

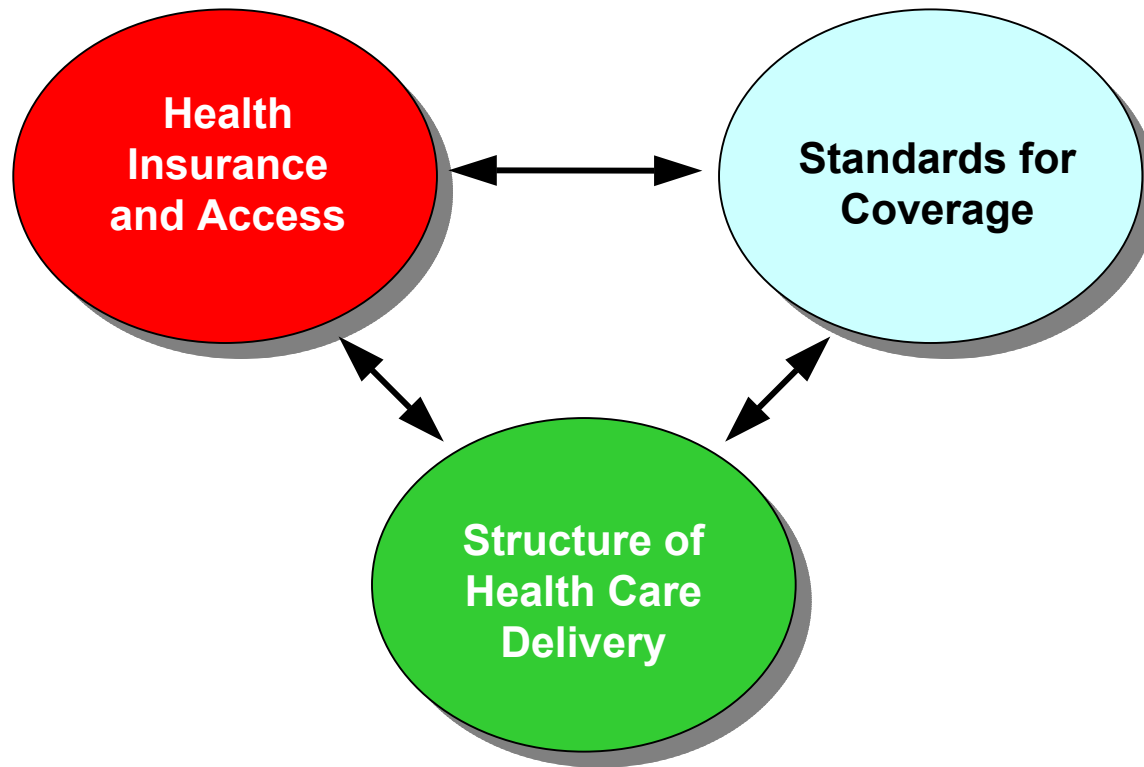
Redefining Health Care: Creating Value-Based Competition on Results

Professor Michael E. Porter
Harvard Business School

Health Information Technology Symposium
Massachusetts Institute of Technology
July 19, 2006

This presentation draws on a forthcoming book with Elizabeth Olmsted Teisberg ([Redefining Health Care: Creating Value-Based Competition on Results](#), Harvard Business School Press). Earlier publications about the work include the *Harvard Business Review* article “Redefining Competition in Health Care”. 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.

Issues in Health Care Reform



The Paradox of U.S. Health Care

- Costs are **high** and **rising**
- Services are **restricted** and fall well short of recommended care
- In other services, there is **overuse** of care
- Standards of care often **lag** and fail to follow accepted benchmarks
- **Diagnosis errors** are common
- Preventable **treatment errors** are common
- Huge **quality** and **cost differences** persist across **providers**
- Huge **quality** and **cost differences** persist across **geographic areas**
- Best practices are **slow** to spread
- Innovation is **resisted**



- Competition is **not** working
- How is this state of affairs possible?

Zero-Sum Competition in Health Care

- Competition to **shift costs**
- Competition to **increase bargaining power**
- Competition to **capture patients** and **restrict choice**
- Competition to **restrict services** in order to reduce costs



- None of these forms of competition **increases value for patients**

Root Causes

- Competition in the health care system takes place at the **wrong levels** on the **wrong things**

Too Broad

- Between broad line hospitals, networks, and health plans

Too Narrow

- Performing discrete services or interventions

Too Local

- Focused on serving the local community

Principles of Value-Based Competition

1. The focus should be on **value for patients**, not just lowering costs.

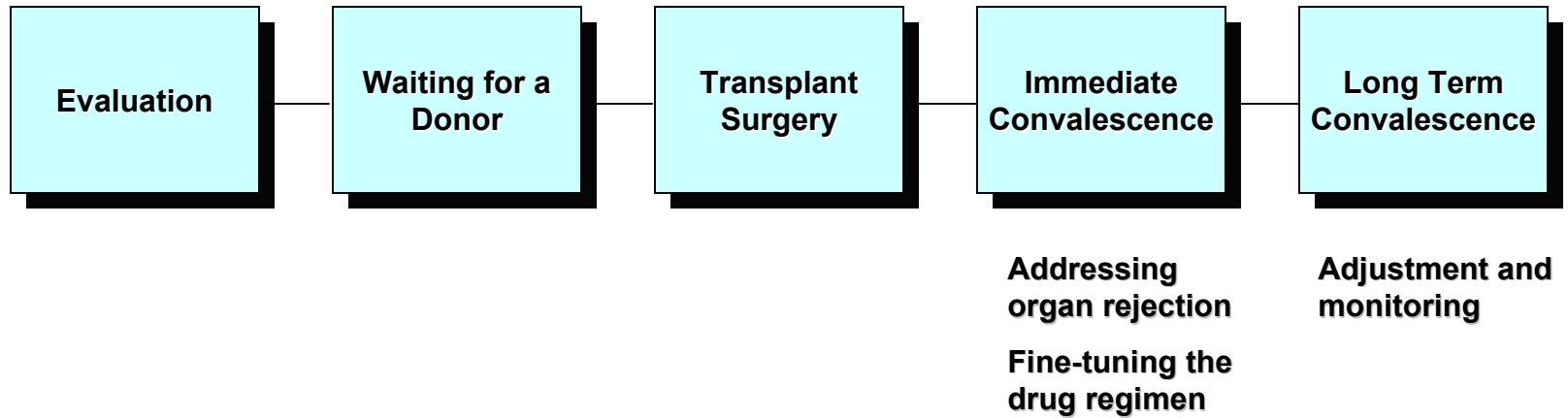
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Organ Transplant Care Cycle



The Care Delivery Value Chain

Chronic Kidney Disease

INFORMING

<ul style="list-style-type: none"> Lifestyle counseling Diet counseling 	<ul style="list-style-type: none"> Explanation of the diagnosis and implications 	<ul style="list-style-type: none"> Lifestyle counseling Diet counseling Education on procedures 	<ul style="list-style-type: none"> Medication counseling and compliance follow-up Lifestyle and diet counseling 	<ul style="list-style-type: none"> Medication counseling and compliance follow-up Lifestyle and diet counseling 	<ul style="list-style-type: none"> Medication compliance follow-up Lifestyle & diet counseling RRT therapy options counseling
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MEASURING

<ul style="list-style-type: none"> Serum creatinine Glomerular filtration rate (GFR) Proteinuria 	<ul style="list-style-type: none"> Special urine tests Renal ultrasound Serological testing Renal artery angiography Kidney biopsy Nuclear medicine scans 	<ul style="list-style-type: none"> Procedure-specific pre-testing 	<ul style="list-style-type: none"> Procedure-specific measurements 	<ul style="list-style-type: none"> Kidney function tests 	<ul style="list-style-type: none"> Kidney function tests Bone metabolism Anemia
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ACCESSING

<ul style="list-style-type: none"> Office visits Lab visits 	<ul style="list-style-type: none"> Office visits Lab visits 	<ul style="list-style-type: none"> Various 	<ul style="list-style-type: none"> Office visits Hospital visits 	<ul style="list-style-type: none"> Office/lab visits Telephone/Internet interaction 	<ul style="list-style-type: none"> Office/lab visits Telephone/Internet interaction
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MONITORING/PREVENTING

- Monitoring renal function (at least annually)
- Monitoring and addressing risk factors (e.g. blood pressure)
- Early nephrologist referral for abnormal kidney function

DIAGNOSING

- Medical and family history
- Directed advanced testing
- Consultation with other specialists
- Data integration
- Formal diagnosis

PREPARING

- Formulate a treatment plan
- Procedure-specific preparation (e.g. diet, medication)
- Tight blood pressure control
- Tight diabetes control

INTERVENING

- Pharmaceutical
 - Kidney function (ACE Inhibitors, ARBs)
- Procedures
 - Renal artery angioplasty
- Urological (if needed)
- Endocrinological (if needed)
- Vascular access graft at stage 4

RECOVERING/REHABING

- Fine-tuning drug regimen
- Determining supporting nutritional modifications

MONITORING/MANAGING

- Managing renal function
- Managing kidney side effects of other treatments (e.g. cardiac catheterization)
- Managing the effects of associated diseases (e.g. diabetes, hypertension, uremia)
- Referral for renal replacement therapy (RRT)

PROVIDER MARGIN



 Nephrology Practice
 Other Provider Entities

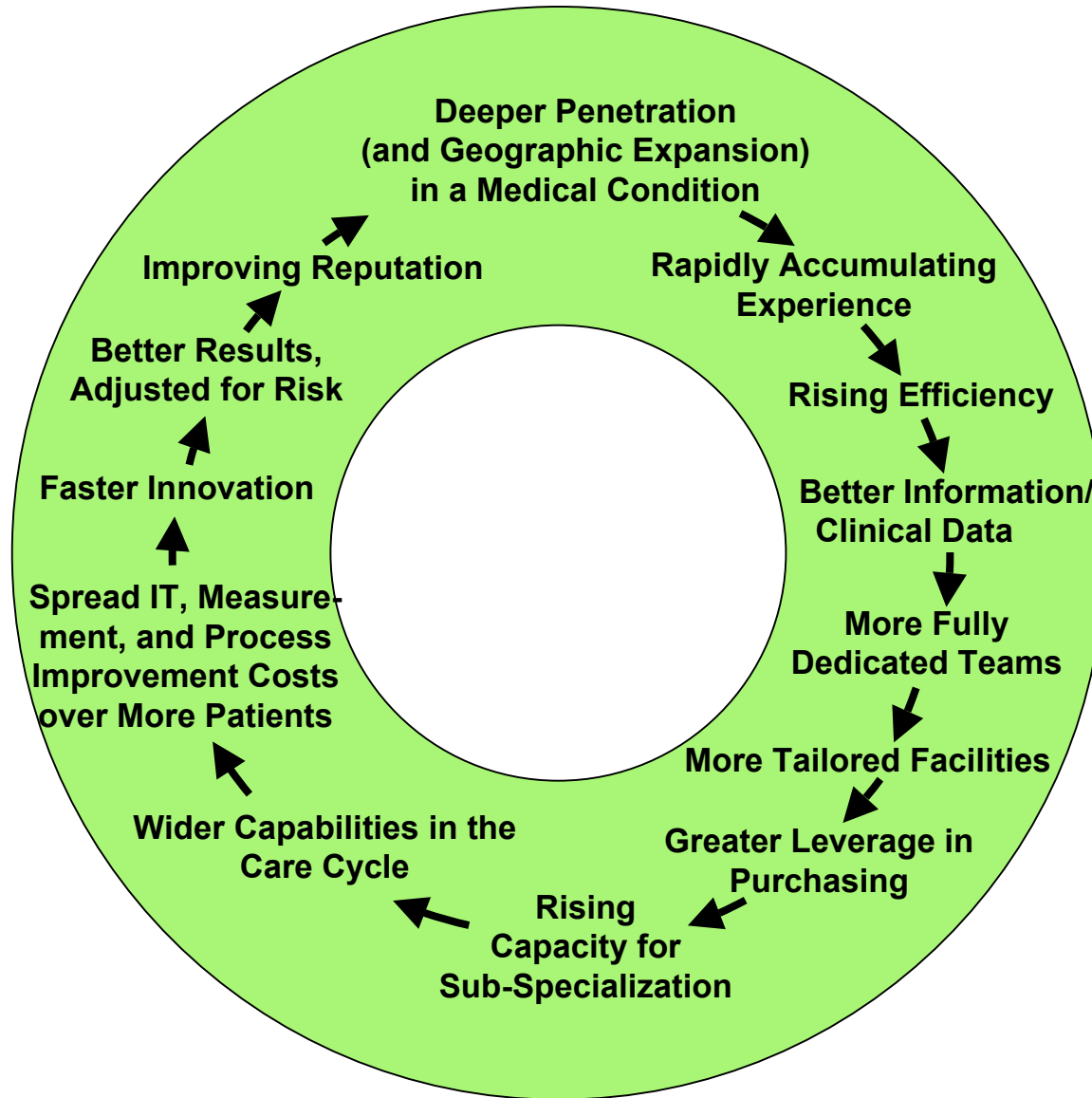
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The Virtuous Circle in a Medical Condition



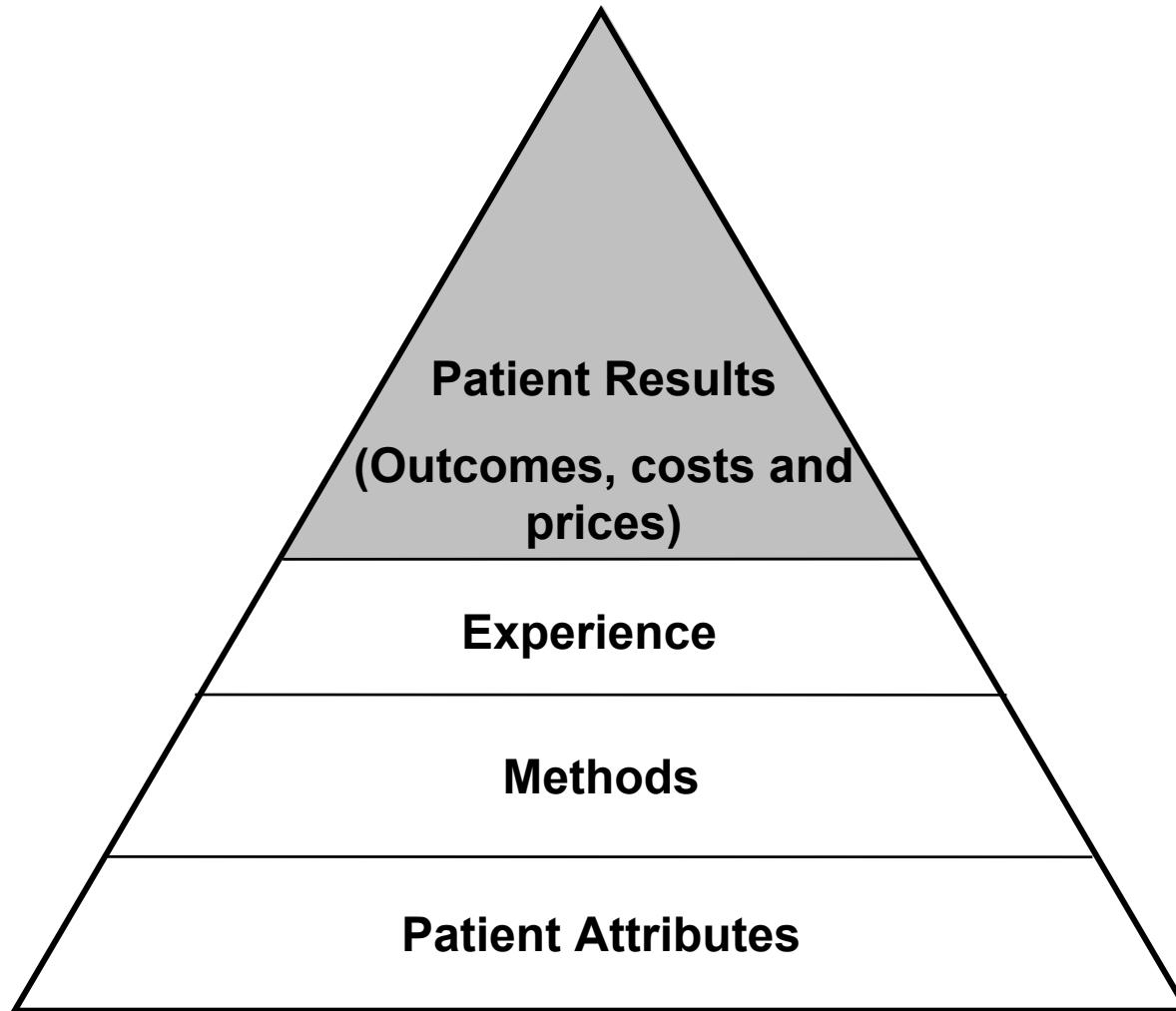
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The Information Hierarchy



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8. **Innovations** that increase value must be strongly rewarded.

Moving to Value-Based Competition

Providers

Defining the Right Goals

- Superior **patient value**

Strategic and Organizational Imperatives

- Redefine the business around **medical conditions**
- Choose the **range and types of services provided**
- Organize around **medically integrated practice units**
- Create a **distinctive strategy** in each practice unit
- Measure **results, experience, methods, and patient attributes** by practice unit
- Move to **single bills** and new approaches to **pricing**
- **Market** services based on excellence, uniqueness, and results
- Grow locally and geographically in **areas of strength**

Enabling Conditions

- Analyzing the **care delivery value chain**
- Harnessing the power of **Information Technology**
- Systematizing **knowledge development**

What Businesses Are We In?

Nephrology practice



- Hypertension Management
- Chronic Kidney Disease
- End-Stage Renal Disease
- Kidney Transplants

Boston Spine Group

Clinical and Outcome Information Collected and Analyzed

OUTCOMES

Patient Outcomes

(before and after treatment, multiple times)

Visual Analog Scale (pain)

Owestry Disability Index, 10 questions (functional ability)

SF-36 Questionnaire, 36 questions (burden of disease)

Length of hospital stay

Time to return to work or normal activity

Service Satisfaction

(periodic)

Office visit satisfaction metrics (10 questions)

Overall medical satisfaction

("Would you have surgery again for the same problem?")

Medical Complications

Cardiac

Myocardial infarction

Arrhythmias

Congestive heart failure

Vascular deep venous thrombosis

Urinary infections

Pneumonia

Post-operative delirium

Drug interactions

Surgery Complications

Patient returns to the operating room

Infection

Nerve injury

Sentinel events (wrong site surgeries)

Hardware failure

METHODS

Surgery Process Metrics

Operative time

Blood loss

Devices or products used

The Care Delivery Value Chain

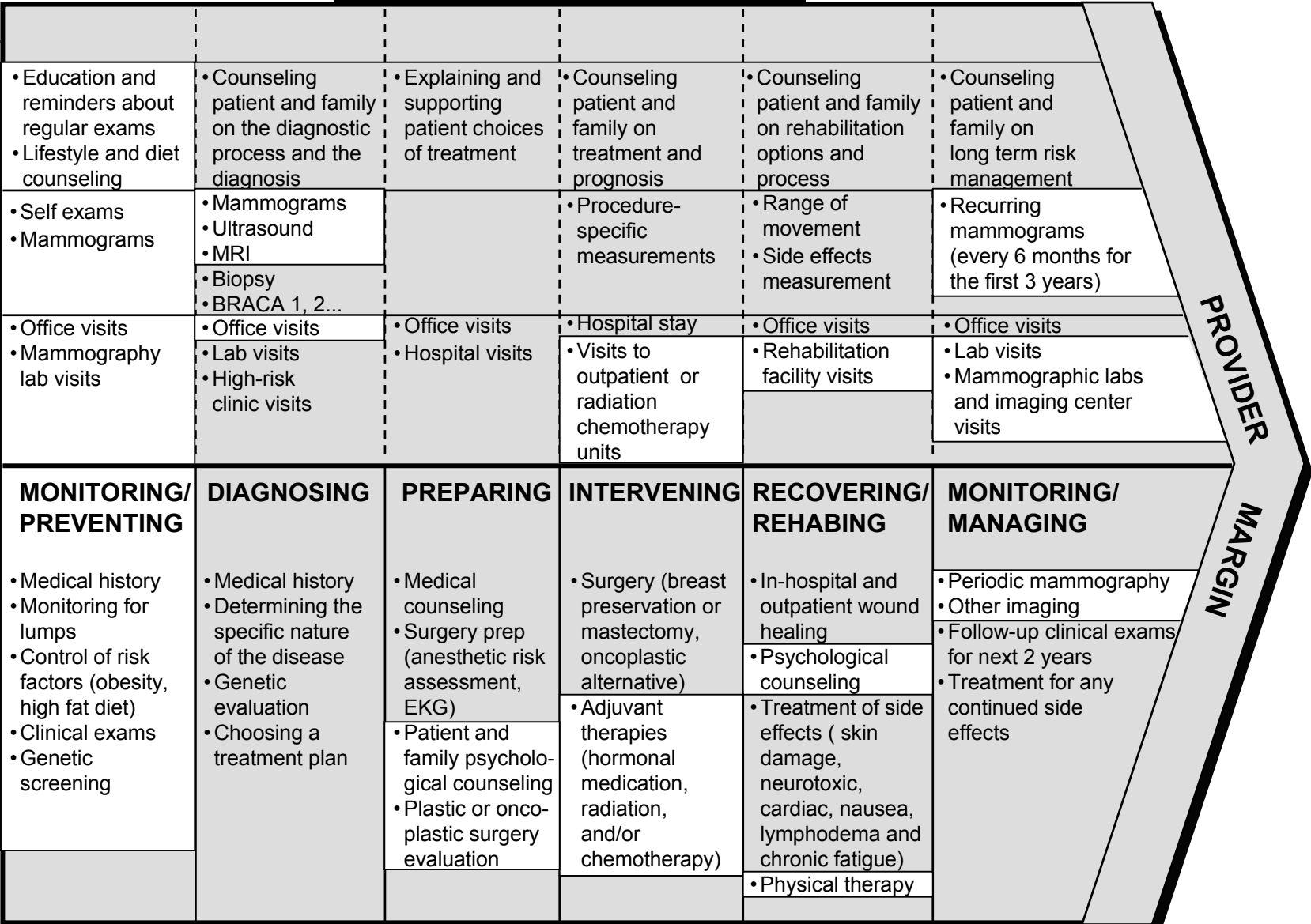
Breast Cancer Care

KNOWLEDGE MANAGEMENT

INFORMING

MEASURING

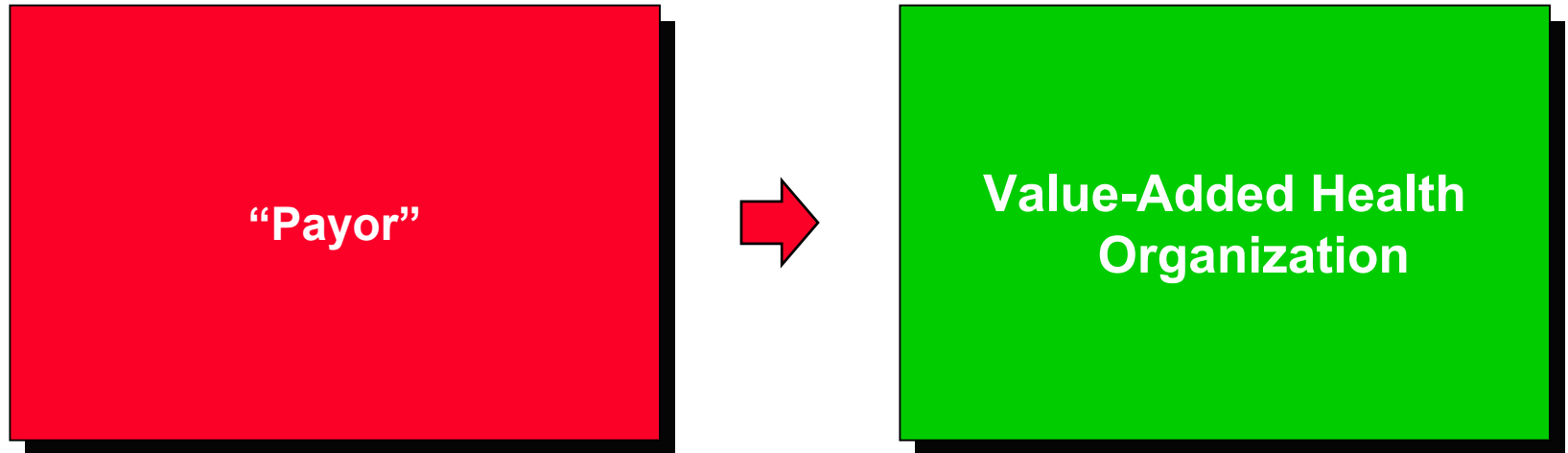
ACCESSING



Breast Cancer Specialist
 Other Provider Entities

Moving to Value-Based Competition

Health Plans



Transforming the Roles of Health Plans

Old Role: culture of denial

- Restrict patient choice of providers and treatment
- Micromanage provider processes and choices
- Minimize the cost of each service or treatment
- Engage in complex paperwork and administrative transactions with providers and subscribers to control costs and settle bills
- Compete on minimizing premium increases



New Role: enable value-based competition on results

- Enable informed patient and physician **choice** and patient **management** of their health
- Measure and reward providers based on **results**
- Maximize the value of care over the **full care cycle**
- **Minimize** the need for administrative transactions and simplify billing
- Compete on subscriber **health results**

Moving to Value-Based Competition

Health Plans

Provide Health Information and Support to Patients and Physicians

1. Organize around **medical conditions**, not geography or administrative functions
2. Develop measures and assemble results **information** on providers and treatments
3. Actively **support provider** and **treatment choice** with information and unbiased counseling
4. Organize information and patient support around the **full cycle of care**
5. Provide comprehensive **disease management** and **prevention** services to all members, even healthy ones

Restructure the Health Plan-Provider Relationship

6. Shift the nature of **information sharing** with providers
7. Reward provider **excellence** and value-enhancing **innovation** for patients
8. Move to **single bills** for episodes and cycles of care, and **single prices**
9. Simplify, standardize, and eliminate **paperwork** and **transactions**

Redefine the Health Plan-Subscriber Relationship

10. Move to **multi-year subscriber contracts** and shift the nature of plan contracting
11. **End cost shifting practices**, such as re-underwriting, that erode trust in health plans and breed cynicism
12. Assist in managing **members' medical records**

Moving to Value-Based Competition

Employers

- Set the goal of increasing **health value**, not minimizing health benefit costs
- Set new expectations for health plans, including **self-insured** plans
- Provide for health plan **continuity** for employees, rather than plan churning
- Enhance provider competition on **results**
- Support and motivate employees to **make good health care choices** and **manage their own health**
- 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**

What Government Can Do: Policies to Improve the Structure of Health Care Delivery

- Enable universal **results information**
 - Establish a process of **defining outcome measures**
 - Enact **mandatory results reporting**
 - Establish information **collection** and **dissemination** infrastructure
- Improve **pricing practices**
 - Establish episode and **care cycle** pricing
 - Set limits on **price discrimination**
- Open up **competition** at the right level
 - Reduce **artificial barriers** to practice area integration
 - Require a value justification for captive referrals or treatment involving an economic interest
 - Eliminate artificial restrictions on **new entry**
 - Institute results-based **license renewal**
 - Strictly enforce **antitrust** policies
 - Curtail anticompetitive **buying group practices**
 - Eliminate barriers to competition **across geography**
- Develop **information technology standards and rules** to enable interoperability and information sharing
- Invest in medical and **clinical research**

How Will Redefining Health Care Begin?

- It is **already happening!**
- Each **system** participant can take **voluntary** steps in these directions, and will **benefit** irrespective of other changes.
- The changes are **mutually reinforcing**.
- Once competition begins working, value improvement will **no longer be discretionary** or **optional**
- Those organizations that **move early** will gain major benefits.