What Patient Safety Can Teach about Program Development and Project Management

9th Annual UT Dallas Project Management Symposium

Next-Gen Management of Projects: Performance, People and Processes

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Ground To Be Covered

• Setting the macro context: where is healthcare today?
• Healthcare quality: a long way to go.
• Patient safety (PS): tip of the ‘quality spear’
• A mid-level context related to projects to improve PS
• Comparing work in quality/safety and project management
• Change management approaches
• Evolving focus on “reliability”
• Throughout the presentation and recap: some key lessons learned about managing projects and people
• Your thoughts and questions
Healthcare Is Rightfully In Turmoil

• Costs are almost unfathomable
• Outcomes are not “the best”
• Inconsistent access to care
  • For population with insurance
  • For the 9.2% without any coverage
• Shift from paying for care delivered to paying for value achieved
  • “Triple Aim” thinking
  • Paying for care that’s not provided?

An Expanding Quality “Movement” in Health Care

**Vision:** To achieve care that is:

• Safe
• Timely
• Effective
• Efficient
• Equitable
• Patient Centered

• Organizations are reducing “unit cost” of care
• When possible, standardize care (order sets, etc.)
• Reducing waste
• Increasing P4P (and new models of payment)
• PS is improving . . . slowly

*From the US Institute of Medicine*
The Triple Aim

• Initially advanced by Institute for Healthcare Improvement
• During tenure at HHS, Dr. Don Berwick used this as cornerstone for health policy / ACA
• Notable is community perspective and importance of population health

So what is Patient Safety?

• Being free of risk that care intended to help actually injures patients
• Processes of care vs. outcomes of care; adverse event = harm to patient
• Initial focus on error → blame, shame, train → limited effectiveness
• Increasing focus on risk and/or harm to patients; scale is very large
  • Build stronger, more reliable systems of care
  • Increase use of checklists, team concepts
  • Engage clinicians in being situationally aware
• Patient care is “complex” especially when illness is more serious

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[Image of the IHI Triple Aim diagram]

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On a very busy Saturday night in the ER . . .

Scale and Frequency of the PS “Problem”

• Serious reported clinical events that are clearly preventable: ~0.5-3 per 10,000 discharges (<0.1%)
• Adverse events (AE’s) discovered by random record review:
  • Not done widely
  • AE’s not clearly preventable but most are possibly or probably preventable
  • 20-30% of inpatients have a hospital-acquired AE of any severity
  • 7-15% of inpatients have a serious AE that: increases LOS; involves permanent injury; or causes or risks death
  • Reduce hospital contribution margin by $1,100 per serious AE
  • More focus on this by Federal regulators
• PS is a major focus for the public, health providers and the media
### Major Types of Adverse Events (AE’s)

<table>
<thead>
<tr>
<th>Types of AE’s</th>
<th>Source of AE</th>
<th>Preventability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery</td>
<td>Complications &gt;&gt; Errors</td>
<td>Some</td>
</tr>
<tr>
<td>Adverse drug event</td>
<td>Complications &gt;&gt; Errors</td>
<td>Some</td>
</tr>
<tr>
<td>Hospital-acquired infection</td>
<td>Sub-optimal care processes</td>
<td>Most</td>
</tr>
<tr>
<td>Pressure ulcers / Falls w injury</td>
<td>Sub-optimal care processes</td>
<td>Most</td>
</tr>
</tbody>
</table>

- Improvement methods can reduce many but not all AE’s
- Many of these types of AE’s are not being used for P4P programs

**Systems Thinking: Blunt and Sharp Ends**

**Society - Government - Regulators**

- **HOSPITAL**: values; physical plant; culture; resources; policies; priorities; human capital
- **TEAM**: values; familiarity; skills; workload; culture; resources
- **PROVIDER**: values; familiarity; skills; workload; culture; resources

*Decisions made at the blunt end can often have profound impact upon care at the sharp end.*

*From James Reason*
Findings in Need of Improvement

- Using a root cause analysis and “5 why’s” approach:
- Poor approach to budget management
- Blunt end affecting sharp end
- Poor inter-professional coordination of care
- No speaking up since working in higher risk environment became “the norm”

IHI Framework for Patient Safety

**Culture**
1. Leaders
   who facilitate and mentor teamwork, improvement, respect and psychological safety
2. Teams
   who know the game plan and agree upon specific behaviors
3. Communication
   where transmission and reception of information is one and the same
4. Accountability
   that supports psychological safety because employees believe that they’ll be treated fairly
5. Psychological Safety
   comfortable asking questions and raising concerns

**Learning System**
1. A Continuous Learning Process
   that generates reliable care by applying best evidence and minimizing variation
2. Reliable Care Processes
   continuously owned by frontline providers
3. Applies Formal Improvement Methods and Measurement
   to generate quality and mitigate and eliminate defects
4. Transparency
   where the learning efforts are known to all and discussed as a daily part of work
Improving PS: An Organizational Perspective

Set Vision:
- No preventable deaths
- No preventable injuries
- No preventable risk

Strategies
- Achieve a culture of safety
- Deploy processes that improve PS
- Use technology that supports PS

Psychological Safety
- A shared belief that the team is safe for interpersonal risk taking. In psychologically safe teams, team members feel accepted and respected. The most studied enabling condition in group dynamics and team learning research.
- Must be nurtured to develop and is very frail when trust is lost
- What happens when people speak up?
- “Stopping the Line” at Toyota vs. Virginia Mason vs. other org’s
- Critical language
  - “I need some clarity” (from Allina)
What Makes a Healthcare Initiative Successful?

• Work of Gustafson et al
  • Health Serv Res. 2003 38: 751
  • 192 projects
  • 12 project characteristics / factors used in retrospective analysis of level of success of the projects based upon rating of these factors; \( p < 0.001 \)
  • OCM survey developed

• Issue of level of innovation needed for a project (novel or in adaptation)
  • Ten Faces of Innovation (Tom Kelley of Ideo) 2005

Linking to Classical Project Management
Model for Continuous Improvement

Three questions provide the strategy

What are we trying to accomplish?
How will we know that a change is an improvement?
What change can we make that will result in improvement?

The PDSA cycle provides the tactical approach to work

Comparing Characteristics of Projects

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Patient Safety (Fix an identified problem)</th>
<th>Patient Safety (proactive)</th>
<th>Continuous Improvement</th>
<th>Discreet Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Careful Design</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Reliance on culture</td>
<td>Less</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Leader sponsorship</td>
<td>Minimal</td>
<td>Yes</td>
<td>Minimal</td>
<td>Yes</td>
</tr>
<tr>
<td>Role of Front Line</td>
<td>Some</td>
<td>Some</td>
<td>Crucial</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Specified Budget</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

While some of the characteristics differ, there is much in common related to accomplishing the work

Initiation Phase of Projects

Time spent here is very valuable. “Why are we doing this? Really? Need candid input / guidance from thought leaders. So how would this work? Who / what group will oppose this?

Preventing Blood Clots in High Risk Inpatients

- Evidence-based risk assessment developed
- Evidence-based interventions for high risk patients
Lessons

• Culture conflict between physicians and nurses undermined success; due to inadequate vetting with thought leaders
• Time pressure prevented redesign despite a near certainty that success will be limited

Comments on Culture
A few practical thoughts since much has been written . . .

• The “eats strategy” view is right on
• What people do (or will do) when no one is looking
• Organizational-wide and “tribal” (profession, geography, generation)
• Power vs. Traction
  • Control vs. influence
  • $100 \times 0 = 0; \quad 0 \times 100 = 0$
  • Traction is typically more rate limiting than power; culture supports both
• Often not addressed proactively, candidly and/or early in process
• Listen to the “doubters” and “worriers in pre-initiation work
A Lesson Learned

Identify which changes in a project will “stress” culture (organization, groups, individuals).

Not “if” . . . “which ones,” “affecting who,” and “by how much”

An important component of *project readiness*

Some Key Questions

• Why does this initiative / goal / project matter?
  • To me
  • To you
  • To our profession
  • To our organization
  • To our customers
  • To my community
  • To the world
Reducing the Inpatient Mortality Rate

- Focus on patients with sepsis (*a very serious blood stream infection*)
- Focus on their care only in the ED vis a vis use of evidence-based processes
- Very strong leadership engagement, including hospital CEO’s
- Tracked delivery of targeted processes of care
- Moved from worst quartile mortality rate to top quartile in one year
- Tracked delivery of targeted processes of care

Lessons

- Was focused (single illness / single location)
- Strong engagement by leaders and all stakeholders
- Used evidence-based interventions
- Good measurement system
- Strong accountability system
Making Need / Success / Failure Personal

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Lives saved over 5 years as a result of reducing risk-adjusted inpatient mortality

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Metrics to Measure Progress

A few practical thoughts since much has been written

- Must be VERY solid
  - Easily understood (passes the “elevator rule”)
  - Highly valued by most/all stakeholders and sponsors
  - Realistically obtained
- Listen to the metric “doubters” . . . Maybe there’s a better metric

Plan Individual Recognition, Celebration and Fun

- Recognize: work above and beyond, breakthroughs and courage
- Must have a quick win and make it visible / fun
- Milestones are important, even if late . . . Everyone involved
- Consider JetBlue
  - Values: Safety, Caring, Integrity, Fun and Passion
    - We’re serious about all our values. Including this one. Having fun at work is good for our crewmembers and customers.
    - #28 on Glassdoor; #3 of Top 10 best places to work in travel industry
- Office of PS at Baylor had a semi-formal Chief Spirit Officer
- Parking lot location for leader’s desk . . .
The World Health Organization OR Checklist
“Safe Surgery Saves Lives”

• Surprisingly little “push back”
• Record audits → Observation
• Survey

Lessons

• Poor pre-Initiation work: limited pushback did not reflect agreement
• Process not “owned” by all in the OR’s; high “authority gradient”
• Became a initiative to help evolve surgical culture
From Kotter Model

Complicating the application of the Kotter model related to healthcare
• Professional resistance
• Nurses are free agents (not modular)
• Many physicians split their work between different hospitals and systems

Would suggest cultural considerations be reviewed very early AND at the end (to help sustain)

Models of Readiness to Change

Individuals and Groups

• Stages of Change model
  • DiClemente and Prochaska (1983)
  • Initial work: smoking/addiction; shown relevant to other types of behavior
  • Stages:
    Pre-contemplation (denial common/no change)
    Contemplation (change not yet worth it)
    Preparation (getting ready to change)
    Action (initiating the change)
Another Model to Advance Readiness to Change

“It’s easier to act your way into a new way of thinking than to think your way into a new way of acting”

Jerry Sternin

Consider the evolution of using seat belts

Some practical approaches:

• Travel to a site where the goal process has been achieved; see it and do it
• Develop internal prototype as part of feasibility work; stakeholders try it

Professional Affinity Groups and Professionalism

• So, what’s your tribe? Engineer, leader, analyst, nurse, physician, etc.
• Patient care has been a cottage industry / tribal → slow to change
• Individuals and small groups are often “too close” to view issue without an inherent conflict of interest (cardiology and echo’s for pts with HF)
• Two edged sword
  • Resistant to change
  • But . . . May have more strongly embedded values that may accelerate change
• Kotter and change management
  • Docs and especially nurses are “free agents” so can strongly resist approaches that are excessively “top down”
Reducing Inpatient Falls

- Fall risk assessment
- In room signs; arm bands; patient and family education
- Hourly rounding on all patients
- Used hospital level fall rates to evaluate

Lessons

- A one size fits all approach
- Missed opportunity
  - Metric: days since last fall with injury
- Time needed for hourly limited work on other things
- Later: unit level drivers evaluated and several important ones discovered
C Suite Sponsors

- Rapid changes in healthcare push leaders to try too much
  - PM can help by being realistic about scope/scale/"chunking" of projects
  - A huge “win” to align with a related project with overlap of elements
- Need “eyes and ears” . . . They will validate via their rounding and Town Hall meetings
- Less time on benefits and costs, more time on “why is this important and the risks
- Set the culture by their actions
- Most important role is typically via influence not control

The Leader / Project Manager Interface

- Scope negotiation / management
  - Boundaries
  - Limits
  - Less is often more
- Role of the PM in shaping the view of leaders
  - Share key information on concerns and evolving risks
  - Be focused in time with leaders; headlines only
CIO’s Top 14 Sources of IT Project Failures

- Lack right resources with right skills
- Projects lack experienced project managers
- A standard, repeatable PM process not used
- Too much process / too complicated
- Don’t track changes to project scope
- Inadequate data about project status
- Problems are ignored

Reliability: Another Movement in Healthcare

Organizational reliability (concepts exemplified by high reliability organizations, HRO’s, that expect and plan for the unexpected)

- Preoccupation with failure
- Sensitivity to operations
- Deference to expertise
- Failure to simplify
- Resilience

From Weick and Sutcliffe
Human Factors

- The study of human-human, human-technology and human-system interactions
- Types of human decision making
  - For simple familiar tasks, automatic routines are used based on knowledge and extensive experience → little need for thinking
  - For new and/or complex situations → carefully thought out decisions
- Humans are error-prone and need other “systems” to help prevent them (order sets, protocols, checklists, teamwork, pausing before acting . . .)
- Systems are commonly prone to biases; neutral observation very important

Range of Human Behavior

- To me
  - To you
  - To our profession
  - To our organization
  - To our customers
  - To my community
  - To the world

Adapted from R. Amalberti
Recap of Key Concepts for People-Focused Projects

Relevant to initiation
• Making success personal
• Thinking about group or individual “readiness”
• Prioritizing . . . The critical few; take things off the plate? (stop doing list)
• Minimize complexity; chunk, segment and stage the work
• Acting into a new way of thinking

Sustaining the team: fun, quick wins, observe work; walk a mile in their shoes . . .
• Power vs. Traction
• Slowing down to go faster (HBR, 2010)
• Plan to have fun / celebrate
• Culture / culture / culture

Recap of Some Practical Suggestions - 1
• Seriously “test drive” of list of initiatives being considered
• Develop an approach to assess cultural alignment
• Become more familiar with front line work
• Consider a Human Factors engineer
• Work on culture that doesn’t pass the “your mother test”
• Review some current projects in light Gustafson & Bisognano approach
• Invest more on development of the project team
• Seriously debrief about the management of the project and in 3 months, 6 months and one year (anonymous predictions . . .)
Recap of Some Practical Suggestions - 2

• Plan for recognition and fun
• Refine the “elevator speech / pitch” to enhance line of sight
• Consider ways to make the goal have personal meaning
• Ways to prototype both to reject what won’t work and help people “act their way into a new way of thinking”
• Be sparing with use of policies as a way to “force” behavior

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Roll out of standardized unplanned RN to MD communication (SBAR)

• Used evidence based methods
• Strong implementation materials used
• Strong tracking method of experience of nurses and physicians with method
• Solid but incomplete use of the method
Lessons

• Design failed to take into account impact of cultural differences, especially for less experienced nurses and nurses who trained in the Philippines

• A one size fits all approach was not needed. For clinicians who knew and respected each (20-50%) other a more efficient approach was reasonable and those who did so were not following the new policy → loss of credibility. Initial vetting was too limited.