New Jersey American Academy of Pediatrics
Bright Futures Learning Session I

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Quality: The Model for Improvement
Quality Improvement:
Bridging the Implementation Gap

Scientific understanding

Implementation Gap

Patient care
Quality Improvement is an Orientation and Attitude

- We understand our work as processes and systems.
- We are committed to continuous improvement of processes and systems.
Why Test?

• Increase the belief that the change will result in improvement
• Learn how to adapt the change to conditions in a wider range local environments, settings
• Evaluate costs and side-effects of the change
• Minimize resistance upon implementation
The PDSA Cycle

Act
- What changes are to be made?
- Next cycle?

Plan
- Objective
- Questions and predictions (why)
- Plan to carry out the cycle (who, what, where, when)
- Plan for data collection

Do
- Carry out the plan
- Document problems and unexpected observations
- Begin analysis of the data

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

“Did it work?”

“Act”

“Let’s try it!”

“What will happen if we try something different?”

“What’s next?”

Adapted from IHI Impact Series ICU Collaborative and The Improvement Guide
Learning with the PDSA Cycle: Plan

**PLAN**
- Plan to carry out the test (who, what, when?)
- Plan for data collection
- Formulate a question and predict answer to that question
Learning with the PDSA Cycle: Do

DO

- Carry out the plan
- Document observations – successes/unexpected issues
- Begin analysis of data
Learning with the PDSA Cycle: Study

STUDY
- Complete analysis of the data
- Summarize what was learned
- Compare results of the test to your prediction
Learning with the PDSA Cycle: Act

ACT
Select an action based on the results of the test:
• Adopt
• Adapt
• Abandon
If appropriate, plan next test
**Parent Pre-Visit Questionnaire Screening**

**PLAN:** Provide families with 2 year olds the opportunity to complete the Ages and Stages Developmental Screening pre-visit questionnaire 2 weeks prior to scheduled appointment. Communicate value of visit Plan to office staff: meet with office to discuss the importance of receiving the pre-screening questionnaire prior to visit. Ask if they will send the questionnaire to one family that calls to schedule 24 month old well visit. 

Questions: How long will it take to send the questionnaire to the parent or guardian? Will families find it easy to complete the questionnaire prior to visit; Do office staff understand the value of sending the questionnaire? Will the guardian understand the importance of completing the pre-visit questionnaire.

Data collection: Questionnaire completed Y or N? Time to do it? Time to educate value of the Ages and Stages questionnaire and answer questions with parent or guardian.

Prediction: It will take 10 minutes of the office staff time to coordinate to send the questionnaire to parent/guardian. Teaching will take 2 sessions. Parents and guardians will attend 2 year-old well visit with a completed pre-visit questionnaire.
It took less than 10 min for pre-screening questionnaire to be mailed and 10 minutes to parent/guardian to complete the pre-screening survey.
Some office staff were confused, took a little clarification but easy to make appointment and send pre-screening questionnaire. Screening was easier than expected but parent/guardian asked for a chart of developmental milestones to make sure child is on target for age.

**PLAN:**

Provide families with 2 year olds the opportunity to complete the Ages and Stages Developmental Screening pre-visit questionnaire 2 weeks prior to scheduled appointment. Communicate value of visit Plan to office staff: meet with office to discuss the importance of receiving the pre-screening questionnaire prior to visit. Ask if they will send the questionnaire to one family that calls to schedule 24 month old well visit. Questions: How long will it take to send the questionnaire to the parent or guardian? Will families find it easy to complete the questionnaire prior to visit; Do office staff understand the value of sending the questionnaire? Will the guardian understand the importance of completing the pre-visit questionnaire.

Data collection: Questionnaire completed Y or N? Time to do it? Time to educate value of the Ages and Stages questionnaire and answer questions with parent or guardian.

Prediction: It will take 10 minutes of the office staff time to coordinate to send the questionnaire to parent/guardian. Teaching will take 2 sessions. Parents and guardians will attend 2 year-old well visit with a completed pre-visit questionnaire.

**STUDY:**

Some office staff were confused, took a little clarification but easy to make appointment and send pre-screening questionnaire. Screening was easier than expected but parent/guardian asked for a chart of developmental milestones to make sure child is on target for age.

**DO:**

It took less than 10 min for pre-screening questionnaire to be mailed and 10 minutes to parent/guardian to complete the pre-screening survey.
**ACT:** Give parent/guardian developmental milestone chart
Send pre-visit questionnaire to 7 parent/guardians of 2 year-olds after making well visit appointment
• Develop a tracking tool to document families that received the pre-visit questionnaire and developments milestone chart

**PLAN:** Provide families with 2 year olds the opportunity to complete the Ages and Stages Developmental Screening pre-visit questionnaire 2 weeks prior to scheduled appointment. Communicate value of visit Plan to office staff; meet with office to discuss the importance of receiving the pre-screening questionnaire prior to visit. Ask if they will send the questionnaire to one family that calls to schedule 24 month old well visit. Questions: How long will it take to send the questionnaire to the parent or guardian? Will families find it easy to complete the questionnaire prior to visit; Do office staff understand the value of sending the questionnaire? Will the guardian understand the importance of completing the pre-visit questionnaire.

**STUDY:** Some office staff were confused, took a little clarification but easy to make appointment and send pre-screening questionnaire. Screening was easier than expected but Mom ask for a chart of developmental milestones to make sure child is on target for age.

**DO:** It took less than 10 min for pre-screening questionnaire to be mailed and 10 minutes to parent/guardian to complete the pre-screening survey.
**Parental Strengths and Needs**

**ACT:** Create field in the HER to document, try for 10 parents with questionnaire and then start to document in the HER.

**PLAN:** For the next five visits, “Ask” with open-ended questions:
- “How well do you enjoy parenting?”
- “Who do you rely on when you need a break?”
- “How often do you make time for yourself?”
- “What do you like most about being a parent?”
- “Do you have pressing questions that you want to be answered?”
- “Are you in need of additional resources at this time? Such as referrals”
- Document results in chart

**Prediction:** It will take an extra 3 minutes. Parent will share openly. 4 of 5 times it will get in chart

**Data Collection:** # women asked, number of times it gets documented in chart and # of referral made.

**STUDY:** Need a place to document in EHR.

**DO:** Five parents were asked open-ended questions about parental strengths and needs. Assistant flagged the charts that need documentation.
Fundamental Questions for Improvement

- What are we trying to accomplish?
  - Team Aim Statement

- How will we know that a change is an improvement?
  - Measures

- What changes can we make that will result in an improvement?
  - Change Package
PDSA Ramp – Learning your Way to Results

Sequential building of knowledge
Include a wide range of conditions in the sequence of tests

Very Small Scale Test: One family, one session

Follow up Tests: Tweak test, 10 families, one week

Wide-Scale Test: Different conditions, standardize test

Changes That Result in Improvement
Implement
Change: New procedure, training, job descriptions

Hunches Theories Ideas

Sequential building of knowledge

APSD

Learning from data

APSD

APSD

APSD

APSD

Very Small Scale Test: One family, one session
What Are We Trying to Accomplish?

**Aim:** A written statement of the accomplishments expected from this improvement effort

**Key components:**
- A general description of aim
- “What are we trying to accomplish?”
- Guidance for carrying out the work and rationale
- Specific target population and time period
- Measurable goals
Example (Poor)

Our practice will increase mental health screening for all children by changing office policies and procedures.
Sample Aim

By November 15, 2015, our practice will have procedures in place for identifying depression in our adolescent population:

- 75% of 11 year old patients will receive a Pediatric Symptom Checklist screen at their adolescent 11 year old well-visit.

- 100% of the time we will refer adolescent patients with a positive screen, for appropriate follow-up.
SMAART Aim

• **Specific**: Understandable, unambiguous
• **Measurable**: Numeric goals
• **Actionable**: Who, what, where, when
• **Achievable** (but a stretch)
• **Relevant** to stakeholders and organization
• **Timely**: with a specific timeframe
AIM Worksheet

The (name of your team) intend to accomplish

By (date)

For (population)

Because

Our goals include:

Special guidance that will help us stay on track:
Team Activity

Draft your AIM Statement
How will we know a change is an Improvement?

• Requires **measurement**

• Build measurement into daily work routine
  • Data should be easy to obtain and timely
  • Small samples over time

• Use qualitative & quantitative data
  • Qualitative data is highly informative
  • Qualitative data is easy to obtain
Measurement Guidelines

• Balanced set of 1 to 3 measures reported each month to assure that the system is improved
• Measures should reflect the aim and make it specific
• Measures are used to guide improvement and test changes
• Integrate measurement into daily routine
• Plot data measures over time and annotate graph with changes
• Outcome and process measures
Sample Measure

• Target population
  • Infants coming in for a 9 Month well-visit in June

• Numerator
  • # of infants who received the SWYC screen

• Denominator
  • Total # of infants who came in for 9 month well-visit
% Infants Receiving Developmental Screening at 9 Month Visit

% Achieved

% Achieved  Goal

June, July, August, September, October, November, December
Types of Measures

• Outcome Measures
  • Are the patients better?
  • Are the patients having a better experience?

• Process Measures
  • Are we doing the work we are supposed to be doing in order to improve outcomes?

• Balancing Measures
  • As we do our improvement work, what is our impact on the rest of the system?
What Change Can We Make That Will Result in Improvement? The PDSA Cycle

Act
• What changes are to be made?
• Next cycle?

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Study
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Decrease the Time Frame for a PDSA Test Cycle

- Years
- Quarters
- Months
- Weeks
- Days
- Hours
- Minutes

Drop down next “two levels” to plan Test Cycle!
What Can We Do Now!

By Next Week,

By Tuesday,

By Tomorrow

That won’t harm a hair on the head of a patient?
Smaller Scale Tests: The power of “one”

Conduct the test with

• one facility
• one office
• one doc
• one patient
Form for planning a PDSA cycle supports prediction and keeping one step ahead
PDSA: Break it Down/Simplify...

Plan - Figure out the questions you want to answer, plan a way to answer the questions, and predict results

Do - “Just do it” (i.e. do the plan)

Study - What did you learn?
   Did your prediction hold?
   What assumptions need revision?

Act - What will you do with the knowledge you learned?
   Adapt? Adopt? Abandon?

What do you want to do next?
Task or Test?

• Task
  • To do’s
  • Meetings
  • Posters
  • Policy
  • Committees

• Test
  • Question
  • Prediction
  • Data
  • Usually involves patient
Team Activity

Draft your first PDSA Cycle
Sequential Building of Knowledge Include a Wide Range of Conditions in the Sequence of Tests

Test on a small scale

Test a wider group

Test new conditions

Implement

Spread

Breakthrough Results

Learning and improvement

Evidence & Data

Theories, hunches, & best practices
Tips for Success

- Improvement occurs in small steps
- Repeated attempts are needed to test and implement new ideas
- Assess regularly to improve plan
- Start with changes that are easy to test
- Collect and study useful data during each test
- Failed changes = learning opportunities
- Test fast, fail fast, adjust fast (Tom Peters)
- Eventually test over a wide range of conditions
Ways to Overcome Barriers

- Test often before going through committee and forms approval process
- Ask a patient for feedback
- Identify and utilize the early adopters
- Find VP or Sr. Leader who can become excited
- Feed senior leaders results-especially small ones
- Build on passion
- Recognize and reward people for trying
Do Study

• **Reasons for failed tests**
  1. Change not executed well
  2. Support processes inadequate
  3. Hypothesis/hunch wrong:
     • Change executed but did not result in local improvement
     • Local improvement did not impact access or efficiency

• Collect data during the “Do” Phase of the Cycle to help differentiate these situations
Some Misuses of PDSAs

• Tendency to do too much in one PDSA, instead of several cycles

• Tendency to use PDSAs for information gathering or collecting data on a measure rather than beginning to test an idea for change

• Tendency to use PDSAs to complete all ‘tasks’ on the project
William Edwards Deming

“It is not necessary to change. Survival is not mandatory.”
QUESTIONS?