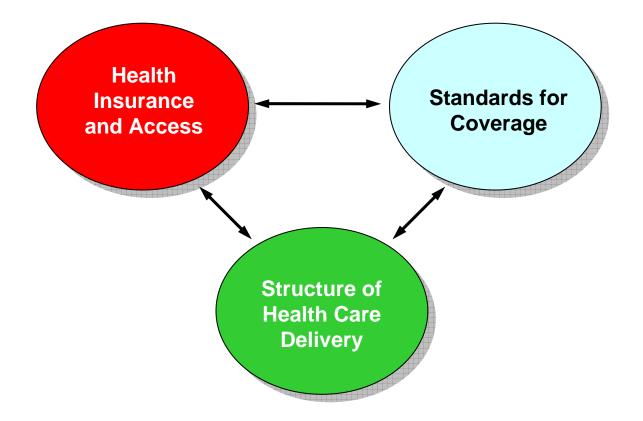
Value-Based Competition in Health Care

Professor Michael E. Porter

Mayo Clinic Rochester, Minnesota *October 20, 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

The United States has a private system with intense competition

But

- 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?

Competition on the Wrong Things Zero-Sum Competition in U.S. 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

Competition at the Wrong Levels

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



• Market definition is misaligned with patient value

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- 2. There must be **unrestricted competition** based on **results**.
 - Results vs. supply control
 - Results vs. process compliance
 - Reward results with patients vs. "lift all boats"

- 1. The focus should be on value for patients, not just lowering costs.
- 2. There must be **unrestricted competition** based on **results**.
- 3. Competition should center on **medical conditions** over the **full cycle of care**.

What Businesses Are We In?

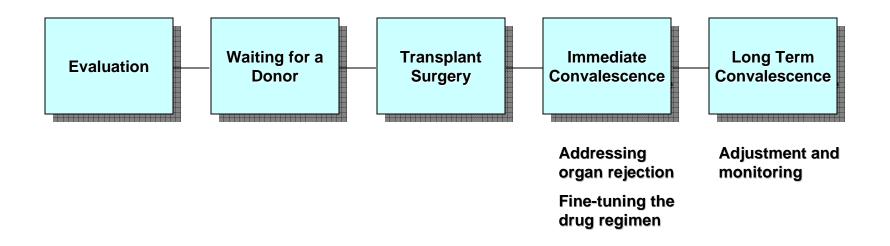
Hypertension Management

Nephrology practice



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

Organ Transplant Care Cycle



The Care Delivery Value Chain Breast Cancer Care

KNOWLEDGE MANAGEMENT			 	 	 	
NFORMING	 Education and reminders about regular exams Lifestyle and diet counseling 	Counseling patient and family on the diagnostic process and the diagnosis		patient and	Counseling patient and family on rehabilitation options and process	Counseling patient and family on long term risk management
IEASURING	Self examsMammograms	Mammograms Ultrasound MRI Biopsy BRACA 1, 2		Procedure- specific measurements	Range of movement Side effects measurement	• Recurring mammograms (every 6 months for the first 3 years)
CCESSING	 Office visits Mammography lab visits 	Office visits Lab visits High-risk clinic visits	 Office visits Hospital visits 	 Hospital stay Visits to outpatient or radiation chemotherapy units 	Office visits Rehabilitation facility visits	•Office visits •Lab visits •Mammographic labs and imaging center visits
	MONITORING/ PREVENTING	DIAGNOSING	PREPARING	INTERVENING	RECOVERING/ REHABING	
	 Medical history Monitoring for lumps Control of risk factors (obesity, high fat diet) Clinical exams Genetic screening 	 Medical history Determining the specific nature of the disease Genetic evaluation Choosing a treatment plan 	 Medical counseling Surgery prep (anesthetic risk assessment, EKG) Patient and family psycholo- gical counseling Plastic or onco- plastic surgery evaluation 	 Surgery (breast preservation or mastectomy, oncoplastic alternative) Adjuvant therapies (hormonal medication, radiation, and/or chemotherapy) 	 In-hospital and outpatient wound healing Psychological counseling Treatment of side effects (skin damage, neurotoxic, cardiac, nausea, lymphodema and chronic fatigue) Physical therapy 	 Periodic mammography Other imaging Follow-up clinical exams for next 2 years Treatment for any continued side effects
						Breast Cancer Special

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Other Provider Entities

The Care Delivery Value Chain Chronic Kidney Disease

INFORMING	 Lifestyle counseling Diet counseling 	the diagnosis and implications	procedures	seling and com- pliance follow-up •Lifestyle and diet counseling	pliance follow-up • Lifestyle and diet counseling	 Medication compliance follow-up Lifestyle & diet counseling RRT therapy options counseling 				
MEASURING	 Serum creatinine Glomerular filtration rate (GFR) Proteinuria 	 Special urine tests Renal ultrasound Serological testing Renal artery angio Kidney biopsy Nuclear medicine scans 	specific pre- testing	Procedure- specific measurements	tests	 Kidney function tests Bone metabolism Anemia Office/lab visits Telephone/Internet interaction 				
ACCESSING	Office visits Lab visits	Office visits Lab visits	• Various		 Office/lab visits Telephone/ Internet interaction 	Office/lab visits Telephone/Internet interaction				
	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	 MANAGING Managing renal function Managing kidney side effects of other treat- ments (e.g. cardiac catheterization) Managing the effects of associated diseases (e.g. diabetes, hyper- tension, uremia) Referral for renal replacement therapy (RRT) 				
		Feedback Lo	pops			 Nephrology Practice Other Provider Entities 				

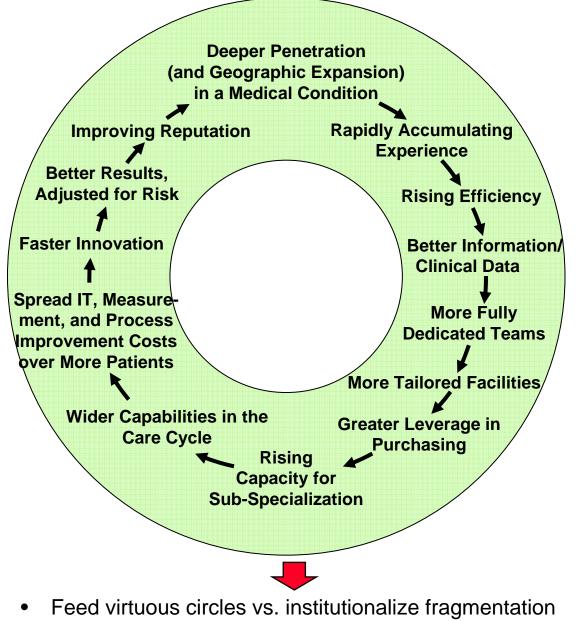
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- 2. There must be **unrestricted competition** based on **results**.
- 3. Competition should **center on medical conditions** over the **full cycle of care**.
- 4. High quality care should be **less** costly.
 - Right diagnosis
 - Right treatment to the right patients
 - Fewer mistakes and repeats in treatment
 - Reducing delays in care delivery
 - Faster recovery
 - Less invasive treatment methods
 - Less disability
 - Less long term care
 - Prevention
 - Treatment earlier in causal chain
 - Slower disease progression



• Better health is inherently less expensive than worse health

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

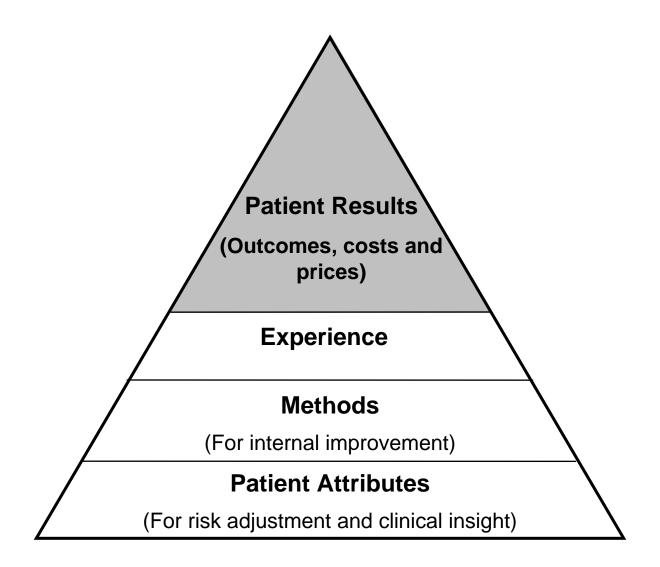
The Virtuous Circle in a Medical Condition



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- 6. Competition should be **regional** and **national**, not just local.
 - Virtuous circles extend across geography
 - Management integration across geography
 - Partnerships and inter-organizational integration

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The Information Hierarchy



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

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

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- 6. Competition should be **regional** and **national**, not just local.
- 7. Information on results and prices needed for value-based competition must be widely available.
- 8. **Innovations** that increase value must be strongly rewarded.

Moving to Value-Based Competition Providers

Defining the Right Goals

• Superior patient value

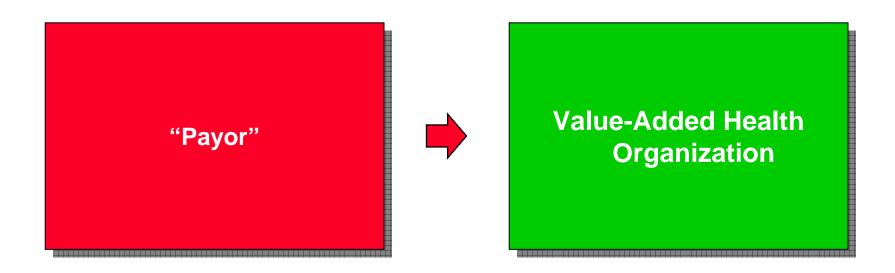
Strategic and Organizational Imperatives

- 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

Analyzing the Care Delivery Value Chain

- 1. Is the **set and sequence** of activities in the CDVC aligned with value?
- 2. Is the appropriate **mix of skills** brought to bear on each activity and across activities, and do individuals work as a **team**?
- 3. Is there **appropriate coordination** across the discrete activities in the care cycle, and are handoffs seamless?
- 4. Is care structured to harness linkages across different parts of the care cycle?
- 5. Is the **right information** collected, integrated, and utilized across the care cycle?
- 6. Are the activities in the CDVC performed in **appropriate facilities and locations**?
- 7. What provider departments, units and groups are involved in the care cycle? Is the provider's **organizational structure** aligned with value?
- 8. What are the **independent entities** involved in the care cycle, and what are the relationships among them? Should a provider's **scope of services** in the care cycle be expanded or contracted?

Moving to Value-Based Competition Health Plans



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Moving to Value-Based Competition

- Participate actively in managing personal health
- Expect relevant information and seek advice
- Make treatment and provider choices based on excellent results and personal values, not convenience or amenities
- Choose a health plan based on value added
- Build a long-term relationship with an excellent health plan
- Act responsibly



• Consumers cannot (and should not) be the **only** drivers

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

Roles of Government in Value-Based Competition

- Require the collection and dissemination of the risk-adjusted outcome information
- Open up value-based competition at the right level
- Enable bundled prices and price transparency
- Limit or eliminate price discrimination
- 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.