Holding Your Gains: Strategies for Sustaining Improvements

June 25, 2014

Ruth S. Gubernick, MPH
Housekeeping

- Please connect through web link. Then enter your phone number and choose the “call me” option.
- To mute, press *6
- To unmute, press #6
- Best to stay muted until you want to talk
- You can also type questions during the presentation into the chat box and send to “All participants”
CME Designation

• The American Academy of Pediatrics (AAP) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

• The AAP designates this live activity for a maximum of 1.00 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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• This program is accredited for 1.00 NAPNAP CE contact hours of which 0.25 contain pharmacology (Rx) content per the National Association of Pediatric Nurse Practitioners (NAPNAP) Continuing Education Guidelines.
Housekeeping

- This session is being recorded. A link to the recording will be available in QITS in the Cloud.
- Slides will be available in QITS in the Cloud for your reference.
- Liz will record attendance—please put a note in the chat box about who is attending at your site.
- We will use your practice “code name” in data displays.
  - Avoid linking real names with code names.
- After the session you will receive in your email a link to an evaluation of the session. Please complete the evaluation. Your input is important as we plan future sessions.
Chart Review: QITS means

June: 15 practices responded; 200 charts were reviewed

- Up-to-date
- All needed shots given at last visit
- Immunization assessment documented
- Provider prompt used
- Next shots or WCC scheduled or reminded
Up-to-Date (percent): Baseline to June
All needed vaccines were given at the last visit (percent)—Baseline to June
Immunization Assessment was documented at last visit (percent)—Baseline to May
Ruth Gubernick, MPH

Ruth S Gubernick, MPH, is a Public Health Consultant with extensive experience in quality improvement. She received her MPH from the University of Medicine and Dentistry of New Jersey/Rutgers University with a focus in Family Health.

She is currently a doctoral student at Thomas Jefferson University's School of Population Health.

Also, Ruth is a Consultant with the AAP, NJ Chapter/Pediatric Council on Research and Education (PCORE), engaged as a Program Specialist on the NJ Medical Home/Integrated Systems Initiative and on their Immunization Initiative.

Pictured here reading to her granddaughter, she is now awaiting her third grandchild. She is mother to two daughters (on the right).
Comparison of Immunization Quality Improvement Dissemination Strategies (ClzQIDS)

CME Disclosure

I have no relevant financial relationships with the manufacturer(s) of any commercial product(s) and/or provider of commercial services discussed in this CME activity.

I do not intend to discuss an unapproved/investigative use of a commercial product/device in my presentation.
Learning Objectives

After completing this webinar, you should be able to:

• Identify key strategies for sustaining improvement
• Apply sustainability strategies to immunization improvements
• Develop an appreciation of the role of continuing data collection for sustaining improvement
• Understand the need for a system for ongoing training, monitoring and modification
• Understand the role of organizational culture and key personnel in supporting and sustaining change
Breakthrough Series
(6-12 Months Time Frame)

Select Topic
Expert Meeting
Planning Group

Develop Framework & Changes

Participants
Prework

LS 1 → LS 2 → LS 3

Strategy:
- test
- implement
- hold the gain
- spread

How well do successful teams “hold the gains” after LS3?
2003 IHI Survey on “Holding the Gains”

Brief History-surveyed 33 successful teams from different collaboratives.

**Objective:** To determine how well *successful* teams involved in IHI’s Breakthrough Series Collaboratives (i.e. teams with gains to hold) have sustained their progress after the end of the final learning session.
Question: What is your current level of performance compared to the end of the final learning session for the key outcome measure?

<table>
<thead>
<tr>
<th>BTS Successful Teams</th>
<th>Much Better</th>
<th>Better</th>
<th>Same</th>
<th>Worse</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 initial responders</td>
<td>3</td>
<td>8</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>20 follow-up responders</td>
<td>7</td>
<td>4</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>33 Total Teams</td>
<td>10 (30.3%)</td>
<td>12 (36.4%)</td>
<td>10 (30.3%)</td>
<td>1 (3.0%)</td>
</tr>
</tbody>
</table>

Summary
97% of teams at least “held the gains” from the BTS
67% of teams are now performing better than at end of BTS
# Additional Survey Findings

<table>
<thead>
<tr>
<th>Question</th>
<th>% Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you still tracking your performance?</td>
<td>85%</td>
</tr>
<tr>
<td>Is there periodic reporting to leadership regarding performance?</td>
<td>88%</td>
</tr>
<tr>
<td>Were other residual benefits gained in the improvement process that took hold?</td>
<td>91%</td>
</tr>
<tr>
<td>Do you and your colleagues continue to use improvement methodology in your work?</td>
<td>91%</td>
</tr>
</tbody>
</table>
### Additional Survey Findings (strategies for holding the gains)

<table>
<thead>
<tr>
<th>Question</th>
<th>%Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the team begin to plan how to sustain its progress early on in the improvement process?</td>
<td>78%</td>
</tr>
<tr>
<td>Did you document the improvement process?</td>
<td>81%</td>
</tr>
<tr>
<td>Did you document the process of holding performance at your new level?</td>
<td>66%</td>
</tr>
<tr>
<td>Was a financial return on investment tied to the improvement that occurred?</td>
<td>16%</td>
</tr>
<tr>
<td>Has the team taken specific action in order to make the improvement process more permanent?</td>
<td>70%</td>
</tr>
</tbody>
</table>
## Additional Survey Findings (spread)

<table>
<thead>
<tr>
<th>Question</th>
<th>%Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has your organization pursued a spread plan?</td>
<td>97%</td>
</tr>
<tr>
<td>Was the same level of performance spread to other areas?</td>
<td>55%</td>
</tr>
</tbody>
</table>
General impressions

• The power of internal publicity (establish the high-water mark)
• Commitment to real sustainability versus “quick hits” (leadership, resources, ambition)
• Understanding that the end of the formal collaborative is only the beginning (and that success is only a step in the right direction)
After Implementation
Some Inhibitors

Old System                      New System

• “We met our goals”
• “We assumed the improvement would hold”
• Other priorities took all resources away
  (not on senior management’s radar screen)
• Did not learn how to hold the gains
• Infrastructure not in place
Readiness for “Holding the Gains”
After Implementation

- Success of collaborative **team**
- **Intention** to hold gains
- Organizational **priority**
- **Leadership** responsibility clear
Food for Thought

1. Think about all the changes you have implemented during this collaborative and the hard work you have put into these changes.

2. Assume your collaborative team members all retire TOMORROW:
   – What changes will continue to be used?
   – What could make your organization revert to the old system?
   – What would have to be in place to prevent your organization from reverting to the old system?
Strategies to Hold the Gains

I. During testing
II. During implementation
III. After implementation
Key Components of Strategy to Sustain Gains

- Communication
- Infrastructure
- Design effective Control System
Communication for Sustainability

• Make aim, success, learning, and benefits to all stakeholders clear
• Document and publicize the improvement efforts and learning
• Keep in contact with your team, other teams AND YOUR PATIENTS
• CELEBRATE SUCCESSES!! (100 days, above goals, etc.)
Infrastructure: Redesign support processes

• Change job descriptions
• Train on the new process
  – Chance to explain the “why” of the change
  – New skills may be needed
  – Include method of maintenance
• Map out the flow of the new process
Address Change

• Inform why the change is made and
• How the change will effect people (WIFM)
• Show appreciation for people’s efforts
• Understand and address the causes of resistance
• Publicize the results and learning
How do we Sustain Change?
Design Effective Control Systems

- Prevention
  - Elimination, Mistake Proofing
- Monitoring
  - Audits, Control Charts, Inspection & Test
- Documentation
  - Policies, Work Instructions, Operational Method Sheet

GOOD

BETTER

BEST
Documentation (Good)

- Policies: Necessary but not sufficient
- Who has policies to sustain their gains?
Documentation (Good)
Operational Method Sheet: A visual format for work instructions
# How to Administer Subcutaneous (SC) Vaccine Injections

Administer these vaccines by the subcutaneous (SC) route: measles, mumps, and rubella (MMR), varicella (VAR), meningococcal polysaccharide (MPSV4), and zoster (shingles ZOS). Administer inactivated polio (IPV) and pneumococcal polysaccharide (PPSV23) vaccines either SC or IM.

<table>
<thead>
<tr>
<th>Patient age</th>
<th>Injection site</th>
<th>Needle size</th>
<th>Needle insertion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth to 12 mos.</td>
<td>Fatty tissue over the anterolateral thigh muscle</td>
<td>⅛” needle, 23–25 gauge</td>
<td>Pinch up on subcutaneous (SC) tissue to prevent injection into muscle. Insert needle at 45° angle to the skin. (Before administering an injection of vaccine, it is not necessary to aspirate, i.e., to pull back on the syringe plunger after needle insertion.) Multiple injections given in the same extremity should be separated by a minimum of 1″.</td>
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<tr>
<td>12 mos. and older</td>
<td>Fatty tissue over anterolateral thigh or fatty tissue over triceps</td>
<td>⅛” needle, 23–25 gauge</td>
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</table>

**SC site for infants**

- Insert needle at a 45° angle into fatty tissue of the anterolateral thigh. Make sure you pinch up on SC tissue to prevent injection into the muscle.

**SC site for children (after the 1st birthday) and adults**

- Insert needle at a 45° angle into the fatty tissue over the triceps muscle. Make sure you pinch up on the SC tissue to prevent injection into the muscle.

Technical content reviewed by the Centers for Disease Control and Prevention.

[www.immunize.org/catg.d/p2020.pdf • Item #P2020 (10/12)]
Monitoring (Better)

- Continue to use data and run charts
- Feedback data to frontline staff
- Meet periodically to check in on progress

Audit, audit, audit!
Listen!

- Is that complaint an idea for the next PDSA cycle?
- Who has the next good idea?
Monitoring: Collect Data When Conditions Are Expected To Change

Baseline
Testing
Successful Testing
New EMR

Evidence of Sustained Improvement
Prevention (Best)

- **Elimination**: Eliminate the possibility of error by eliminating the task or part
- **Mistake-Proofing**: engineer the process so that mistakes are impossible
  
  — Poka-Yoke
Prevention (Best)

- **Mistake Proofing:**
  - **Home:** automated thermostats controls, ground fault circuit breakers in bathroom, coffee maker shutoff switches
  - **Medical:** Sharps containers that won’t open, needle-less devices

*What mistake proofing can you do with some of the changes you have made?*
Analogy: Asthma Action Plan

System of maintenance procedures, monitoring and what to do when slippage is noted

**Asthma Action Plan**

**Grade:**

**Date of Birth:**

**Personal Best Peak Flow:**

**Date:**

---

**GREEN ZONE**

**GOOD!**

**Look For These Signs**
- No cough, wheeze, or difficulty breathing
- Can sleep through the night
- Can do regular activities

**What You Should Do**
- Take your **DAILY CONTROLLER MEDICINES**
- Exercise regularly
- Medicine to take before exercise:

**Notes:**

**PEAK FLOW**

---

**YELLOW ZONE**

**CAUTION!**

**Look For These Signs**
- Cough, wheeze, short of breath
- Waking at night due to wheeze or cough more than 2 times a month
- Can’t do regular activities
- Using quick relief medicine more than 2 times a week (not counting use before exercise)

**What You Should Do**
- Keep taking your daily controller medicine
- Begin using **QUICK RELIEF MEDICINE**
- Every 4-6 hours as prescribed (Prime it first, if needed)

**Notes:**

- If not better in 24-48 hours, call your doctor or nurse!
- If at school, call parent

**PEAK FLOW**

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**RED ZONE**

**DANGER!**

**Look For These Signs**
- Very short of breath
- Hard time walking or talking
- Skin around neck or between ribs pulls in
- Quick relief medicine not helping

**What You Should Do**
- Get help now
- Take a nebulizer treatment OR
- Take 4 puffs of quick relief medicine now

**CALL YOUR DOCTOR OR NURSE NOW!**

**OR**
- Go to the Emergency Room OR Call 911

**PEAK FLOW**

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Control Plans

• **Control Plans:**
  – Outlines key measures and documentation to be maintained to ensure project gains are sustained
  – Provides plan to monitor key measures
  – Identifies person to notify if gains slip
  – Creates plan to take corrective action if needed
<table>
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<tr>
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<th>Goal</th>
<th>Documentation</th>
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<th>Prevention</th>
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<th>Reaction Plan</th>
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<td>Immunization status assessed at all visits</td>
<td>90%</td>
<td>1. Policy #23, last updated 1/2/2014; 2. OMS for front desk staff accessing IIS to review immunization history/status at or prior to patient registration and print record for clinician review.</td>
<td>Quarterly audits of 5 charts for all physicians by Marie RN</td>
<td>Required data field (checkbox) in visit template(s) for clinician to document immunization assessment.</td>
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### Key Personnel

- Ongoing data collection
- Key Personnel
- Communication
Tips for Sustaining Gains:

• Keep leaders informed
• Systems must be independent of the people involved
• Constantly adapt and create new tools
• Continuously monitor results
• Celebrate successes with staff
• Communicate improvements with patients
• Use data as evidence that change is improvement!
Repeated use of the cycle over a broad range of conditions builds a robust design.

1. Early tests are simple designed to succeed.
2. Test over a wide variety of conditions to identify weaknesses.
3. Later tests designed to predict and prevent failures.

Successful Tests of Change

Full, Sustained Implementation
Teams who hold the gains:

• Use data and continue with run charts
• Continue to report and create accountability and **celebrate SUCESSES**
• Have leadership’s support
• Meet often enough
• Train and orient, make policy
• Assign responsibility for key tasks
• Focus on Mistake Proofing!
• Expect changing conditions and are **prepared** (new EMRs, new staff hired, etc.)

You can be a SUSTAINER, too!
How will you do these things in your own practice?
Your next team meeting

• Make a “commitment to change”
  – Agree to take specific actions in your daily practice to sustain improvements in immunization delivery

• Complete a Control Plan for Changes you have successfully tested.

• Discuss June progress report

• Develop a plan for your next improvement initiative
Commitment to Change Contract

Comparison of Immunization Quality Improvement Dissemination Strategies, Quality Improvement Technical Support (QITS) Intervention
Sustaining Change Live Internet Webinar
June 25, 2014

As a result of participating in this Quality Improvement Technical Support (QITS) intervention, identify two to three (2-3) concrete, measurable changes that your team will make in your practice. For each change, designate an individual(s) to be responsible for carrying out the change. Following each change you specify, circle the number on the scale that most accurately indicates your commitment to successfully implement the change(s).

The intent of having you put this in writing is to allow us to review the specific areas of impact that this project may have on your practice. In the subsequent months, you will be asked to review the changes you identified and indicate if they occurred.

Please be assured that your responses will remain confidential. Thank you.

For your response(s) below, please consider: What action(s) will you take to continue integrating immunization delivery improvements into your practice?

<table>
<thead>
<tr>
<th>Change 1:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Roles/Responsibilities for Change 1:</td>
<td></td>
</tr>
<tr>
<td>Commitment Level for Change 1:</td>
<td></td>
</tr>
<tr>
<td>1: (lowest)</td>
<td>2</td>
</tr>
<tr>
<td>Change 2:</td>
<td></td>
</tr>
<tr>
<td>Roles/Responsibilities for Change 2:</td>
<td></td>
</tr>
<tr>
<td>Commitment Level for Change 2:</td>
<td></td>
</tr>
<tr>
<td>1: (lowest)</td>
<td>2</td>
</tr>
<tr>
<td>Change 3:</td>
<td></td>
</tr>
<tr>
<td>Roles/Responsibilities for Change 3:</td>
<td></td>
</tr>
<tr>
<td>Commitment Level for Change 3:</td>
<td></td>
</tr>
<tr>
<td>1: (lowest)</td>
<td>2</td>
</tr>
</tbody>
</table>

PLEASE PRINT CLEARLY:

Practice Name

Signature, Team member 1

Signature, Team member 2

- Please complete commitment to change contract form and return to Liz at ericeconboy@aap.org by July 16
From Charles Darwin:

“It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.”
Questions/Comments?

Thank you!
What’s Next?

• Completing the CIzQIDS wrap-up process
  – Post-intervention Survey due July 16
  – Site visit for review of 50 charts

• Analyzing and publishing the CIzQIDS data
  – If you would like us to send you our papers when they are published, send us a request by email

• Add your own local findings to the growing literature about Quality Improvement?
Whenever I found out anything remarkable, I have thought it my duty to put down my discovery on paper so that all ingenious people might be informed thereof. –Antonie van Leeuwenhoek (1632-1723)

• Writing and publishing can
  – Help you clarify your thinking, verify your findings and justify your inferences
  – Foster the spread of improvements
  – Help others avoid wasting time and repeating mistakes
  – Contribute to the collective knowledge about what works

Standards for Quality Improvement Reporting Excellence (SQUIRE) Guidelines available at (http://squire-statement.org/)
Plan your next Adventure in Quality Improvement

Where will it lead? What will you discover?
Can you make a difference for this one?