Engaging Clinicians for Transformational Change: Lessons from Virginia Mason Medical Center

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International Forum on Quality & Safety in Healthcare
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• Integrated health care system
• 501(c)3 not-for-profit
• 336-bed hospital
• Nine locations
• 500 physicians
• 6,000 employees
• Graduate Medical Education
• Research Institute
• Foundation
• Virginia Mason Institute
Team Leader Kaplan reviewing the flow of the process with Drs. Jacobs and Glenn at Hitachi Air Conditioning plant
What We Learned

How are air conditioners, cars, looms and airplanes like health care?

- Every manufacturing element is a production processes
- Health care is a combination of complex production processes: admitting a patient, having a clinic visit, going to surgery or a procedure and sending out a bill
- These products involve thousands of processes—many of them very complex
- All of these products involve the concepts of quality, safety, customer satisfaction, staff satisfaction and cost effectiveness
- These products, if they fail, can cause fatality
New Management Method: The Virginia Mason Production System

We adopted the Toyota Production System philosophies and practices and applied them to health care because health care lacks an effective management approach that would produce:

- Customer first
- Highest quality
- Obsession with safety
- Highest staff satisfaction
- A successful economic enterprise
The VMMC Quality Equation

\[ Q = A \times (O + S) \div W \]

Q: Quality
A: Appropriateness
O: Outcomes
S: Service
W: Waste
Virginia Mason
OUR STRATEGIC PLAN

**Patient**

**VISION**
To be the Quality Leader and transform health care.

**MISSION**
To improve the health and well-being of the patients we serve.

**VALUES**
- Teamwork
- Integrity
- Excellence
- Service

**Strategies**

**People**
We attract and develop the best team

**Quality**
We relentlessly pursue the highest quality outcomes of care

**Service**
We create an extraordinary patient experience

**Innovation**
We foster a culture of learning and innovation

**Virginia Mason Foundational Elements**
- Strong Economics
- Responsible Governance
- Integrated Information Systems
- Education
- Research
- Virginia Mason Foundation

**Virginia Mason Production System**
Stopping The Line
Maintain a Successful Economic Enterprise

$ (Millions)


$0.7 $3.2 $12.0 $18.4 $29.4 $49.4 $40.9 $35.5 $25.6 $22.5 $38.0

Shared Success Program

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VMHS Hospital Professional/General Liability Insurance Premiums

% change from previous year, with 74% overall reduction in premium since 2004-05

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Where We Have Been: Lean Journey

- Adopted TPS
- Implemented PSA system
- First culture of safety survey
- Implemented First 5 year Strategic Quality Plan

2002:
- Established CME course – EBM
- Created Must Do Measures criteria, information flow and accountability
- First Top in region Leapfrog survey

2003:
- Adoption IHI 100,000 lives campaign

2004:
- Mrs. McClinton
- First Top in region Leapfrog survey

2005:
- One goal First clinician disclosure training
- Adopted mandatory flu vaccine policy
- CPOE adopted across the inpatient setting

2006:
- HealthGrades Distinguished hospital award
- 1st major decrease in central line infections

2007:
- 2nd series of Disclosure workshops
- Revised PSA database
- Just Culture training

2008:
- Top Hospital of the Decade
- LEAPFROG
- Falls ST PRA
- Top Hospital of the Decade
- LEAPFROG
- Falls ST PRA
- First PSA 3P
- Completed first Patient Safety Risk Register

2009:
- Published peer review article on PSA system
- CDC Immunization Excellence award
- QOC began reviewing all red PSAs

2010:
- Surgical time out ST PRA held
- SSI team McClinton Patient Safety Award winner

2011:
- PSA 3P
- Completed first Patient Safety Risk Register

2012:
- First Worker Safety Risk Register
- First Good Catch Award
- Respect for People Training
- Standard of Care Process Kaizen

2013:
- ACPOE
- 50,000th PSA
- 108 Patient Family Partners

2014:
- Established Synchronized Ongoing Support Process
- Achieved target of 1000 PSAs reported in one month
- Began PSA Pointers

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Many Organisation Have Applied Lean

At VMMC we recognised that tools alone wouldn’t get us where we wanted to go

Lean tools ➔ Transformation

Necessary but not sufficient
How Were We Able to Transform

With engaged and committed staff and doctors!

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## Two Kinds of Challenges: Ronald Heifetz

<table>
<thead>
<tr>
<th>Technical</th>
<th>Adaptive</th>
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<tbody>
<tr>
<td>- Problem is well defined</td>
<td>- Challenge is complex</td>
</tr>
<tr>
<td>- Solution is known can be found</td>
<td>- To solve requires transforming long-standing habits and deeply held assumptions and values</td>
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<tr>
<td>- Implementation is clear</td>
<td>- Involves feelings of loss, sacrifice, anxiety, betrayal to values</td>
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<td></td>
<td>- Solution requires learning and a new way of thinking, new relationships</td>
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<td>- Triggers avoidance of uncomfortable issues</td>
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An Easily Adopted Change: iPhone

Technical not because it’s technological but because:

• Its use involves no angst or challenge to personal identity

• Use is intuitive or enough like other tools in use. Other experiences provide a “road map”

• At the Genius Bar – someone does know what to do
## An Adaptive Challenge

### Surgical Safety Checklist (First Edition)

#### Before induction of anaesthesia

<table>
<thead>
<tr>
<th>SIGN IN</th>
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</thead>
<tbody>
<tr>
<td>□ PATIENT HAS CONFIRMED</td>
</tr>
<tr>
<td>• IDENTITY</td>
</tr>
<tr>
<td>• SITE</td>
</tr>
<tr>
<td>• PROCEDURE</td>
</tr>
<tr>
<td>• CONSENT</td>
</tr>
<tr>
<td>□ SITE MARKED/NOT APPLICABLE</td>
</tr>
<tr>
<td>□ ANAESTHESIA SAFETY CHECK COMPLETED</td>
</tr>
<tr>
<td>□ PULSE OXIMETER ON PATIENT AND FUNCTIONING</td>
</tr>
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</table>

**DOES PATIENT HAVE A:**

**KNOWN ALLERGY?**
- □ NO
- □ YES

**DIFFICULT AIRWAY/ASPIRATION RISK?**
- □ NO
- □ YES, AND EQUIPMENT/ASSISTANCE AVAILABLE

**RISK OF >500ML BLOOD LOSS (7ML/KG IN CHILDREN)?**
- □ NO
- □ YES, AND ADEQUATE INTRAVENOUS ACCESS AND FLUIDS PLANNED

#### Before skin incision

<table>
<thead>
<tr>
<th>TIME OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE</td>
</tr>
</tbody>
</table>

**SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE VERBALLY CONFIRM**
- □ PATIENT |
- □ SITE |
- □ PROCEDURE |

**ANTICIPATED CRITICAL EVENTS**

**SURGEON REVIEWS:** WHAT ARE THE CRITICAL OR UNEXPECTED STEPS, OPERATIVE DURATION, ANTICIPATED BLOOD LOSS?

**ANAESTHESIA TEAM REVIEWS:** ARE THERE ANY PATIENT-SPECIFIC CONCERNS?

**NURSING TEAM REVIEWS:** HAS STERILITY (INCLUDING INDICATOR RESULTS) BEEN CONFIRMED? ARE THERE EQUIPMENT ISSUES OR ANY CONCERNS?

**HAS ANTIBIOTIC PROPHYLAXIS BEEN GIVEN WITHIN THE LAST 60 MINUTES?**
- □ YES
- □ NOT APPLICABLE

**IS ESSENTIAL IMAGING DISPLAYED?**
- □ YES
- □ NOT APPLICABLE

#### Before patient leaves operating room

<table>
<thead>
<tr>
<th>SIGN OUT</th>
</tr>
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<tbody>
<tr>
<td>□ NURSE VERBALLY CONFIRMS WITH THE TEAM:</td>
</tr>
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</table>

**THE NAME OF THE PROCEDURE RECORDED**

**THAT INSTRUMENT, SPONGE AND NEEDLE COUNTS ARE CORRECT (OR NOT APPLICABLE)**

**HOW THE SPECIMEN IS LABELED (INCLUDING PATIENT NAME)**

**WHETHER THERE ARE ANY EQUIPMENT PROBLEMS TO BE ADDRESSED**

**SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE REVIEW THE KEY CONCERNS FOR RECOVERY AND MANAGEMENT OF THIS PATIENT**
Adaptive Challenge

- Doctors accepting that lessons from improving manufacturing processes can be applied to improving clinical care

- Following “standard work” or protocols generated by others when autonomy is closely linked to what it means to be a doctor
Wisdom from Ronald Heifetz

“The most common cause of failure to make progress is treating an adaptive problem with a technical fix.”

Technical fixes (aka “magic bullet”)
- Tend to be imposed and superficial relative to causes of problem
- Example: New payment scheme, incentives or bonuses
- Example: Reorganization or new reporting relationships
- Example: Decreeing new vision is “patients first” without different leadership behaviours

Adaptive solutions
- People get together to find solution to a problem they have
- Discussion that allows respectful airing of difference
- Bringing conflict to the surface and constructively resolving it

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Technical Solutions Are Good. . .Sometimes

But **not** sufficient when the problem is adaptive!

When adaptive . . "The issues have to be have to be internalized, owned, and ultimately resolved by the relevant parties to achieve enduring progress.”

- Heifetz and Linsky, *Leadership on the Line*
Transformation Requires Technical Tools and Attention to Human/Adaptive Dimension

Lean Tools + Adaptive Change = Transformation
Model for Transformation

- Single method for improvement
  - Increase urgency
    - Turn up the heat
  - Share a vision
    - Inspire action with clear picture of future
  - Modernize compact
    - Co-create new gives and gets
  - Enhance clinical Leadership

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Model for Transformation

- Share a vision
- Inspire action with a clear picture of the future
- Increase urgency
- Turn up heat
- Single method for improvement
- Clarify new compact
- Co-create new gives and gets
- Enhance clinical Leadership

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Time for a Change – VMMC 2000

- Issues
  - Survival
  - Retention of the Best People
  - Loss of Vision
  - Build on a Strong Foundation
- Leadership Change
- A Defective Product
“We change or we die.”

— Gary Kaplan, VMMC Professional Staff Meeting, October 2000
Investigators: Medical mistake kills Everett woman

Hospital error caused death
A Turning Point for Virginia Mason

- In 2004, a medical error caused the tragic death of Mary L. McClinton, a VM patient.
- This event and the decision for full public transparency was a defining moment for the organization.
The Challenge of Ongoing Urgency

In a time of constant and tumultuous change, avoid complacency
“Establishing a sense of urgency is crucial to gaining needed cooperation. With complacency high, transformation usually fails because few people are even interested in working on the change problem. . . People will find a thousand ingenious ways to withhold cooperation from a process that they sincerely think is unnecessary or wrongheaded.”

— John Kotter, Leading Change, 1996
“Distress” and Adaptive Work

Adaptive challenge

Limit of tolerance

Productive range of distress

Threshold of learning

Moving People into “Productive Distress”

HOW

- Self-discovery” – experiential
- More than facts: John Kotter’s see/feel/change approach

WHAT

- Cost of doing nothing exceeds cost of change
- Cold, hard facts on performance and lack of sustainability
- Gap between aspiration and reality
- The personal impact of incidents
“Leaders are signal generators who reduce uncertainty and ambiguity about what is important and how to act.”

— Charles O’Reilly III
What signals do senior leaders in our organisation send regarding urgency for care improvement? Are their signals aligned with one another and consistent?

Based on the signals they get from leaders, what would most frontline doctors conclude about the urgency to improve?
Model for Transformation

- Single method for improvement

Increase urgency
Turn up heat

Share a vision
Inspire action with clear picture of future

Modernize compact
Co-create new gives and gets

Enhance clinical Leadership

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Alignment around picture of the organization in the future (shared vision) is a pre-condition for engagement.

“If our goals are different, why would I engage with you around yours – especially if they seem inconsistent with what I see as my primary aim?”
Lack of Shared Vision Reflects Silo Orientation and Value on Autonomy
Challenges to Having Vision that Is Shared

- Past success. Every tub on its own bottom has worked. Good doctors doing their individual best equated with success.
- Doctors don’t see themselves as interdependent so don’t appreciate need to share any vision or destination.
- Vision process is often superficial; an exercise with a narrow purpose (e.g., for PR).
- Little connection between vision on paper and daily life within the organisation.
- No clear method to achieve vision.
Requirements for Developing Shared Vision

• Doctors develop deep appreciation of interdependence (to provide best, safest patient care)
• There is a process to develop vision – not a one-off meeting:
  • Deepens understanding of the various imperatives the organisation must respond to including quality, value, safety
  • Encourages different points of view to be heard
  • Builds commitment
• Vision is:
  • Strategic and granular
  • Perceived as a stretch, but not a fantasy

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Basis of Vision is Shared Interests

Organisation’s Interests

Doctors’ Interests

SHARED INTERESTS
Commitment to patients’ care and safety
Positive reputation
Recruit and retain talent
To what extent do doctors, staff, and management share the same vision of where our hospital is heading?

- Why did you choose the number you did?
- What impact does this have on doctor engagement?
Model for Transformation

Single method for improvement

Enhance clinical Leadership

Modernize compact Co-create new gives and gets

Share a vision Inspire action with clear picture of future

Increase urgency Turn up heat

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Typical Views Doctors Hold of Their Leaders

- Advocate
- Protector
- Communicator – attend meetings, represent our views and inform us of important news
- First among equals, “not one millimeter above”
• Preference for leadership that doesn’t threaten personal autonomy
• Advocacy or protection is appropriate *at times*
• Leaders pay a price for stepping out of advocate/protector role
• Election to leadership roles
• Short tenure in role limits skill development
Current Dilemma Many Doctor Leaders Face

Hospital needs doctor leaders to sponsor change

Doctors don’t easily accept legitimacy of leaders’ authority
Lesson 3. Invest in Building Effective Doctor Leaders

Consider what is needed from doctor leaders to help the organisation transform

• Sponsor change and engage colleagues
  • Demonstrate personal commitment to quality and safety improvement
  • Be a role model and among the first to adopt the new way
  • Provide encouragement and acknowledgment to those who get on with change

• Hold colleagues accountable to engage in the organisation’s quality and safety initiatives

• Help make practice life more efficient for clinical colleagues

• Able to make and keep commitments on behalf of doctors
VMMC Physician Leader is a Real Job

- Appointed, not elected
- Clear expectations/job descriptions
- Performance feedback
- Training and development
- Succession planning
- Dyad model pairs administrative leader with doctor leader at every level

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For Doctor Leaders to be Effective, Administrative Leaders Need to Change

• It’s not just physician leaders who shift mindset and actions
• Working collaboratively with physicians represents an adaptive change for many administrative leaders
• Need to move away from language such as: “We need to gain their buy-in” and “We’ll roll it out”
Tuesday “Stand Up” – Example of Leadership in Action

- KPO aligned with operational executive leadership
- Executive sponsorship with accountability for sustained results
- Education
- Standardization of tools, results reporting, and communication
• What model of doctor leadership is most common in our hospital:
  • Advocate for doctor-colleagues and protector of status quo?
  • Facilitator of change and skilled at engaging colleagues?
• What is the impact of this model of doctor leadership on our hospital’s ability to transform?
“In times of change, learners inherit the earth, while the learned find themselves beautifully equipped to deal with a world that no longer exists.”

- Eric Hoffer
Readings