Value-Based Health Care Delivery:
Systems Integration & Growth

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This presentation draws heavily on Professor Porter’s research in health care delivery including Redefining Health Care (with Elizabeth Teisberg), What is Value in Health Care, NEJM, and The Strategy That Will Fix Health Care, HBR (with Thomas Lee). A fuller bibliography is attached. 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. For further background and references on value-based health care, see the website of the Institute for Strategy and Competitiveness.
Creating a Value-Based Health Care Delivery System
The Strategic Agenda

1. Re-organize care around patient conditions (or groups of related conditions) into **integrated practice units (IPUs)**, covering the full cycle of care
   - For primary and preventive care, IPUs should serve **distinct patient segments**

2. Measure **outcomes** and **costs** for every patient, in the line of care

3. Move to value-based reimbursement models, and ultimately **bundled payments** for conditions

4. **Integrate** and **coordinate** care across multi-site care delivery systems

5. Expand or affiliate **across geography** to reinforce excellence

6. Build an enabling **information technology platform**
Shifting The Strategic Logic of Health Systems

Confederation of Standalone Units/Facilities

- Increase the overall volume of care
- More clout in contracting and purchasing
- Spreading “fixed overhead” costs
- Owned or affiliated primary care practices, outpatient clinics, and community hospitals to “guarantee” referrals and raise acuity of AMCs

Clinically Integrated Care Delivery System

- Increase value
- Move to value-based delivery models
- Concentrate, allocate, and integrate care across appropriate sites
- The system is more than the sum of its parts
“Population Health”

- Serve a **large** population
- Meet **all** the population’s **needs**
- Focus on **prevention**
- Appropriateness of care and reducing **overtreatment**
- Improve **generic quality metrics** across diseases (e.g. infection rates, readmissions)
- Improve **population-wide quality metrics**

Value-Based Delivery System by Condition and Primary Care Segment

- Deliver unique **value for patients**
  - By condition and primary care patient segment
- Build **IPUs** by condition covering the full care cycle
- Create segmented **primary care**
- Measure and improve value **condition** by **condition** and **segment** by **segment**
- Embed **prevention** in the care cycle across all types of care
Four Levels of Provider System Integration

1. Defining the overall scope of services for each site, and for the system as a whole, based on value
   - Affiliate to enter or compete in services lacking in-house capability

2. Concentrate volume of patients by condition in fewer locations to support the creation of IPUs, as well as improve outcomes and efficiency

3. Perform the right services in the right locations based on acuity level (“acuity tuning”), resource/cost fit, and the benefits of patient convenience for repetitive services
   - E.g., move less complex surgeries out of tertiary hospitals to lower acuity facilities and outpatient surgery centers
   - Affiliate with other provider sites when this improves value

4. IPUs integrate the care cycle across sites
   - Multidisciplinary team taking responsibility for the full care cycle
   - Common scheduling process
   - Digital services, telemedicine and home care contribute to tying together the care cycle and improving value
The Geography of Care and Value

• **The Traditional Care Geography Model**
  - Care organized around **specialties** and **interventions** at each site
  - **Duplication** of services across sites/facilities
  - Sites provide care for **multiple acuity levels** and across complexity of patients
  - **Limited integration** of care across sites
  - Traditional Model reinforced by **fee-for-service** payments and **siloed IT systems**

• **Geography and Value: Strategic Principles**
  - Organize **care by condition** in IPUs (the hubs)
    - Aggregate condition volume in a limited number of sites
    - Multi-disciplinary teams with responsibility for managing full care cycle
  - IPUs **allocate services** to sites across the care cycle based on: site capabilities, care complexity, patient risk, site cost, and patient convenience
  - **Incorporate** telemedicine, home services, and affiliated provider sites to improve value across the care cycle
  - IPUs should create **formal systems** to direct patients to the **most appropriate site** given their circumstances
Delivering the Right Care at the Right Location
Rothman Institute, Philadelphia

Facility Capability
- Lowest Complexity
- Low Complexity
- Medium Complexity
- Highest Complexity

Lowest Complexity
- Price of Total Hip Replacement: ~$12,000 USD

Low Complexity
- Rothman Orthopaedic Specialty Hospital

Medium Complexity
- Ambulatory Surgery Center

Highest Complexity
- Bryn Mawr Community Hospital
- Price of Total Hip Replacement: ~$45,000 USD
- Jefferson University Academic Medical Center

Patient Risk Factors: Age, Weight, Expected Activity, General Health, and Bone Quality
Move Lower Complexity Services Out of High Resource High Cost Centers to Community Hospitals

MD Anderson Regional Cancer Care Centers

- MD Anderson Memorial City
  - Day surgery for oncology

- MD Anderson The Woodlands
  - Breast
  - Colorectal
  - Dermatology
  - Endocrine
  - Head and Neck
  - Genitourinary

- MD Anderson West Houston
  - Breast
  - Colorectal
  - Dermatology
  - Endocrine
  - Gynecological
  - Head and Neck
  - Neurologic
  - Thoracic
  - Biopsy and Lab services

- MD Anderson in Sugar Land
  - Breast
  - Colorectal
  - Dermatology
  - Endocrine
  - Genitourinary
  - Gynecological
  - Head and Neck
  - Neurologic
  - Thoracic
  - Lab services

- MD Anderson League City
  - Breast
  - Colorectal
  - Dermatology
  - Endocrine
  - Gynecological
  - Head and Neck
  - Neurologic
  - Thoracic
  - Lab services
  - Diagnostic Imaging
Allocate and Integrate Care Across Sites
Children’s Hospital of Philadelphia Care Network

**Wholly-Owned Outpatient Units**
- Primary Care Practices
- Specialty Care Centers
- Specialty Care Center, Surgery Center & After-Hours Urgent Care
- Specialty Care & Surgery Centers (no urgent care)
- Specialty Care Center, Surgery Center, After-Hours Urgent Care & Home Care

**Community Hospital Inpatient Partnerships**
- CHOP Newborn Care
- CHOP Pediatric Care
- CHOP Newborn & Pediatric Care

Hospital & Integrated Specialty Program with Virtua Health and Mt. Sinai. CHOP services in more tertiary adult hospital.
Expand Geographic Reach
The Cleveland Clinic Cardiac Affiliate Program

- Partner with well resourced community hospitals to perform moderate and low complexity cases
- Cleveland Clinic provides training, benchmarking, management support, and associated services
- Complex cases referred to Cleveland Clinic
- 50% of total Cleveland Clinic heart surgeries performed at affiliates
Affiliation to Upgrade and Allocate Care Across Centers
Regional Strategy at Texas Children’s Heart Center

Inpatient Mortality Rate
Texas state average: 4.5%

Covenant Hospital in Lubbock
(17.1%)**

El Paso

Regional Strategy at Texas Children’s Heart Center

Children’s Hospital of San Antonio
(4.2%)

The Heart Center Texas Children’s Hospital in Houston
(2.2%)*

ABC Hospital of Mexico City
(2%)
Partnering to Compete Multi-Regionally or Nationally in Particular Conditions
National Orthopaedic and Spine Alliance (NOSA)

**Founding Members**
- Cleveland Clinic
- CORE Institute
- OrthoCarolina
- Hoag Institute
- Rothman Institute

**National Contracting**
- Contract directly with large employers
- Streamlined scheduling at nearest center
- Remote and virtual monitoring using telehealth
- Bundled price
- Care guarantee

**Standardized Measurement**
- Pre- and post-surgery functional outcomes and pain
- One-year infection rates
- 30-day inpatient readmissions
- 30-day reoperation rates
Enabling System Integration and Affiliation

- IPU hubs manage the **allocation** and **integration** of care across sites
- **Telemedicine** to better link sites
- Common **EMR**
- **Unified IPU scheduling** of patients by condition
- Standardized TDABC **costing**
  - Ability to measure and compare **cost by location** for each service/activity in the care cycle
- Integrated and common **dashboards, protocols, processes, and financial statements**

- **Physician** alignment
  - Employed or affiliated physicians where feasible
- Explicit mechanisms to forge **personal relationships** among staff who work together but at different sites
  - Meetings and other steps that create **regular contact** among dispersed staff
  - **Rotation of staff** across locations
- Common **culture and values**
Broad Based Affiliations Across a Region

Vanderbilt Health Affiliated Network (VHAN)

- Allocate care to the appropriate site
- Raising acuity at the Quaternary Center
Selected References on Value-Based Health Care

Value-Based Health Care

Integrated Practice Units and Primary Care

Outcome Measurement

Cost Measurement

Reimbursement

Regional and National Expansion

Information Technology

HBS Cases