



Lean Implementation at Jefferson Healthcare

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Rural Healthcare Case Study



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



Photo by Earl 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

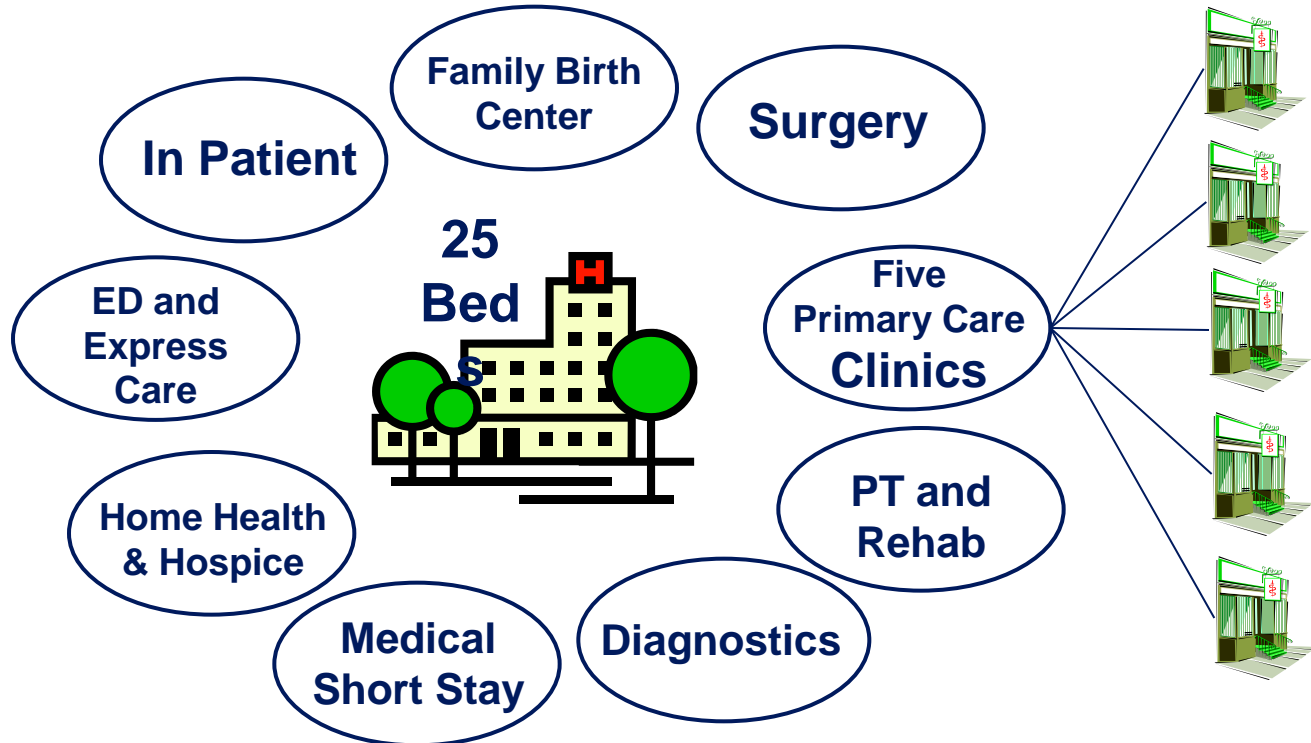
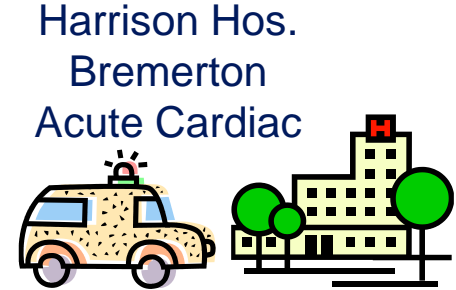
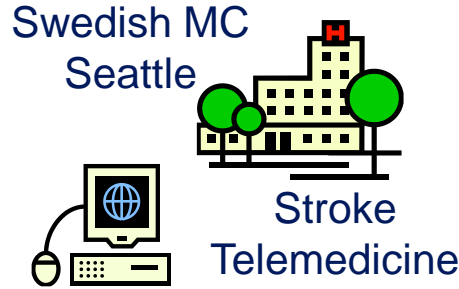
- **Governed by 5 elected Commissioners**

- **Largest employer in Jefferson County, 489 employees**

- **Annual budget approximately \$45 million**

- **Over three quarters of business is outpatient**

Jefferson Healthcare Enterprise



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

Source: <http://207.56.191.254/web/AboutJeffersonHealthcare/PurposeValuesMission/tabid/89/Default.aspx>

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



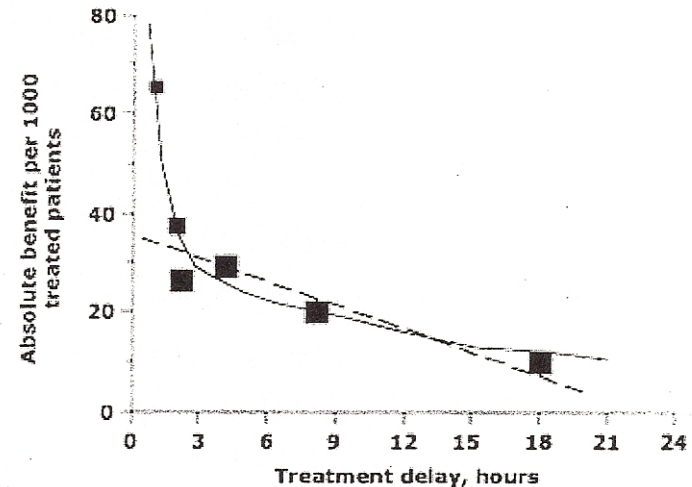
2007 7 events
2008 30 events
2009 30 events

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

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

Time to thrombolysis and 35-day mortality

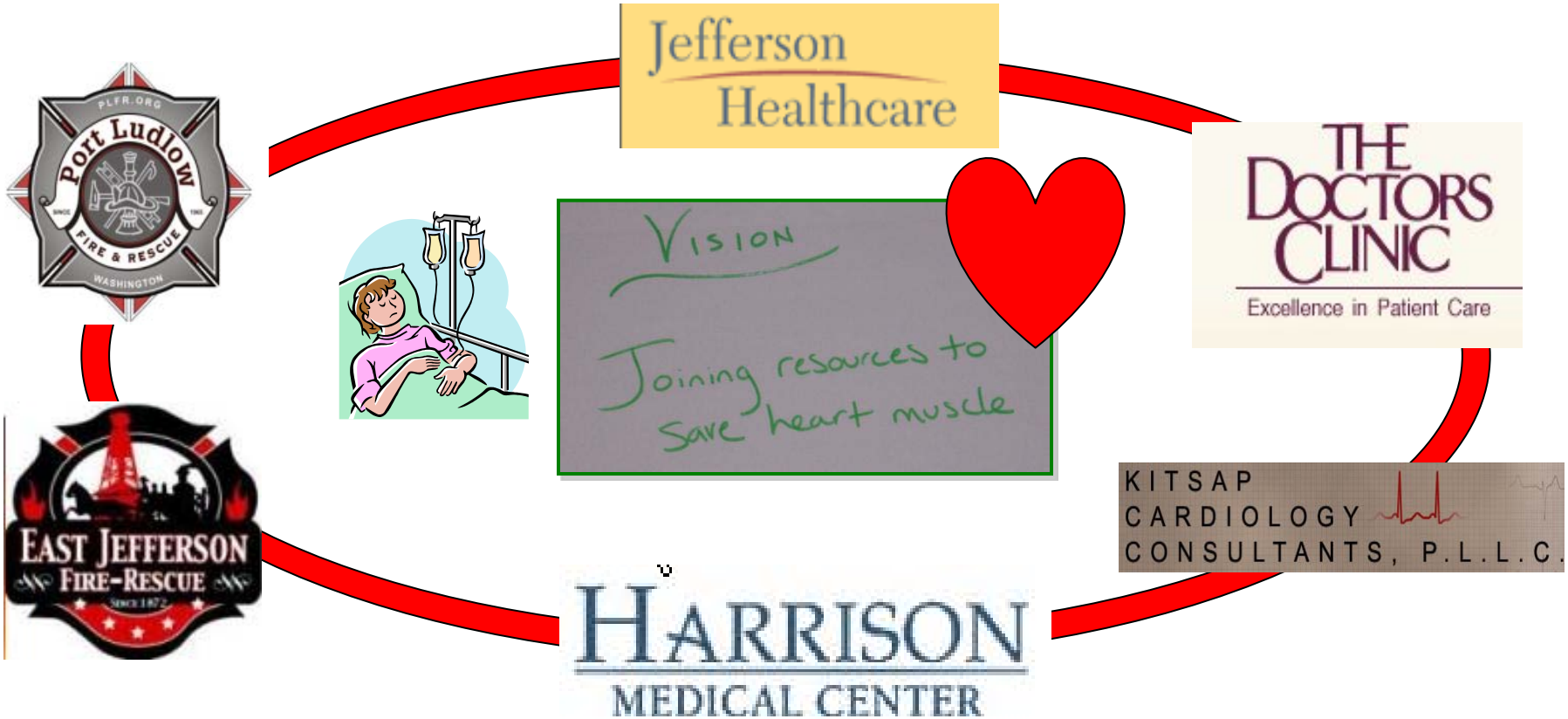


Situation

- 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

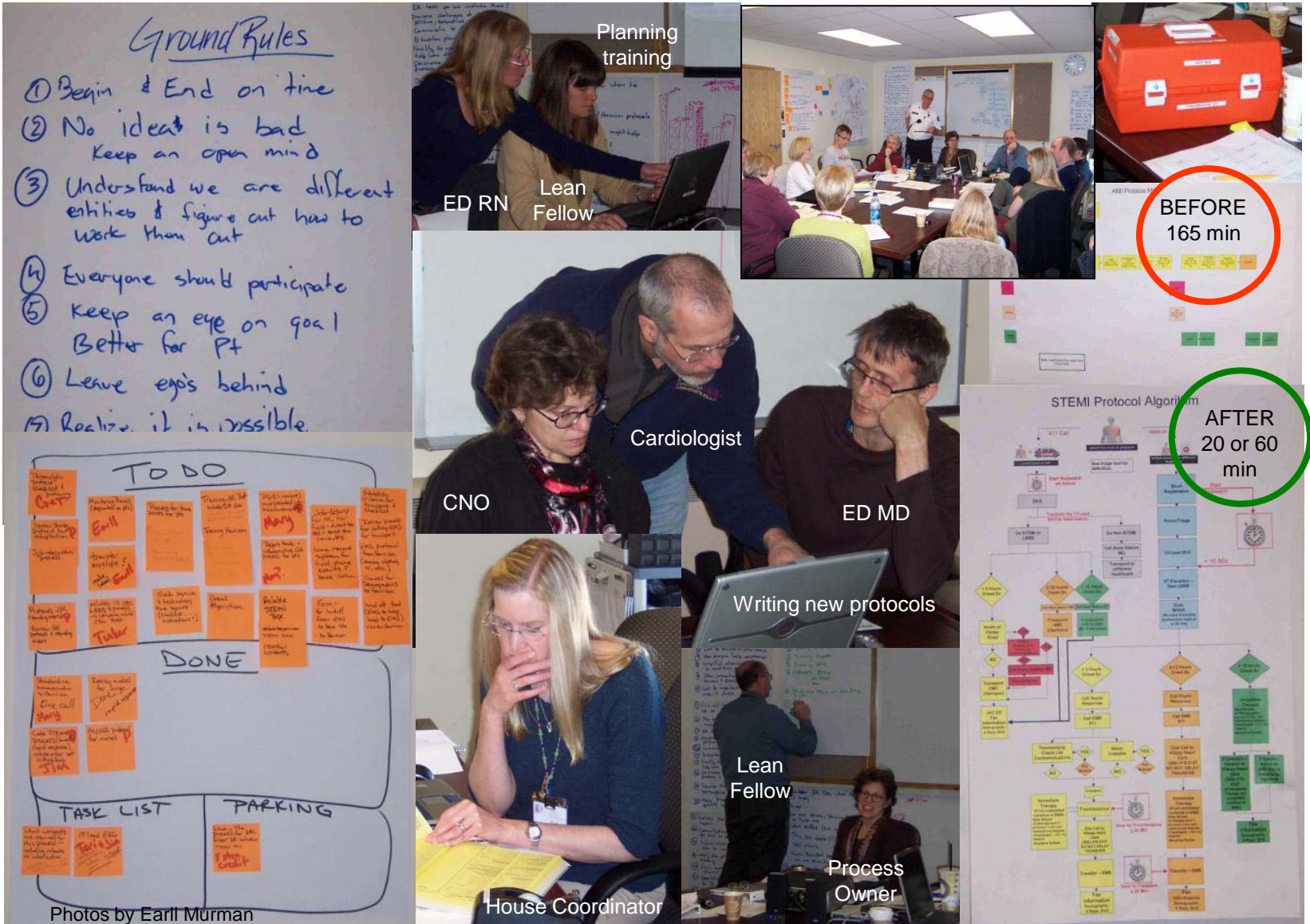
RPIW Targets – Reduce Lead Times for AMI response

Pt Value Stream Intersects Multiple Organizations



Common process required for 6 different organizations

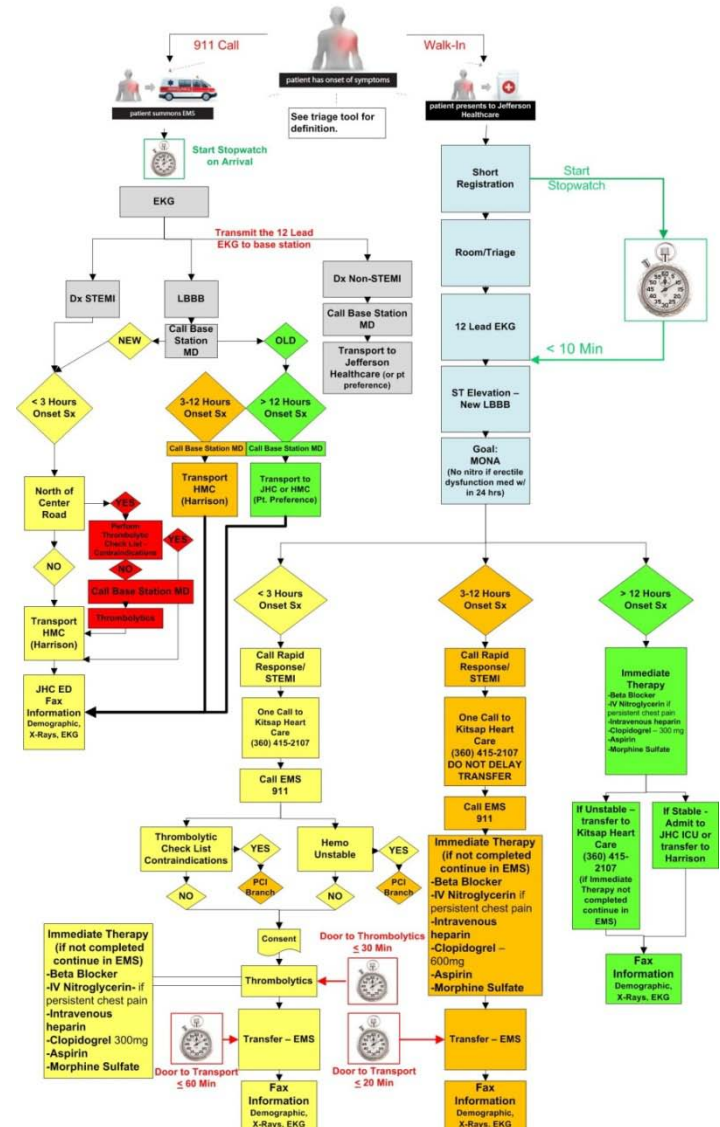
Images from AMI RPIW



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

STEMI Protocol Algorithm



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

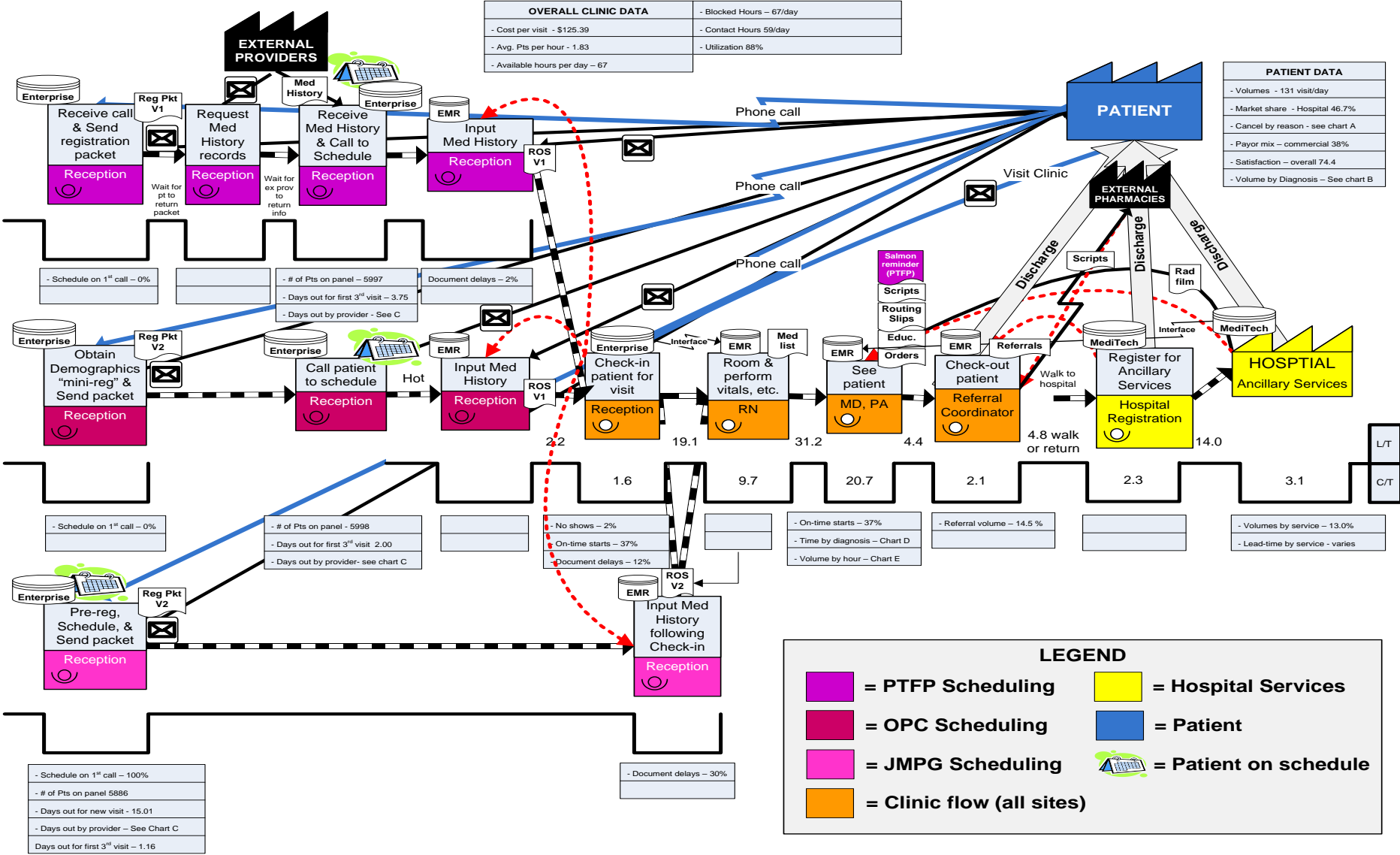
- **Primary Event Focus:**

- Identify standard patient flow for clinic encounters; improve patient access and provider productivity

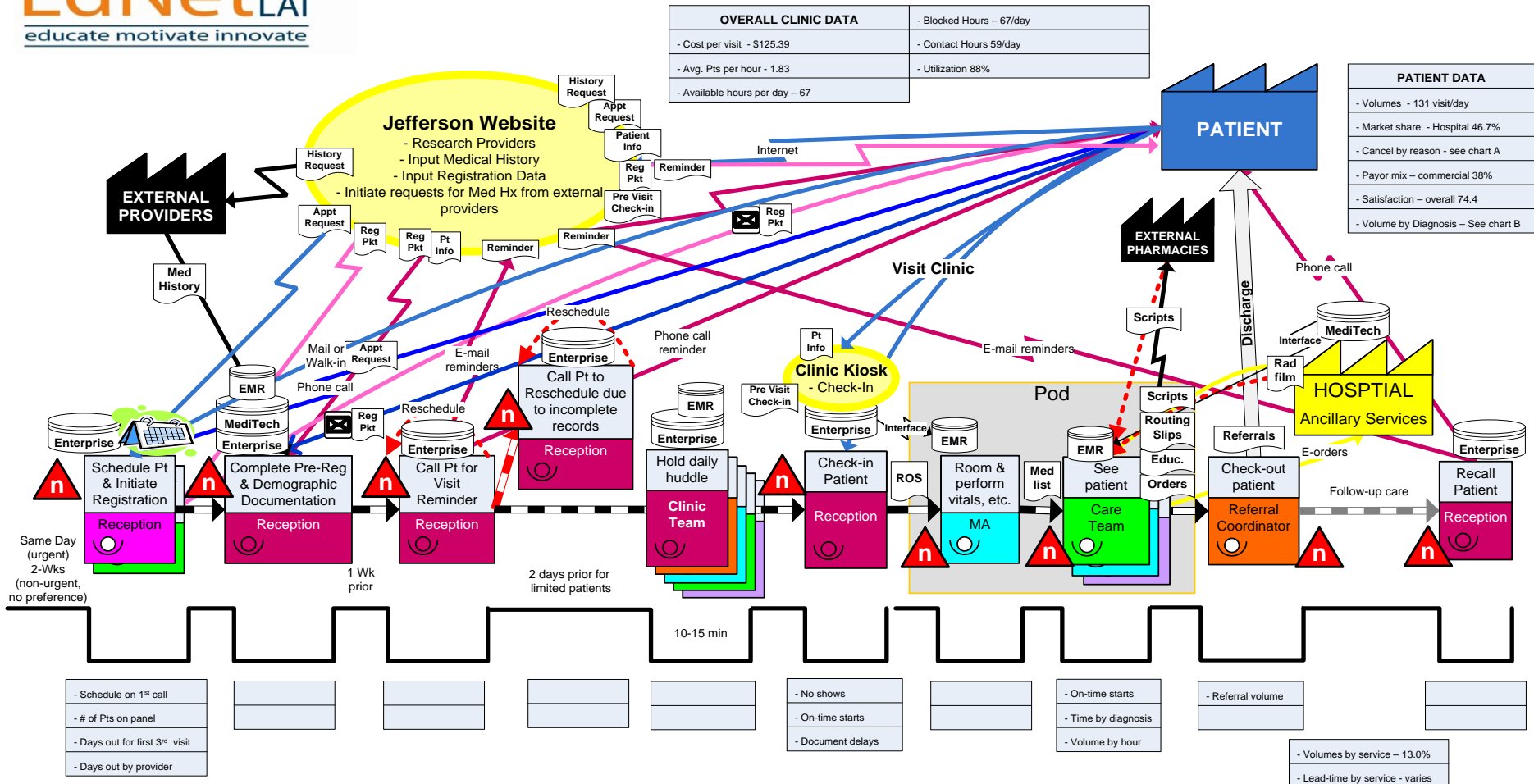


Photos by Earll Murman

Jefferson Healthcare Clinic - Current State Map



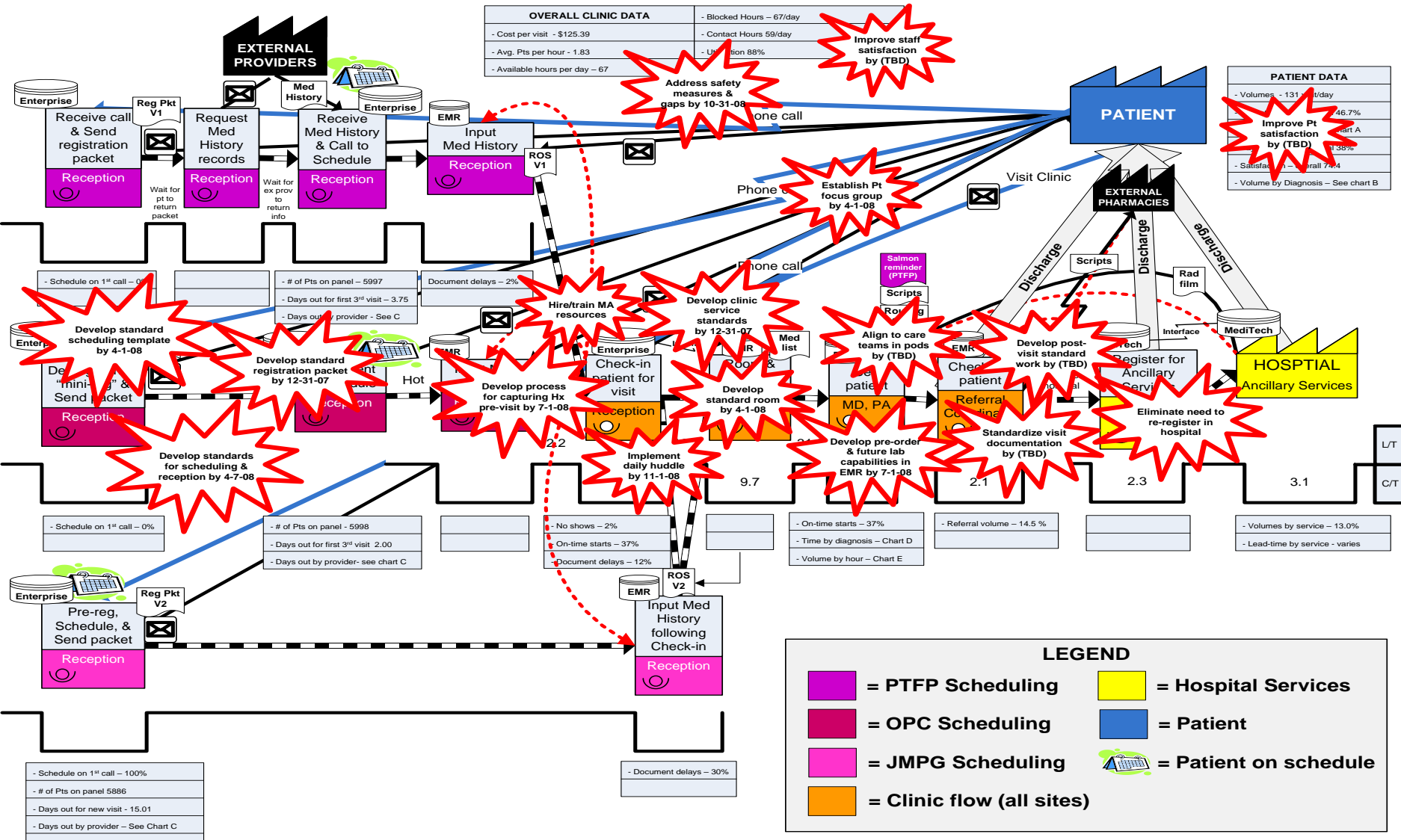
Jefferson Healthcare Clinic - Ideal State Map



LEGEND

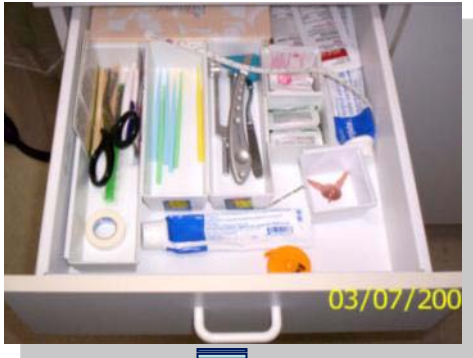
- = Scheduling Receptionist
- = Clinic Receptionist
- = Referral Coordinator
- = MA
- = MD/PA
- = RN
- = Hospital Services
- = Patient
- = Patient on schedule
- = Queues (Inventory)

Jefferson Healthcare Clinic – Future State Focus (2008)



Standard Rooms and Central Supplies

**5S Events in
each Clinic**



03/07/2008



04/25/2008



01/30/2008



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

Your Appointment at **Jefferson Healthcare**



Check In
Confirm and update your personal information

Preparing for Your Visit

- Why am I here?
- Has any medical information changed since my last visit?



Visit with Your Providers



- Time with your Nurse or Medical Assistant:
Check vital signs, review medications and today's concerns
- Time with your Doctor, Physician Assistant, or Nurse Practitioner

FIW = Focused Improvement Workshop

Daily Management System

Implement daily huddle



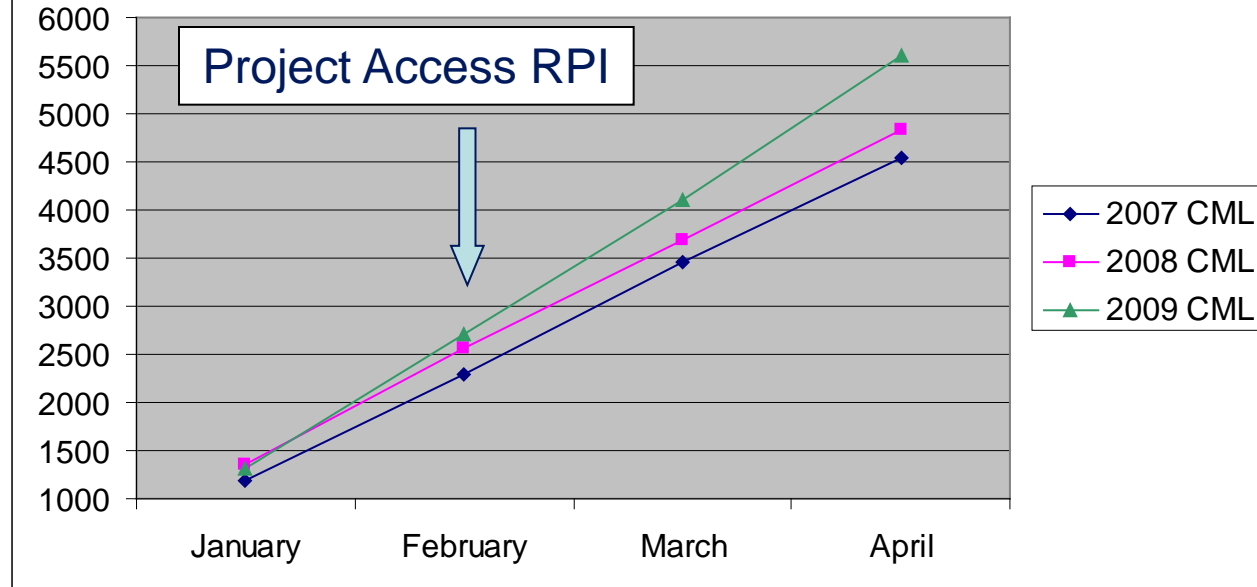
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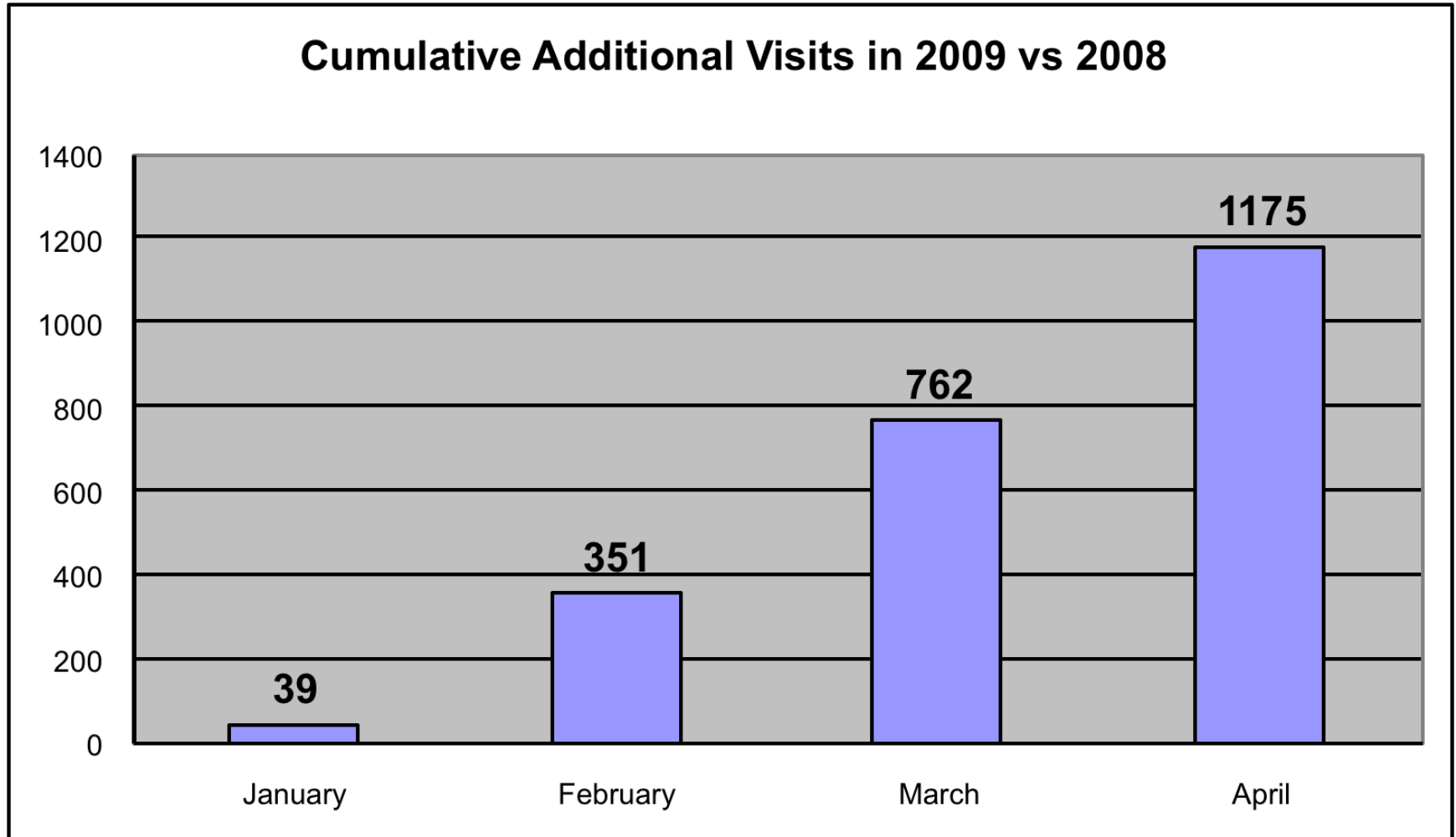
Project Access RPI

(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

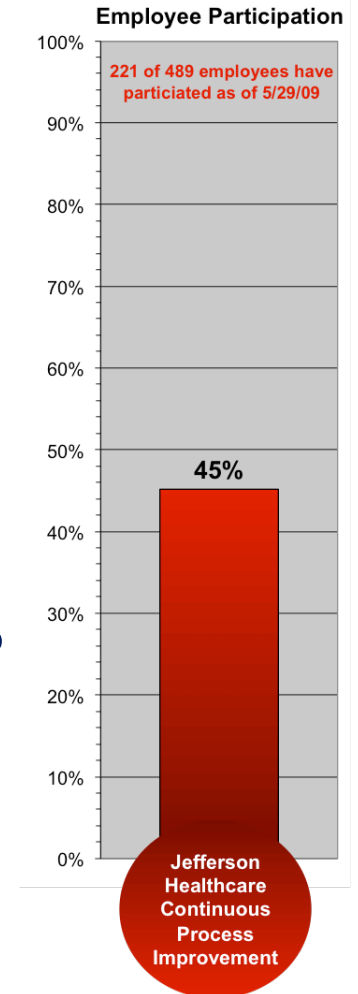
**Cumulative Available Clinic Hours
2007, 2008, 2009**





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**



Source: Jefferson Healthcare

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

Acknowledgements

- **Terri Camp – Jefferson Healthcare**
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- **Vic Dirksen – Jefferson Healthcare**
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