# Value Based Health Care Delivery: Welcome and Introduction

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This presentation draws on Redefining Health Care: Creating Value-Based Competition on Results (with Elizabeth O. Teisberg), Harvard Business School Press, May 2006; "A Strategy for Health Care Reform—Toward a Value-Based System," *New England Journal of Medicine*, June 3, 2009; "Value-Based Health Care Delivery," *Annals of Surgery* 248: 4, October 2008; "Defining and Introducing Value in Healthcare," *Institute of Medicine Annual Meeting*, 2007. Additional information about these ideas, as well as case studies, can be found the Institute for Strategy & Competitiveness Redefining Health Care website at http://www.hbs.edu/rhc/index.html. 

# Redefining Health Care Delivery

- The core issue in health care is the **value of health care delivered**

> Value: Patient health outcomes per dollar spent

- Value is the only goal that can **unite the interests** of all system participants

- How to design a health care delivery system that **dramatically improves patient value**
- How to construct 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 often delivered with 19th century organization structures, management practices, measurement methods, and payment models

- Care pathways, process improvements, safety initiatives, case managers, disease management and other **overlays** to the current structure are beneficial, but not sufficient

# Creating The Right Kind of Competition on Value

- **Competition** and **choice** for patients/subscribers are powerful forces to encourage restructuring of care and continuous improvement in value
- Today's competition in health care **is often not aligned with value**

| Financial success of system participants | ≠ | Patient success |
|---|---|---|

- Creating positive-sum **competition on value** is integral to health care reform in every country

# Principles of Value-Based Health Care Delivery

- The overarching goal in health care must be **value for patients**, not access, cost containment, convenience, or customer service

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

  - Outcomes are the **full set of health results for a patient's condition** over the care cycle
  - Costs are the **total costs of care for a patient's condition** over the care cycle

# Principles of Value-Based Health Care Delivery

- **Quality improvement** is the most powerful driver of cost containment and value improvement, where quality is **health outcomes**

| | |
|---|---|
| - Prevention of illness | - Fewer complications |
| - Early detection | - Fewer mistakes and repeats in treatment |
| - Right diagnosis | - Faster recovery |
| - Right treatment to the right patient | - More complete recovery |
| - Rapid cycle time of diagnosis and treatment | - Greater functionality and less need for long term care |
| - Treatment earlier in the causal chain of disease | - Fewer recurrences, relapses, flare ups, or acute episodes |
| - Less invasive treatment methods | - Reduced need for ER visits |
| | - Slower disease progression |
| | - Less care induced illness |

- **Better health** is the goal, not more treatment
- Better health is **inherently less expensive** than poor health

# Creating a Value-Based Health Care Delivery System

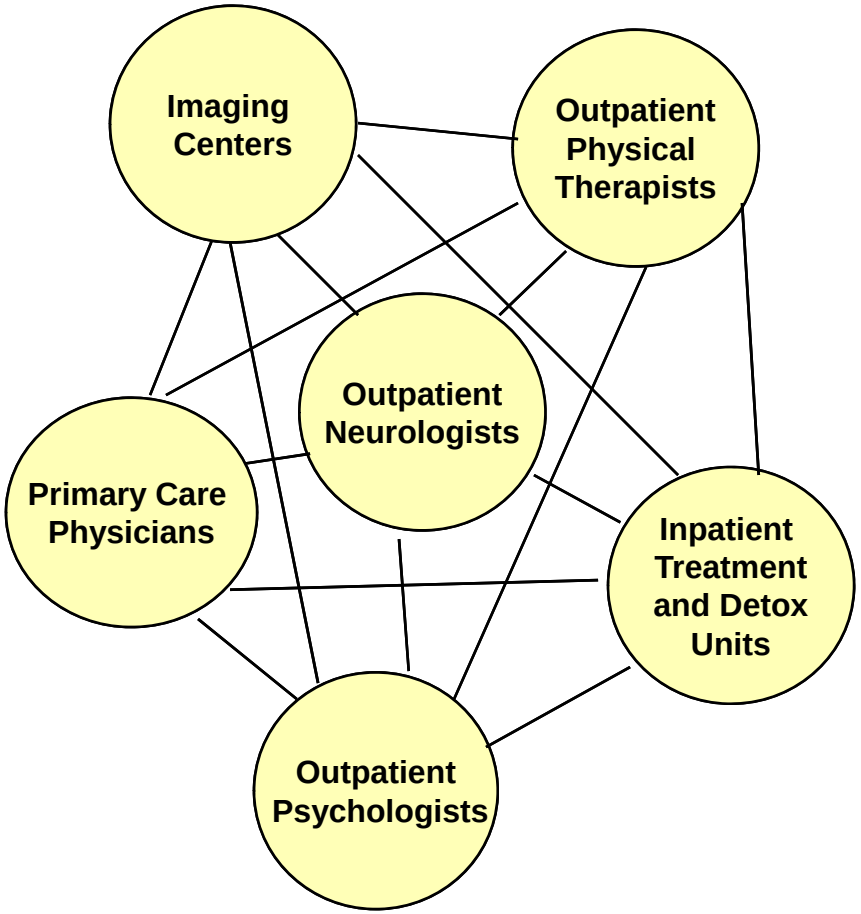
## The Strategic Agenda

1. Organize into Integrated Practice Units (IPUs) around Patient Medical Conditions
   - Organize primary and preventive care to serve distinct patient segments
2. Establish Universal Measurement of Outcomes and Cost for Every Patient
3. Move to Bundled Prices for Care Cycles
4. Integrate Care Delivery Across Separate Facilities
5. Expand Areas of Excellence
6. Create an Enabling Information Technology Platform

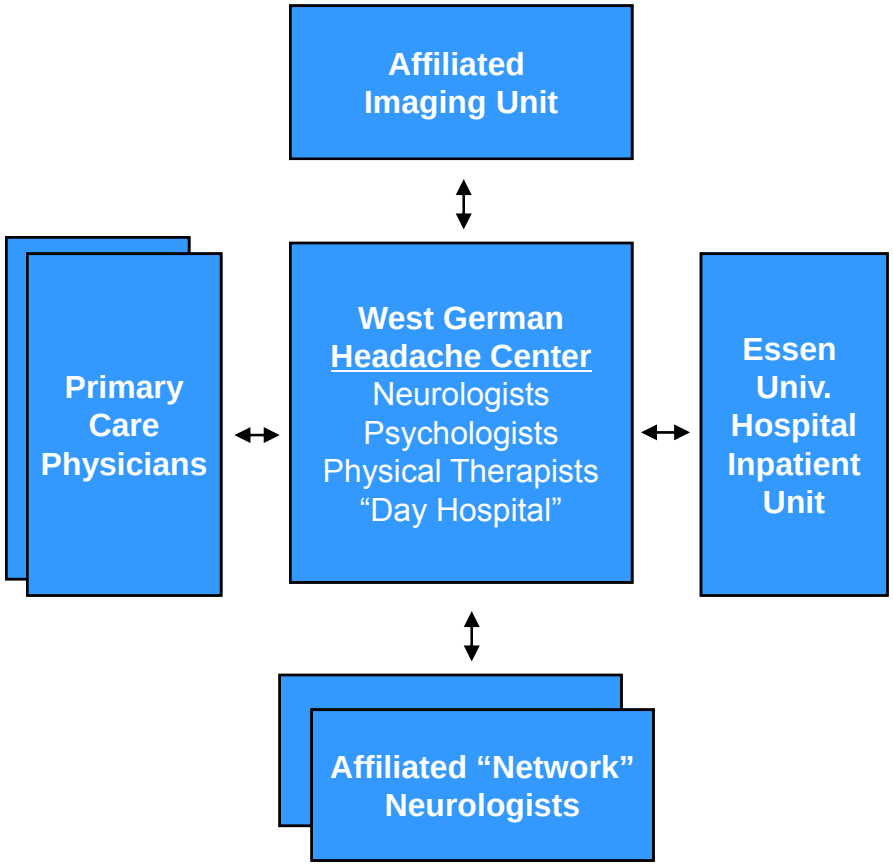
# 1. Organizing Around Patient Medical Conditions

## Migraine Care in Germany

**Existing Model:**
**Organize by Specialty and Discrete Services**




**New Model:**
**Organize into Integrated Practice Units (IPUs)**




Source: Porter, Michael E., Clemens Guth, and Elisa Dannemiller, *The West German Headache Center: Integrated Migraine Care*, Harvard Business School Case 9-707-559, September 13, 2007

# 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
  - Involving **multiple** specialties and services
  - **Including** common co-occurring conditions and complications

- In primary / preventive care, the **unit of value creation** is **defined patient segments** with similar preventive, diagnostic, and primary treatment needs (e.g. healthy adults, frail elderly)

- The medical condition / patient segment is the proper **unit of value creation** and the **unit of value measurement** in health care delivery

# Integrating Across the Cycle of Care
## Breast Cancer

| | MONITORING/ PREVENTING | DIAGNOSING | PREPARING | INTERVENING | RECOVERING/ REHABING | MONITORING/ MANAGING |
|---|---|---|---|---|---|---|
| INFORMING AND ENGAGING | • Advice on self screening<br>• Consultations on risk factors | • Counseling patient and family on the diagnostic process and the diagnosis | • Explaining patient treatment options/ shared decision making<br>• Patient and family psychological counseling | • Counseling on the treatment process<br>• Education on managing side effects and avoiding complications<br>• Achieving compliance | • Counseling on rehabilitation options, process<br>• Achieving compliance<br>• Psychological counseling | • Counseling on long term risk management<br>• Achieving compliance |
| MEASURING | • Self exams<br>• Mammograms | • Mammograms<br>• Ultrasound<br>• MRI<br>• Labs (CBC, etc.)<br>• Biopsy<br>• BRACA 1, 2…<br>• CT<br>• Bone Scans | • Labs | • Procedure-specific measurements | • Range of movement<br>• Side effects measurement | • MRI, CT<br>• Recurring mammograms (every six months for the first 3 years) |
| ACCESSING THE PATIENT | • Office visits<br>• Mammography unit<br>• Lab visits | • Office visits<br>• Lab visits<br>• High risk clinic visits | • Office visits<br>• Hospital visits<br>• Lab visits | • Hospital stays<br>• Visits to outpatient radiation or chemo-therapy units<br>• Pharmacy visits | • Office visits<br>• Rehabilitation facility visits<br>• Pharmacy visits | • Office visits<br>• Lab visits<br>• Mammographic labs and imaging center visits |
| | • Medical history<br>• Control of risk factors (obesity, high fat diet)<br>• Genetic screening<br>• Clinical exams<br>• Monitoring for lumps | • Medical history<br>• Determining the specific nature of the disease (mammograms, pathology, biopsy results)<br>• Genetic evaluation<br>• Labs | • Choosing a treatment plan<br>• Surgery prep (anesthetic risk assessment, EKG)<br>• Plastic or onco-plastic surgery evaluation<br>• Neo-adjuvant chemotherapy | • Surgery (breast preservation or mastectomy, oncoplastic alternative)<br>• Adjuvant therapies (hormonal medication, radiation, and/or chemotherapy) | • In-hospital and outpatient wound healing<br>• Treatment of side effects (e.g. skin damage, cardiac complications, nausea, lymphedema and chronic fatigue)<br>• Physical therapy | • Periodic mammography<br>• Other imaging<br>• Follow-up clinical exams<br>• Treatment for any continued or later onset side effects or complications |

# Value-Based Primary Care

Organize primary care **around patient segments** with similar health circumstances and care needs:

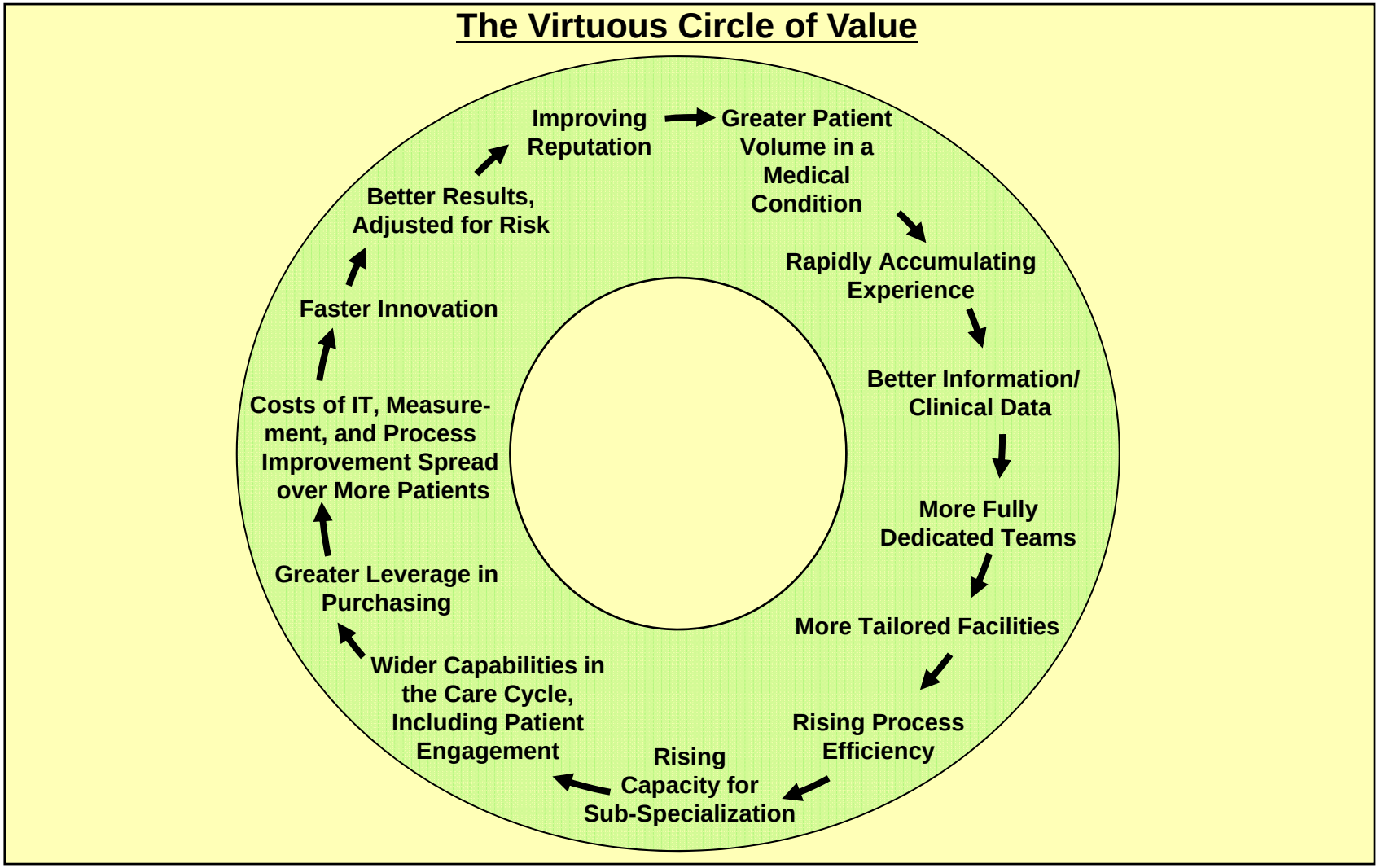
**Illustrative Segments**

- Healthy adults
- Otherwise healthy adults with a complex acute illness
  - E.g. cancer
- Adults at risk of developing chronic or acute disease
  - E.g. family history, environmental exposures, lifestyle
- Chronically ill adults with one or more complex chronic conditions
  - E.g. diabetes, COPD, heart failure
- Adults with rare conditions
- Frail elderly or disabled

Tailor the Care Delivery Team and Facilities to Each Segment

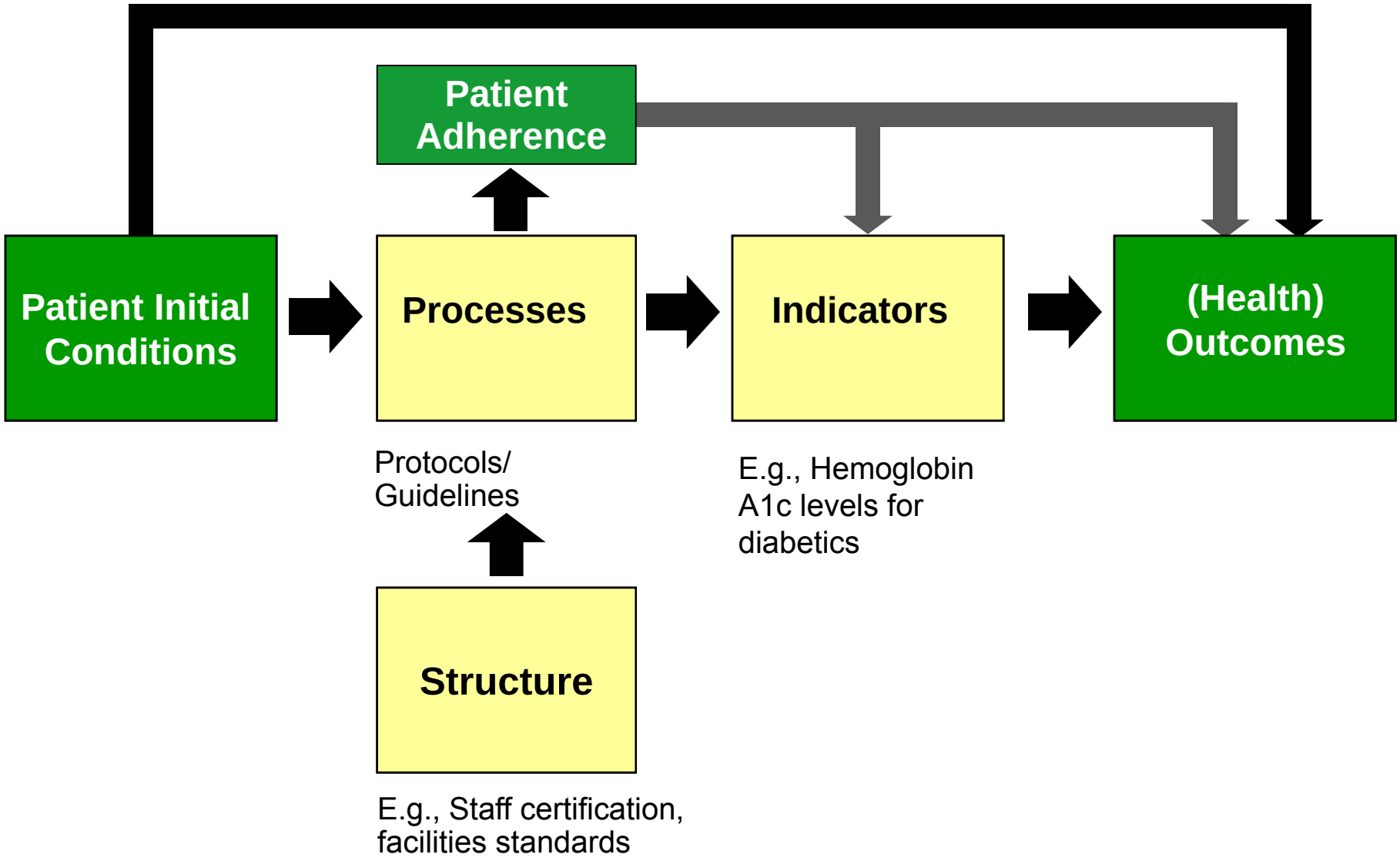
- Physicians, nurses, educators, and other staff best equipped to meet the medical and non-medical needs of the segment
- Care delivered in locations reflecting patient circumstances in the segment

# Volume in a Medical Condition Enables Value

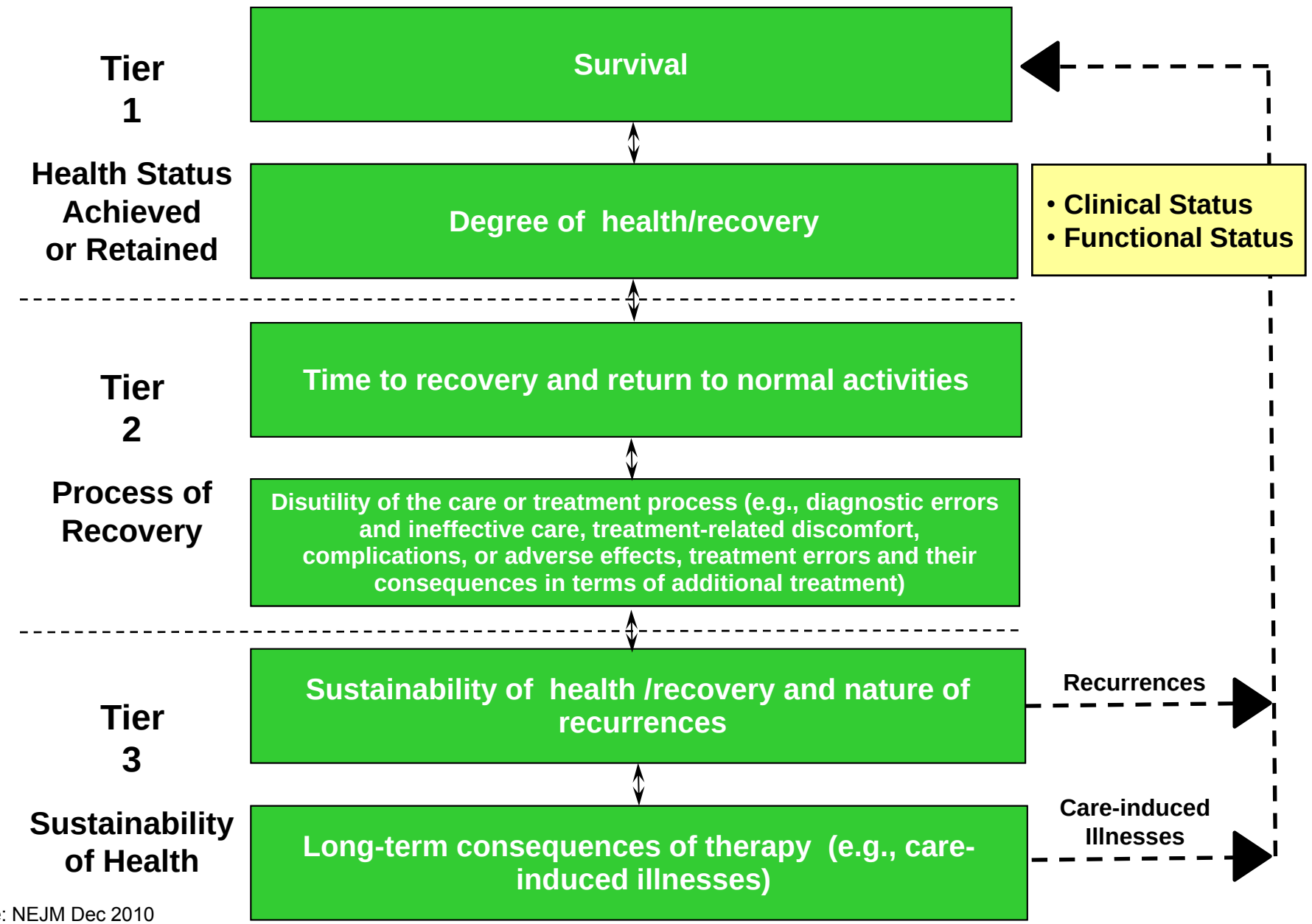



- Volume and experience will have an even greater impact on value **in an IPU structure** than in the current system

# 2. Measuring Outcomes and Cost for Every Patient



# The Outcome Measures Hierarchy

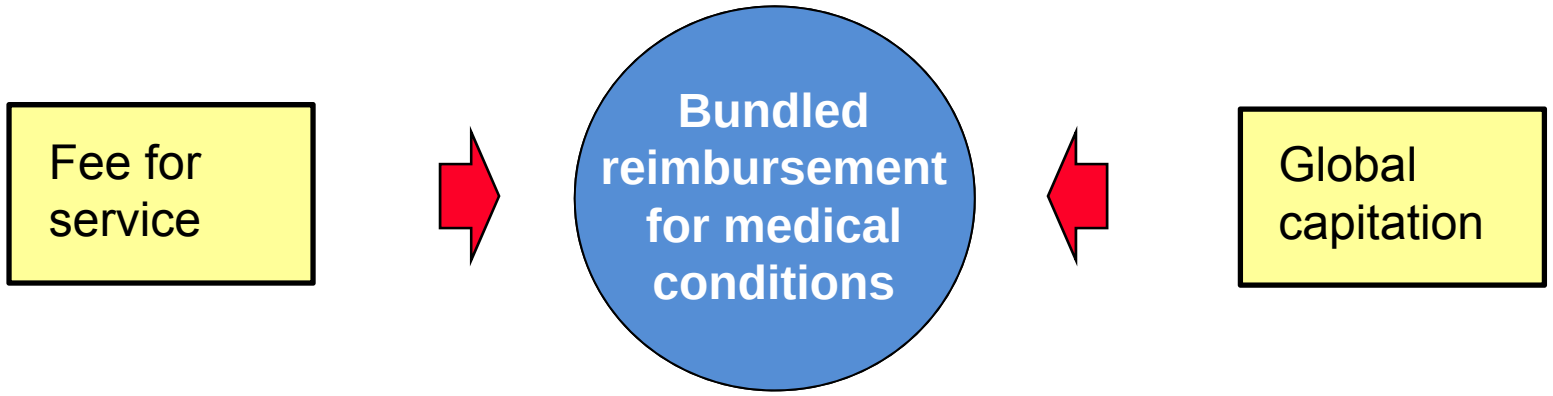



Source: NEJM Dec 2010

# Measuring the Cost of Care Delivery: Principles

- Cost is the **actual expense** of patient care, not the **charges** billed or collected
- Cost should be measured around the **patient**
- Cost should be aggregated for the **full cycle of care for the patient's medical condition,** not for departments, services, or line items
- Cost depends on the **actual use of resources** involved in a patient's process of care (personnel, facilities, and support services)
  - The **time** devoted to each patient by these resources
  - The **capacity cost** of each resource

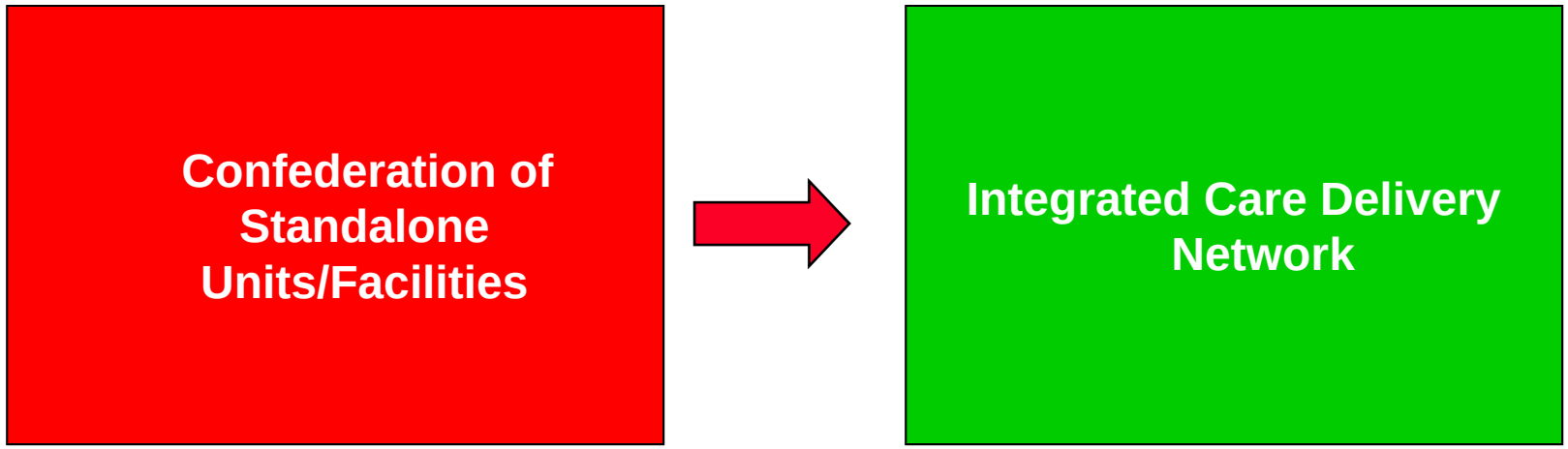
# 3. Move to Bundled Prices for Care Cycles




**Bundled Price**

- A single price covering the **full care cycle for an acute medical condition**
- Time-based reimbursement for overall care of a **chronic condition**
- Time-based reimbursement for **primary/preventive care** for a **defined patient segment**

# 4. Integrate Care Delivery Across Separate Facilities




- Increase overall **volume**
- Benefits limited to **contracting** and **spreading limited fixed overhead**

- Increase **value**
- The network is **more than** the sum of its parts

# Four Levels of Provider System Integration

1. Choose an **overall scope of services** where the provider system can achieve excellence in value
2. **Rationalize service lines / IPUs across facilities** to improve volume, better utilize resources, and deepen teams
3. Offer specific services at the **appropriate facility**
   - E.g. acuity level, resource intensity, cost level, need for convenience
4. Clinically integrate care **across units and facilities** using an IPU structure
   - Integrate services across the care cycle
   - Integrate preventive/primary care units with specialty IPUs

- There are major value improvements available from **concentrating volume** by medical condition and moving care **out of heavily resourced** hospital, tertiary and quaternary facilities

# 5. Expanding Areas of Excellence

Regional Providers

- Increase the **volume** of patients in **particular medical conditions** or **primary care segments** within the service area
- Grow **areas of excellence across geography**:
  - Hub and spoke expansion of satellite pre- and post-acute services
  - Affiliations with community providers to extend the reach of IPUs
- **NOT** Further **widening** service lines locally, or adding new **broad line** units

Community Providers

- **Affiliate with excellent providers** in more complex medical conditions and patient segments in order to access expertise, facilities, and services to enable high value care
  - Focus community and rural hospitals on appropriate conditions, services, and follow-up in a partnered IPU structure

# 6. Building an Enabling Information Technology Platform

Utilize information technology to enable **restructuring of care delivery** and **measuring results**, rather than treating it as a solution itself

- Common **data definitions**
- Combine **all types of data** (e.g. notes, images) for each patient
- Data encompasses the **full care cycle**, including care by referring entities
- Allow access and communication among **all involved parties**, including with patients
- **Templates** for medical conditions to enhance the user interface
- "**Structured**" data vs. free text
- Architecture that allows easy extraction of **outcome measures**, **process measures**, and **activity-based cost measures** for each patient and medical condition
- Interoperability standards enabling communication among **different provider** (and payor) **organizations**

# Creating a Value-Based Health Care Delivery System

## Value-Adding Roles of Payors

- Provide for comprehensive and integrated **prevention**, **wellness**, **screening**, and **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
- Assemble, analyze and manage the **total medical records** of members
- Measure and report **overall health results** for members by medical condition versus other plans

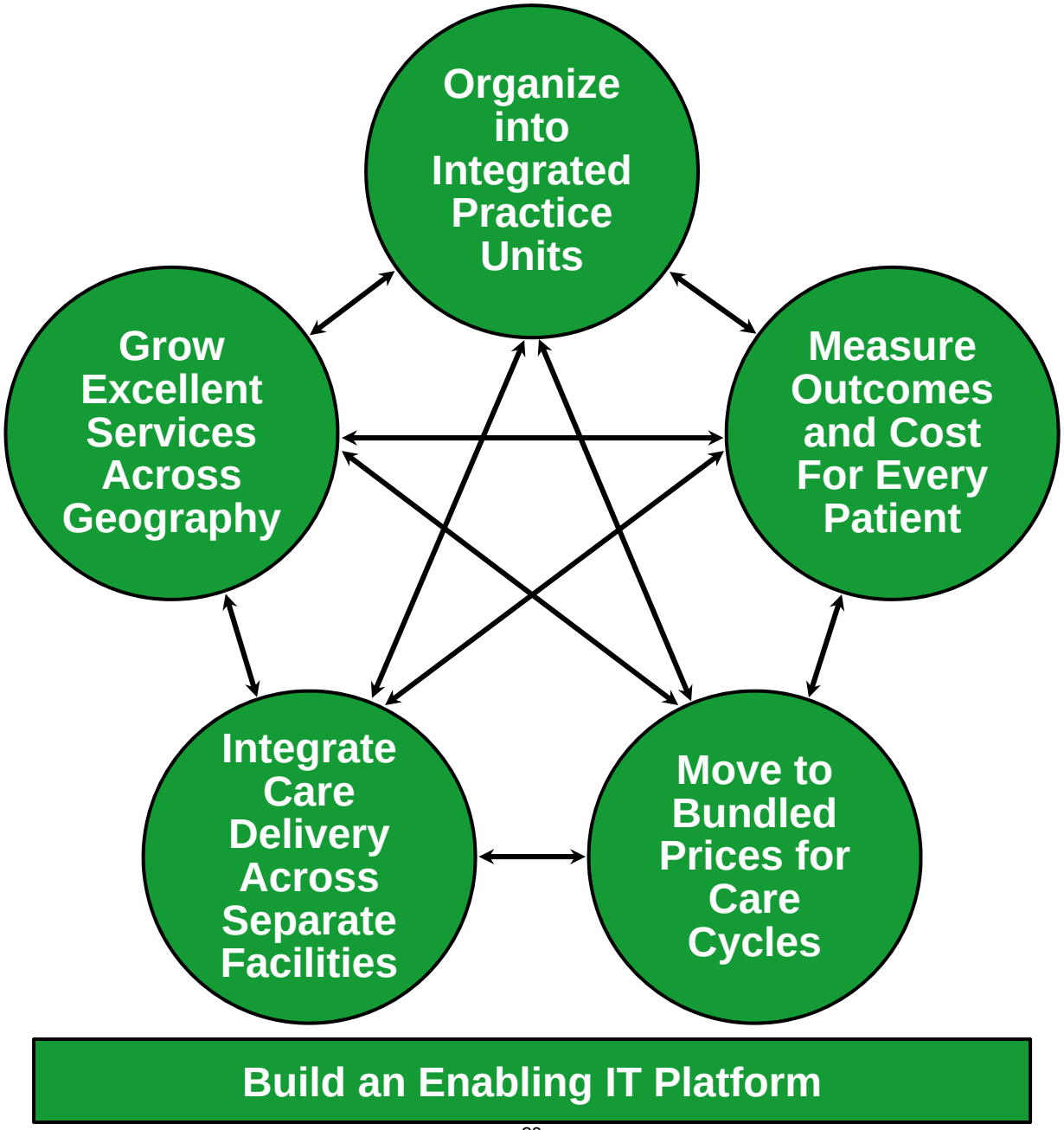
- Health plans will require **new capabilities** and **new types of staff** to play these roles

# Creating a Value-Based Health Care Delivery System

## Implications for Government

1. Organize into Integrated Practice Units (IPUs) Around Patient Medical Conditions
   - **Reduce regulatory obstacles to care integration**
2. Establish Universal Measurement of Outcomes and Cost for Every Patient
   - **Create a national framework of medical condition outcome registries and a path to universal measurement**
   - **Tie reimbursement to outcome reporting (e.g., through registries)**
3. Move to Bundled Prices for Care Cycles
   - **Create a bundled pricing framework and rollout schedule**
4. Integrate Care Delivery Across Separate Facilities
   - **Introduce minimum volume standards by medical condition**
5. Expand Excellent IPUs Across Geography
   - **Encourage affiliations between providers who fall below minimum volume standards and qualifying centers of excellence for more complex care**
6. Create an Enabling Information Technology Platform
   - **Set standards for common data definitions, interoperability, and the ability to easily extract outcome, process, and costing measures for qualifying HIT systems**

# A Mutually Reinforcing Strategic Agenda



# Faculty

- **Michael E. Porter**, Harvard Business School, Course Head
- **Elizabeth Olmsted Teisberg,** University of Virginia, Darden Graduate School of Business Administration, Dartmouth Medical School
- **Thomas H. Lee,** Harvard Medical School, Harvard School of Public Health, Partners HealthCare
- **Sachin Jain,** Harvard Medical School, Brigham and Women's Hospital
- **Mary Witkowski,** Harvard Medical School, Harvard Business School

# Participants (88)

## 17 Current Students

- 10 Dual degree
  - 5 MD/MBA
  - 4 MD/MPH
  - 1 MD/MPP
- 3 MD alone
- 2 MBA (HBS)
- 1 PhD (HBS)
- 1 MBA/MPP

## 17 Residents and Fellows

- 3 Brigham and Women's
- 3 Beth Israel Deaconess
- 11 Other

## 45 Clinicians

- 25 Clinical Leaders/Managers
  - 5 Directors of Quality or Safety
  - 3 Chief Medical Officers
  - 3 Clinical Chiefs of Service

## 5 Administrators

## 4 Educators

## 19 International Participants

- 8 Clinical Leaders/Managers
- 8 QI/Health Policy Fellows
- 4 Administrators/Educators
- 9 UK, 5 Sweden, 3 Germany, 2 Netherlands, 1 Each from Peru, Mexico, Italy

# Value-Based Health Care Delivery

## Intensive Seminar Schedule

| Monday, January 9 | Tuesday, January 10 | Wednesday, January 11 | Thursday, January 12 | Friday, January 13 |
|---|---|---|---|---|
| **9:00-9:45 Welcome and Topic Lecture: Intro. to Value-Based Health Care Delivery** (Michael Porter) | **9:00-10:30 Session 3: Value-Based Models of Primary care**<br>Case: Commonwealth Care Alliance: Elderly and Disabled Care<br>*Faculty: Elizabeth Teisberg* | **9:00-10:30 Session 5: Creating Systems for Outcomes Measurement**<br>Case: Schön Klink: Eating Disorders Care<br>*Faculty: Michael Porter* | **9:00-10:45 Session 7: Role of Employers in Health Care**<br>Case: Michelin, part 1<br>*Faculty: Elizabeth Teisberg* | **9:00-10:00 Session 9: Hospital Strategy and Growth**<br>Case: Cleveland Clinic: Growth Strategy 2011<br>*Faculty: Elizabeth Teisberg* |
| **9:45-11:15 Session 1: The Need for Integrated Care Delivery**<br>Case: ThedaCare: System Strategy<br>*Faculty: Sachin Jain* | 10:30-11:00 Break | 10:30-11:00 Break | 10:45-11:15 Break | 10:30-11:00 Break |
| **11:15-11:45 Break** | **11:00-12:00 Case Protagonist**<br>Guest: Bob Master, CEO and Lois Simon, COO | **11:00-12:00 Case Protagonist**<br>Guests: Jens Deerberg, COO and Axel Fischer, Director of Medical Management | **11:15-12:00 Michelin case, part 2**<br>*Faculty: Elizabeth Teisberg* | **11:00-12:00 Case Protagonist**<br>Martin Harris, Chief Medical I Information Officer |
| **11:45-12:15 Case Protagonist**<br>Video: John Toussaint, former CEO, ThedaCare | 12:00-12:15 Group Photo | **12:00-12:45 Topic Lecture: Outcomes Measurement** (Michael Porter) | **12:00-12:45 Topic Lecture: Integrated Chronic Care and Employer Roles in Health Care** (Elizabeth Teisberg) | **12:00-12:30 Topic Lecture: System Integration, and Growth** (Elizabeth Teisberg) |
| **12:15-12:45 Topic Lecture: Improving Value in Health Care** (Elizabeth Teisberg) | 12:15-1:15 Lunch and Preparation | | | **12:30-1:00 Course Wrap-Up** |
| 12:45-1:45 Lunch and Preparation | | 12:45-1:30 Lunch and Preparation | 12:45-1:30 Lunch and Preparation | |
| **1:45-3:15 Session 2: Hospital Structure, Organization, and Service Expansion**<br>Case: MD Anderson Cancer Center<br>*Faculty: Michael Porter* | **1:15-2:15 Session 4: Value-Based Models in the U.K.**<br>High-Risk Pregnancy Care at GWH<br>*Faculty: Tom Lee* | **1:30-2:15 Topic Lecture: Cost Measurement** (Mary Witkowski) | **1:30-3:00 Session 8: System Integration and Network Strategy**<br>Case: Children's Hospital of Philadelphia: Network Strategy<br>*Faculty: Michael Porter* | |
| 3:15-3:30 Break | **2:15-2:45 Case Protagonist**<br>Harini Narayan, Consultant Obstetrician | **2:15-3:30 Cost Measurement Panel**<br>Heidi Albright, Ron Walters, Jens Deerberg, Axel Fischer | 3:00-3:15 Break | |
| **3:30-4:30 Case Protagonist**<br>John Mendelsohn, former CEO<br>Heidi Albright, Director, Clinical Operations for the Institute for Cancer Care Excellence | 2:45- 3:00 Break<br>**3:00-4:00 Session 4: Value-Based Models in the U.K.**<br>Reconfiguring Stroke Care in North Central London<br>*Faculty: Tom Lee*<br>**4:00-4:30 Case Protagonist**<br>Charlie Davie, Medical Director | 3:30-3:45 Break<br>**3:45-5:15 Session 6: Integrated Care and Reimbursement**<br>Case: UCLA<br>*Faculty: Tom Lee* | **3:15-4:15 Case Protagonist**<br>Guest: Madeline Bell, COO<br>4:15-4:30 Break<br>**4:30-5:00 Faculty Session (optional)**<br>For participants interested in teaching our health care curriculum at their institutions | |
| **4:30-5:15 Topic Lecture: Integrated Practice Units** (Elizabeth Teisberg) | **4:30- 5:15 Topic Lecture: Applying a Value Framework Within a Delivery System** (Tom Lee) | **5:15-5:45 Case Protagonist**<br>Video: Tom Rosenthal, CMO<br>**5:45-6:15 Topic Lecture: Reimbursement** (Michael Porter) | | |

# The Case Method

- **Name cards** and assigned seating
- **Raise your hand** to participate
- Use **case facts only** during the discussion
- **No questions** to the instructor are appropriate **during the case discussion**
- There are **no "right" answers**