Robust Process Improvement in DBH Hospitals
July 2019
High Reliability / RPI

• For the past decade hospitals in the US have been focused on improving patient safety and reducing critical errors as central to quality

• You should expect that processes underlying care should consistently minimize any errors that result in harm to patients (e.g., wrong site surgery) and improve efficiency (costs)

• The Joint Commission (TJC) has led the way to making hospitals highly reliability and have advocated for a model of Robust Process Improvement (RPI) as a means to achieve high reliability

• Adopting Lean and Six Sigma tools prevalent in manufacturing, TJC aimed to help health care organizations reduce waste and variability in health care (rate of airline fatalities - one fatal accident for every 16 million flights vs. wrong patient, wrong procedure, wrong site and wrong side surgeries - 40 per week)
What is RPI?

- A systematic approach to problem solving proven in many other industries including healthcare

- Blended approach including Lean, Six Sigma, and formal change management

- Equally effective when applied to health care’s toughest safety and quality problems

- Benefits for patients, stakeholders, and employees

- Appealing to physicians and other clinicians because it is data driven
ROBUST PROCESS IMPROVEMENT®

Facilitating Change

- Acceptance & Accountability
- Eliminate Wastes
- Reduces Variation Accuracy

Lean

Six Sigma

Focus is on the Patient
Lean Six Sigma Roles

**White Belt**
- Understands the structure and goals of Lean Six Sigma
- Uses basic Lean Six Sigma vocabulary terms
- Reports process issues to Green and Black Belts

**Yellow Belt**
- Understands basic Lean Six Sigma concepts
- Reports process issues to Green Belts and Black Belts
- Participates on project teams and receives just-in-time training

**Green Belt**
- Starts and manages Lean Six Sigma projects
- Has Lean Six Sigma expertise but in less detail than Black Belts
- Provides just-in-time training to others

**Black Belt**
- Can report to a Master Black Belt
- Has advanced Lean Six Sigma expertise
- Functions as a coach, mentor, teacher, and project leader for project teams

**Master Black Belt**
- Works with leaders to identify gaps and select projects
- Coaches, mentors, teaches, monitors, and leads projects
- Responsible for Lean Six Sigma implementation and culture change

**Champion**
- Executive leader who drives the initiative
- Helps select projects and remove barriers for project teams
- Supports change and develops a Lean Six Sigma culture

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<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>Leaders Facilitating Change Training</td>
</tr>
<tr>
<td>2016</td>
<td>Wave 1 Green Belt Training</td>
</tr>
<tr>
<td>2017</td>
<td>First Black Belt Training</td>
</tr>
<tr>
<td>2018</td>
<td>Wave 1 Change Leader Training</td>
</tr>
<tr>
<td></td>
<td>Wave 2 Green Belt Training by DMH Black Belts</td>
</tr>
<tr>
<td>2019</td>
<td>Wave 2 Green Belt projects completed</td>
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<tr>
<td></td>
<td>Change Leader Projects Completed</td>
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<tr>
<td></td>
<td>Wave 3 Green Belt Training</td>
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<tr>
<td></td>
<td>Master Black Belt training</td>
</tr>
<tr>
<td></td>
<td>Yellow belt online training created</td>
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</tbody>
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Benefits of RPI –
Active Treatment at SLPRC

- The Challenge – Increase daily access to treatment
- The Result
  - The average or mean of scheduled treatment was 6.55 hours (previously it was 5.29 hours).
  - The process was 66.5% capable (compared to 38% capable previously). Capability means they met the expectations of 6-9 hours of active treatment 66.5% of the time
  - They were below the customer’s expectation of minimum of 6 treatment hours 26.5% of the time (compared to 61.5% previously).
Benefits of RPI-
Security Department Consolidation for Outside Trips at FSH

- The Challenge - 1400 Offsite trips per year
- The Result
  - Created operational definitions for trips
  - Created a better tracking system for trips
  - Utilized the MedCons program for scheduling trips
  - Evaluated trips and eliminated redundancies in SORTS staffing resulting in a reduction of the number of man hours used and a reduction of payroll spent
  - Created/reclassified job positions in order to have multi skilled workers that can perform scheduling/driving/escorting duties as well as work within the units
Want more information?

https://intranet.state.mo.us/dmhone/line/professional-development-opportunities/department-of-mental-healths-robust-process-improvement/