Value-Based Health Care Delivery

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Harvard Business School

Madrid, Spain
June 4, 2008

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, “How Physicians Can Change the Future of Health Care,” Journal of the American Medical Association, 2007; 297:1103:1111, and “What is Value in Health Care,” ISC working paper, 2008. 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

• 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. non-profit vs. for profit vs. government)

• 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 improvements, safety initiatives, pharmacy management, and disease management overlays are beneficial but not sufficient to substantially improve value
- Consumers cannot fix the dysfunctional structure of the current system
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 | ≠ | Patient success |

• Creating competition on value is a central challenge in health care reform
Zero-Sum Competition in U.S. Health Care

Bad Competition

• Competition to **shift costs** or **capture more revenue**
• Competition to **increase bargaining power**
• Competition to **capture patients** and **restrict 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

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Principles of Value-Based Health Care Delivery

1. The goal must be *value for patients*, not lowering costs

   • Improving value will require going *beyond waste reduction* and *administrative savings*
Principles of Value-Based Health Care Delivery

1. The goal must be **value for patients**, not lowering costs
   - The best way to **contain costs** is to **improve quality**

<table>
<thead>
<tr>
<th>Quality = Health outcomes</th>
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<tbody>
<tr>
<td>- Prevention</td>
</tr>
<tr>
<td>- Early detection</td>
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<tr>
<td>- Right diagnosis</td>
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<tr>
<td>- Early and timely treatment</td>
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<tr>
<td>- Treatment earlier in the causal chain of disease</td>
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<tr>
<td>- Right treatment to the right patients</td>
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<tr>
<td>- Rapid care delivery process with fewer delays</td>
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<tr>
<td>- Fewer complications</td>
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<tr>
<td>- Fewer mistakes and repeats in treatment</td>
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<tr>
<td>- Less invasive treatment methods</td>
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<tr>
<td>- Faster recovery</td>
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<tr>
<td>- More complete recovery</td>
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<tr>
<td>- Less disability</td>
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<tr>
<td>- Fewer relapses or acute episodes</td>
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<tr>
<td>- Slower disease progression</td>
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<tr>
<td>- Less need for long term care</td>
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- Better health is **inherently less expensive** than poor health
- **Better health** is the goal, not more treatment
Principles of Value-Based Health Care Delivery

1. The goal must be **value for patients**, not lowering costs

- There must be **competition for patients** based on **value**
  - Not supply control, process compliance, or administrative oversight
  - Get **patients** to excellent providers vs. “lift all boats”
  - Expand the **proportion of patients** cared for by the most effective organizations
  - **Grow the excellent organizations** by reallocating capacity and expanding across locations
Principles of Value-Based Health Care Delivery

1. The goal must be **value for patients**, not lowering costs

2. Health care delivery should be organized around **medical conditions** 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
     - Involving **multiple** specialties and services

   - **Includes** the most common co-occurring conditions

   - **Examples**
     - Diabetes (including vascular disease, hypertension, others)
     - Migraine
     - Breast Cancer
     - Stroke
     - Asthma
     - Congestive Heart Failure
Restructuring Health Care Delivery
Migraine Care in Germany

Existing Model: Organize by
Specialty and Discrete Services

New Model: Organize into
Integrated Practice Units (IPUs)

INFORMING & ENGAGING
- Advice on self screening
- Consultation on risk factors
- Counseling patient and family on the diagnostic process and the diagnosis
- Explaining patient choices of treatment
- Patient and family psychological counseling
- Counseling on the treatment process
- Achieving compliance
- Psychological counseling
- Counseling on rehabilitation options, process
- Achieving compliance
- Counseling on long term risk management
- Achieving compliance

MEASURING
- Self exams
- Mammograms
- 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)

ACCESSING
- Office visits
- Mammography lab visits
- Office visits
- Lab visits
- High-risk clinic visits
- Hospital stay
- Visits to outpatient or radiation chemotherapy units
- Rehabilitation facility visits

MONITORING/ PREVENTING
- Medical history
- Control of risk factors (obesity, high fat diet)
- Genetic screening
- Clinical exams
- Monitoring for lumps
- Cancer registries
- Periodic mammography
- Other imaging
- Follow-up clinical exams
- Treatment for any continued side effects

DIAGNOSING
- Medical history
- Determining the specific nature of the disease
- Genetic evaluation
- Choosing a treatment plan
- Surgery prep (anesthetic risk assessment, EKG)
- Plastic or oncoplastic surgery evaluation
- Adjuvant therapies (hormonal medication, radiation, and/or chemotherapy)
- In-hospital and outpatient wound healing
- Treatment of side effects (e.g. skin damage, cardiac complications, nausea, lymphodema and chronic fatigue)
- Physical therapy

PREPARING
- Surgery (breast preservation or mastectomy, oncoplastic alternative)
- Plastic or oncoplastic surgery evaluation
- Adjuvant therapies (hormonal medication, radiation, and/or chemotherapy)

INTERVENING
- Adjuvant therapies (hormonal medication, radiation, and/or chemotherapy)

RECOVERING/ REHABING
- In-hospital and outpatient wound healing
- Treatment of side effects (e.g. skin damage, cardiac complications, nausea, lymphodema and chronic fatigue)
- Physical therapy

Primary care providers are often the **beginning** and **end** of the care cycle
The medical condition is the **unit of value creation** in health care delivery
# Integrated Cancer Care
MD Anderson Head and Neck Center

## Staff

<table>
<thead>
<tr>
<th>Head and Neck Center</th>
<th>Shared</th>
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<tbody>
<tr>
<td><strong>Dedicated MDs</strong></td>
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<tr>
<td>- Medical Oncologists</td>
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<tr>
<td>- Surgical Oncologists</td>
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<tr>
<td>- Radiation Oncologists</td>
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<tr>
<td>- Dentists</td>
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<tr>
<td>- Diagnostic Radiologist</td>
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<tr>
<td>- Pathologist</td>
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<tr>
<td>- Ophthalmologists</td>
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<tr>
<td><strong>Dedicated Skilled Staff</strong></td>
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<tr>
<td>- Nurses</td>
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<tr>
<td>- Audiologist</td>
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<td>- Patient Advocate</td>
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<tr>
<td><strong>Shared MDs</strong></td>
<td></td>
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<tr>
<td>- Endocrinologists</td>
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<tr>
<td>- Other specialists as needed</td>
<td></td>
</tr>
<tr>
<td>(cardiologists, plastic surgeons, etc.)</td>
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</table>

| **Shared Skilled Staff** | |
| - Nutritionists         |
| - Social Workers        |

## Facilities

<table>
<thead>
<tr>
<th>Head and Neck Center</th>
<th>Shared</th>
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<tbody>
<tr>
<td>- Dedicated Outpatient Unit</td>
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<tr>
<td>- Radiation Therapy</td>
<td></td>
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<tr>
<td>- Pathology Lab</td>
<td></td>
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<tr>
<td>- Ambulatory Chemo Center</td>
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</table>

| - Inpatient Wards |
| - Medical Wards   |
| - Surgical Wards  |

What is Integrated Care?

• Integration of specialties and services over the care cycle for a medical condition (IPU)
  – Providers will often operate multiple IPUs

• For some patients, there may also be the need for coordination of care across medical conditions
  – A patient can be cared for by more than one IPU

• Integrated care is not:
  – Co-location
  – Care delivered by the same organization
  – A multispecialty group practice
  – Freestanding focused factories
  – A Center or an Institute
  – A health plan/provider system
Principles of Value-Based Health Care Delivery

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

**The Virtuous Circle**

- Greater Patient Volume in a Medical Condition (Including Geographic Expansion)
- Improving Reputation
- Better Results, Adjusted for Risk
- Faster Innovation
- Spread IT, Measurement, and Process Improvement Costs over More Patients
- Wider Capabilities in the Care Cycle, Including Patient Engagement
- Rising Capacity for Sub-Specialization
- More Tailored Facilities
- More Fully Dedicated Teams
- Better Information/Clinical Data
- Rising Process Efficiency
- Greater Leverage in Purchasing
- Sub-Specialization Capacity

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Consequences of Service Fragmentation

• Health care delivery in every country is highly fragmented
  – Extreme duplication of services
  – Low volume of patients per medical condition 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 over the cycle

• Fragmentation drives organizations into shared units
  – Specialties
  – Imaging
  – Procedures

• Patient value suffers
Principles of Value-Based Health Care Delivery

- Health care delivery should be integrated across facilities and regions, rather than take place in stand-alone units.

Children’s Hospital of Philadelphia (CHOP) Affiliations

- Grand View Hospital, PA
  Pediatric Inpatient Care

- Abington Memorial Hospital, PA
  Pediatric Inpatient Care

- Chester County Hospital, PA
  Pediatric Inpatient Care

- Shore Memorial Hospital, NJ
  Pediatric Inpatient Care

- Excellent providers can manage care delivery across multiple geographies.
Principles of Value-Based Health Care Delivery

1. The goal must be **value for patients**, not lowering costs

2. Health care delivery should be organized around **medical conditions** over the **full cycle of care**

3. **Value** must be universally measured and reported

- **For** medical conditions over the cycle of care
  - Not for interventions or short episodes
  - Not for practices, departments, clinics, or hospitals
  - Not separately for types of service (e.g. inpatient, outpatient, tests, rehabilitation)

- Results must be measured at the **level at which value is created** for patients
The Outcome Measures Hierarchy

**Tier 1**
- **Health Status Achieved**
  - **Degree of recovery / health**

**Tier 2**
- **Process of Recovery**
  - **Time to recovery or return to normal activities**
  - **Disutility of care or treatment process (e.g., treatment-related discomfort, complications, or adverse effects, diagnostic errors, treatment errors and their consequences in terms of additional treatment)**

**Tier 3**
- **Sustainability of Health**
  - **Sustainability of recovery or health over time**
  - **Long-term consequences of therapy (e.g., care-induced illnesses)**

Measuring Breast Cancer Outcomes

- **Survival**
  - Survival rate
    - (One year, three year, five year, longer)
  - Remission
  - Functional status
  - Breast conservation outcome

- **Degree of recovery / health**
  - Time to remission
  - Time to achieve functional status
  - Nosocomial infection
  - Nausea
  - Vomiting
  - Febrile neutropenia
  - Limitation of motion
  - Depression

- **Time to recovery or return to normal activities**
  - Cancer recurrence
  - Sustainability of functional status
  - Incidence of secondary cancers
  - Brachial plexopathy
  - Premature osteoporosis

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

- **Sustainability of recovery or health over time**

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

Source: Porter, Michael E., “What is Value in Health Care?” ISC working paper, 2008, and presented at the Institute of Medicine Annual Meeting, October 8, 2007, with assistance from Dr. Andrew Huang, Sun Yat-Sen Cancer Center, and Dr. Jason Wang, Boston University.
Measuring Value: Essential Principles

• **Physicians** need to measure results in order to drive value improvement

• Outcomes should be **adjusted for patient initial conditions**

• Outcome measurement should not wait for perfection: Measures and risk adjustment methods will **improve rapidly**

• The feasibility of outcome measurement at the medical condition level has been **conclusively demonstrated**

• Failure to measure outcomes will **invite further micromanagement** of physician practice
Principles of Value-Based Health Care Delivery

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4. Reimbursement should be aligned with value and reward innovation
   - Bundled reimbursement for care cycles, not payment for discrete treatments or services
     - Most DRG systems are too narrow
   - Reimbursement for prevention and screening, not just treatment
   - Reimbursement for overall management of chronic conditions
   - Reimbursement adjusted for patient complexity

• Providers should be proactive in moving to new reimbursement models, not wait for health plans or government
Principles of Value-Based Health Care Delivery

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5. 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
- Include all types of data (e.g. notes, images)
- Cover the full care cycle, including referring entities
- Accessible to all involved parties
Principles of Value-Based Health Care Delivery
Implications for Providers

• Organize around integrated practice units (IPUs) for each medical condition
  – Make prevention and disease management integral to the IPU model
  – With mechanisms for cross-IPU coordination

• Choose the appropriate scope of services in each facility based on excellence in patient value

• Integrate services across geographic locations for each IPU / medical condition

• Employ formal partnerships and alliances with independent parties involved in the care cycle in order to integrate care

• Expand high-performance IPUs across geography using an integrated model
  – Instead of autonomous broad line, stand-alone facilities

• Measure outcomes and costs for every medical condition over the full care cycle

• Lead the development of new contracting models with health plans or government based on bundled reimbursement for care cycles

• Implement a single, integrated, patient centric electronic medical record system which is utilized by every unit and accessible to partners, referring physicians, and patients
Patients with Multiple Medical Conditions
Coordinating Care Across IPUs

- The primary organization of care delivery should be around the integration required for every patient
- IPUs will also greatly simplify coordination of care for patients with multiple medical conditions
- The patient with multiple conditions will be better off in an IPU model
Managing Care Across Geography
The Cleveland Clinic Managed Practices

- Swedish Medical Center, WA
  Cardiac Surgery

- Rochester General Hospital, NY
  Cardiac Surgery

- CLEVELAND CLINIC
  Cardiac Care

- Chester County Hospital, PA
  Cardiac Surgery

- Cape Fear Valley Health System, NC
  Cardiac Surgery

- Cleveland Clinic Florida Weston, FL
  Cardiac Surgery
Creating a High-Value Health Care System
Health Plans

“Payor”  →  Value-Added Health Organization
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

**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

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
Creating a High-Value Health Care System

Government

• Establish **universal measurement** and **reporting** of **health outcomes**

• Create IT standards including **data definitions**, **interoperability standards**, and **deadlines for implementation** to enable the collection and exchange of medical information for every patient

• Remove obstacles to the **restructuring of health care delivery** around the integrated care of medical conditions
  – E.g. Stark Laws

• Shift reimbursement systems to **bundled prices for cycles of care** instead of payments for discrete treatments or services

• Limit **provider price discrimination** across patients based on group membership

• **Open up competition** among providers and across geography
Creating a High-Value Health Care System

Government, cont’d.

• Establish universal reporting by health plans of health outcomes for members

• Encourage the responsibility of individuals for their health and their health care
Creating a High-Value Health Care System

Suppliers

• Compete on delivering unique value measured over the full care cycle

• **Demonstrate value** based on careful study of long term outcomes and costs versus alternative approaches

• Ensure that the products are used by the right patients

• Ensure that drugs/devices are embedded in the right care delivery processes

• Market based on value, information, and customer support

• Offer support services that contribute to value rather than reinforce cost shifting

• Move to value-based pricing
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 can and should take the lead