Vertical Value Stream Analysis to Chart a Course to Patient Centered Medical Home

Darrin Judkins & Norman Pimentel

Lean Transformation Specialists
Today’s Presentation

• Overview of lean structure at BCH
• Patient Centered Medical Home
• VVSA Structure, case study
• Lessons learned from year one
| Question                                                                 | Value  
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have a lean program? How long?</td>
<td>2</td>
</tr>
<tr>
<td>How many Kaisan/year</td>
<td>70</td>
</tr>
<tr>
<td>How many PI projects/year</td>
<td>15</td>
</tr>
</tbody>
</table>

Who is here?
About Boulder Community Hospital

- 265 beds
- 2350 employees
- Three hospital campuses & 22 outpatient clinics
- Construction on 100,000 sq ft hospital expansion & 46,000 sq ft med center currently underway
- 2011 Statistics:
  - 8,700 Inpatient admissions
  - 575,000 Outpatient & ER visits
  - $11.7 million in net revenue
Who is here?

Do you run lean events?

Sensei?

Primary Care?
Deployment of Lean at BCH

- Transformation Plan of Care (TPOC) Executive level strategy session
- Value Stream Analysis (VSA) Cycle Director/Manager planning session identifying specific areas of improvement
- Just Do Its Just Stop Its 6S Projects
- Rapid Improvement Event (RIE) Vertical Value Stream VVSA
# 2013 BCH Lean Value Streams

**Enterprise Level**

- **Executive Value Stream Steering Committee**

**Executive Owner**

- **Patient Flow**
  - Paul Lewis, MD

- **Patient Access**
  - Bill Munson

- **Lab/Imaging**
  - Jim Peters

- **Cardiology**
  - Jim Peters

**Value Stream Owner**

- **Beth Reasoner**

- **Jon Wiik**

- **Joe Mikoni**

- **Jeff Reed**

**Individual Event Owner**

- **Event Owner**

- **Event Owner**

- **Event Owner**

- **Event Owner**
Why Patient Centered Medical Home (PCMH)

• To be THE community healthcare system for Boulder County
• Improve patient satisfaction
• Improve quality
• Improve access
• Maintain competitive position with payers
APPENDIX 1

NCQA 2011 Scoring

Scoring Summary

<table>
<thead>
<tr>
<th>Recognition Levels</th>
<th>Required Points</th>
<th>Must-Pass Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>55-59 points</td>
<td>100 Points</td>
</tr>
<tr>
<td>Level 2</td>
<td>60-64 points</td>
<td>27 Elements</td>
</tr>
<tr>
<td>Level 3</td>
<td>65-100 points</td>
<td>6 Must-Pass Elements</td>
</tr>
</tbody>
</table>

- 100 Points
- 27 Elements
- 6 Must-Pass Elements

Element 1: Access During Office Hours

- The practice provides access to culturally and linguistically appropriate routine care and urgent team-based care that meets the needs of patients/families.

- Must-Pass: 4 points

<table>
<thead>
<tr>
<th>Element A:</th>
<th>Access During Office Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Providing same-day appointments</td>
<td>Yes</td>
</tr>
<tr>
<td>2. Providing timely clinical advice by telephone during office hours</td>
<td>Yes</td>
</tr>
<tr>
<td>3. Providing timely clinical advice by secure electronic messages during office hours</td>
<td>Yes</td>
</tr>
</tbody>
</table>

- Example of a measure of access is "third next available appointment," with an open-access goal of zero days (same-day availability). Third next available appointment measures the length of time from when a patient contacts the practice to when an appointment is made, no later than next available appointment on the practice's schedule. The practice may measure availability for a variety of appointment types, including urgent care, new patient, routine examinations, and return visits.

Factor 1: The practice reserves time for same-day appointments (also referred to as "open access," "advanced access" or "same-day scheduling") for routine and urgent care based on patient preference or time. Adding all free or unscheduled appointments to a full day of scheduled appointments does not meet the requirement. An example of a measure of access is "third next available appointment," with an open-access goal of zero days (same-day availability). Third next available appointment measures the length of time from when a patient contacts the practice to when an appointment is made, no later than next available appointment on the practice's schedule. The practice may measure availability for a variety of appointment types, including urgent care, new patient, routine examinations, and return visits.

Factor 1 has been identified as a critical factor and must be met for practices to receive any score on the element.

Factors 2 and 3: Clinicians return calls or respond to secure electronic messages in a timely manner, as defined by the practice to meet the clinical needs of the clinician population.

Factors 2 and 3 require the practice to define the time frame for a response, and monitor the timeliness of the response against the practice's standard.
Vertical Value Stream Mapping:

Purpose

- Enables ‘one-off’ activities to flow without waste
- Used for improving ‘non-recurring’ processes
- Works for highly complex processes
- A key enabler for Multi-disciplinary teams
- ‘Lean project management’

Non-recurring processes with less waste
What about very big projects?

• Approach the planning in layers not ‘phases’ use a pyramid graphic to assemble the teams thinking

• Create top level Vertical Value Stream Map then create lower layer maps maybe with a smaller more focussed team (think: each layer is a lower level of detail)

• Each subsequent layer is driven by constraints or timescales frozen from the layer above.
**Vertical Value Stream Mapping**

**Step 1** Assemble the appropriate team
- Select people for their relevant expertise / function & bring diaries

**Step 2** Describe the project to be undertaken
- Write on a yellow post-it & place in bottom R/H corner

**Step 3** Decide the end date
- Write the date (and why?) on a yellow post-it & place in the bottom L/H corner

**Step 4** Describe the major phases this project will move through (no more than 5)
- Write on a yellow post-it & place in a time-line down L/H side of chart

**Step 5** Discuss / agree the purpose of ‘phase reviews’
- Decide if formal / informal, & whether to have separate business / technical
- Write your team definition on a yellow post-it & place in middle at foot of chart

**Step 6** Name each phase review & agree ‘input’ & ‘exit’ criteria
- Name each review on a yellow post-it & place in time-line down centre of chart
- List inputs on red post-its to the left of the review and exit criteria on a blue post-it to the right of the review
- Each review must confirm that enough cross discipline activity has taken place to progress with ‘least waste’ to the next phase

**Step 7** Discuss / agree the purpose of ‘Freeze Points’
- Agree a definition & place on a yellow post-it and place at bottom in the middle

**Step 8** Place freeze points under each phase review
- Decide as a team what gets locked at each freeze point
- Decide the circumstances (if any) under which you could unfreeze them
- Write on an angled yellow post-it under each review

**Step 9** List the full time core team by discipline (max 10)
- Use a yellow post-it for each & align along the top in rough value add sequence

**Step 10** Discuss / agree the required leadership style
- Decide how the team will make decisions (consensus, majority, team leader…)

**Step 11** List the customers and suppliers for this project
- Customers to the left on red post its / Suppliers to the right on blue post it
- Where do management fit?

**Step 12** Align each review under the appropriate lead discipline

**Step 13** List the ‘value adding’ tasks within each phase
- In order to satisfy the review criteria
- Position in time sequence (real dates) in each phase on smaller green post-its

**Step 14** Stretch each task to show required team-working
- Maximise up-front involvement to minimise re-work & waste
- How do we ensure the right level of cross discipline working?

**Step 15** Stretch each review to show attendees required
- When all tasks are listed calculate “Pulse Time” (Available Time/# of Activities)

**Step 16** Identify standard operating procedures to be used for each activity
- List standard operating procedures down R/H side of chart
- If no standard operating procedures exist see step 17 below

**Step 17** Run ‘events’ for required for each standard operation
- Classify these events as either:- Events, Projects or do-its
- Use the SBS methods to create standard work, 3P, Voice of Customer, etc.

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**Before starting…please remember:**

- Main goal is to improve quality, cost, and delivery by eliminating waste
- Goal two is to make job’s easier, faster, less stressful & more fun
- Every Map is different so we must always ask;

  What does this PROJECT want?
  What would the PROCESS want?
  What does the ENTERPRISE want?

**Post- it rules - No acronyms, make the words clearly describe what you are recording.**
Facilitators:
Pete Beestrum
Matt Beno
Darrin Judkins
BCH primary care clinics are committed to obtaining NCQA Medical Home certification. This certification is critical to remain competitive while improving the value of care.

In Scope: BCH owned Primary Care and Internal Medicine Clinics
Out of Scope: All other clinics
### 1. Enhanced Access & Continuity

<table>
<thead>
<tr>
<th>Element</th>
<th>DONE</th>
<th>PARTIAL</th>
<th>NOT DONE</th>
<th>Policy/Process</th>
<th>Lean Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A.1</td>
<td>1</td>
<td></td>
<td>1</td>
<td>P</td>
<td>RIE</td>
</tr>
<tr>
<td>1A.2</td>
<td>1</td>
<td></td>
<td>1</td>
<td>P</td>
<td>RIE</td>
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<tr>
<td>1A.3</td>
<td>1</td>
<td></td>
<td>1</td>
<td>JDI</td>
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<tr>
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<td>P</td>
<td>RIE</td>
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<tr>
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<td>P</td>
<td>JDI</td>
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<tr>
<td>1B.2</td>
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<td>1</td>
<td></td>
<td>1</td>
<td>P</td>
<td>JDI</td>
</tr>
</tbody>
</table>

**Totals**: Done 34, Partial 43, Not Done 68
NCQA 2011 Scoring Consists of:
100 Points, 27 Elements, 6 Must Pass Elements

NCQA Requirements Status

NCQA Must Pass Status

35-59 = Level 1
60-84 = Level 2
85-100 = Level 3
<table>
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<tr>
<th>Metric</th>
<th>Stretch Goals</th>
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<tbody>
<tr>
<td>NCQA Medical Home certification Level 3</td>
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Gap Analysis

Gaps

All components scored 1 or 2
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<thead>
<tr>
<th>Solution</th>
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<tbody>
<tr>
<td>Standardization across clinics</td>
</tr>
<tr>
<td>Patient Portal</td>
</tr>
<tr>
<td>Develop materials related to PCMH</td>
</tr>
<tr>
<td>Design future state team for delivery of care</td>
</tr>
<tr>
<td>Identify and capture of measurable data</td>
</tr>
<tr>
<td>Component</td>
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<tr>
<td>-----------</td>
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<tr>
<td>1B.1</td>
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<tr>
<td>1B.2</td>
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Questions ?
Special Thanks

• Mark Niccum
  – Simpler Sensei

• Pete Beestrum
  – Simpler Sensei

• Adam Ward
  – Simpler Sensei

• Matt Beno
  – Director, Lean Operations and BCH Sensei