Using Quality Improvement Methods to Achieve the Triple Aim in Behavioral Healthcare Organizations

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What is Quality?

The Institute of Medicine’s Definition of Quality

The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.
If 99.9% were good enough

- **2 million** documents will be lost by the IRS this year.
- **190** planes would crash today.
- **22,000** checks would be deducted from the wrong bank account in the next hour.
- **1300** phone calls will be misrouted in the next minute.

**The last 0.1% matters!**
How are we doing in healthcare?

- **400,000** people die from preventable medical errors each year.
- This is the **third leading cause of death** in the US – third only to heart disease and cancer.

A call to action

- **Institute of Health Care Improvement’s Triple Aim:**
  1. Improving the patient experience of care (including quality and satisfaction)
  2. Improving the health of populations
  3. Reducing the per capita cost of health care

- **Institute of Medicine’s Six Aims for Improvement:**
  1. Safe
  2. Effective
  3. Patient-centered
  4. Timely
  5. Efficient
  6. Equitable
How do we achieve quality?

• Quality Assurance/Quality Management
  • Internal review process that **audits** the quality of care delivered by **individuals** and implements **corrective action** to remedy any deficiencies

• Quality Improvement/Performance Improvement
  • An approach to the **continuous study and improvement** of the **process** of providing healthcare
  • Focuses on organizational **systems** rather than individual performance and seeks to **improve** quality rather than maintain compliance.
Lessons from Toyota: 
The Toyota Way

“Since Toyota’s founding we have adhered to the core principle of contributing to society through the practice of manufacturing high-quality products and services. Our business practices and activities based on this core principle created values, beliefs and business methods that over the years have become a source of competitive advantage.

These are the managerial values and business methods that are known collectively as the Toyota Way.”

Mr. Fujio Cho, President, Toyota Motor Corporation

LEAN = Toyota’s approach to process improvement in the US
What has the Toyota Way Got to Do with Healthcare?

- Healthcare, as a customer experience, is often marred by queues and waiting. This is true both for external and internal customers.
- LEAN is focused on efficient, effective process flow that produces defect-free products that meet customer expectations at a fair price.
- LEAN accomplishes this feat by
  - reducing waste (e.g. waiting)
  - smoothing flow through specific techniques
  - Empowering front-line staff to do whatever is necessary to eliminate defects at the source ("quality at the source")
How Workers are Trained, Treated & Led is Key

• Healthcare is a people-intensive business and the Toyota Way focuses very heavily on respect, training and support for employees.

• Healthcare, although supposedly made up of “teams” who deliver care is one of the most siloed of industries. Clinical disciplines are trained differently and often not trained together.

• Healthcare organizations commonly suffer from intensely hierarchical management/leadership structures. These types of structures inhibit rather assist process improvement.
Key Principles of the Toyota Way

Continuous Improvement
- Challenge
- Improvement
- Genchi Genbutsu

Respect for People
- Respect
- Teamwork
Example in Action: Applying LEAN at The Crisis Response Center

- Free-standing crisis facility providing psychiatric emergency care to adults and children in Pima County, Arizona built in August 2011 with county bond funds
- Adult services include a crisis intervention clinic (CIC), 23-hr observation unit/crisis stabilization unit (CSU), and short-term inpatient unit
- Referrals from police, outside EDs, mobile crisis, walk-ins.
- 800-900 Adults and 200-300 Youth per month
- Under new management (ConnectionsAZ) since April 1, 2014.
Critical To Quality Metrics

Excellence in Crisis Services

Accessible

Volume stats, # visits, etc

Door to Triage, Door to Doctor

Timely

LWBS

Door to door dwell

Safe

Injuries to patients

Injuries to staff

Least Restrictive

Seclusion/Restraint

% Discharged to community

Effective

Readmissions

Patient satisfaction

Partnership

Police wait time

% Time on Hospital Hold
The Problem

Patient Experience

• Long waits for triage: inability to consistently meet target of triage within 15 minutes of arrival
• Long waits in the Adult Crisis Intervention Clinic (CIC) until decision made to discharge or admit to CSU
• Patient frustration with long waits and being asked the same questions over and over

Patient Safety

• High risk patients left unattended for long periods of time.
• Staff spread out over a large area.
• Less than ½ of walk-in clients being seen by a doctor.
• Restraints occurring in clinic environment.
• Frequent calls to Security
• Staff injuries and assaults
**Genchi Genbutsu:**
We engaged the front-line staff in helping us re-design the flow with the objective of maximum safety for both staff and patients and providing quick treatment so patients wouldn’t wait excessively to see a practitioner.
Process Changes

- **Phase I:** Implemented July 1, 2014
  - Achieved positive outcomes *without increase in resources/staff* by *standardizing the process* and *eliminating waste*
    - New triage process with standardized risk screen to determine how quickly and in what location patients should be seen
    - High risk and involuntary patients automatically admitted to CSU
    - Low/mod risk patients wait in waiting room monitored by tech
    - Space used more efficiently and staff consolidated on CSU
    - Redesigned documentation to reduce redundancy

- **Phase II:** Implemented October 1, 2014
  - Improvements to BHMP staffing model
  - Included addition of a BHMP assigned specifically to triage
Decreased CIC Length of Stay

- After the Phase I Improvements, the CIC length of stay decreased from 8 hours to 2 hours
Decreased CSU Length of Stay

- After the Phase II Improvements, the CSU length of stay decreased from 34 hours to less than 24 hours
Decreased Door to Doctor Time

There was a 78% decrease in the wait time to see the BHMP, from 8.3 hours to 1.8 hours.

From manual audit of a random monthly sample of 100 CSU charts. Mean time from EOC Opened to first BHMP Psych Eval, Progress Note, or Brief PN. Aug data missing, point shown above is an average of Jul and Sep.
Decreased Time on Hospital Hold

Decreased time spent on hospital hold allows us to better service the needs of the community medical ERs.

% Hours on Hospital Hold

- Jul
- Aug
- Sep
- Oct
- Nov
- Dec
Decreased Staff Injuries

Staff Injury for ACIC/ACSU by Phase (3 Months Each)
Decreased calls to security

Shorter wait times allowed us to decrease the need to call security for help with behavior management.
More efficient use of space
Sustaining change and moving forward...

"Quality is not something you install like a new carpet or a set of bookshelves," he would say. "You implant it. Quality is something you work at. It is a learning process."

- Dr. W Edwards Deming’s obituary in the Washington Post 21 December 1993

W. Edwards Deming
1900-1993
Line Leadership is Critical to achieving a “LEAN” state.

LEAN organizations:

- Transfer the maximum number of tasks and responsibilities to those workers actually adding value to the product.
- Have a system for detecting defects that quickly traces every problem, once discovered to its ultimate cause.
- Have a team structure that allows for the ability to stop the work process to work on eliminating the defect once and for all and accomplishing this within the work team.

We have put a line leadership structure in place that incorporates a “Lead” for the various disciplines on all shifts: nurses, techs, crisis workers, unit coordinators.
Line Leaders Must be Trained in LEAN Methods

• These leaders must be in a position (enough time, readily available to staff and possessing improvement knowledge/skill) to lead their employee teams in continuous improvement.

• We have just completed the first phase of training our Line Leads in the fundamentals of LEAN while simultaneously working a project so learnings can be immediately applied.
  • Nurses: medication reconciliation
  • Techs: property inventories
LEAN concepts must be hardwired into management culture

• Management is here to support the line staff and remove barriers to getting the work done.
• Shift from asking “Why didn’t they do their job?” to “Why couldn’t they do their job?”
• In a continuous quality improvement culture, we are always examining our processes and looking for opportunities for improvement.
• Some examples:
  • Daily huddles with management staff to proactively address operational concerns for the day and review incidents from the previous shift
  • Tracking and trending of key process indicators and sharing with staff
Questions?

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All you’ve done is chisel all day! Do something useful, like helping your brother drag those rocks up the hill.