Preparing MHA Students for a Very Different Healthcare Future

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Quality Science
Disclosures

I receive a monthly retainer as a part time (3 days / month) senior advisor for Health Catalyst. I also own (a small amount of) Health Catalyst stock.

Other than that, neither I nor any family members have any relevant financial relationships to be directly or indirectly discussed, referred to or illustrated within the presentation, with or without recognition.
Fast-track extubation protocol

X-Bar Chart - 0.01 control limits

Mean extubation time (hours)

Month

LDS Hospital Heart Services
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Fast-track extubation protocol

- **Baseline** (Jan 93--Aug 93)
- **Fast-Track** (Nov 93--Feb 94, Aug 94--Nov 94)

<table>
<thead>
<tr>
<th></th>
<th>TICU LOS</th>
<th>Acute care LOS</th>
<th>Hospital LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline</strong></td>
<td>2.7</td>
<td>4.39</td>
<td>8.64</td>
</tr>
<tr>
<td><strong>Fast-Track</strong></td>
<td>1.86</td>
<td>4.05</td>
<td>7.39</td>
</tr>
</tbody>
</table>

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Fast-track extubation protocol

**ABGs**

- **Baseline** (Jan 93--Aug 93): 11.96
- **Fast-Track** (Nov 93--Feb 94, Aug 94--Nov 94): 2.11

**Total cost**


LDS Hospital Heart Services

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The opportunity (care falls short of its **theoretic** potential)

1. **Massive variation in clinical practices** (beyond even the remote possibility that all patients receive good care)

2. **High rates of inappropriate care** (where the risk of harm inherent in the treatment outweighs any potential benefit)

3. **Unacceptable rates of preventable care-associated patient injury and death**

4. **Striking inability to "do what we know works"**

James, B.C.  Testimony to the U.S. Senate Finance Committee, February 2009
Variation leads to waste

30-50+% of all health care resource expenditures are quality-associated waste:

- recovering from preventable foul-ups
- building unusable products
- providing unnecessary treatments
- simple inefficiency

Some viable estimates suggest as much as 65% of all care delivery spending is quality-associated waste.

In 2020, that’s as much as $2 trillion in financial opportunity; 10 to 100 times greater than opportunities associated with traditional revenue models.
Quality is **not** free  
*(Phil Crosby was waxing poetic)*

**It always requires investment**
- change leadership *(time and thought)*,
- study and investigation,
- data systems,
- physical plant, equipment …

*It’s just that it has a*

**massive return on investment** *(ROI)*
MUCH higher ROI from waste elimination than from revenue growth

Revenue growth:  
5 to 9% contribution  
for each case added

Waste elimination:  
50 to >100% contribution  
for each case avoided

Net Operating Margin  
(and return on investment)
We know why this happens
Causes of clinical variation

1. **Complexity** *(clinical uncertainty)* in the context of

2. continued, primary **Reliance on human memory** – the “craft of medicine” and

3. **Low transparency** – poor data linking clinical choices to patient outcomes in routine practice

**Management strategies that fail to address these root causes will perform suboptimally or fail entirely**
We have found proven solutions
(a clinical management method)
Shared Baseline “Lean” protocols (bundles)

1. **Identify a high-priority clinical process** (key process analysis)

2. **Build an evidence-based best practice protocol** (always imperfect: poor evidence, unreliable consensus)

3. **Blend it into clinical workflow** (= clinical decision support; don't rely on human memory; make "best care" the lowest energy state, default choice that happens automatically unless someone must modify)

4. **Embed data systems to track** (1) **protocol variations and (2) short and long term patient results** (intermediate and final clinical, cost, and satisfaction outcomes)

5. **Demand that clinicians vary based on patient need**

6. **Feed those data back** (variations, outcomes) **in a Lean Learning Loop** - constantly update and improve the protocol

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James Brent C., Savitz Lucy A. How Intermountain trimmed health care costs through robust quality improvement efforts. *Health Affairs* 2011; 30(6):1185-91 (June).
Lesson 1

Within the healing professions,

We count our successes in lives

(Mission always comes first)
Team-Based Care
(3rd generation patient-centered medical home)

| Service                        | Change
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Emergency Room Visits</td>
<td>-11%</td>
</tr>
<tr>
<td>Hospital Admits</td>
<td>-22%</td>
</tr>
<tr>
<td>Avoidable Visits and Admissions</td>
<td>+4%</td>
</tr>
<tr>
<td>Other Tests</td>
<td>+13%</td>
</tr>
<tr>
<td>Radiology Tests</td>
<td>-11%</td>
</tr>
</tbody>
</table>

An investment of $22 per-member-per year (PMPY) decreased medical expenses by $115 PMPY

Lesson 2

Nearly always

better care is cheaper care
through waste elimination
## Nested levels of waste

<table>
<thead>
<tr>
<th>Waste class</th>
<th>% of all waste</th>
<th>Waste subclasses</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Case-rate utilization (# cases per population)</td>
<td>45%</td>
<td>a) <strong>Inappropriate cases</strong> <em>(risk outweighs benefit)</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(e.g., many cath lab procedures; CTPA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) <strong>Preference-sensitive cases</strong> <em>(when given a fair choice, many patients opt out)</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(e.g., elective hips, knees; end-of-life care)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) <strong>Avoidable cases</strong> <em>(hot spotting; move upstream)</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(e.g., team-based care)</td>
</tr>
<tr>
<td>2. Within-case utilization (# and type of units per case)</td>
<td>40%</td>
<td>a) <strong>Clinical variation</strong> <em>(e.g., QUE studies; surgical equipment)</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) <strong>Avoidable patient injuries</strong> <em>(e.g., serious safety event systems; CLABS)</em></td>
</tr>
<tr>
<td>1. Efficiency (cost per unit of care)</td>
<td>15%</td>
<td>a) <strong>Supply chain</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) <strong>Administrative inefficiencies</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- regulatory burden</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- billing thrash</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- TPS Lean observation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- current EMR function</td>
</tr>
</tbody>
</table>
# Financial alignment under different payment mechanisms

<table>
<thead>
<tr>
<th>WASTE REMOVAL LEVEL</th>
<th>% of all waste</th>
<th>PAYMENT METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FFS</td>
<td>Per case</td>
</tr>
<tr>
<td>1. Efficiency</td>
<td>15%</td>
<td>▲</td>
</tr>
<tr>
<td>2. Within-case utilization</td>
<td>40%</td>
<td>▼</td>
</tr>
<tr>
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<td>45%</td>
<td>▼</td>
</tr>
</tbody>
</table>

Note: For green arrows, savings from waste elimination accrue to the care delivery organization; for red arrows, savings go to payer organizations.

James Brent C and Poulsen Gregory P. The case for capitation: It’s the only way to cut waste while improving quality. *Harv Bus Rev* 2016; 94(7-8):102-11, 134 (Jul-Aug).
Lesson 3: Financial alignment

**Who makes the investment?**
(always a care delivery group – it is **clinical** change)

 versus

**Who gets the waste savings?**
(depends on type of waste, versus payment mechanism)

*There are proven, viable ways to address this, even under fee-for-service*
(coming later in the series)
Financial impact of clinical quality improvement at Intermountain

James Brent C and Poulsen Gregory P. The case for capitation: It’s the only way to cut waste while improving quality. *Harv Bus Rev* 2016; 94(7-8):102-11, 134 (Jul-Aug).
Given that framework,

**What does the future hold?**

What knowledge and skills will MHA students “need to succeed” in the future, compared to today?

Walter Gretzky (Wayne Gretzky’s father):

*Skate to where the puck is going to be, not where it has been.*
“Pay for value” continues to grow

Forward looking indicators:

- **Kaiser Permanente** (continued rapid growth within existing geographic markets)
- **Medicare Advantage** (continued rapid growth)
- **ACOs** (Leavitt Group – continued growth; mostly commercial)
Medicare trends over time

![Medicare market share chart showing trends for Traditional FFS, Med Advantage, and ACO from 2010 to 2018. The chart illustrates a decline in Traditional FFS market share and an increase in Med Advantage market share over time. The ACO market share shows a steady increase as well.](image-url)
“Pay for value” continues to grow

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- **ERISA direct to provider contracting**
  (11% of large employers, according to Modern Healthcare)
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  **ACOs** (Leavitt Group; mostly commercial)

- **ERISA direct to provider contracting**
  
  (11% of large employers, according to Modern Healthcare)

- **Provider-payer consolidation** (vertical alignment)
  
  by ownership or partnership (e.g., UPMC; United Healthcare; HPH / Queens Health Systems partnerships with HMSA)
**Implications – we will see:**

- **Increasing focus on waste elimination through “move upstream” strategies:**
  primary care-based population health and clinical variation control using clinical decision support tools (a.k.a. clinical knowledge management = “learning healthcare systems”)

- **Care delivery organizations will increasingly seek capitated risk through ownership or partnership** (role of health insurance organizations changes dramatically)

- **Stand-alone specialty care practices and hospitals become “price takers”** – intense competition mainly around payment rates
Are we preparing our students to thrive in this new health care delivery world?
One last critical idea …

A question:

What is the single most important factor that determines

- clinical quality of care / patient experience of care
- perceptions in the community ("back door" advertising – dramatically more effective than any other modality in driving patient volume and market share)
- productivity
- long-term financial performance?

The answer:

Medical staff and workforce engagement / morale

Prominent thought leader: Dr. Stephen J. Swensen
- recently retired from Mayo Clinic (Mayo’s Chief Quality Officer, then head of Leadership Development)
- now lives in Heber, Utah (avid Nordic skier)
- his new book on the topic came out on 7 February 2020 – Mayo Clinic Strategies to Reduce Burnout

Another possible resource: Jill Green, COO, Mission Health, North Carolina (c/o Health Catalyst)
Better has no limit ...

an old Yiddish proverb