(Re)Aligning the Stars: Design Thinking for Health Systems

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“Dr” Brian Golden
University of Toronto
Systems Perspective

Economics

Sociology

Social Psychology

Behaviour
Plenty of Doom and Gloom

“Pride has led to a false sense of confidence in the system. The status quo is unsustainable. If the fiscal challenge continues to fester, the system will weaken further, even falter. Access and quality care are at risk.”.

“The health care system achieves a reasonable balance of treatment quality, cost, and outcomes, but reforms are needed to contain expenditure pressures. Meeting the demographic and fiscal challenges requires bringing down trend growth in public health spending significantly, lest other public spending be squeezed and/or taxes be forced to rise”.

“Canada’s health system produces rates of growth in health spending that are not sustainable solely through redistributive public financing. Supplementary user-based, private financing would off-load public cost pressures, encourage economic efficiency, and offer a sustainable source of additional resources”.

“Should policy reforms be incredibly successful in improving the efficiency and effectiveness of the healthcare system, Canadians would still face rising healthcare costs and necessary choices as to how governments and individuals will finance these costs”.
“Sweden has one of the world’s best healthcare systems ……..

“……..at least if we believe renowned North American researchers who have shown an interest in us.”
Three Frameworks

I. System Alignment

II. Value

III. Disruptive Innovations
Nearing the end of his four-year term as Under Secretary for Health—a position in which he directed the United States Veterans Health Administration (VHA)—Dr. Kenneth W. Kizer, awaited news from the Senate about his reappointment. The veterans’ health care system, administered by the VHA, was the largest integrated health care system in North America. When he took the helm in late 1994, Dr. Kizer inherited an antiquated post-World War II-era management system fraught with problems. He immediately made plans to re-engineer the VHA into a modern, responsive, efficient, and effective health care organization. By the end of his first term, he had made substantial headway, but in doing so he had shaken an entrenched bureaucracy to the core, seriously challenged numerous vested interests and taken on members of Congress. However, whether the changes implemented would be enough to take the VHA into the next century remained uncertain. As the Senate deliberated over his confirmation for a second term, Dr. Kizer reflected on the previous few years.
Realigning Systems
Principles of Value

Organize into Integrated Practice Units (IPUs) around the patient’s / client’s condition

Measure outcomes and cost for every patient / client

Reward providers based on results

Create Enabling Information Technology

Realize value through learning and scale economies; Grow by expanding excellent IPUs

Move to Bundled Prices for Care Cycles
Driving Improvement

Better Results, Adjusted for Risk

Deeper Penetration (and Geographic Expansion) in a Person’s Condition

Improving Reputation

Rapidly Accumulating Experience

Rising Efficiency

Better Information/Clinical Data

More Fully Dedicated Teams

More Tailored Facilities

Greater Leverage in Purchasing

Wider Capabilities over the Care Cycle

Faster Innovation

Greater volume over which to spread IT, measurement, and process improvement costs

Rising Capacity for Sub-specialization

Attention to results enables and encourages improvement.

Broad expertise develops over the care cycle for the patient.

Adapted from: Michael E. Porter and Elizabeth O. Teisberg (2006)
The Sun Yat-Sen Cancer Center (SYS)

SYS vs. Taiwan Breast Cancer Patient Survival Trend Over Time, 1990-2006

<table>
<thead>
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<th></th>
<th>Stage I</th>
<th>Stage II</th>
<th>Stage III</th>
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<tr>
<td>SYS, '90-'97</td>
<td>93.0%</td>
<td>88.7%</td>
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<tr>
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<td>All Taiwan, '02-'06</td>
<td>93.4%</td>
<td>86.7%</td>
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Typical Care Structure: Diabetes
The Joslin Diabetes Center

- Eye care
- Renal care
- Physiotherapy
- Mental Health
- Endocrinology/Nephrology
- Diabetes Education
- Point-of-care lab services
- Diabetes Education
Current State for Diabetic Foot Ulcer Clients

Hospital
Self / Family / Community
Primary Care

CCAC Intake

CCAC Case Manager

Assessment

Recommendation for other services

Supplies
Nursing Provider (1 thru n)
Personal Support
Occ. Therapy
Nutrition Counseling
Specialized Wound Review

Navigation to non-CCAC services:
Connecting clients to services, e.g. adult day programmes, support services, housing, primary care, meals-on-wheels
Future State for Diabetic Foot Ulcer Clients

- Hospital
- Self / Family / Community
- Primary Care

CCAC Intake

Monitoring and linking

CCAC Case Manager

Assessment

Clinical Coordination of the Wound

Bundled payment
- Supplies
- Nursing Provider
- Personal Support
- Occ Therapy
- Nutrition Counseling
- Specialized Wound Review

Specialized, Integrated Team

Other Services
- Devices
- Chiropody

Regular reporting on outcomes/progress
The Three Enablers of Disruption

• Technological
• Business Model
• Commercial System
Disruption is facilitated when historically valuable (and expensive) expertise becomes commoditized.
From Intuitive to Precision Medicine
Intuitive, Empirical, and Precision Treatment Efficacy vs. Understanding of Mechanisms

Five examples (simplified)

(Adapted from Christensen et al., 2009)
Three Types of Business Models

**SOLUTION SHOPS**
- Consulting firms
- High-end law firms
- R&D organizations
- Diagnostic activities of hospitals

**VALUE-ADDING PROCESS BUSINESSES**
- Manufacturing
- Food services
- Retailing
- Medical procedures

**FACILITATED USER NETWORKS**
- Telecommunications
- Insurance
- EBay
- D-Life (for diabetes patients & families)

**Fee for service**
**Fee for outcome**
**Mixed fees**

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Kensington Eye Institute

- A non-profit independent health facility that specializes in cataract surgery
- Performs 6700 cataract surgeries a year
- “...efficiency so great that most surgeons are finishing their slate by one or two o’clock in the afternoon’ (Report from the Kensington Eye Institute External Review Committee, 2007).
- Able to perform cataract at $580 per case, well below “Wait-Time” prices
Kensington Eye Institute

Cataract Removal 2007-08

Volume of cases vs. Average cost per case for various institutions:
- St. Michael's
- Mt. Sinai
- UHN
- Ottawa
- William Osler
- Credit Valley
- Trillium

KEI
Today’s hospitals and specialist physician practices are agglomerations of solution shop, value-adding process, and (a few) facilitated network activities.

- **Hypothesis**: Treat-
- **Treatment**

**Business Model Disruption in Health Care**

- **Hospitals become focused solution shops, practicing intuitive medicine**
- **Focused value-adding process hospitals & clinics provide procedures after definitive diagnosis**
- **Facilitated networks take dominant role in the care of many chronic diseases**

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Opportunity: From Bottom Left to Top Right

(Adapted from Christensen et al, 2009)
(Re)aligning the Stars: Some Implications and Directions

Operational Strategy

Information & Decision Support

Rewards

People/HRM

Performance

Structure
Thank you