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
  – Competition for patients
  – Competition 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>
</tr>
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</table>

• 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

Good Competition

• Competition to **increase** value for patients

Zero or Negative Sum

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**
     - **Quality** = Health outcomes
     - Prevention
     - Early detection
     - Right diagnosis
     - Early and timely treatment
     - Treatment earlier in the causal chain of disease
     - Right treatment to the right patients
     - Rapid care delivery process with fewer delays
     - 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

2. Better health is **inherently less expensive** than poor health
3. **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

<table>
<thead>
<tr>
<th>• Providers should <strong>compete for patients</strong> based on <strong>value</strong></th>
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<tbody>
<tr>
<td>– Instead of supply control, process compliance, or administrative oversight</td>
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<tr>
<td>– Get <strong>patients</strong> to excellent providers vs. “lift all boats”</td>
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<tr>
<td>– Expand the <strong>proportion of patients</strong> cared for by the most effective organizations</td>
</tr>
<tr>
<td>– <strong>Grow the excellent organizations</strong> by adding capacity and expanding across locations</td>
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</table>
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, retinal 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

- Imaging Centers
- Outpatient Physical Therapists
- Outpatient Neurologists
- Primary Care Physicians
- Inpatient Treatment and Detox Units
- Outpatient Psychologists

New Model: Organize into Integrated Practice Units (IPUs)

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

The Cycle of Care

Care Delivery Value Chain for Breast Cancer

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
- Counseling on rehabilitation options, process
- Achieving compliance
- Counseling on long term risk management
- Achieving compliance

MEASURING
- Self exams
- Mammograms
- Mammograms
- Ultrasound
- MRI
- Biopsy
- BRCA 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
- Office 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
- Medical history
- Control of risk factors (obesity, high fat diet)
- Genetic screening
- Clinical exams
- Monitoring for lumps

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)

PREPARING
- Surgery (breast preservation or mastectomy, oncoplastic alternative)

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

RECOVERING/ REHABING

MONITORING/ MANAGING
- Periodic mammography
- Other imaging
- Follow-up clinical exams
- Treatment for any continued side effects

- 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 Diabetes Care
Joslin Diabetes Center

Core Team
- Endocrinologist
- Diabetes Nurse Educator

Extended Team
- Nephrologists
- Ophthalmologists
- Optometrists
- Psychiatrists
- Psychologists
- Social Workers
- Nutritionists
- Exercise Physiologists

Common Exam Rooms
Dedicated Just-in-Time Lab
Eye Scan
Laser Eye Surgery Suite

Acute Complications
- Hyperglycemia
- Hypoglycemia

Long-Term Complications
- Cardiovascular Disease
- Cardiologist
- Neuropathy
- Vascular Surgeon
- Neurologist
- Podiatry
- End Stage Renal Disease

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What is Integrated Care?

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

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

• Integrated care is not just:
  – Co-location
  – Care delivered by the same organization
  – A multispecialty group practice
  – Freestanding focused factories
  – A Center
  – 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

Rapidly Accumulating Experience

Rising Process Efficiency

Better Information/Clinical Data

More Fully Dedicated Teams

More Tailored Facilities

Wider Capabilities in the Care Cycle, Including Patient Engagement

Rising Capacity for Sub-Specialization

Greater Leverage in Purchasing

Spread IT, Measurement, and Process Improvement Costs over More Patients

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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

- CHILDREN’S HOSPITAL OF PHILADELPHIA

- 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
Measuring Value in Health Care

Patient Initial Conditions → Process
- Protocols/Guidelines
  Structure

Patient Compliance

Indicators
- E.g., Hemoglobin A1c levels of patients with diabetes

(Health) Outcomes

Patient Satisfaction with Care Experience

Patient Reported Health Outcomes
The Outcome Measures Hierarchy

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

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 health or recovery and nature of recurrences
  - Long-term consequences of therapy (e.g., care-induced illnesses)
Illustrative Breast Cancer Outcomes

Survival
- Survival rate
  (One year, three year, five year, longer)

Degree of health/recovery
- Remission
- Functional status
- Breast preservation
- Breast conservation surgery outcomes

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

Disutility of care or treatment process
(e.g., treatment-related discomfort, complications or adverse effects, diagnostic errors, treatment errors and their consequences)
- Nosocomial infection
- Nausea
- Vomiting
- Febrile neutropenia
- Limitation of motion
- Breast reconstruction discomfort and complications
- Depression

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

Long-term consequences of therapy (e.g., care-induced illnesses)
- Incidence of secondary cancers
- Brachial plexopathy
- Premature osteoporosis
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
- Previous treatments
- Age
- Menopausal status
- General health, including co-morbidities
- Psychological and social factors

- As care delivery improves, some initial conditions that once affected outcomes will decline in importance
Measuring Value: Essential Principles

• Outcomes should be measured at the **medical condition level**

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

• **Physicians** need results measurement to support value improvement
  – Use of measures by patients will develop more slowly

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

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

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 adjusted for **patient complexity**
   - Reimbursement for **overall management of chronic conditions**
   - Reimbursement for **prevention and screening**, not just treatment

**Providers** should be proactive in moving to new reimbursement models, not wait for health plans and Medicare
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 federations of 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 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
ThedaCare Health System
Rationalizing Service Lines

ThedaClark Medical Center
- Neurology and neurosurgery at ThedaClark
- Trauma care at ThedaClark
- Bariatrics at ThedaClark
- Inpatient rehabilitation at ThedaClark
- Pediatric inpatient care outsourced to Children’s Hospital of Wisconsin-Fox Valley

Appleton Medical Center
- Cardiac surgery at Appleton
- Radiation oncology at Appleton
- Created Orthopedics Plus, an IPU

New London Family Medical Center
Community Hospital
- ICU care transferred to other ThedaCare sites

Riverside Medical Center
Community Hospital
Critical access community hospitals coordinate services with larger hospitals

Source: Porter, Michael E. and Sachin H. Jain, ThedaCare: System Strategy, HBS case No. 9-708-424, November 9, 2007
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 **measure** and **improve** member health results, and expect providers to do the same
  – 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**
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