PDSA Tip Sheet

The Plan-Do-Study-Act cycle is the engine of the Model for Improvement (citation) and of our HV CoIIN Framework for efficient Quality Improvement. The cycle is used to test change ideas that your team hypothesizes/ predicts will advance you toward your goal.

Each cycle should start with a plan of how to test a specific change idea and end with an action to adopt, adapt or abandon that idea, based on how effective the idea was for advancing you toward the goal. Multiple cycles are used to test ideas, adapt them and ensure that changes lead to improvement.

FAQ's

1. How many cycles do we need to do for each test?

As many cycles as it takes for the team and administrators at your local agency to decide that you have sufficient evidence to either **adopt** the idea and spread it or **abandon** the idea.

2. Are you expecting teams to turn in a new cycle each month?

We are expecting teams to turn in as many cycles as they have realized each month. These cycles may be multiple PDSA cycles working to get a single change idea to work well. They may be multiple PDSA cycles working on a few different change ideas at once. If a team embarks on a new test (cycle) in August and gets through the Plan and Do phase, then in September we would expect you to submit an update with the Study-Act phases. If a team starts a new cycle then the new cycle would be submitted as well. When teams are uploading PDSA information to the HV CoIIN website each month we ask:

What type of PDSA plan is this? *

○ A continuation of the prior cycle submitted (i.e. added study and act)

○ A new cycle for the same Primary Driver (PD) and Secondary Driver (SD)

○ A new cycle for a new PD or SD (starting something new)

If your PDSA is a continuation or new cycle for the same primary/ secondary driver, the website will populate your prior month's submission for editing to relieve the burden of re-entering information.

3. How many cycles do you expect a team to turn in each month?

Because every PDSA cycle is designed to help us learn, the more cycles you run, the more you learn. Like the gears in a car, running 1 cycle per month is like driving in 1st gear: you will advance, but your progress will be slow. Running 5 cycles per month is like driving in 5th gear: you'll go a lot further/make a lot more progress in the same amount of time. Keeping in mind the other demands teams have on their time, <u>we recommend aiming to complete at least 2 PDSA cycles per month</u>. This will allow you to see steady progress, and also provides enough practice designing and executing PDSA cycles for the process of doing PDSAs to become easier and more intuitive.

Key Elements of our Revised Plan-Do-Study-Act Cycle Form- *What we hope to see*

Section 1. In this section of the PDSA we are asking you to answer the 3 fundamental questions for improvement:

1. What are we trying to accomplish?
- Here teams share their smaller, shorter term AIM for steps that will lead to achieving the overall collaborative AIM for improvement/innovation.

- For example, the HV CoIIN aim for Maternal Depression is:

  - Within the 24 months of the collaborative, 85% of women who screen positive for depression and access services will report a 25% reduction in symptoms in 12 weeks (from first service contact).

  - Within that, a process aim for primary driver PD 1 (Standardize processes for maternal depression screening and response) is:

- 85% of women will be screened, using appropriate instruments at appropriate intervals, within 3 months of enrollment (pre- or postnatal) and within 3 months postnatal.

- Team ABC chose to focus on primary driver (PD) 1, and in order to achieve the process aim for PD1 by October, they chose to begin by focusing on screening efforts.

- For their first PDSA, they answered "what are we trying to accomplish?" with:

   o By October, 2014 the ABC health center will increase by 25% from baseline, the number of women screened for maternal depression within 3 months of enrollment (pre- or postnatal) and within 3 months postnatal using the Edinburgh.

> **SMART AIM Development Tips:**
>
> Teams can revisit their SMART AIM to look for these key components to help strengthen their SMART AIM.
>
> - **S**pecific: Ensure AIM is defined and clear
> - **M**easurable: Check for a clear benchmark and a target
> - **A**chievable: Set an AIM that can reasonably be obtained
> - **R**elevant: Team agrees upon the AIM and it aligns with internal values and mission
> - **T**imely: Set timeframe for meeting the AIM.

Additional examples of short term AIMS include;

- By _date____, the ABC health center will decrease, by 10% from baseline, the number of days between referral and a family's enrollment for home visiting.
- By __date___, 100% of home visitors are trained in lactation and breastfeeding using the USDA's *Loving Support© Through Peer Counseling: A Journey Together*.

2. How will we know that a change is an improvement?

Let's say that a team is trying to accomplish, "By October, 2014 the ABC health center will increase, by 25% from baseline, the number of women screened for maternal depression within 3 months of enrollment (pre- or postnatal) and within 3 months postnatal using the Edinburgh kept home visits by families.

How will we know a change is an improvement? This should be an indicator: we will measure the N of mothers enrolled, and the N of screens completed within 3 months of enrollment (pre- or postnatal) and within 3 months postnatal using the Edinburgh.

3. What changes can we make that will result in an improvement?
Set up a google calendar to send text reminders to the home visitors of upcoming screening dates for their families. (this could include details about timing of the messages (1 week in advance of a visit), the content of the text messages (information from the HV that might motivate the mother to keep the visit. For example, reflection of

something they discussed last time or details about content in the upcoming curriculum that might be of special interest to this mother

-

Additional Question- What question(s) do we want to answer on this PDSA cycle?

- Does sending text reminders to a home visitor increase the timely completion rate of maternal depression screens?

A. PLAN

Plan the test or observation, including a plan for collecting data.

- State the objective of the test.

- Make predictions about what will happen and why.

- Example: We predict that sending a text reminder to home visitors 1 week in advance of their next scheduled screen with a family (May 23, 2014) will mean the screening gets done.

- Develop a plan to test the change. (Who? What? When? Where? What data need to be collected)

- Taking the example above, at ABC health center during the third week of May, Google calendar will send tickler text messages to home visitors reminding them of upcoming appointments that require completing screens. HV will track whether the screen was done or not. In supervision, HVs and the supervisor will review the data & experience and decide how to ACT for the next cycle.

B. DO

Try out the test on a small scale.

- Carry out the test.

- Document problems and unexpected observations (what surprised you?).

- Begin analysis of the data.

C. Study

Set aside time to analyze the data and study the results.

- Complete the analysis of the data.

- Compare the data to your predictions.

- Summarize and reflect on what was learned.

D. Act

Refine the change, based on what was learned from the test.

- Determine what modifications should be made.

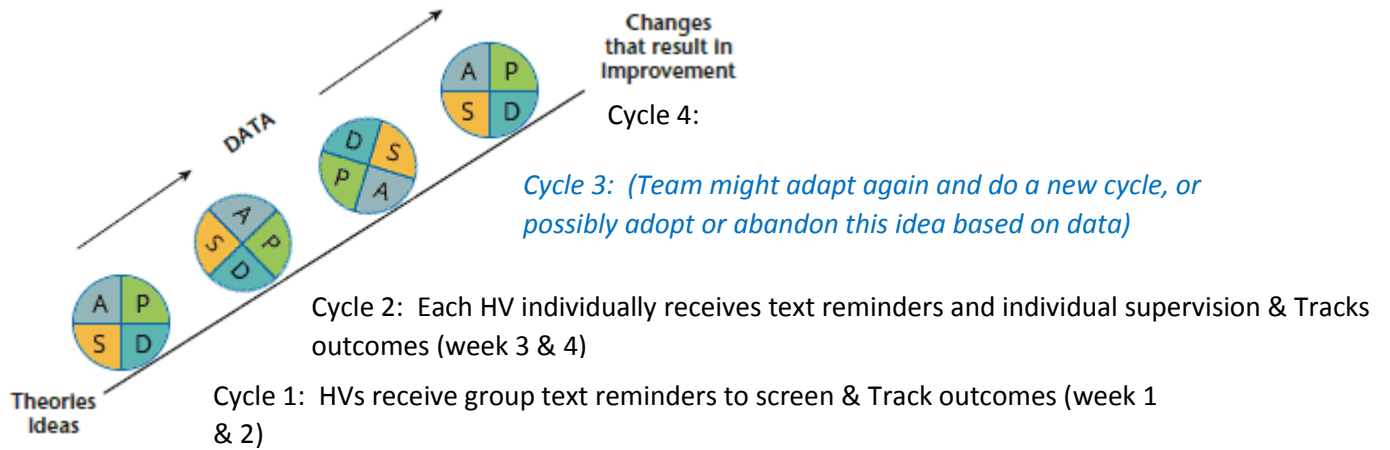- Prepare a plan for the next test.

Simple PDSA Example:

Maternal Depression (focus on): Primary Driver 1: Standardize processes for maternal depression screening and response

First Change Idea to test for advancing primary driver 1: Texts to Home Visitors for Screening Reminders (*if it doesn't work we try another idea!)
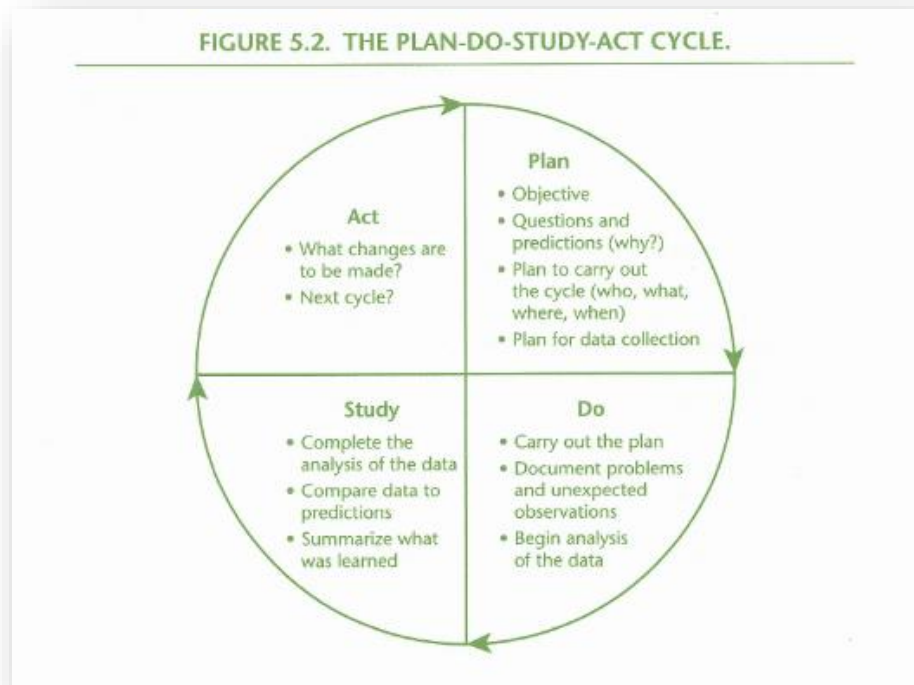
- **Plan:** Set up Google Calendar to alert home visitors of upcoming screening deadlines. Recruit Home visitors for texting reminders.

- **Do:** Google Calendar sends text reminders 1 week in advance of deadlines (to all HV on the team), Supervisor tracks number of texts sent, HV track number of moms enrolled & screened at required periodicity.

- **Study:** In weekly group supervision the team review data & learning and decide next cycle: additional adaptations? Spread & test with more families or more HVs? Abandon as a bad idea & try something completely different? The team shares that Google sends the text reminders to the group so all HV see each other's reminders which caused them to begin ignoring the texts. Additionally, there was not enough time to review all caseload outcomes in the group setting (ran out of time). Several screenings were missed.

- **Act:** The Supervisor will set the reminders to come 1 week in advance of due dates going individually to each home visitor vs the group, starting this week. Additionally, supervisor will discuss the process in 1:1 weekly supervision vs. group

See ramp up of a possible series of cycles beginning below:

Changes
that result in
Improvement

Cycle 4:

Cycle 3: (Team might adapt again and do a new cycle, or
possibly adopt or abandon this idea based on data)

Cycle 2: Each HV individually receives text reminders and individual supervision & Tracks
outcomes (week 3 & 4)

Cycle 1: HVs receive group text reminders to screen & Track outcomes (week 1
& 2)

See Figure 2. Below for more information on the PDSA cycle process.

Figure 2. PDSA Cycle- *The Improvement Guide,* pg. 97

FIGURE 5.2. THE PLAN-DO-STUDY-ACT CYCLE.

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

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

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

Tips for Testing Changes

The following suggestions may be used for effectively testing changes:

- Start with small, fast tests -- cycles that take 1 hour, 1 day, 1 week are better than those that take longer.
- Test first on willing volunteers
- Involve team members that have a strong interest in improving home visiting.
- Have intentional conversations:
  - About what primary driver & what idea to start with. Look at your data and your institution's needs/challenges and start there. Consider your institutional values and strategic priorities.
  - Regarding how big and what scale to test your first PDSA. Consider, how ready is the staff for change? How high or low is the degree of belief that this change will lead to an improvement? How costly is the change? Remember the exercise Marycatherine Arbour walked us through to determine scale of the test. This activity was adapted from Karen Zeribi, Health Systems Quality Consultant.

Degree of Belief		*Staff Readiness to Make Change*		
		Resistant	Indifferent	Ready
LOW	*High cost*	very small scale PDSA	very small scale PDSA	very small scale PDSA
	Low cost	very small scale PDSA	very small scale PDSA	Small scale PDSA
HIGH	*High cost*	very small scale PDSA	Small scale PDSA	Large scale PDSA
	Low cost	Small Scale PDSA	Large scale PDSA	Implement

(IHI, www.ihi.org)

- Study the results after each change. All changes are not improvements and may need to be adapted or abandoned. If help is needed, involve others who do the work, even if they are not on the improvement team

Adapted from: http://www.hrsa.gov/quality/toolbox/methodology/qualityimprovement/part3.html