



Introduction to Quality Improvement (QI) Webinar

April 8, 2020

The Healthy Start EPIC Center is operated by the [National Institute for Children's Health Quality](#). This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number 1 UF5MC327500100 titled Supporting Healthy Start Performance Project.

National Institute for Children's Health Quality

Webinar Agenda

Topic	Speaker
Housekeeping	Tess Pritchard
Welcome	Kenn Harris
Introduction to Quality Improvement (QI)	Dr. Jane Taylor
Q&A	Dr. Jane Taylor
Closing Remarks	Kenn Harris

Meeting Logistics

Please note the following:



- This session is being recorded, and will be archived for future viewing.



- All participants are muted upon entry. We ask that you remain muted to limit background noise.

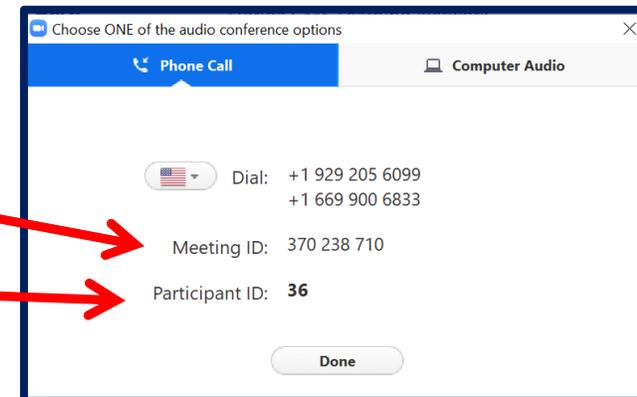
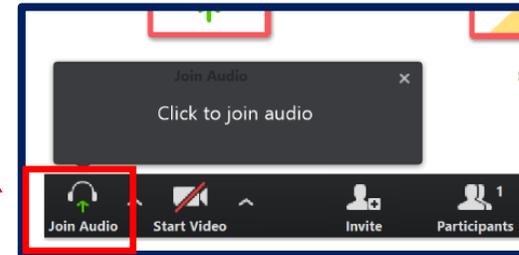


- Members are encouraged to participate in the discussion by typing your comment/asking questions using the chat box.

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Ways to Participate: Chat

Zoom Participant ID: 49 Meeting ID: 617-788-369

Talking:

Meeting Topic: FL CMS LAN Meeting
Host: FL CMS LAN
Invitation URL: <https://zoom.us/j/617788369>
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Zoom Group Chat

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Join Audio Start Video Invite Participants Share Chat Record Leave Meeting

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Type message here...

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Send all messages
to this five digit
number: **22333**

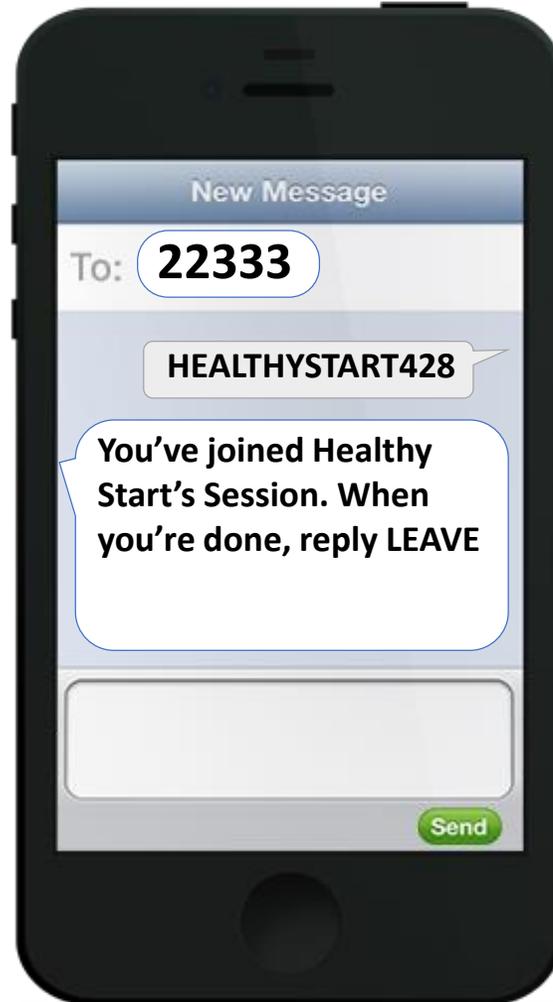
To log in, include in
body of text the
word (*you only
have to do this
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will receive this
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message





Poll Everywhere: Additional Tips

- Capitalization does not matter; spelling and spaces do
- You only have to text the word “HEALTHYSTART428” the first time. After that, just send a normal text to respond to polls.
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Please indicate your level of knowledge on Quality Improvement before today's webinar (1 = the least knowledgeable, 5 = the most knowledgeable)



1
2
3
4
5

Session Objectives

- Define Quality
- Become familiar with basics of improvement
- Review Model for Improvement



What is Quality

As a Healthy Start site, what is quality? *Please chat!*

HRSA Gives Children and Families a **HEALTHY START**

HRSA's Maternal and Health Bureau wants all U.S. children to reach their maximum potential. Healthy Start helps by improving the health of America's mothers and children before, during, and beyond pregnancy. It reduces infant mortality rates, increases access to early pre-natal care, and removes barriers to healthcare access.

Celebrate the **Healthy Start program's** 25th anniversary.
Our achievements include:



Reducing infant mortality



Addressing the differences in health between the general population and racial/ethnic minorities

We serve communities with:



Infant mortality rates at least **1 1/2 times** the U.S. national average



Maternal and infant health issues including low birth weight, pre-term delivery, maternal morbidity and mortality



High rates of poverty, low education, limited access to care, and other socioeconomic factors

W. Edward's Deming

Now
and in
the
future.

Who is
responsible for
quality?

Can quality
increase and
costs go down?

70 x 570

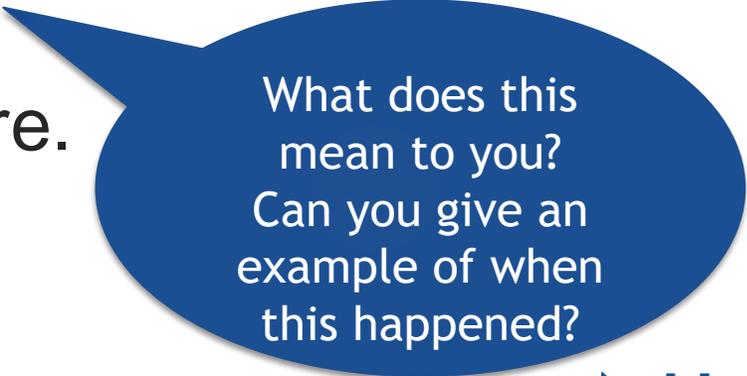
Why is providing quality service so hard?

Defining quality means we have to understand future needs of HS clients in a way we can measure it. You have a lot of measures!

This way we can know how we are doing satisfying our clients.

The hard part is that as soon as we feel good about it, needs may change.

Constantly looking to the future.



What does this mean to you?
Can you give an example of when this happened?

Growing Clients who Learn How to be Great Consumers

- Support clients on what to expect; what we can offer; how to best use HS and CAN services
- Focus on the quality and continual improvement of your service

Feed client reactions back into service improvement and redesign
Complaints are too late!
Judgments change

Problems in understanding judgment of quality

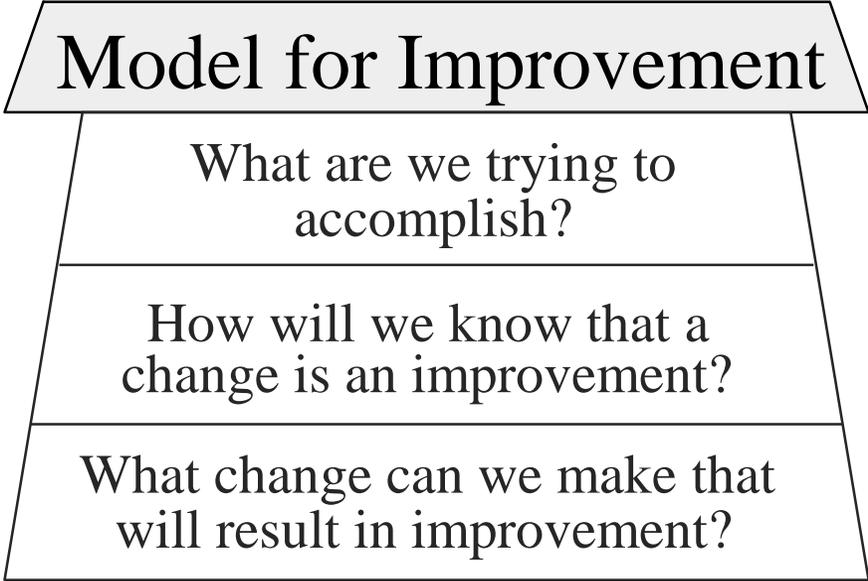
- What is good service?
 - High marks for interactions with staff, trusting relationships?
 - Low marks for referrals or connection to essential services
 - High marks for connecting women and children with insurance
 - Middle marks for smoking cessation referrals
- From whose perspective?
 - Staff, Community partners, clients: women, fathers?

Key Elements of Improvement

- Will to do what it takes to change to a new system
- Ideas on which to base the design of the new system
- Execution of the ideas



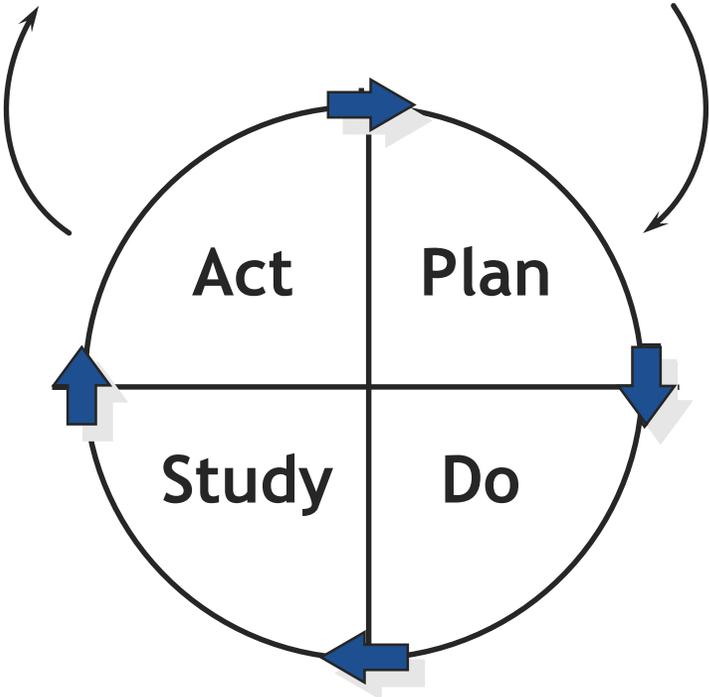
The Model for Improvement



Aim

Measures

Changes



From: Associates in
Process Improvement

Question 1: What are we trying to accomplish?

- Useful at largest project level
- Useful when working on components or any area for improvement
- Useful even thinking about a meeting, a strategy
- Useful *Please change When asking this question may be useful for you*

Example

- The Happy Healthy Start Center intends to develop a reliable risk assessment tool for our clients so that:
 - 90% of the time or more our clients receive services they want and need
 - Leadership can use the assessment for resourcing staff, for staff training and for programing
 - 90% or more of all screens are completed upon enrollment

Aim

- Direction
- Communicates magnitude of change
- Usually involves consensus and agreement



What?

By when?

How much improvement?

For whom?

Another example

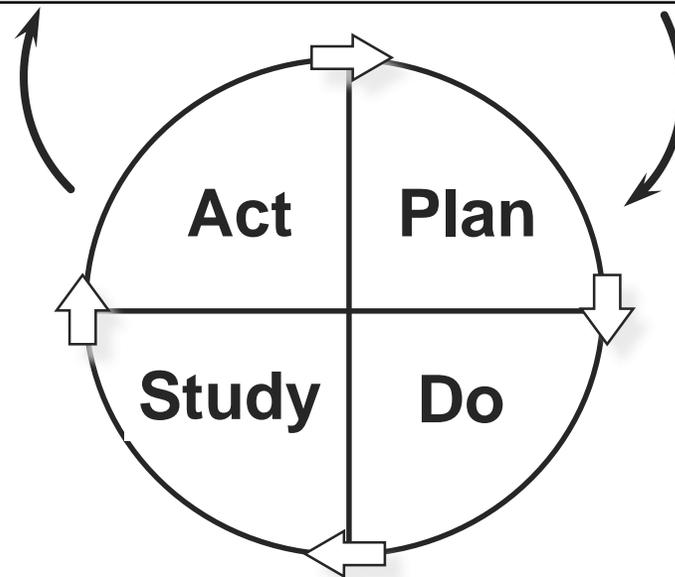
- Heart-felt Healthy Start will improve recruitment of clients by 50% by June 2021 so that we grow from 50 to 100 fathers and to 250 or more women.
- *Chat in: try it!*
- *Draft an aim statement of something you want to do. What; by when, for whom, how much improvement (measureable please).*

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?



We answer how would we know a change is an improvement with data

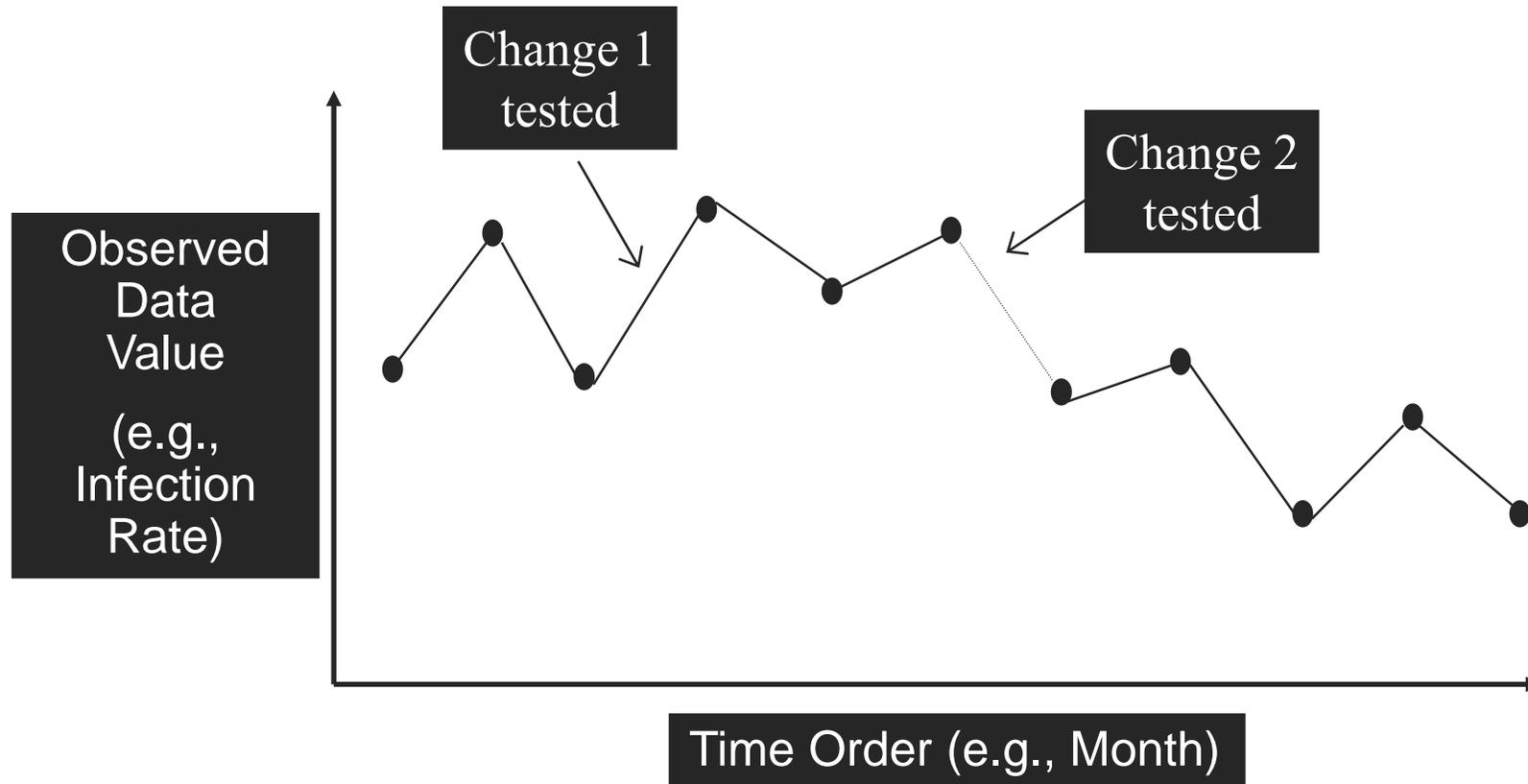
- Qualitative and Quantitative
- Just enough data
- No data is perfect; we strive for usefulness
- Use sampling and stratification (race, ethnicity, gender, zip code, age, etc.)
- Sequence data – usually over time
- Data informs better action to serve clients

3 Faces of Measurement: Solberg, Moser, McDonald, 1996

Aspect	Improvement	Comparison or Accountability	Clinical Research
Aim:	Improvement of care	Comparison, choice, reassurance, spur for change	New knowledge
Test observability	Test observable	No test, evaluate current performance	Test blinded
Bias	Accept consistent bias	Measure & adjust to reduce bias	Design to eliminate bias
Sample size	“Just enough” data, small sequential samples	Obtain 100% of available, relevant data	“Just in case” data
Flexibility of hypothesis	Hypothesis flexible, changes as learning takes place	No hypothesis	Fixed hypothesis
Testing strategy	Sequential tests	No tests	One large test
Determining if change is improvement	Run charts or Shewhart charts	No change focus	Hypothesis tests (T-tests, F-tests, Chi-square), p-value
Confidentiality of data	Data used only by those involved in the improvement	Data available for public consumption	Research subjects’ identities protected

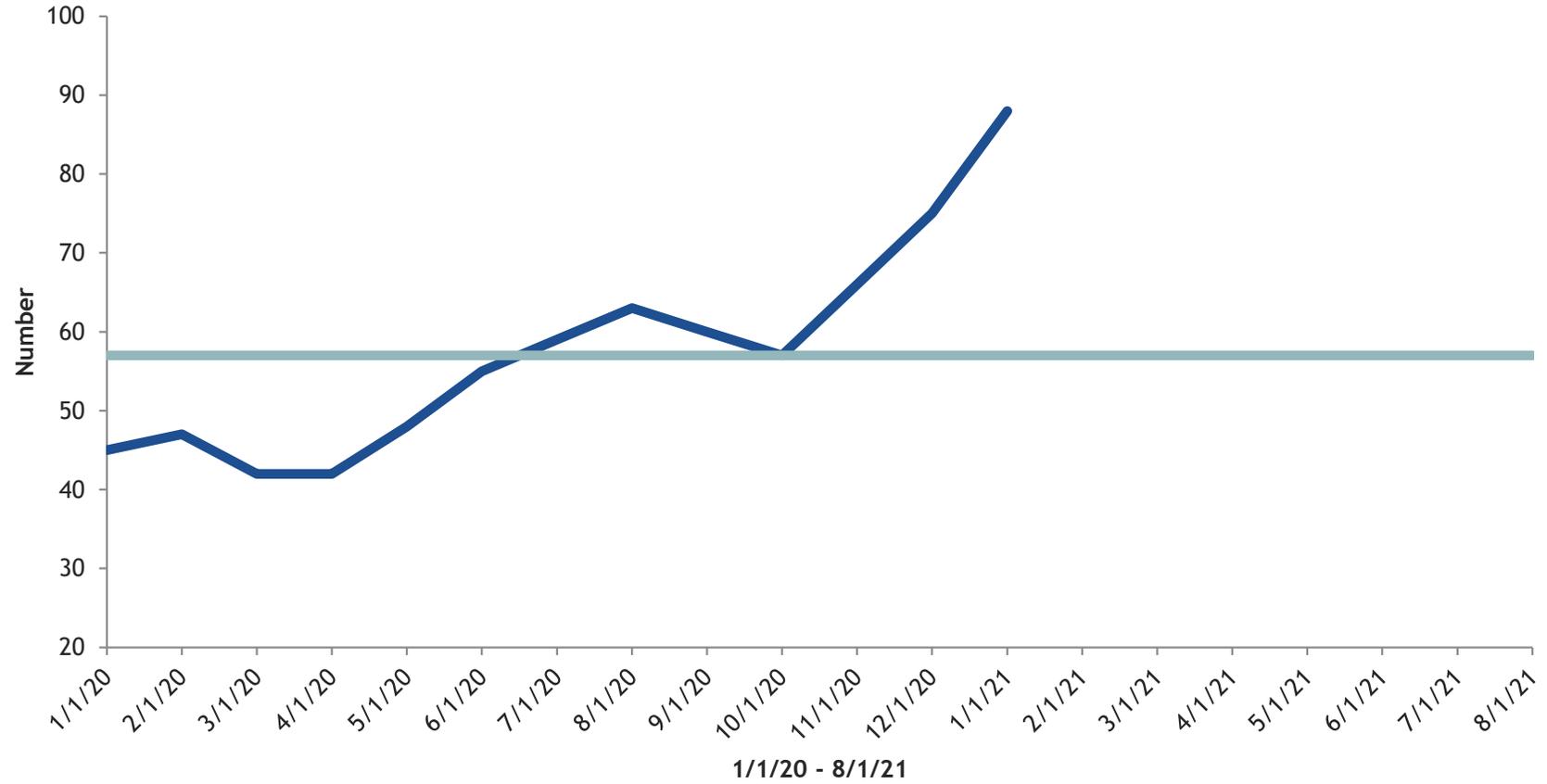


Annotated Run Chart

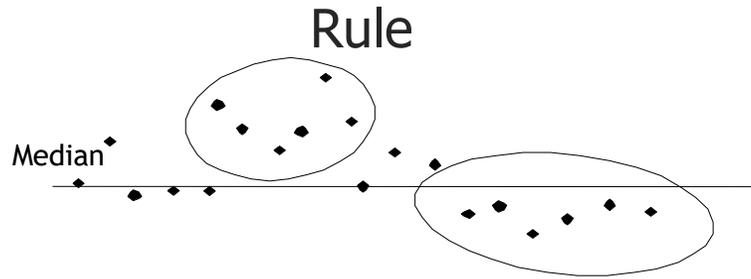


- Plot small samples frequently over time

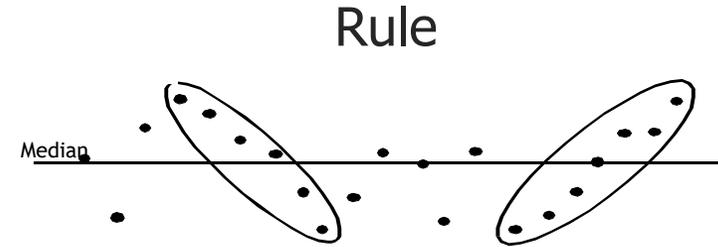
Number of Fathers Enrolled Per Month Run Chart



Run Chart: Rules for Identifying Statistically Significant Change

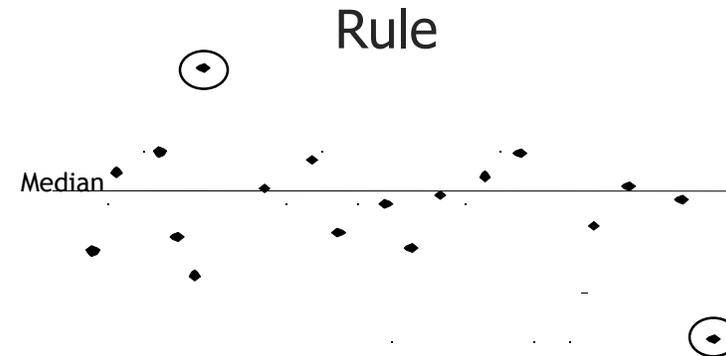


Shift: 6 points in row on same side of the median



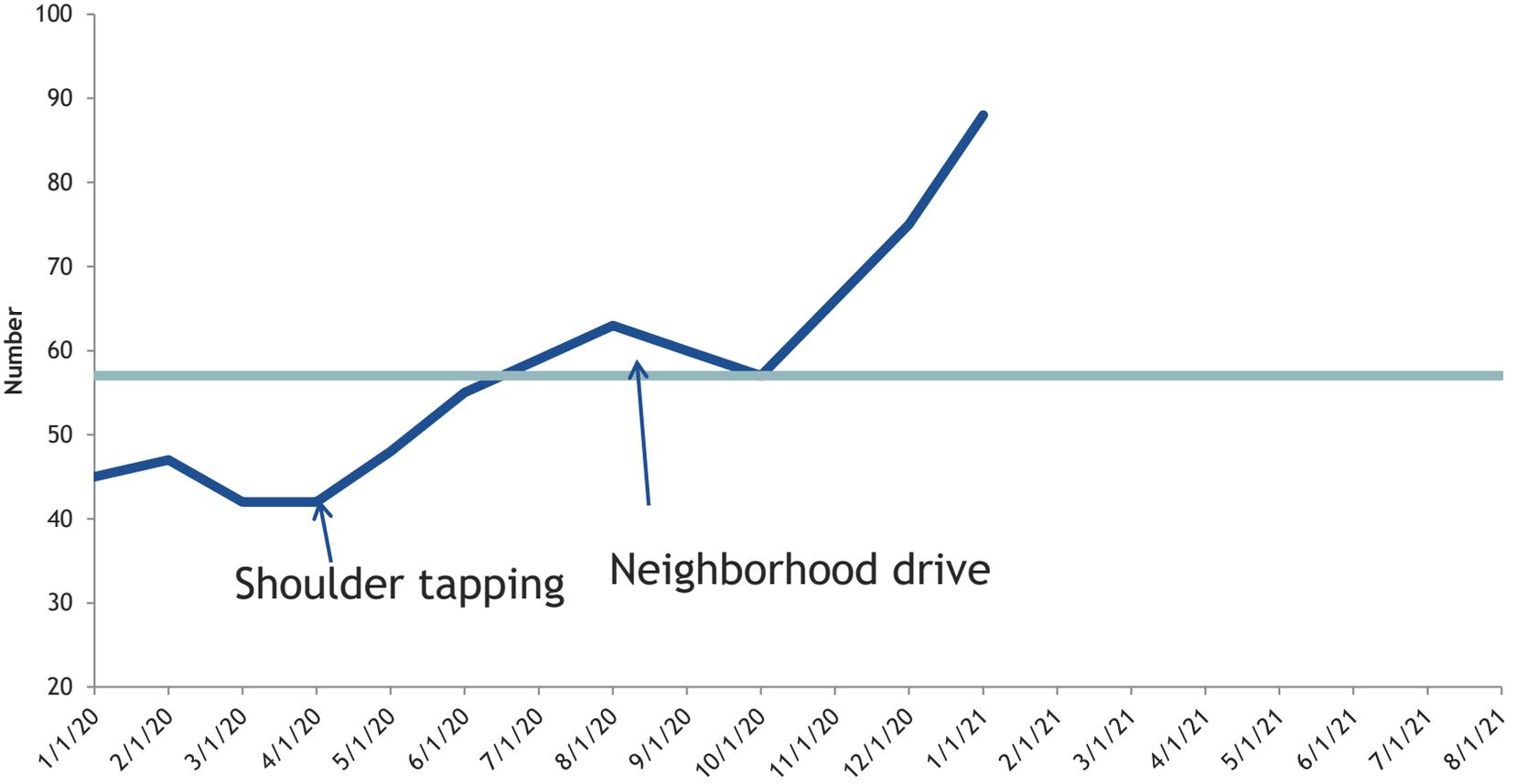
Trend: 5 points in row headed in same direction

These 3 simple rules help us interpret data



Astronomical Point: a obviously, even blatantly different value

Number of Father Enrolled Per Month Run Chart



Three Types of Measures

- **Outcome Measures:** Voice of the client. How is the system performing? What is the result?
- **Process Measures:** Voice of the workings of the system. Are the parts/steps in the system performing as planned?
- **Balancing Measures:** Looking at a system from different directions/dimensions. What happened to the system as we improved the outcome and process measures (e.g. unanticipated consequences, other factors influencing outcome)?

Healthy Start Family of Measures

- Outcome measures

- Improve women's pre and interconception health
- Family Resilience
- Infant Mortality

- Process measures

- Recruitment, retention
- Smoking cessation during pregnancy
- UTD well child visits
- Screening: depression, essential services, etc

- Balancing measures



Please chat
What else?

Measurement: How Will We Know That a Change is an Improvement?

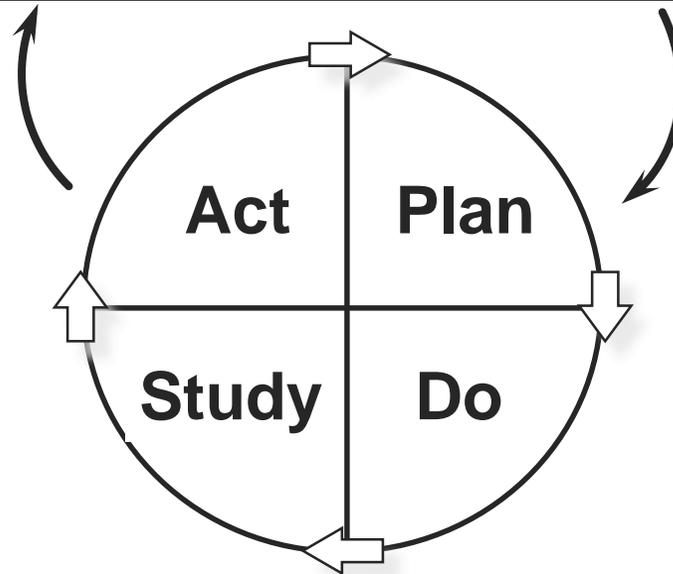
- Key measures are required to assess progress toward the aim
- Specific measures can be used for learning during PDSA cycles
- Data from the system (including from clients and staff) focus improvement and refine changes

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?

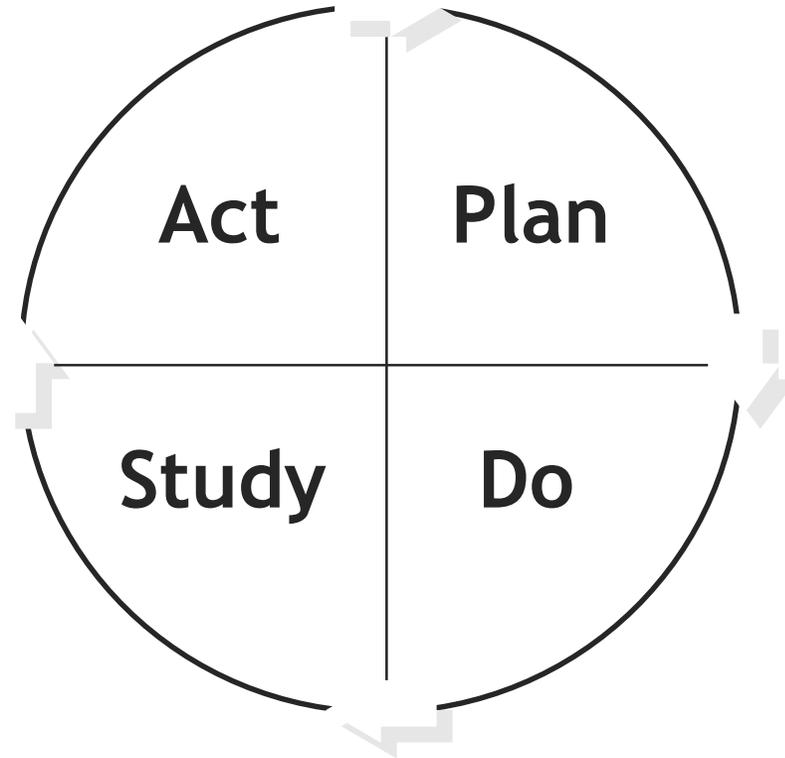


The PDSA Cycle

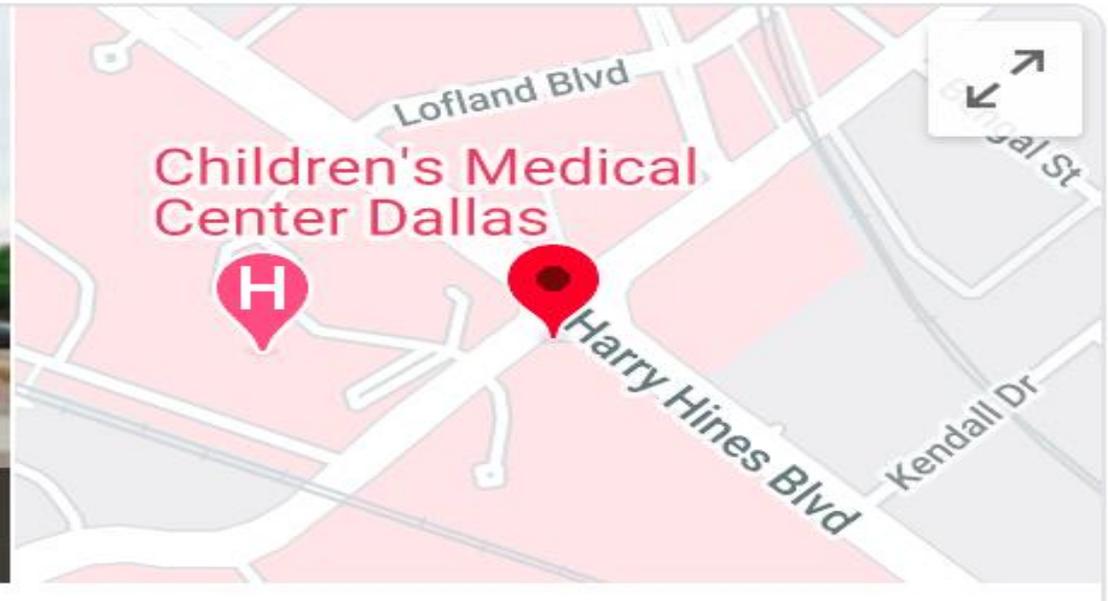
Four Steps: **P**lan, **D**o, **S**tudy, **A**ct

Also known as:

- Shewhart Cycle
- Deming Cycle
- Learning and Improvement Cycle



Let's hear from one of our own. Dallas Healthy Start





Dallas Healthy Start Case Management Incoming Risk Assessment

Objective:

- Assess the risk level of a woman's pregnancy and parenting phases, prior to enrollment into *Dallas Healthy Start*.
- Determination to inform her initial case management [CM] plan, including the assignment of appropriate staff personnel and linkage to program and community resources.

Strategy:

- Develop a predictive analytics tool with quantitative scoring functionality.

Tactics:

- Survey "best practices" other HS sites, other MCH programs, and our CM software vendor.
- Collaborate with NICHQ Technical Assistance to develop a risk acuity "prototype". Plan-Do-Study-Act - Test and refine [iterative]. Implement.
- Anticipated population distribution: 25% high-, 45% moderate-, 30% low-risk level.



Dallas Healthy Start Acuity Scale

Client Name: _____ Date of Assessment: ___/___/___
Completed By: _____ Position/Credential: _____

Risk Factors	
Please indicate [✓] all applicable Risk Factors	
High Risk Factors	Moderate Risk Factors
<input type="checkbox"/> Low birth weight [PN; history of < 5 lb 8 oz]	<input type="checkbox"/> Low birth weight [baby - ICC enrollee]
<input type="checkbox"/> Preterm birth [PN; history of < 37 wk gestation]	<input type="checkbox"/> Preterm birth [baby - ICC enrollee]
<input type="checkbox"/> Maternal age [PN; mother < 18 yr]	<input type="checkbox"/> Maternal age [PN; mother > 35 yr]
<input type="checkbox"/> Unmanaged or untreated chronic disease or condition [e.g. hypertension, diabetes, asthma, anemia]	<input type="checkbox"/> Managed, treated or history of chronic disease or condition [e.g. hypertension, diabetes, asthma, anemia]
<input type="checkbox"/> Unmanaged or untreated HIV/AIDS	<input type="checkbox"/> Managed and treated HIV/AIDS
<input type="checkbox"/> PN care – none	<input type="checkbox"/> PN care - inconsistent/late entry [≥ 14 wk]
<input type="checkbox"/> STD [untreated]	<input type="checkbox"/> STD [treated or history of]
<input type="checkbox"/> Smoking [current]	<input type="checkbox"/> Smoking [history of]
<input type="checkbox"/> Alcohol use [PN] or abuse [untreated]	<input type="checkbox"/> Alcohol abuse [treated or history of]
<input type="checkbox"/> No positive partner involvement/support	<input type="checkbox"/> Minimal positive partner involvement/support
<input type="checkbox"/> Open CPS case	<input type="checkbox"/> Closed CPS case
<input type="checkbox"/> Multiple gestation [PN]	<input type="checkbox"/> Child with special healthcare needs
<input type="checkbox"/> Loss of fetus/stillbirth [PN; history of]	<input type="checkbox"/> No medical home
<input type="checkbox"/> Death of infant/child [PN; history of]	<input type="checkbox"/> No health insurance
	<input type="checkbox"/> Inadequate or no income
	<input type="checkbox"/> Family history of chronic disease or condition [e.g. colon cancer, breast cancer]
	<input type="checkbox"/> No reproductive health/family plan
Automatic Risk Factors → Intensive Case Management	
<input type="checkbox"/> Domestic abuse [current]	<input type="checkbox"/> Difficult partner or family dynamics
<input type="checkbox"/> Homelessness	<input type="checkbox"/> Unstable housing
<input type="checkbox"/> Illicit drug use [untreated]	<input type="checkbox"/> Illicit drug use [treated or history of]
<input type="checkbox"/> Depression/mental health/psych care [untreated]	<input type="checkbox"/> Depression/mental health/psych care [treated or history of]

Calculation of Risk Score		
# "Auto" Risk Factors _____ × X points = _____	Total Points	Risk Level
# High Risk Factors _____ × Y points = _____	More than A	HIGH
# Moderate Risk Factors _____ × Z points = _____	Between A and B	MODERATE
TOTAL Points calculated = _____	Less than B	LOW

[continued on reverse]

Developed in collaboration with National Institute for Children's Health Quality [NICHQ], Parkland Health & Hospital System Community Health Institute [PHHS CHI], Susan Wolfe & Associates LLC, Dallas, TX, and Texas Department of State Health Services [DSHS]

Revised 9-7-2019

Assignment of Case Management Level

Please indicate [✓] Assignment of Case Management Level:

- High Risk: Total points > A → High level of case management indicated
- Moderate Risk: Total points between A and B → Moderate level of case management indicated
- Low Risk: Total points less than B → Low level of case management indicated

Qualitative Risk Classification:

Based on your own judgement of other circumstances or additional criteria, did you choose a different category from the one indicated by the calculated score?

- Yes
- No

If "Yes", please state why:

Other Comments:

Developed in collaboration with National Institute for Children's Health Quality [NICHQ], Parkland Health & Hospital System Community Health Institute [PHHS CHI], Susan Wolfe & Associates LLC, Dallas, TX, and Texas Department of State Health Services [DSHS]

Revised 9-7-2019



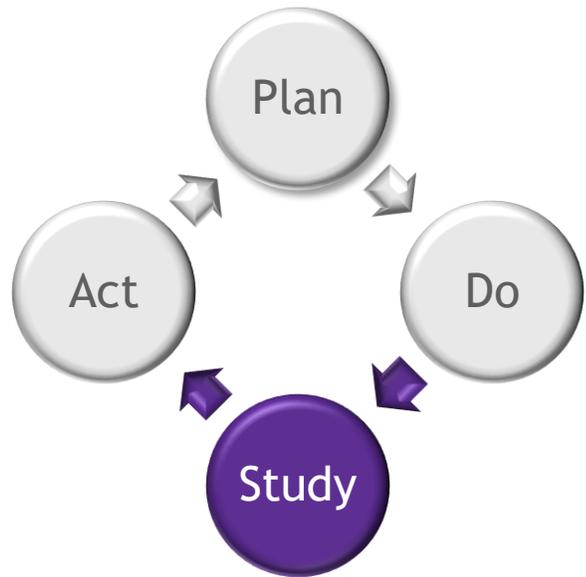
PDSA #1: Administer to Sample [n= 30] and Analyze

Feedback:

- Does not include strength / resilience factors
- Easy to complete

Results of High [H] and Moderate [M] Risk Factor Scoring:

- 13% of prenatal program participants [PPs] < 18 y.o. [H]
- 10% of PPs reported no partner involvement [H]
- 30% of PPs reported inadequate or no income [M]
- 27% of prenatal PPs > 35 y.o. [M]
- 27% reported difficult partner or family dynamics [M]
- 17% reported minimal partner involvement/support [M]

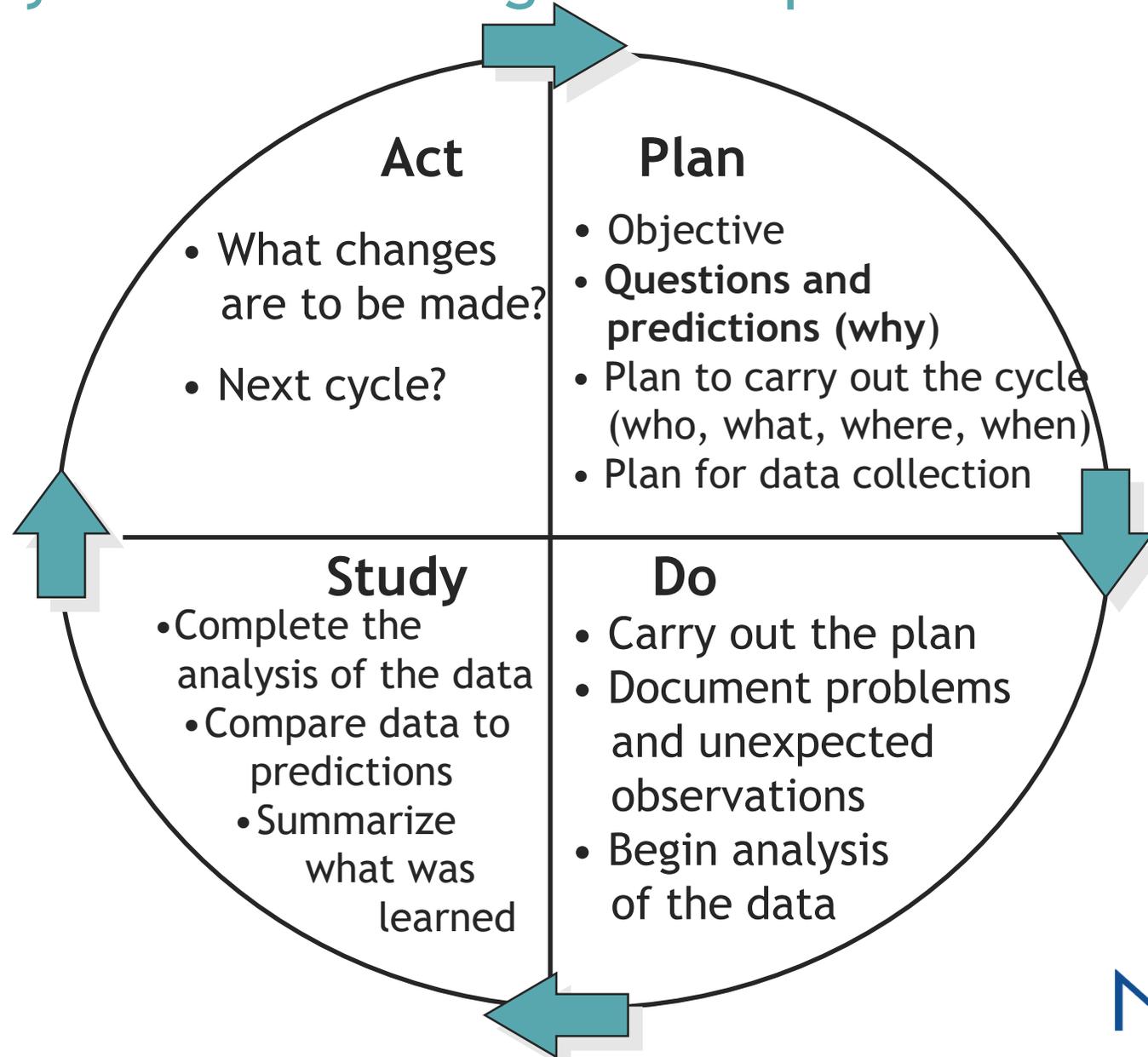


Next Steps:

- Consider if a combination of moderate risk factors constitutes high-risk.
- Consider immediate take-aways [PN age, Fatherhood programming, etc].
- Investigate inclusion of resilience-based factors.
- Research asset-based approaches.
- Iterate and administer to additional PPs.

The PDSA Cycle for Learning and Improvement

Small scale test
Series of tests
Wide-scale tests
Implementation



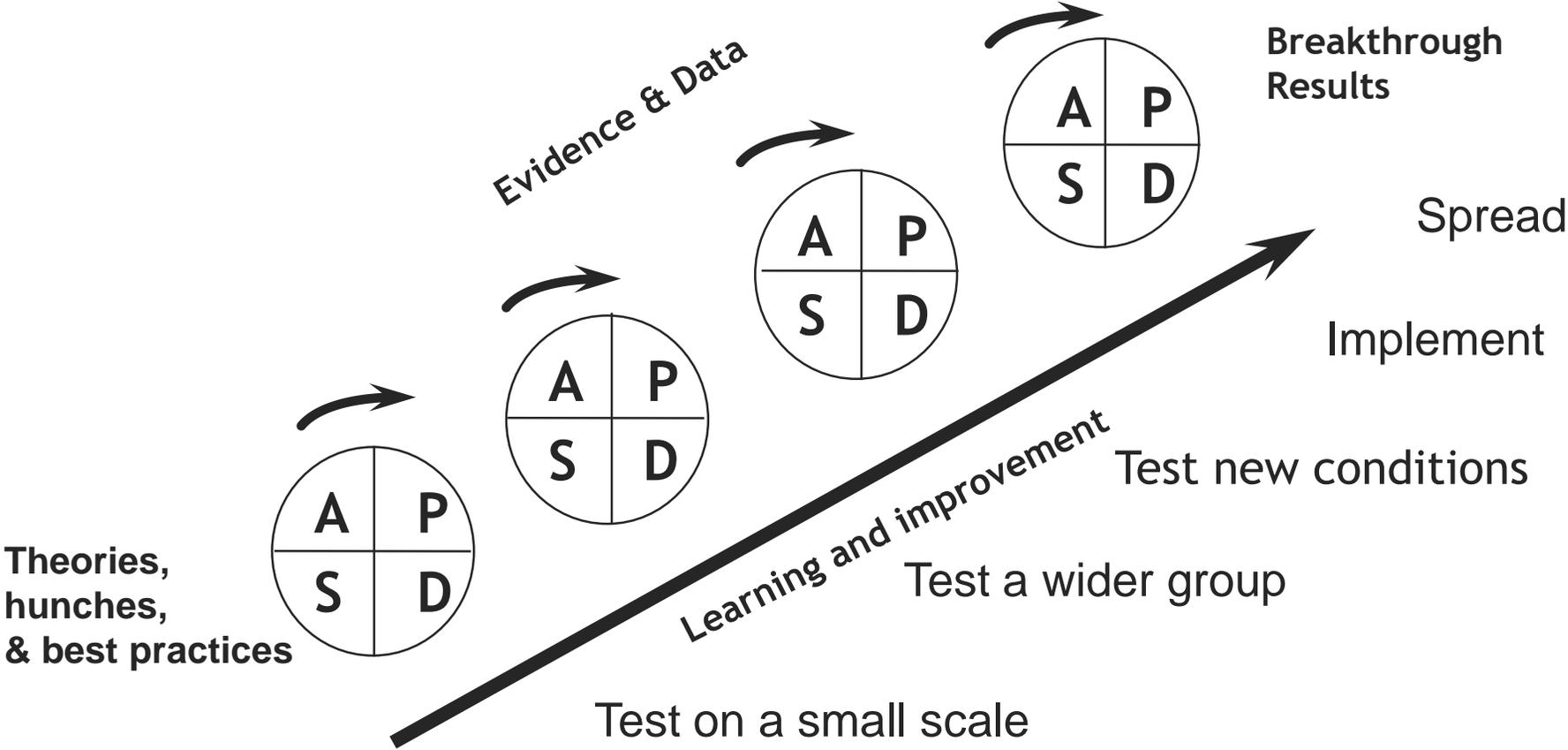
Why Test?

- Increase the belief that the change will result in improvement
- Predict how much improvement can be expected from the change
- Learn how to adapt a change to conditions in the local environment
- Evaluate costs and side-effects of the change
- Minimize resistance upon implementation
- Localize a good idea to your setting

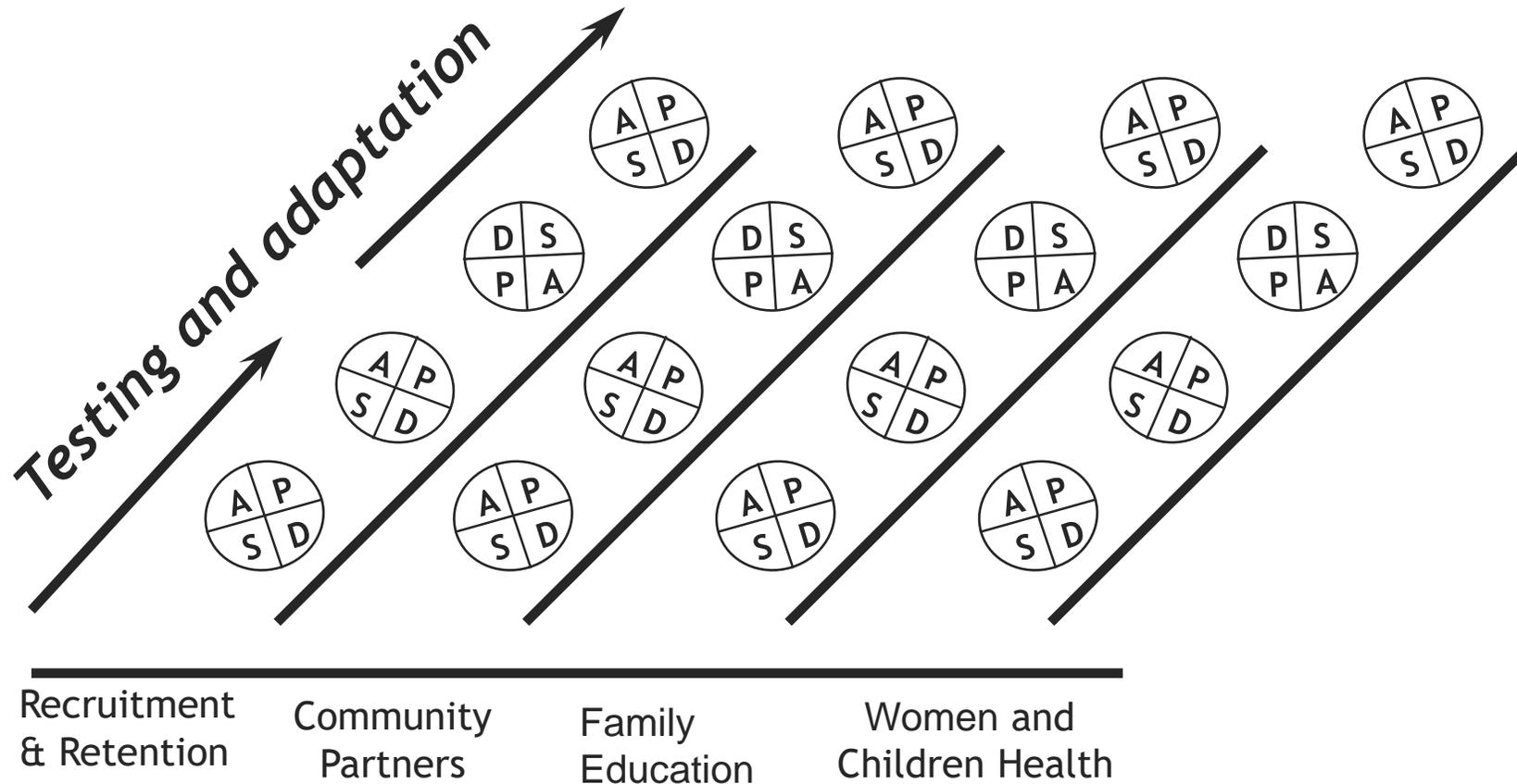
Test on a Small Scale

- Conduct the test with one community partner, one client, next 5 clients, with one staff member
- Test the change on a small group of volunteers
- Develop a plan to simulate the change in some way

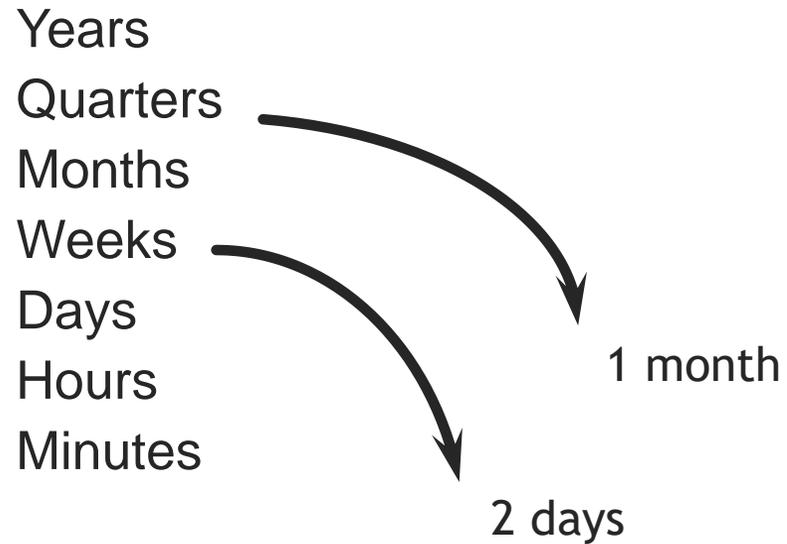
Sequential Building of Knowledge Includes a Wide Range of Conditions in the Sequence of Tests



Multiple PDSA Cycle Ramps



Decrease the Time Frame for a PDSA Test Cycle



Drop down next
“two levels” to
plan early test
cycles!



“Get started before you are ready!”

James M. Anderson

Former President and CEO

Cincinnati Children's Hospital Medical Center





Rate the quality of the presentation overall (1= very low quality, 5= very high quality)

1

2

3

4

5



Rate the quality of the content (1= very low quality, 5= very high quality)

1

2

3

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Rate the usefulness of content to your work going forward (1= not very useful, 5= very useful)

1
2
3
4
5



Having participated in this webinar, what is your current level of knowledge of Quality Improvement (1= least knowledgeable, 5 = the most knowledgeable)



1
2
3
4
5



Please rate your overall satisfaction with today's webinar
(1= extremely dissatisfied, 5= extremely satisfied)

1

2

3

4

5



Closing Remarks

When poll is active, respond at PollEv.com/healthystart428

Text **HEALTHYSTART428** to **22333** once to join

Please provide one word to describe how you are feeling as we move this work forward.



Thank you!



Contact
Jane Taylor at
jane1taylor@mac.com
&
the Healthy Start
TA & Support Center at
healthystart@nichq.org