Quality Improvement 101, Part 1
Using small PDSA experiments
to test and implement changes without driving everybody nuts

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Quality Improvement is ...
How do we do things better?

• Focus: Change at system (organization/clinic) level
• Goal: Reliable, long-term processes that get us better results for the population (people) we serve

What it looks like

- We do it, our own frontline experts, in teams
- Regular, ongoing measurement
- Find what works and implement it
- Reduce variation

(Conniption fit, in 3, 2, 1 ... )
Write these down

**System** – the clinic, a set of processes

**Process** – start-to-finish steps of a visit, after-visit follow-up, recruiting for groups, getting parents to sign #%$$%! forms

**Population** – all patients, all overweight patients, all patients with asthma, all sexually active patients

**Complex (versus Complicated)**

**Standardization** – don’t make me have another conniption

How can we get where we need to go, for our patient population, while we keep doing our work every day?
Every system (clinic) is perfectly designed to give the results that it gets.
QI is NOT Quality Assurance

• QA ensures requirements, guidelines, regulations met
• Uses inspection (vs. regular measurement), usually based on external requirements
• Usually done to us, not by us
• Also known as quality control
• Examples:
  – Health code for restaurants
  – Licensing of providers
  – Audits of clinical facilities

Are we (you) doing things right?
What are we trying to accomplish?

How will we know that a change is an improvement?

What changes can we make that will result in improvement?

From Associates in Process Improvement.
What are we trying to accomplish?

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Model for Improvement

AIM

MEASURES

CHANGES

RAPID TEST OF CHANGES
### Model for Improvement

<table>
<thead>
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#### AIM

- **Act**
- **Plan**
- **Study**
- **Do**

From Associates in Process Improvement.
Aim Statement Formula

By \{\textbf{When}\}, Increase/ decrease \{\textbf{What}\} for \{\textbf{Whom}\} from \{\textbf{What it is now}\} to \{\textbf{What you want it to be}\}. 
Example Aims

• By December 2017, in MCI catchment area, increase percentage of parents who report reading to children every day from 46% to 80%.

• By June 2017, decrease the percent of our clinic’s patients with >3 asthma-related ER visits a year.

• Decrease violent injuries among Latino youth in the Mission District by 20% for CY2016 compared to CY2015.

• By December 2016, decrease the percentage of diabetic patients with HbA1c > 9 to ten percent or less.

• By {When}, increase/decrease {What} for {Whom}
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Do

MEASURES
Characteristics of a Good Measure

• Directly relates to aim
• Specifies population served
• Data are available
• Able to collect data frequently
• Worth measuring for at least 12 months
Starter set: Primary care improvement measures, monthly

**Clinical quality**  Percentage of patients ...
- Who received Well-Child Visit in past 12 months
- With asthma who have a written asthma action plan
- With asthma who demonstrate self-mgmt knowledge & skills
- Between ages x and y, who received immunization z
- Age 2 who received lead poisoning test by second birthday

**Operational efficiency**
- Third-next available regular primary care appointment
- No-show rate for regular primary care visits
- No-show rate for (other) visit type/s
- Percentage visit capacity used
- Percentage visits reimbursed
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From Associates in Process Improvement.
Why do Small Tests of Change?
Why not just implement what works elsewhere?
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Our patients are sicker.

We’re different.

I like my idea better.

We don’t have the resources they do.
Why do Small Tests of Change?
Why not just implement what works elsewhere?

- Learn likelihood this change will lead to improvement
- Understand power and limitations of the change
- Adapt the change to your environment
  - Evaluate cost
  - Address unexpected consequences
- Gain buy-in and minimize resistance

We don’t buy shoes without trying them on.

Adapted from the Institute for Healthcare Improvement Breakthrough Series College.
PDSA – Small rapid tests in real world

Adapted from the Institute for Healthcare Improvement Breakthrough Series College.
Aim: Increase childhood health literacy in new parents. Change being tested: Raffle to improve class attendance

**PDSA 1**

**Plan:** Shiloh will text moms with news of 2 $50 Safeway cards being given away at class #2 in three days. We predict that more moms will come to class #2 than came to #1.

**Do:** Shiloh has mobile numbers for 8 of 10 moms. She sends text. One reply said “who is this?” Two others responded with excitement. No other replies. At Class #2, 7 of 10 moms came, including one who didn’t get text.

**Study:** 7 of 10 was better than 5 of 10 at first class. One mom said she didn’t want class eating up her data plan.

**Act:** Do another PDSA with texting simple reminder, no raffle prize for attendance. Not PDSA, but new practice: Ask all moms to confirm their cell # at each class.
Repeated Uses of PDSA Cycle

Hunches  Theories Ideas

Very Small Scale Test

Follow-up Tests

Wide-Scale Tests of Change

Implementation of Change

Changes That Result in Improvement

Adapted from the Institute for Healthcare Improvement Breakthrough Series College.
Keys to successful PDSA tests

• Scale down: do **small** tests
• Collect useful data during each test
• Test over a wide range of conditions

Adapted from the Institute for Healthcare Improvement Breakthrough Series College.
PDSA myths

Whole project = one big PDSA

PDSA use = Everybody do whatever!

We can do PDSAs without using process measurement or other parts of Model for Improvement.

We only do PDSAs in big collaborative programs.

PDSAs will feel odd forever.
PDSA risks

Team doesn’t track what’s going on, poor project discipline.

Whoever does the test decides how well it worked. ("Study" is a team activity.)

PDSA abandonment: Testing and forgetting.

People not directly involved in improvement project can get in the way.
What do you think?
What have you seen and done?
What questions do you have?
What are we trying to accomplish?

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