Value-Based Health Care Delivery

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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. 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.
Proposals for Reform

• Single Payer System

• Consumer-Driven Health Care

• Pay for Performance

• Electronic Medical Records

• Integrated Payer-Provider Systems
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 improvements, 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

<table>
<thead>
<tr>
<th>Financial success of system participants</th>
<th>Patient success</th>
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- Creating competition on value is the central challenge in health care reform
Zero-Sum Competition in U.S. 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 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
Principles of Value-Based Competition

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

   - Health **outcomes** are objective outcomes, not patient perceptions alone

   - The costs of achieving outcomes are the **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 just lowering costs

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 just lowering costs
2. The best way to contain costs is to drive improvement in **quality**
3. There must be **competition for patients** based on **results**

<table>
<thead>
<tr>
<th>Value:</th>
<th>Patient health outcomes</th>
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<tbody>
<tr>
<td></td>
<td>Total cost of achieving those outcomes</td>
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</tbody>
</table>

- 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

1. The goal should be value for patients, not just lowering costs

2. The best way to contain costs is to drive improvement in quality

3. There must be competition for patients based on results

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

- Imaging Centers
- Outpatient Physical Therapists
- Inpatient Neurologists
- Outpatient Neurologists
- Primary Care Physicians
- Outpatient Psychologists

New Model: Organize into Integrated Practice Units (IPUs)

- Imaging Unit
- West German Headache Center
  - Neurologists
  - Psychologists
  - Physical Therapists
  - Day Hospital
- Essen Univ. Hospital
- Inpatient Unit
- Network Neurologists

- Organize around the patient over the care cycle, not the specialist/intervention/department


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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

• The medical condition is the **unit of value creation** in health care delivery
### The Cycle of Care

#### Care Delivery Value Chain for Breast Cancer

<table>
<thead>
<tr>
<th>INFORMING &amp; ENGAGING</th>
<th>MEASURING</th>
<th>ACCESSING</th>
<th>MONITORING/ PREVENTING</th>
<th>DIAGNOSING</th>
<th>PREPARING</th>
<th>INTERVENING</th>
<th>RECOVERING/ REHABING</th>
<th>MONITORING/ MANAGING</th>
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<tbody>
<tr>
<td>• Advice on self screening • Consultation on risk factors</td>
<td>• Counseling patient and family on the diagnostic process and the diagnosis</td>
<td>• Counseling on rehabilitation options, process Achieving compliance</td>
<td>• Counseling on long term risk management Achieving compliance</td>
<td>• Explaining patient choices of treatment Achieving compliance</td>
<td>• Procedure-specific measurements</td>
<td>• Range of movement Side effects measurement</td>
<td>• Recurring mammograms (every 6 months for the first 3 years)</td>
<td>• Self exams • Mammograms</td>
</tr>
<tr>
<td>• Self exams • Mammograms</td>
<td>• Mammograms • Ultrasound • MRI</td>
<td>• Office visits • Mammography lab visits</td>
<td>• Medical history • Control of risk factors (obesity, high fat diet) • Genetic screening • Clinical exams • Monitoring for lumps</td>
<td>• Medical history • Determining the specific nature of the disease • Genetic evaluation • Choosing a treatment plan</td>
<td>• Medical counseling • Surgery prep (anesthetic risk assessment, EKG)</td>
<td>• Surgery (breast preservation or mastectomy, oncoplastic alternative) • Adjuvant therapies (hormonal medication, radiation, and/or chemotherapy)</td>
<td>• In-hospital and outpatient wound healing Psychological counseling • Treatment of side effects (skin damage, neurotoxic, cardiac, nausea, lymphodema and chronic fatigue) • Physical therapy</td>
<td>• Office visits • Lab visits • High-risk clinic visits</td>
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<td></td>
<td>• Office visits</td>
<td>• Hospital stay</td>
<td>• Visits to outpatient or radiation chemotherapy units</td>
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- **Primary care providers** are often the **beginning** and **end** of the care cycle.
Principles of Value-Based Competition

1. The goal should be **value for patients**, not just lowering costs
2. The best way to contain costs is to drive improvement in **quality**
3. There must be **competition for patients** based on **results**
4. Competition should center on **medical conditions** over the **full cycle of care**
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 medically integrated organizations
Principles of Value-Based Competition

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

2. The best way to contain costs is to drive improvement in **quality**

3. There must be **unrestricted competition** based on **results**

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

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

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
Managing Care Across Geography
The 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

- CHILDREN’S HOSPITAL OF PHILADELPHIA

- Shore Memorial Hospital, NJ
  Pediatric Inpatient Care
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5. Value is driven by provider **experience, scale, and learning** at the medical condition level
6. Competition should be **regional** and **national**, not just local
7. **Results** must be universally measured and reported

Value: Patient health outcomes
Total cost of achieving those outcomes
Measuring Value: Unit of Analysis

• The **appropriate unit for measuring value** must align with how value is created for patients
  – Across services
  – Across time

• Value should be measured for **medical conditions** over the **cycle of care**
  – vs. for hospitals, practices, clinics, or departments
  – vs. types of service (e.g. inpatient, outpatient, tests, rehabilitation)
  – vs. for interventions or short episodes

• Current efforts suffer from measuring value at **differing/inappropriate levels**
Measuring Value in Health Care

- Patient Initial Conditions
- Process
  - Evidence-based medicine
  - Protocols
  - Guidelines
- Patient Compliance
- (Health) Outcomes
  - Health Indicators
    - E.g., Hemoglobin A1c levels of patients with diabetes
  - Patient Satisfaction with Care Experience
  - Patient Reported Health Outcomes
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)

- **Degree of recovery / health**
  - Remission
  - Functional status
  - Breast conservation outcome

- **Time to recovery or return to normal activities**
  - Time to remission
  - Time to achieve functional status

- **Disutility of care or treatment process**
  - Nosocomial infection
  - Nausea
  - Vomiting
  - Febrile neutropenia
  - Limitation of motion
  - Depression

- **Sustainability of recovery or health over time**
  - Cancer recurrence
  - Sustainability of functional status

- **Long-term consequences of therapy**
  - 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**
Principles of Value-Based Competition

1. The goal should be **value for patients**, not just **lowering costs**
2. The best way to contain costs is to drive improvement in **quality**
3. There must be **competition for patients** based on **results**
4. Competition should center on **medical conditions** over the **full cycle of care**
5. Value is driven by provider **experience, scale, and learning** at the medical condition level
6. Competition should be **regional** and **national**, not just local
7. **Results** must be universally measured and reported
8. Reimbursement should be aligned with **value** and reward **innovation**
   - Reimbursement for **care cycles**, not discrete treatments or services
   - Reimbursement for **prevention and screening**, not just treatment
   - Reimbursement for **overall management of chronic conditions**
   - Most DRG systems are **too narrow**
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8. Reimbursement should be aligned with **value** and reward **innovation**
9. **Information technology** will **enable** restructuring of care delivery and **measuring results**, but is **not a solution by itself**
   - Common data definitions
   - Interoperability standards
   - Include all types of data (e.g. notes, images)
   - 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
Patients with Multiple Medical Conditions
Integrating Care Across IPUs

- The primary organization of care delivery should be around the integration required for every patient.
- IPUs will greatly simplify the coordination of care for patients with multiple medical conditions.
- The patient with multiple conditions will be better off.
Moving to Value-Based Competition

Health Plans

“Payor”

Value-Added Health Organization
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
Moving to Value-Based Competition

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.

• 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.
Moving to Value-Based Competition
Government, cont’d.

• Require health plans to measure and report health outcomes for members

• Encourage the responsibility of individuals for their health and their health care
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