Value-Based Health Care Delivery

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Redefining Health Care Delivery

• Universal coverage and access to care are **essential, but not enough**
• The core issue in health care is the **value of health care delivered**

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Value: Patient health outcomes per dollar spent
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• 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
Harnessing Competition on Value

- 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

Financial success of system participants ≠ Patient success

- Creating competition to improve 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** and secure discounts or price premiums
- Competition to **capture patients** and **restrict choice**
- Competition to **restrict services** in order to maximize revenue per visit or reduce costs

**Positive Sum**

**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. Set the goal as **value for patients**
   - Not volume
   - Not access
   - Not equity
   - Not cost reduction
   - Not “profit” in the current system

   \[
   \text{Value} = \frac{\text{Health outcomes}}{\text{Costs of delivering the outcomes}}
   \]

   • Outcomes are the **full set of health outcomes** achieved by the patient
   • Costs are the **total costs**, including costs not necessarily borne by any one provider or even within the health care system
Principles of Value-Based Health Care Delivery

1. Set the goal as **value for patients**
2. The best way to improve value and contain cost is to **improve quality**, where quality is health **outcomes**

- Prevention of disease
- Early detection
- Right diagnosis
- Early and timely treatment
- Right treatment to the right patients
- Treatment earlier in the causal chain of disease
- Rapid care delivery process with fewer delays
- Less invasive treatment methods
- Fewer complications
- Fewer mistakes and repeats in treatment
- Faster recovery
- More complete recovery
- Less disability
- Fewer relapses or acute episodes
- Slower disease progression
- Less need for long term care
- Less care induced illness

- **Better health** is the goal, not more treatment
- Better health is **inherently less expensive** than poor health
Principles of Value-Based Health Care Delivery

1. Set the goal as **value for patients**

2. The best way to improve value and contain cost is to **improve quality**, where quality is health **outcomes**

3. To maximize value health care delivery must 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
     - **Includes** the most common co-occurring conditions
     - Involving **multiple** specialties and services

   - The medical condition is the **unit of value creation** in health care delivery
Restructuring Care Delivery
Migraine Care in Germany

Existing Model:
Organize by Specialty and Discrete Services

New Model:
Organize into Integrated Practice Units (IPUs)

- The health plan was crucial to this transformation

# The Cycle of Care
## Breast Cancer

## INFORMING & ENGAGING
- Advice on self screening
- Consultation on risk factors

## MEASURING
- Self exams
- Mammograms
  - Mammograms
  - Ultrasound
  - MRI
  - Biopsy
  - BRAC1, 2...

## ACCESSING
- Office visits
- Mammography lab visits
  - Office visits
  - Lab visits
  - High-risk clinic 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

## PREPARING
- Surgery prep (anesthetic risk assessment, EKG)
- Plastic or oncoplastic surgery evaluation

## INTERVENING
- Surgery (breast preservation or mastectomy, oncoplastic alternative)
- 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, lymphedema and chronic fatigue)
- Physical therapy

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

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*Breast Cancer Specialist
Other Provider Entities*
Analyzing the Care Delivery Value Chain

1. Are the **set of activities** and the **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** (optimize overall allocation of effort) 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?
Integrated Care Delivery Includes the Patient

• Value in health care is co-produced by patients and clinicians

• Unless patients comply with care and treatment plans and take steps to improve their health, even the best delivery team will fail

• For chronic care, patients are often the best experts on their own health and personal barriers to compliance

• Today’s fragmented system creates obstacles to patient education, involvement, and adherence to care

• Simply forcing consumers to pay more is a false solution

• IPUs will improve patient engagement
Principles of Value-Based Health Care Delivery

4. Value is enhanced by increasing provider experience, scale, and learning at the medical condition level

- The virtuous circle extends across geography when care for a medical condition is integrated across locations
## Fragmentation of Hospital Services
### Sweden

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number of hospitals performing the treatment (of 116)</th>
<th>Average number of procedures per provider per year</th>
<th>Average number of procedures per provider per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart transplants</td>
<td>3</td>
<td>13</td>
<td>1.1</td>
</tr>
<tr>
<td>Cardiac valve procedures with cardiac catheter</td>
<td>5</td>
<td>11</td>
<td>0.9</td>
</tr>
<tr>
<td>Coronary bypass with cardiac catheter</td>
<td>6</td>
<td>56</td>
<td>4.7</td>
</tr>
<tr>
<td>Cleft lip and palate repair</td>
<td>8</td>
<td>67</td>
<td>5.6</td>
</tr>
<tr>
<td>Splenectomy, Age &gt;7</td>
<td>39</td>
<td>4</td>
<td>0.3</td>
</tr>
<tr>
<td>Total Mastectomy (without complications)</td>
<td>66</td>
<td>45</td>
<td>3.8</td>
</tr>
<tr>
<td>Iguinal &amp; femoral hernia procedures, Age &gt;17 (without complications)</td>
<td>67</td>
<td>47</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Principles of Value-Based Health Care Delivery

5. Care should be **integrated across facilities and across regions**, rather than duplicate services in stand-alone units.

- Excellent providers can manage care delivery **across multiple geographies**.
System Integration

Confederation of Standalone Units/Facilities → Integrated Care Delivery Network

- **Rationalize service lines/ IPUs** across facilities to improve volume, avoid duplication, and achieve excellence
- Offer specific services at the **appropriate facility**
  - e.g. acuity level, cost level, importance of convenience
- Clinically **integrate care across facilities**, but within IPUs
  - Clinical coordination
  - Common organizational unit across facilities
- Link **primary care** to IPUs
Growth Across Geography

The Cleveland Clinic

• Stand Alone Hospitals in Other Regions
• Community Hospitals in the Region
• Affiliate Programs in Cardiac Surgery and Urology
• Telemedicine Second Opinion Services
• Hospital Management in Other Countries
Principles of Value-Based Health Care Delivery

1. Set the goal as **value for patients**
2. The best way to improve value and contain cost is to **improve quality**, where quality is health **outcomes**
3. To maximize value, health care delivery must be organized around **medical conditions** over the **full cycle of care**
4. Drive value improvement by increasing provider **experience, scale, and learning** at the **medical condition level**
5. Care should be **integrated across facilities and across regions**, rather than duplicate services in stand-alone units
6. **Measure and report** outcomes for every provider for every medical condition

- **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 should be measured at **the level at which value is created**
Measuring Value in Health Care

- Patient Initial Conditions
  - Processes
      - Protocols/Guidelines
  - Indicators
      - E.g., Hemoglobin A1c levels of patients with diabetes
  - Structure

Value is co-produced by clinicians and the patient
The Outcome Measures Hierarchy

Tier 1
Health Status Achieved
- Survival

Tier 2
Process of Recovery
- Degree of health/recovery
- Time to recovery or return to normal activities
- Disutility of care or treatment process (e.g., discomfort, complications, adverse effects, errors, and their consequences)

Tier 3
Sustainability of Health
- Sustainability of health or recovery and nature of recurrences
- Long-term consequences of therapy (e.g., care-induced illnesses)
Gyn Onc MCC: Ovarian Cancer Outcomes

Ovary

ALL STAGES

n=102

Registration Year Groups
- 1944-59
- 1960-69
- 1970-79
- 1980-89
- 1990-99
- Total 2159 pts

p < 0.0001
Initial Conditions

- Demographics (age, sex, height, weight, BMI, waist circumference etc)
- Baseline labs – HbA1c (a measure of long-term blood glucose control), Triglycerides, Low Density Lipoprotein (bad cholesterol), High Density Lipoprotein (good cholesterol) Comorbidities (sleep apnea, diabetes, depression, etc)
- SF-36/OP-9 (validated quality of life measures)

Surgery

- Background (Previous surgeries, anesthesia risk class)
- Operation type and concurrent operations (gall bladder removal, appendix removal, etc)
- Perioperative complications
- Surgery data (surgery/anesthesia times, blood loss, etc)
- 6 week follow-up

Source: SOReg: Swedish National Obesity Registry
6-week follow-up
- Length of stay
- <30d surgical complications (bleeding, leakage, infection, technical complications, etc)
- <30d general complications (blood clot, urinary infection, etc)
- Other operations required (gall bladder, plastic surgery, etc)
- Repetition of anthropometric measurements (height, weight, waist, BMI, and change from initial)
- Diabetes labs (HbA1c)

1,2 & 5-year follow-up
- Anthropometrics and change from initial
- Labs (diabetes, triglycerides & cholesterol)
- Comorbidities, and ongoing treatments
- Delayed complications of operation (hernia, ulcer, treatment related malnutrition or anemia, etc)
- Other surgeries since registration
- SF-36/OP-9 (validated quality of life measures)

Source: SOReg: Swedish National Obesity Registry
Principles of Value-Based Health Care Delivery

1. Set the goal as **value for patients**, not containing costs
2. The best way to improve value and contain cost is to **improve quality**, where quality is health **outcomes**
3. Reorganize health care delivery around **medical conditions** over the **full cycle of care**
4. Drive value improvement by **increasing** provider **experience**, **scale**, and **learning** at the **medical condition level**
5. Care should be **integrated across facilities** and **across regions**, rather than duplicate services in stand-alone units
6. Value must be **measured** and ultimately **reported** by every provider for each medical condition
7. Reimbursement must 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**
  - Adjusted for **patient complexity**
- **Time base bundled reimbursement for managing chronic conditions**
- **Reimbursement for prevention** and **screening** service bundles, not just treatment

- **Providers** and **health plans** must be proactive in driving new reimbursement models, not wait for government
Reimbursement for the Cycle of Care
Organ Transplantation

- Leading transplantation centers offer a **single bundled price**
- UCLA Medical Center was a pioneer
- In dividing the revenue from transplantation, some UCLA physicians **bear risk** and capture some of the value improvement, while others are compensated with conventional charges
Principles of Value-Based Health Care Delivery

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7. Reimbursement must be aligned with value and reward innovation
8. Information technology can enable restructuring of care delivery and measuring results, but is not a solution by itself

- Common data definitions
- Precise interoperability standards
- Patient-centered data warehouse
- Include all types of data (e.g. notes, images)
- Cover the full care cycle, including referring entities
- Accessible to all involved parties
- Templates for medical conditions
Value-Based Health Care Delivery: Implications for Providers

• Organize around integrated practice units (IPUs)
  – Integrate care for each IPU across geographic locations
  – Employ formal partnerships and alliances with other organizations involved in the care cycle
• Measure outcomes and costs for every patient
• Lead the development of new IPU reimbursement models
• Specialize and integrate health systems
• Grow high-performance practices across regions
• Develop an integrated electronic medical record system to support these functions
Value-Based Health Care Delivery: Implications for Government

- Establish **universal measurement** and **reporting** of provider **health outcomes**
- Require universal reporting by health plans of **health outcomes for members**
- Create mandatory IT standards including **data architecture and definitions, interoperability standards**, and deadlines for system implementation
- Remove obstacles to the **restructuring of health care delivery** around the integrated care of medical conditions
- **Open up competition** among providers and across geography
- Shift reimbursement systems to **bundled prices for cycles of care** instead of payments for discrete treatments or services
- Encourage greater **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
- Steps by pioneering institutions will be **mutually reinforcing**
- Once competition begins working, value improvement will **no longer be discretionary**
- Those organizations that **move early** will gain major benefits

- **Providers** can and should take the lead