Managing for Sustainable Innovation

Kedar Mate, Lindsay Martin

December 6, 2016
1:30-2:45 pm
Session Objectives

• Develop management strategies for the innovation function in your organization
• Articulate the difference between managing innovation and managing ongoing work
• Create a baseline plan to implement an innovation management system for a strategic initiative
Moving

From the Old…  …To the New
# Delivery System Innovation: Changing our Mental Models

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Innovation is not an event
Innovation is not a product
Changing our Mental Models

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Innovation is a process…

Moen, R. Idealized Design Process
...with many visualizations
Our Initial Innovation Process

• Integrated into project teams
• Created great ideas from improvement work
  – Bundles
  – Reliability
  – ‘Move Your Dot’
• Good, but not good enough
What Was Missing

- Pace
- Staff with dedicated time
- Predictable results
- A forum for problems that needed innovation
- A reliable mechanism to transfer an idea into a prototype or pilot test
IHI Innovation Process

- A specific challenging question to be answered
- A network of innovators, along with other traditional methods (literature search, prototype testing)
- A specific timeline, in this case 90 days
- A set of recommendations at the end of each cycle
Components of a 90-Day Learning Cycle

- **Scan**: Review, conduct interviews & select an angle
- **Focus**: Visits, tests, analysis & concept design
- **Summarize**: Validate, write up & handoff to projects

Using improvement science and lots of learning cycles we improved the design.

- **Question**: Pose & refine question to be answered
- **Scan**: Review literature, conduct interviews, identify exemplars
- **Theory Building**: Identify core underlying principles & theories
- **Focus & Design**: Develop a new concept design for testing
- **Test**: Work with one or more settings to test new concept
Where we are

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…To the New

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The Critical Resource: TIME

Ongoing Operations

From: Chris Trimble, Tuck Business School, Dartmouth
Part Time Contributions from All

Primary Limitation = Project Size

Ongoing Operations

From: Chris Trimble, Tuck Business School, Dartmouth
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Full Time Contribution from a Few

From: Chris Trimble, Tuck Business School, Dartmouth
Innovation with Full Timers

• Bigger projects
• Resources are more reliably available
• Ability to practice clean slate team design (without breaking anything)
An idea on the edge…The Triple Aim

Where’s the conflict:

- IHI’s Core Work: safely delivering care to patients
- Core Customers: Health Care Systems – NOT focused on population health
Purpose built teams

- Acute Care of Elderly Units
- Inpatient Palliative Care Unit
- Ambulatory Intensivist Models
- Community paramedicine
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Innovation and operations have different purposes, structures, cultures, competencies, and stresses.
## Understanding differences

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<th>Purpose</th>
<th>Operations</th>
<th>Innovation</th>
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<tr>
<td></td>
<td>Efficiency, current profit, predictability</td>
<td>Growth, future value, unknown</td>
</tr>
<tr>
<td>Structure</td>
<td>Designed to deliver specific product on time, and on spec</td>
<td>Designed to foster creativity and learning</td>
</tr>
<tr>
<td></td>
<td>Formal, mechanistic</td>
<td>Adaptive, loose</td>
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<tr>
<td>Culture</td>
<td>Task mastery</td>
<td>Risk-taking</td>
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<tr>
<td></td>
<td>Risk-Averse</td>
<td>Speed and agility</td>
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<td></td>
<td>Consensus-driven</td>
<td>Experimentation-driven</td>
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<td></td>
<td>Customer-driven</td>
<td>Seeking edges not medians</td>
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<tr>
<td>Competencies</td>
<td>Operational efficiency</td>
<td>Entrepreneurship</td>
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<tr>
<td></td>
<td>Management</td>
<td>Design</td>
</tr>
<tr>
<td>Stressors</td>
<td>Deliver best care, reliably, each and every time</td>
<td>Consistently develop new ideas</td>
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<tr>
<td></td>
<td></td>
<td>Meet milestones for growth</td>
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The challenge for leadership

- Current State
- Transition State
- Future State

Burden vs. Time
Without an internal learning platform…

• Generate tension (and possibly competition) between innovation and operations
• Fail to realize the potential of the innovation team
• Fail to harvest and implement ideas from the operations team
• Decrease joy in work across both groups
Where we are

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Understand the questions and leverage the right team

- Diagnose the problem and charter the appropriate aspects of the solution
- Identity both the innovation team and the implementation team
- Create a system map – highlighting which team has the primary responsibility at different points
- Eliminate ‘handoffs’ and work towards transitions
- Charter innovation based on organizational priorities
Fostering a healthy interaction

• Problem:
  – The idea may be celebrated when it is first explained by the innovation team or published.
  – Operations is celebrated when the idea is embedded as ongoing practice in the organization.

• Solution:
  – Celebrate & champion both together publicly
  – Map where the two intersect and reduce complexity, barriers to those intersections
## Opioids: From Idea to Product Development

<table>
<thead>
<tr>
<th>Month</th>
<th>Content Development</th>
<th>Preparing the Market</th>
<th>Dissemination</th>
<th>Revenue Generating Work</th>
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</thead>
<tbody>
<tr>
<td>October 2015</td>
<td>Expert Mtg Surgeon General Mtg</td>
<td>Met with New Biz to consider funding options</td>
<td>WIHI</td>
<td>BCG asked Innovation to explore Opioid Seminar</td>
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<td>November 2015</td>
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<td>December 2015</td>
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<td>January 2016</td>
<td></td>
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<td>Opioid Seminar in Market</td>
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<td>February 2016</td>
<td></td>
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<td>MA Medical Society meeting re: OS course</td>
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<td>March 2016</td>
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<td>Leadership Alliance Workgroup</td>
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### 90-day Learning Cycle
- Sent letters out to gauge interest in creating a learning network
- Begin program design for learning network/Model Community
- UMass / Western MA Opioid Round Table Meeting
- MA Medical Society Discussion
- GE Mtg to discuss GE Investment in Boston Opioid Crisis
- Meet with NA and NB to consider funding options

### 90-day Testing Cycle
- WIHI
- Health Affairs Blog
  - Innovation Report on ihi.org
  - 100MHL Call
- Health Affairs Blog
- Healthcare IT News
- OPI Research Roundtable
- Triple Aim Network Call
- December 2016 Forum Opioid Sessions

### Leadership Alliance Workgroup
- Opioid Seminar in Market
- MA Medical Society meeting re: OS course
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90-day Learning Cycle is great if...

• We have 90-180 days available
• The “Problem” needs primarily a research solution
• The output of the project is a set of principles or framework that can be tested further as part of a prototype
But what if…

• We have 6 weeks or 3 days
• The problem needs a design solution or requires a completely new system
• The outcome has to be a working prototype for immediate testing
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IHI Innovation Lab Process

**Looking In** (How does the client see the problem?)
- Redefine scope & key question
- Charter
- Refine the plan for the Lab Experience
- Source Lab team: Client Team
  - IHI Team
- Ethnography and Observation (Understand Client Need)
- Summarize Pre-Work Phase (Create useful images)

**Looking Out**: (What does the end user need?)
- IHI’s advanced scanning
- Verbal bibliographic inquiry
- Observation: Direct correlation and Inspiration
- Client Assignments: (1) Things they are good at; (2) Out of industry example
- Further Observation: Live or Virtual site visits

**Conduct**
- Communicate “Looking In” and “Looking Out”
- Further Ideation & Creativity
- Theory Formation

**Lab**
- Prototype Development
- Prototype Testing
- Model
- Simulate

**Execution**
- Natural Experiments if Appropriate
- Adapt and Finalize solutions
- Develop Support Infrastructure
- Measure & Feedback

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**Prework Phase**

**Lab Phase**

**Pilot Testing**
Innovation Relay?

A multi-team process for developing a creative solution to a complex problem.

A bit of a “Hackathon,” a dash of design workshop, and a splash of the 90-Day Learning Cycle

Goal? Learn while doing.

So, how does this work?

Diverse group of people
Diverse group of experiences
Fertile learning environment

Innovation
<table>
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<th>Problem</th>
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<td>90-day Learning Cycle</td>
<td>What does a model of population health look like for low-income pregnant women?</td>
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<tr>
<td>Innovation Lab</td>
<td>What is the best design for an academic training model to improve patient care?</td>
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<td>Innovation Relay</td>
<td>How can you diagnose and start treatment for mental illness before a critical event?</td>
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<tr>
<td>Idealized Design</td>
<td>What is the idealized design of perinatal care to eliminate adverse events that occur in labor and delivery?</td>
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There are others who do this...
Innovator’s DNA

- Associating
- Questioning
- Observing
- Experimenting
- Networking

To harvest you must go to the fields

Dyer JH, Gregersen HB, Christensen CM. Innovator’s DNA. HBR December 2009
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<td>Innovation must be sourced from outside (commission innovation)</td>
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Building your team

Project Team for the IHI Lab
• System Designer*
• Clinical
• Ethnographer
• Data Expert
• Technology Expert
• Business/Policy Expert
• Communicator*

Where do you look “outside” but still internal?
• Who are your natural innovators?
• How many generations are represented?
• Who are your natural communicators?

Team will be comprised of IHI staff/faculty and client staff/faculty.
*Indicates must be IHI led
“Bi-Directional” Innovation…

• Cataract Surgery at Aravind Eye Care Hospital

• ‘30 min or your money back’
  – Fortis patient experience
Lead Users
What we have learned and where we are

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…To the New

- Innovation is a process that depends on observation and experimentation
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- Leadership leverages innovation & operations together
- Match innovation methods to the customer need
- Innovation comes from outside
And…testing is needed and hard

• Our greatest challenge is finding testers, and that may also be the case for you

• Look for:
  – Individuals who recognize the problem
  – Individuals who won’t be threatened by the possible solution
  – Units that are contained
  – Units that are comfortable with change
  – Individuals/groups that are comfortable displaying data: positive and negative
Thank You

• Kedar Mate, kmate@ihi.org
• Lindsay Martin, lmartin@ihi.org