Using the Model for Improvement to Accelerate Change

DSI SAIEL Stakeholder Meeting
November 9, 2014
Sue Butts-Dion, Improvement Advisor
How have we learned that we can accelerate change and increase improvements?

Model for Improvement

From: Associates in Process Improvement
How have we learned that we can accelerate change and increase improvements?

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DSI Stakeholder Meeting November 19, 2014
What are we trying to accomplish?

• Aim Statement:
  • What?
  • For whom?
  • By when?
  • How much?
Purpose of Setting Aims

Having an exciting destination is like setting a needle in your compass. From then on, the compass knows only one point-its ideal. And it will faithfully guide you there through the darkest nights and fiercest storms."

- Daniel Boone
What are we trying to accomplish?

The AIM is

Not just a vague desire to do better
A commitment to achieve measured improvement
• In a specific system
• With a definite timeline
• And numeric goals

"Soon" is **not** a time

"Some" is **not** a number

"Hope" is **not** a plan
Improving Care for Children w/ Developmental Delays and/or Autism Spectrum Disorder

**Global Aim:**
Promote healthy development for young children and achieve earlier identification and intervention for children with developmental delays and/or autism spectrum disorder (ASD).

**Specific Aims**
From August 2013 to August 2016, we will increase the number of children enrolled in MaineCare receiving general developmental screening by primary care providers by 3 percentage points a year using MaineCare claims data as the source. By 2016: MaineCare claims data will show 11.1% of children by age 1 (from 2.1%), 12.4% of children by age 2 (from 3.4%), and 9.5% of children by age 3 (from 0.5%) received a general developmental screening. (Baseline data is from 2011 MaineCare claims).

**Measures**
- # Screened
- Referrals
- Follow up Plans

(DRAFT Updated 11.4.13)
Cascading Aims

• Each part of the system will have their own individual aims (aims for the organization) but all should be aligned with the global aim.
How have we learned that we can accelerate change and increase improvements?

Model for Improvement

What are we trying to accomplish?
How will we know that a change is an improvement?
What change can we make that will result in improvement?

Act
Plan
Study
Do

From: Associates in Process Improvement

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Family of Measures

- **Outcome measures**
  - Overall measure of success
  - Voice of customer or clinical outcome

- **Process measures**
  - How work gets done
  - More sensitive to change
  - Come and go as work changes

- **Balancing**
  - Is there any other part of the system that might be influenced by your changes?
    - Patient Satisfaction
    - Finances
    - Staff Satisfaction

- **Qualitative Data**
  - Patient feedback
  - Surveys
  - Focus groups
Practices are Implementing Developmental Screening: MaineCare billing has increased since 2011

Developmental Screening Rates Among MaineCare-enrolled Children
FFY 2011 - 2013

- Age 0 - < 1: FFY 2011 - 2%, FFY 2012 - 3%, FFY 2013 - 13%
- Age 1 - < 2: FFY 2011 - 3%, FFY 2012 - 6%, FFY 2013 - 17%
- Age 2 - < 3: FFY 2011 - 1%, FFY 2012 - 2%, FFY 2013 - 12%
First STEPS 2014 Practices’ Progress To-Date: Screening Completed, Chart Review

Gen'l Developmental Screen Documented

<table>
<thead>
<tr>
<th>Month</th>
<th>Rate</th>
<th>Target 75%</th>
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<tbody>
<tr>
<td>Baseline</td>
<td>31.5</td>
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</tr>
<tr>
<td>Apr-14</td>
<td>42.8</td>
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<tr>
<td>May-14</td>
<td>29.3</td>
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<tr>
<td>Jun-14</td>
<td>45</td>
<td></td>
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<tr>
<td>Jul-14</td>
<td>50.4</td>
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<tr>
<td>Aug-14</td>
<td>54.8</td>
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</table>

Autism Screen Documented

<table>
<thead>
<tr>
<th>Month</th>
<th>Rate</th>
<th>Target 75%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>50.6</td>
<td></td>
</tr>
<tr>
<td>Apr-14</td>
<td>65.9</td>
<td></td>
</tr>
<tr>
<td>May-14</td>
<td>73.1</td>
<td></td>
</tr>
<tr>
<td>Jun-14</td>
<td>70.5</td>
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<tr>
<td>Jul-14</td>
<td>73.7</td>
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<tr>
<td>Aug-14</td>
<td>75.8</td>
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</table>

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First STEPS 2014 Practices’ Progress To-Date: Results Reviewed w/ Family, Chart Review

Gen'l Developmental Screen Results Reviewed w/ Family

Autism Screen Results Reviewed w/ Family

DSI Stakeholder Meeting November 19, 2014
First STEPS 2014 Practices’ Progress To-Date:
F/U Plan in Chart

Gen'l Developmental Screen F/U Plan in Chart

Autism Screen F/U Plan in Chart

DSI Stakeholder Meeting November 19, 2014
First STEPS 2014 Practices’ Progress To-Date: Billing Modifiers

Favorable Trend—5 or more (6) points in a row
Steadily ascending!!
More on Your Measures and Metrics...
Three Types of Data

- Data for improvement
- Data for accountability/judgment
- Data for research

- We understand that the data may be imperfect BUT for purposes of improvement, it does not negate the value of it. It can still be used for learning EVEN if the learning is that the data is imperfect!

- How much data do we need for improvement? Just enough! It is the condition of the experiments/test of change that matter most! (Source: Paul Batalden)
How have we learned that we can accelerate change and increase improvements?

Model for Improvement

![Diagram showing the Model for Improvement with questions:
- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What change can we make that will result in improvement?

From: Associates in Process Improvement]

DSI Stakeholder Meeting November 19, 2014
Where do we find change ideas?
Improving Care for Children with Developmental Delays and/or Autism Spectrum Disorder

Global Aim:
Promote healthy development for young children and achieve earlier identification and intervention for children with developmental delays and/or autism spectrum disorder (ASD).

Specific Aims
From August 2013 to August 2016, we will increase the number of children enrolled in MaineCare receiving general developmental screening by primary care providers by 3 percentage points a year using MaineCare claims data as the source.

By 2016: MaineCare claims data will show 11.1% of children by age 1 (from 2.1%), 12.4% of children by age 2 (from 3.4%), and 9.5% of children by age 3 (from 0.5%) received a general developmental screening. (Baseline data is from 2011 MaineCare claims).

Measures
- # Screened
- Referrals
- Follow-up Plans

(DRAFT Update: 11.4.13)
### B. First STEPS—
**Developmental Delays & ASD “Quick Picks”**
*(Based on System Index)*

<table>
<thead>
<tr>
<th>PRIMARY CHANGE CATEGORY</th>
<th>SECONDARY CHANGE CATEGORY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Leaders as champions for change</strong></td>
<td>Identify a practice team including, at least, a physician, nurse, and office manager that champions the project and meets at least once a month to review data quality metrics on developmental screening and care.</td>
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<td></td>
<td>Review all staff knowledge of developmental and autism screening and systems for screening.</td>
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<td></td>
<td>Agree upon document and post standard schedules for developmental and autism screening.</td>
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<tr>
<td><strong>Early identification of developmental delays and/or autism spectrum disorder (ASD)</strong></td>
<td>Ensure all staff are knowledgeable about developmental milestones.</td>
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<td></td>
<td>Ensure families receive information about and understand developmental milestones.</td>
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<td></td>
<td>Conduct routine surveillance for development delays and/or ASD.</td>
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<td></td>
<td>Conduct routine evidence-based screening for development delays and/or ASD.</td>
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<tr>
<td><strong>Diagnosis of developmental delays and/or autism spectrum disorder (ASD)</strong></td>
<td>Routinely train staff in diagnostic evaluation.</td>
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<td></td>
<td>Standardize processes related to follow up and referral to development specialists.</td>
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<td></td>
<td>Develop reliable systems for tracking children at risk.</td>
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<td>Routinely train staff in communicating concerns and screening results to parents, prenatal nurses, and case givers.</td>
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<td></td>
<td>Develop reliable referral systems ensuring timely referrals for children identified at risk or with development delays and/or ASD.</td>
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<tr>
<td><strong>Management of developmental delays and/or autism spectrum disorder (ASD)</strong></td>
<td>Ensure patients and families to quality improvement work closely with care providers and treatment for children with developmental delays and/or ASD.</td>
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<td></td>
<td>Redesign office environment to optimize the experience for children with developmental delays and/or ASD.</td>
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<td></td>
<td>Integrate quality improvement into office practice.</td>
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<td></td>
<td>Assist staff in developing care coordination processes such as a care coordinator to assist families through the referral, treatment and management process.</td>
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<td></td>
<td>Assist staff, regularly collecting and reviewing data on the number of children getting developmental screenings for purposes of improvement (e.g., via claims based through utilization reports, registry reports).</td>
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<tr>
<td></td>
<td>Assist practices is billing and coding properly for screening for developmental delays and ASD (e.g., familiarity with Medicare, Medicaid claims).</td>
</tr>
<tr>
<td><strong>Linkages to and/or maintenance of community connections to optimize care</strong></td>
<td>Identify community partners whose partnerships will optimize care for children with developmental delays and/or ASD.</td>
</tr>
<tr>
<td></td>
<td>Develop reliable systems for communication with community partners.</td>
</tr>
</tbody>
</table>
Developmental Delay and ASD Change Package Check Sheet

Leaders as Champions for Change

- Identify a practice team including, at least, a physician, nurse, and office manager that champions the project and meets at least once a month to review developmental delay and ASD screening data/quality metrics.
  - Identify a leader within the practice who can assure that resources will be allotted; mitigate challenges, and who will take responsibility for the success of the improvement initiative.
  - Establish characteristics for the champions (provider, clinical support and administrative champions)—one of each per project received. Ensure champion agrees to coordinate and support all developmental and ASD screening activities and keep staff up to date on current practices and new information.
  - Champion writes (in conjunction with team) and communicates improvement vision to the entire practice and take on responsibility for engaging other providers in support of the vision.
  - Write job descriptions for all staff that clearly delineate roles, responsibilities, and interdependencies related to evidence-based surveillance and screening; defined enough so that staff can hold themselves and others accountable but flexible enough to change as standard processes evolve.
  - Agree upon, document and post standard schedules for developmental and autism screening.

- Assure all staff understand the differences between systems for surveillance and systems for screening.
  - Provide staff training and opportunities to practice with both surveillance and screening tools.
  - Provide staff with tools to support both important processes.
By looking more closely at our systems and processes by flow mapping...
For each step, ask:
• Can it be eliminated?
• Can it be done in a different order?
• Can it be done by someone else—more appropriate person?
• Are there unnecessary waits?
• Communication breakdowns?
• Is this value added for the patient?
• Is this value added for the staff?

Patient

Inconvenienced

• Screening given to patient by front clerical staff

Screen

completed

• Screen completed by parent in wait room
• MA collects and includes with check out sheet

Screen

scored

• Provider enters encounter, reviews and scores with patient
• Provider scores form on enclosed scoring sheet using laminate score instructions posted in room

Results

reviewed

w/ Family

• Provider reviews screen with patient
• Provider discusses interventions as needed and signs Screen
• Provider puts quick text in EMR indicating screen complete
• Provider documents assessment & clinical impression

Referrals made as necessary

• Follow up visits and/or referrals made at point of care via EMR

Patient checks out

• Patient checks out with plan of care

Extra work

Diminished communication

Started with a High Level Block Diagram
Important Systems Principles

• Complexity of Systems
  • Every system has an aim
  • If each part of a system, considered separately, is made to operate as efficiently as possible, then the system as a whole will not necessarily operate efficiently
  • The obligation of any component is to contribute its best to the system, not to maximize its own ...measures.

• Most problems are due to bad systems and not bad people
• Optimization & Sub-optimization
  • Some solutions may create problems
• We should work on our processes, not the outcomes of our processes.
I am sure glad the hole is not in our end!
Flow charts help avoid sub-optimizing others upstream and downstream AND break out systems down in to more approachable processes that we can work on.

**High Level** (top-down or block diagram)

**Detail Level** (flow chart – several types)
“If you can’t describe what you’re doing as a process...

... you don’t know what you are doing”

W. Edwards Deming
Consider Starting with a Block Diagram

Step 1: Identify big “buckets” or work—present them horizontally

- Child Presents
- Screen completed
- Referral Made
- Services Received
- Follow-Up Plan Developed
- F/U Carried Out

Step 2: Hang specific steps related to the bigger “buckets” of work underneath appropriate step, vertically

Step 3: For each step, ask:
- Can it be eliminated?
- Can it be done in a different order?
- Can it be done by someone else--more appropriate person?
- Are there unnecessary waits?
- Communication breakdowns?
- Is this value added for the patient?
- Is this value added for the staff?
High Level Diagram

• Simplest form of process description. Will help establish boundaries for the process, identify internal customer, and foster conversation.
  • Identify the major process segments
  • Write them in the order they occur
    • If process appears to complex, choose a subset of the major segments, or another process (more than 7 or 8 segments may indicate subset or too much detail)
  • Identify the internal customer of the process
    • What does the customer need?
Then can move to more detailed flowchart...
Some Questions

• What *insights* might be obtained about your systems to support screening by flow mapping the work?

• How might breaking down the system into smaller processes that you can work on help with this work?
Other Sources for Change Ideas?

**Generic Change Concept**

A change concept is a general notion or approach to change that has been found to be useful in developing specific ideas for changes that lead to improvement.
Generic Change Concepts

**Improve Workflow: Minimize Handoffs**

Many systems require that elements (customer, a form, a product) be transferred to multiple people, offices, or work stations to complete the processing or service. The handoff from one stage to the next can increase time and costs and cause quality problems. The workflow can be rearranged to minimize any handoffs in the process. Redesign the process so that any worker is only involved one time in an iteration of a process. For example, we can reduce layers of management that require multiple reviews, meeting and approvals. We can expand clerical jobs to include scheduling, staffing, planning and analysis. Or we can cross train workers to handle multiple things.

Example: A hospital redesigned patient transport process to minimize handoffs of patients. Some patients can now be admitted directly to intensive care right after surgery rather than to a post-anesthesia care unit and then to ICU. This resulted in high patient satisfaction and lower costs for the hospital.
Manage Variation: Standardization

The use of standards, or standardization, has a negative and bureaucratic connotation for many people. But an appropriate amount of standardization can be a foundation on which improvement in quality and cost is built. Standardization is one of the primary methods to reduce variation in a system and should be considered for the parts of a system that have a big effect on the outcomes (leverage points).

Example: In the US, school curricula vary from district to district and from state to state. The variation causes problems when students transfer to other districts. In Japan, the elementary school curricula have been standardized throughout the country. This allows teachers to focus their energies on teaching techniques rather than content. When students transfer to a new school, there are no gaps or duplication.
## Many Generic Change Concepts

<table>
<thead>
<tr>
<th>Eliminate Waste</th>
<th>Change the Work Environment</th>
<th>Manage Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. eliminate things that are not used</td>
<td>27. give people access to information</td>
<td>51. standardization (create formal process)</td>
</tr>
<tr>
<td>2. eliminate multiple entry</td>
<td>28. use proper measures</td>
<td>52. stop tampering</td>
</tr>
<tr>
<td>3. reduce or eliminate overkill</td>
<td>29. take care of basics</td>
<td>53. develop operational definitions</td>
</tr>
<tr>
<td>4. reduce controls on the system</td>
<td>30. reduce de-motivating aspects of pay system</td>
<td>54. improve predictions</td>
</tr>
<tr>
<td>5. recycle or reuse</td>
<td>31. conduct training</td>
<td>55. develop contingency plans</td>
</tr>
<tr>
<td>6. use substitutions</td>
<td>32. implement cross-training</td>
<td>56. sort product into grades</td>
</tr>
<tr>
<td>7. reduce classifications</td>
<td>33. invest more resources in improvement</td>
<td>57. desensitize</td>
</tr>
<tr>
<td>8. remove intermediaries</td>
<td>34. focus on the core process and purpose</td>
<td>58. exploit variation</td>
</tr>
<tr>
<td>9. match the amount to the need</td>
<td>35. share risks</td>
<td></td>
</tr>
<tr>
<td>10. use sampling</td>
<td>36. emphasize natural and logical consequences</td>
<td></td>
</tr>
<tr>
<td>11. change targets or set points</td>
<td>37. develop alliance/cooperative relationships</td>
<td></td>
</tr>
</tbody>
</table>

### Improve Work Flow

12. synchronize
13. schedule into multiple processes
14. minimize hand offs
15. move steps in the process close together
16. find and remove bottlenecks
17. use automation
18. smooth work flow
19. do tasks in parallel
20. consider people as in the same system
21. use multiple processing units
22. adjust to peak demand

### Optimize Inventory

23. match inventory to predicted demand
24. use pull systems
25. reduce choice of features
26. reduce multiple brands of same item

### Manage Variation

51. standardization (create formal process)
52. stop tampering
53. develop operational definitions
54. improve predictions
55. develop contingency plans
56. sort product into grades
57. desensitize
58. exploit variation

### Design Systems to Avoid Mistakes

59. use reminders
60. use differentiation
61. use constraints
62. use allowances

### Focus on the Product or Service

63. mass customize
64. offer product /service anytime
65. offer product /service anywhere
66. emphasize intangibles
67. influence or take advantage of fashion trends
68. reduce the number of components
69. disguise defects or problems
70. differentiate product using quality dimensions

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See Handout
How have we learned that we can accelerate change and increase improvements?

Model for Improvement

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From: Associates in Process Improvement
The PDSA Cycle for Learning and Improvement

W.E. Deming referred to this as the Shewhart Cycle

**Act**
- Adapt? Adapt? Adapt?
- Adopt? Adopt?
- Abandon? Abandon?
- Next cycle?

**Plan**
- Objective
- Questions and predictions (why)
- Plan to carry out the cycle (who, what, where, when)
- Next cycle?

**Study**
- Complete the analysis of the data
- Compare data to predictions
- Summarize what was learned

**Do**
- Carry out the plan (on a small scale)
- Document problems and unexpected observations
- Begin analysis

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OK, Stranger...
what's the circumference of the Earth?.. Who wrote "The Odyssey" and "The Iliad"?!! What's the average rainfall of the Amazon Basin?

Bart, you fool! You can't shoot first and ask questions later!
Your work later today ...

• Develop at least one Plan-Do-Study-Act cycle that you can test by next Tuesday!