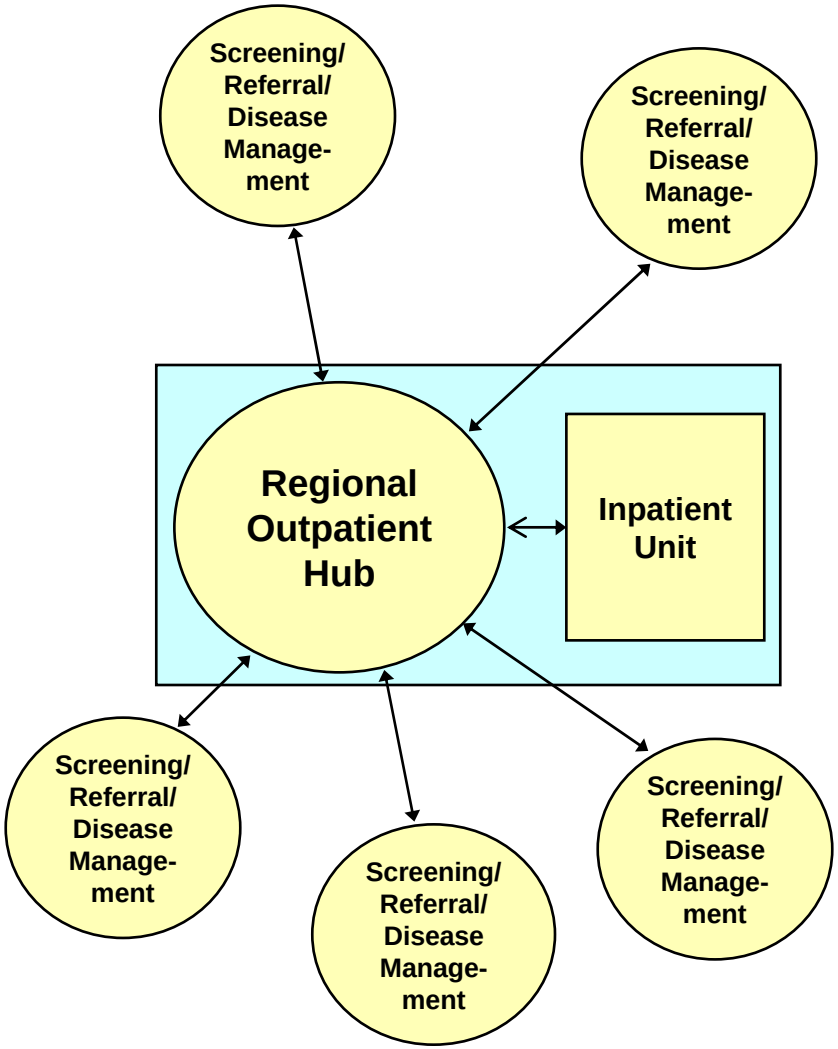
6. Competition should be **regional** and **national**, not just local
   - Patients select excellent providers in the region for their medical condition, rather than the closest provider for all services
   - Excellent providers manage delivery **across multiple geographies**
   - Utilize partnerships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

Integrating Services Across Geography

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



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



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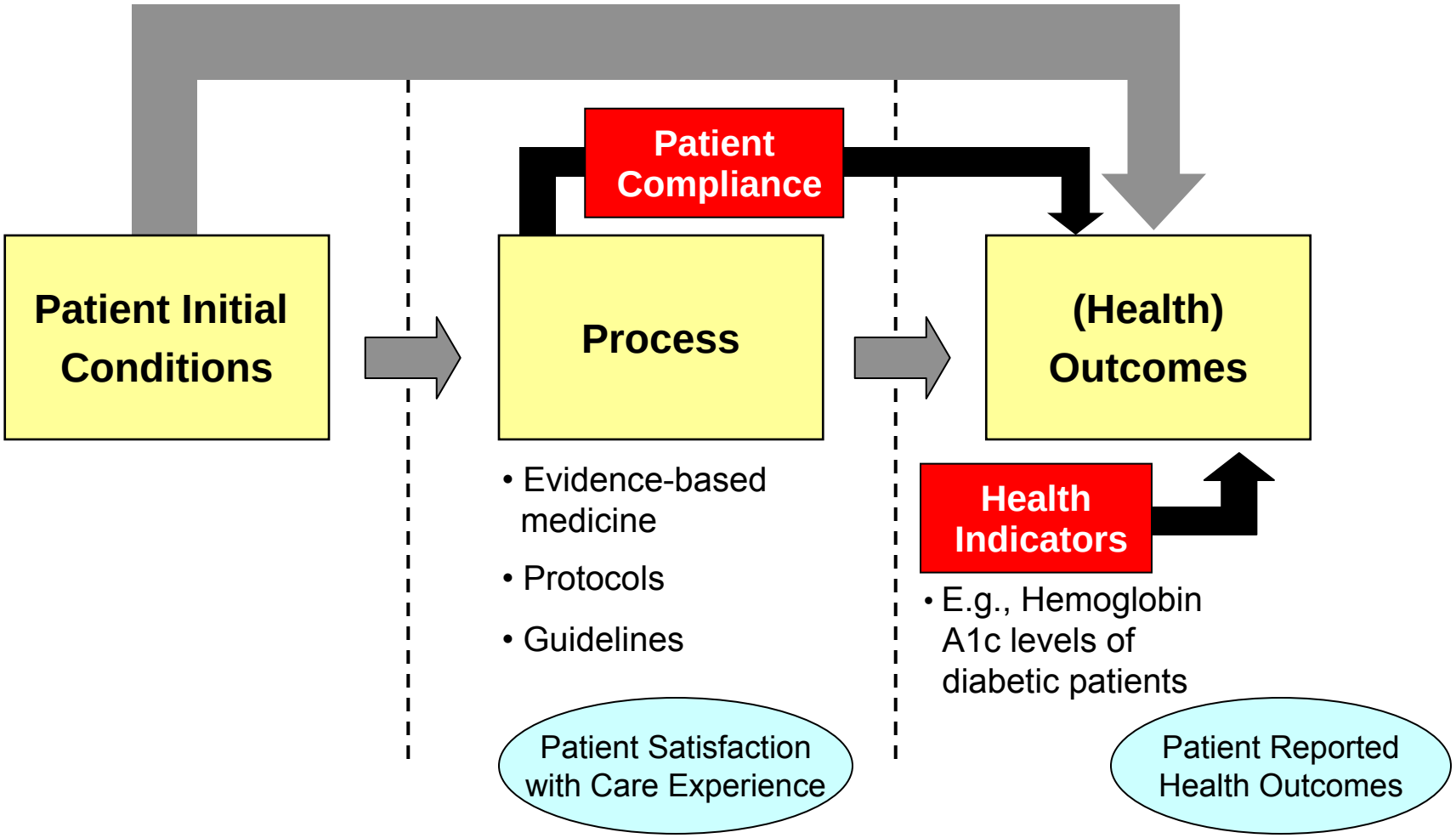
7. **Results** must be universally measured and reported

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

Measuring Results
Fundamentals

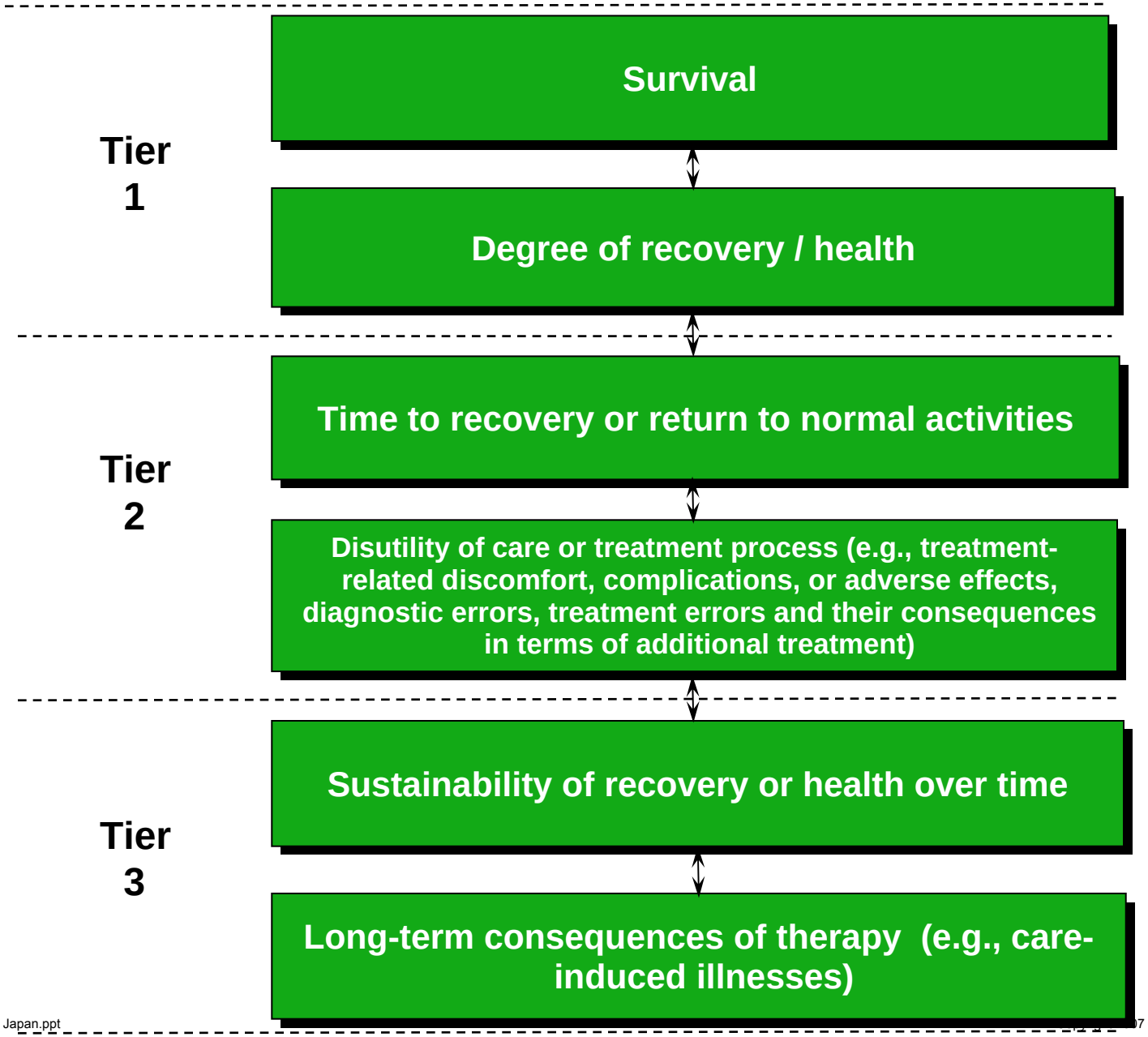
- Measure **outcomes**, not just processes of care
- Outcome measurement should take place:
  - At the **medical condition** level
  - Over the **cycle of care**
- There are **multiple outcomes** for every medical condition

Measuring Value

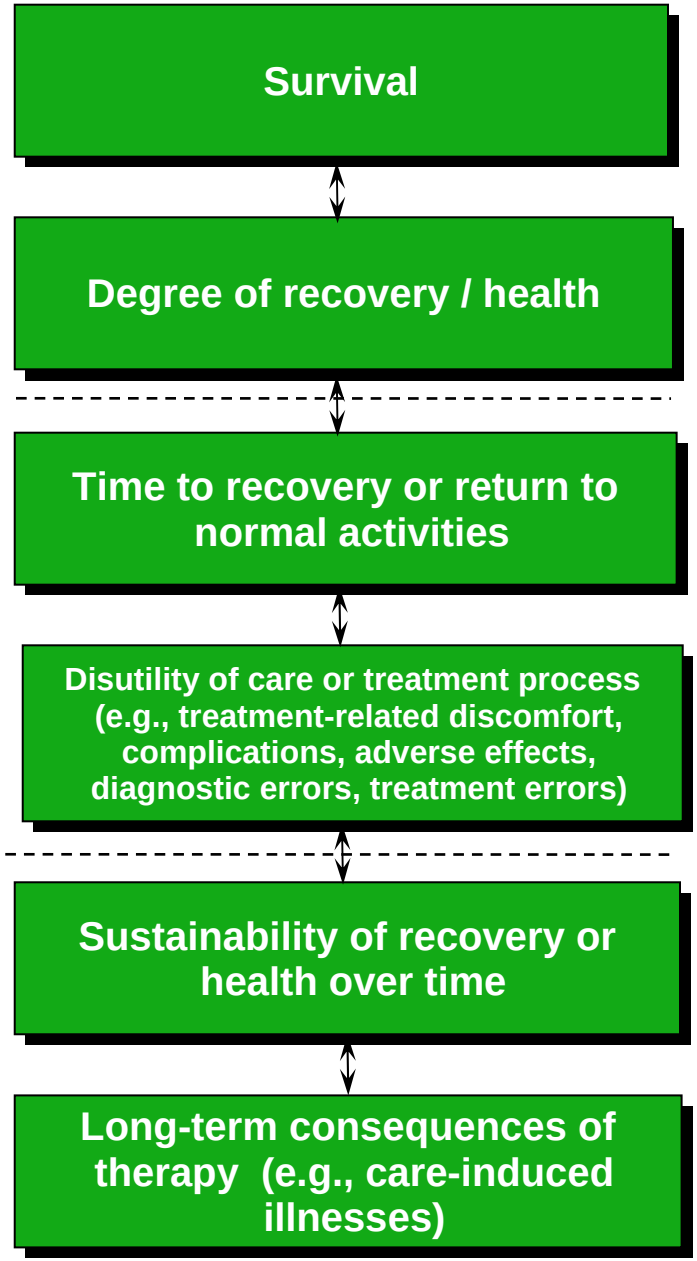


Measuring Outcomes

The Outcome Measures Hierarchy



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**

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

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

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

Measuring Outcomes
Fundamentals

- Measure **outcomes** versus processes of care
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  - At the **medical condition** level
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- There are **multiple outcomes** for every medical condition
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- Outcomes are as important for **physicians** as for consumers and health plans
- The feasibility of universal outcome measurement at the medical condition level has been **conclusively demonstrated**

- Providers and health plans must **measure outcomes** (and costs) for every patient

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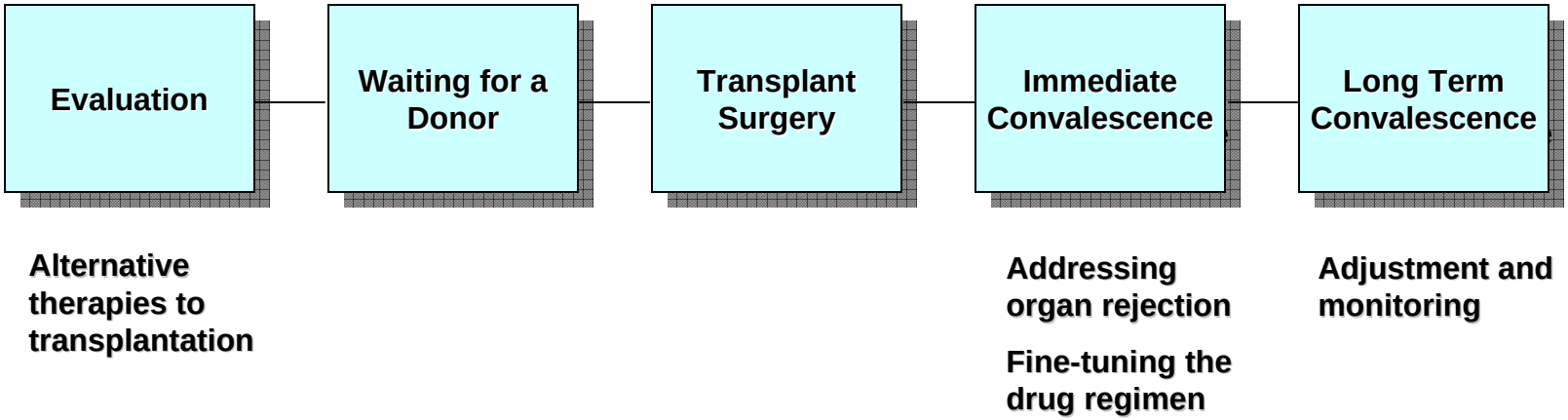
7. **Results** must be universally measured and reported
8. Reimbursement should be aligned with **patient value** and reward **innovation**
   - Reimbursement for **care cycles**, not for discrete treatments, services, or per diem
   - Reimbursement for **prevention and screening**, not just treatment
   - Reimbursement for **diagnosis separately from treatment**

Organ Transplantation Care Cycle



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

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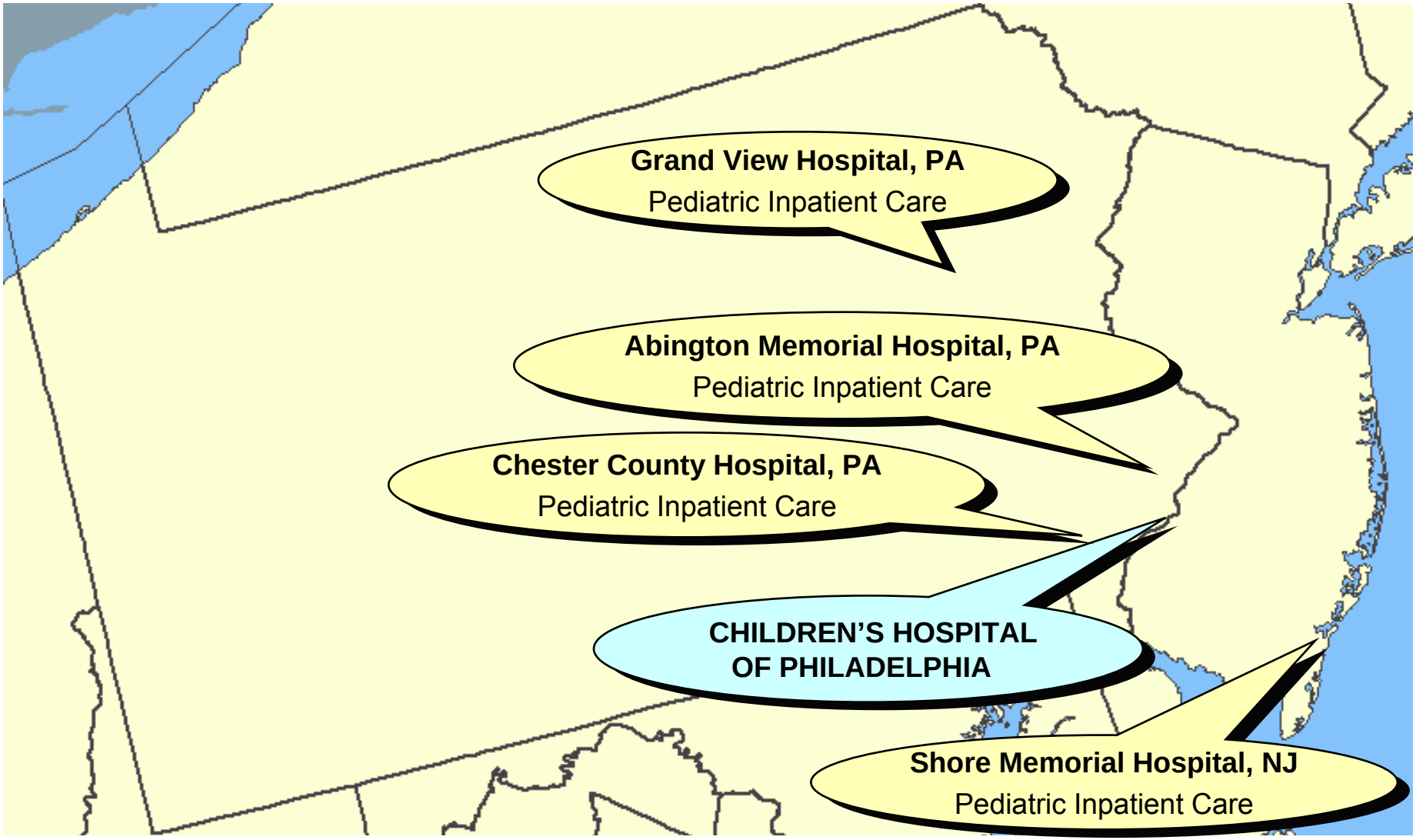
9. **Information technology** will **enable** restructuring of care delivery and **measuring results**, but is **not a solution by itself**
   - Common data definitions
   - Interoperability standards
   - Patient-centered database
   - Cover the full care cycle, including referring entities

Moving to Value-Based Competition
Implications for Providers

- Organize around **integrated practice units** (IPUs) for each medical condition
- Choose the appropriate **scope of services** in each facility based on excellence in **patient value**
  - Scale
- **Integrate services** for each IPU / medical condition **across geographic locations**
- Employ formal **partnerships** and **alliances** with 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

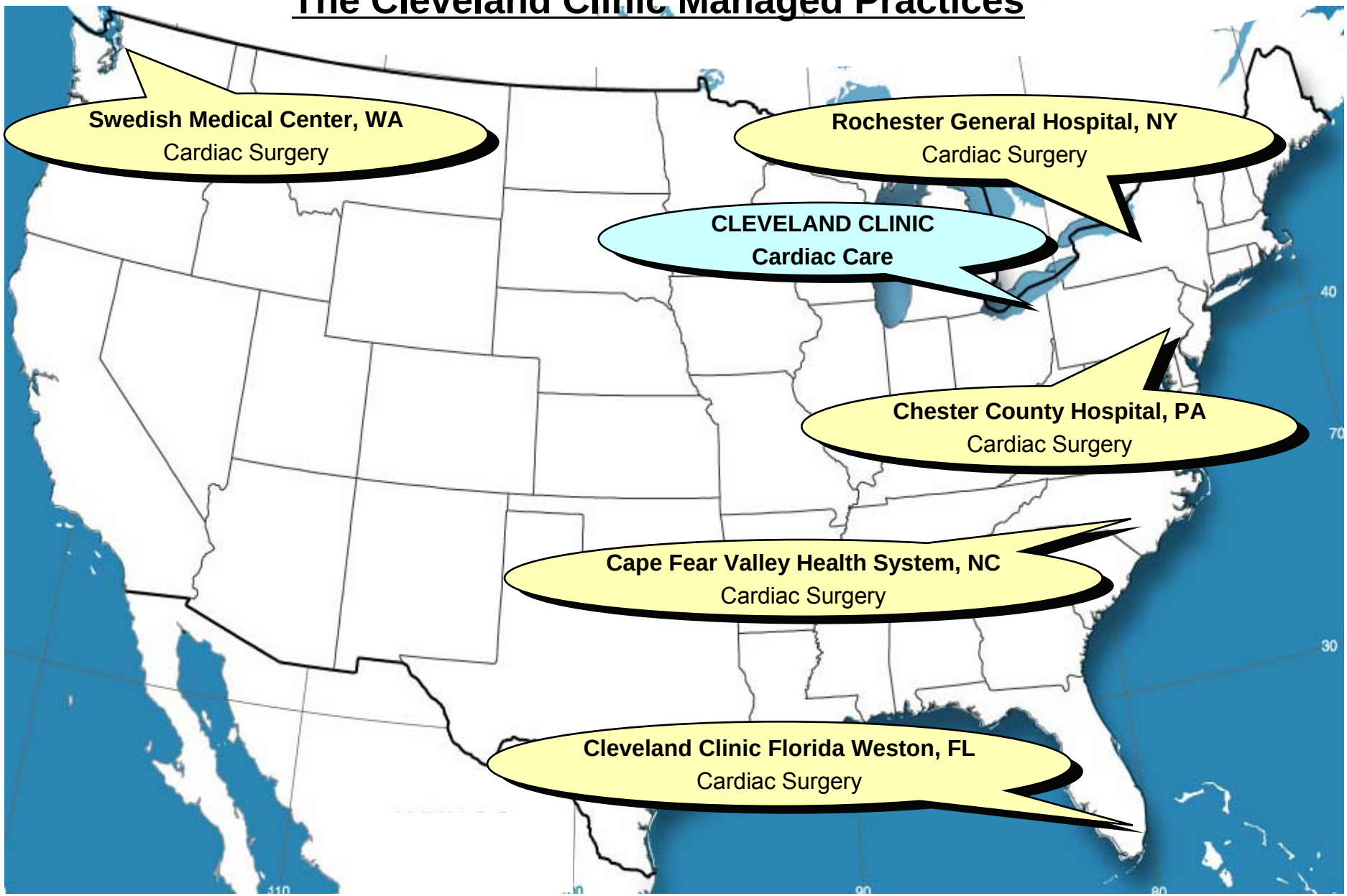
Managing Care Across Geography

The Children's Hospital of Philadelphia (CHOP) Affiliations



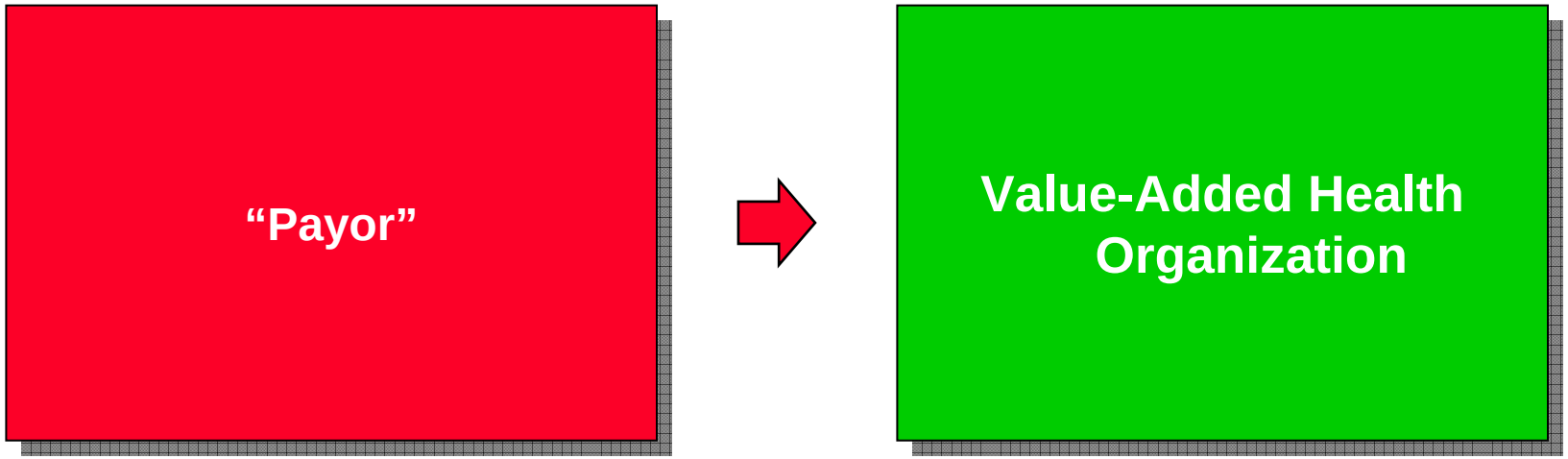
Managing Care Across Geography

The Cleveland Clinic Managed Practices



Moving to Value-Based Competition

Health Plans



Moving to Value-Based Competition
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

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

Employers

- Set the goal of **employee health**
- 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**

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

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

Implications for Japan

I. ACCESS

- Enforce the national health insurance mandate by **imposing penalties on free riders**
- Improve the **risk adjustment** system to improve **equity** among health plans

II. COVERAGE

- Promote coverage of **preventive care** and **screening**
- **Reimburse** for the covered portions of "mixed treatment" to improve the efficient delivery of joint services and encourage innovation

III. DELIVERY SYSTEM

Goals

- Shift the goal from cost containment to **patient value**

Information and Measurement

- Require mandatory measurement and reporting of **health outcomes** across all medical conditions
- Move rapidly to set **IT standards** for data definitions and interoperability and a fixed deadline within which all medical information systems must be compliant
- Create a national plan for rollout of **full EMRs** with government co-funding

Implications for Japan, cont'd.

Providers

- Open competition among providers on **value**
  - Consider minimum volume and quality standards for **certification** in medical conditions, pending universal outcome measurement
- Encourage **competition across geography** to improve capacity in under-served regions
  - Create incentives for excellent providers to **expand across multiple locations**
- Remove obstacles to high value, **integrated care delivery structures** for medical conditions.
  - **Eliminate** the requirement for physician visits to refill prescriptions
  - Allow **marketing of integrated care models** based on using care delivery processes and outcomes
- Establish and equip **primary care practices** as the entry points for prevention, screening, and ongoing disease management
  - Consider **lower co-payments** for accessing services and referrals at qualifying primary care practices
- Shift reimbursement to **bundled prices for cycles of care** instead of payment for discrete services

Implications for Japan, cont'd.

- Set **prices based on cost** to reduce cross-subsidies and distortions in care delivery choices
- Move to **price caps instead of fixed prices** once universal outcome measurement is in place

Health Plans

- Move from a passive payor model to a **true health plan model** in which payors assist members in managing their health
- Allow **consolidation of health plans** within regions
- Open **competition among health plans** after improvements in the risk-adjustment mechanism
- Require health plans to measure and report the **health status of members** by medical conditions, adjusted for risk
- Establish health plans or an independent agency as the location where **member medical records are aggregated**, with strong privacy protections
- Create **permanent professional staff** in mandatory plans to improve capabilities and management effectiveness

Implications for Japan, cont'd.

Consumers

- Consider incentives (e.g. lower co-payments) for **patient compliance** with care, disease management, and healthy lifestyles

Suppliers

- **Open competition** for distribution of medical devices

Medical Personnel

- **Expand the pool** of physicians and medical professionals
- **Expand the role of nurses and other skilled personnel** to improve value in care delivery
- Improve **physician compensation** and **working conditions** in return for restructuring reimbursement, measuring outcomes, and modifying organizational approaches away from specialties