Lean Implementation at Jefferson Healthcare

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Rural Healthcare Case Study

Jefferson County, WA – Population 29,542 (2008 est.)

Photo by Earll Murman

Source: Google
Jefferson Healthcare Overview

• History
  1890 Sisters of Providence founded St John’s Hospital
  1975 Jefferson County Public Health District takes ownership and establishes Jefferson General Hospital
  2002-2007 Acquired 5 primary care clinics
  2003 Designated Critical Access Hospital
  2004 Renamed Jefferson Healthcare

• Governed by 5 elected Commissioners
• Largest employer in Jefferson County, 489 employees
• Annual budget approximately $45 million
• Over three quarters of business is outpatient
Jefferson Healthcare Enterprise

Drive to

Seattle Hospitals
Medivac

Swedish MC
Seattle

Port Ludlow
Fire & Rescue

Harrison Hos.
Bremerton
Acute Cardiac

Seattle Hospitals
Medivac

Stroke
Telemedicine

East Jefferson
Fire & Rescue

25 Bed
In Patient

Medical
Short Stay

Home Health
& Hospice

PT and
Rehab

Five Primary Care
Clinics

Diagnostics

Surgery

In Patient

Family Birth
Center

ED and
Express
Care

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JHC Drivers for Lean

Grow activity and contain costs while achieving:

**Purpose** – To assure appropriate healthcare services are available to support the health of all people of Eastern Jefferson County

**Values** – Jefferson Healthcare is:
- Intentionally Patient Centered
- Committed to the highest possible quality healthcare for all
- An employer that recognizes the quality of its employees and helps them to reach their potential
- Committed to a health community that encourages individual responsibility
- A prudent steward of healthcare resources

**Mission** – Jefferson Healthcare ... excellence with compassion and innovation

JHC Lean History

• Early 2000 – As one of 20 rural hospitals affiliated with Virginia Mason in Seattle, JHC CEO was aware of lean

• Exploratory: 2003 – 2006
  • Four staff attended Lean training – brought tools home
  • Conducted RPIW for patient registration
  • Difficult implementation but good results (45 ➔ 5 min)
  • Island of success – no traction across JHC

• Enterprise commitment: 2006 – present
  • CEO and other directors received 1 week training
  • Strategic decision to make Lean the JHC Performance Improvement system
  • Contracted with Joan Wellman & Associates
  • Formed Lean Resource office
  • Budgeted $1M annually for lean implementation
  • ~ 200 improvement opportunities identified
Lean Organization

• Lean Resource Office reports to CEO
  • Lead is member of JHC Strategic Leadership Group
  • Three Lean Fellows and one admin support
  • Lead is RN with experience in ED, OB, IT
• Joan Wellman Associates under contract to provide lean expertise - the JHC Sensei
  • Associate spends 1 week/month on site
• The 5 lean team members support 30 events/year as coaches, experts, facilitators
JHC Lean Events

Primary tools employed are 5S, RPIW, VSMA

Examples: OP Clinic VS, ED VS, AMI RPIW, Stroke RPIW, Laundry RPIW, Safety Office 5S, Pt discharge

2007
7 events

2008
30 events

2009
30 events

Photo by Earl Murman
Acute Myocardial Infarction RPIW

- Time is critical for treating major heart attacks.
  - Greatest loss of heart muscle is in first 2 hours
- Recommended treatment is catheter insertion of balloon within 90 min of “presentation”
- Alternate treatment “clot busting” thrombolytic drug

Situation

- Closest Cat Lab is in Bremerton – minimum 55 min drive time
- No clear boundary for when patients go to Bremerton or when they require thrombolytics at JHC
- Average “as is” treatment or process time at JHC is 165 min

RPIW Targets – Reduce Lead Times for AMI response
Pt Value Stream Intersects Multiple Organizations

Common process required for 6 different organizations
Images from AMI RPIW

**Ground Rules**
1. Begin & End on time
2. No idea is bad. Keep an open mind.
3. Understand we are different entities & figure out how to work them out
4. Everyone should participate
5. Everyone should participate
6. Leave your ego behind
7. Make it invisible

**To Do**

**DONE**

**Task List**

**Parking**

Photos by Earl Murman

**BEFORE**
165 min

**AFTER**
20 or 60 min

ED RN Lean Fellow Planning training
CNO Cardiologist
House Coordinator
Lean Fellow
Writing new protocols
Process Owner
ED MD
Future State AMI Algorithm

- Key to RPIW was the focus on Pt and Pt value stream
- Six different organizations working collaboratively to provide the best care possible given constraints
- Clear geographic boundaries delineate treatment pathway based on time-to-treatment constraints
- Process time measured by stopwatch strapped to Pt
- Medics certified to administer thrombolytic drugs in EMS van

The “hospital” is where the patient is.
Value Stream Event for JHC Outpatient Clinics

• Situation
  • Five legacy outpatient clinics
  • Few standard processes
  • Little coordination between clinics and with other parts of JHC
  • Patients per day per doctor under national norms
  • Poor flow and facility layout

• Primary Event Focus:
  • Identify standard patient flow for clinic encounters; improve patient access and provider productivity

Photos by Earll Murman
Standard Rooms and Central Supplies

5S Events in each Clinic

Source: Jefferson Healthcare
Lean Events Targeting Each Step in the Clinic Value Stream

Standard Work creates a foundation to build on

FIW Dec 2007
FIW Mar 2008
FIW Mar 2009

RPI Jun 2008
RPI Mar 2009

RPI Sep 2008

FIW = Focused Improvement Workshop

Source: Jefferson Healthcare
Daily Management System

Implement daily huddle

Photos by Earll Murman
Results

Project Access RPI (Feb 2009):

- Reorganized Medical Staff Structure
- Consolidate Provider meetings reducing meeting hours.
- Revise scheduling guidelines (20 min vs. 40 min vs. 60 min)
- Create schedule management strategies using daily huddle

Source: Jefferson Healthcare
Results

Cumulative Additional Visits in 2009 vs 2008

- January: 39
- February: 351
- March: 762
- April: 1175

Source: Jefferson Healthcare
JHC Accomplishments

- Laundry RPIW was early success
  - Saved laundry from being outsourced
  - Stabilized staff at 3 FTE from 4 FTE budgeted
  - Customer satisfaction went from 70% to 100%
- Most MDs “get it”, are on board, and are driving process improvement
  - Launching the Clinic VS was a tipping point
  - OR daily “on time start” went from 14% to 96%
- Culture beginning to change
- Community now has excellent stroke and acute cardiac care response for rural hospital
- 45% employee participation in at least one event
Success Factors

- CEO leadership, commitment, engagement
- Enterprise-wide process improvement method
- Commitment of resources
  - Engaging consultant on long-term contract
  - Lean Resource office
  - Tiger teams from IT, EVS, facilities, materials mgmt support rapid change during RPIWs
- Getting MDs involved and on board
  - Active participants in process improvement
- No layoffs for productivity improvements

“The lesson learned by the MDs from the clinical value stream RPI was that lean focuses on what to do to make them, the patients, and the staff happy.”

Vic Dirksen, CEO
Challenges and Opportunities

• “Lean fatigue” – 30 events per year for 489 employees and 4 lean resource office staff is at capacity of organizational rate of change

• Changing culture opens opportunities for bottom-up implementation
  • Transforming Care at Bedside is an example
  • Making everyone a problem solver all the time

• “Biggest gains still to come”

“Lean is an effective way for me to make systemic, not charismatic, change in process improvement at Jefferson Healthcare.” Vic Dirksen, CEO
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