Department of Health

Quality Improvement Bootcamp

SESSION FIVE

RYAN WHITE PART B QUALITY MANAGEMENT PROGRAM

Welcome

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COMMUNITY AGREEMENT

Be **present**

Actively **participate**

Ask questions

Reflect on **your own experience**

Be **respectful** of other's experiences

Seek to maintain a **growth mindset**

Root in respect

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SESSION FOUR AGENDA

Introductions and Review

The Model for Improvement

Plan, Do, Study, Act (PDSA)

Sustain

Review and Closing

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INTRODUCTIONS

Please introduce yourself with:

- Name & Pronouns
- Agency or Affiliation
- Role
- **Fun Fact**

The Earth is 4.543 billion years old.

Seahorses mate for life.

Australia is wider than the moon.

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Quality Improvement – The Model for Improvement

THE 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 we result in improvement?

thinking part

1. **Set the Aim**
2. **Select Measures**
3. **Develop Change Ideas**

PDSA Cycles

doing part

Four steps for <u>TESTING</u> the change ideas you we develop

Plan it, try it, observe the results, and act on what is learned

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THE MODEL FOR IMPROVEMENT: THE DOING PART

PDSA Cycles

doing part

Four steps for TESTING the change ideas you we develop

Plan it, try it, observe the results, and act on what is learned

The "**doing**" part of the Model for Improvement uses of **Plan-Do-Study-Act** or **PDSA Cycles** to test changes prior to implementation.

PDSA Cycles are the **engine that drives ongoing learning** as an intervention is adapted for use in a specific agency.

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The Plan-Do-Study-Act Cycle Part 2

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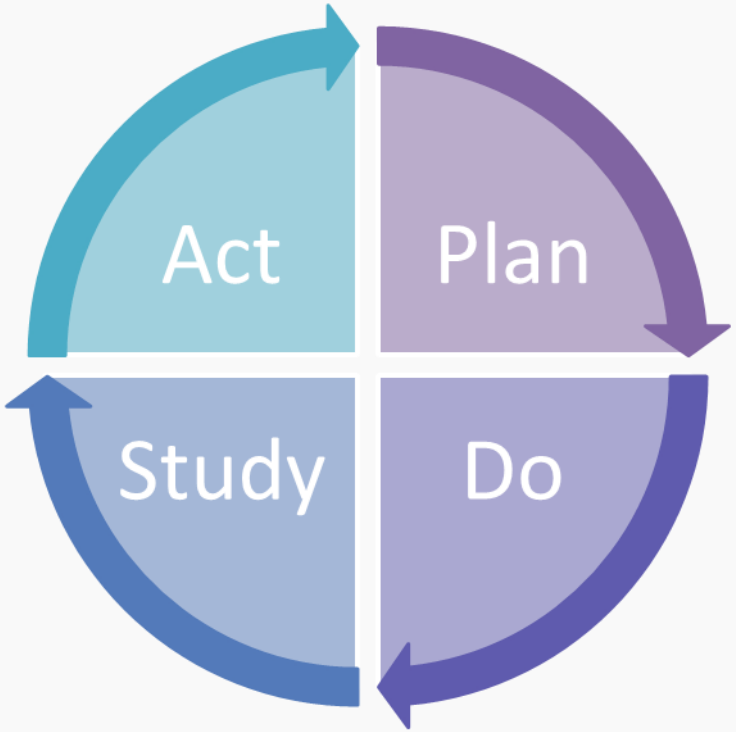
PDSA CYCLE

The PDSA Cycle is a structured method for learning by testing changes prior to implementation.

It is also known as the Shewhart Cycle, Deming Cycle, or Plan-Do-Control-Act (PDCA) Cycle



The four stages of the PDSA Cycle mirror the scientific experimental method of:

(1)formulating a hypothesis (a hunch),

(2)collecting data to test the hypothesis,

(3)analyzing and interpreting the results, and

(4)determining whether to adopt, adapt, or abandon the hypothesis.

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Reed, J. E., & Card, A. J. (2016). The problem with plan-do-study-act cycles. *BMJ quality & safety*, *25*(3), 147-152.

WHY TEST A CHANGE?

Increase your degree of belief that the change will result in improvement

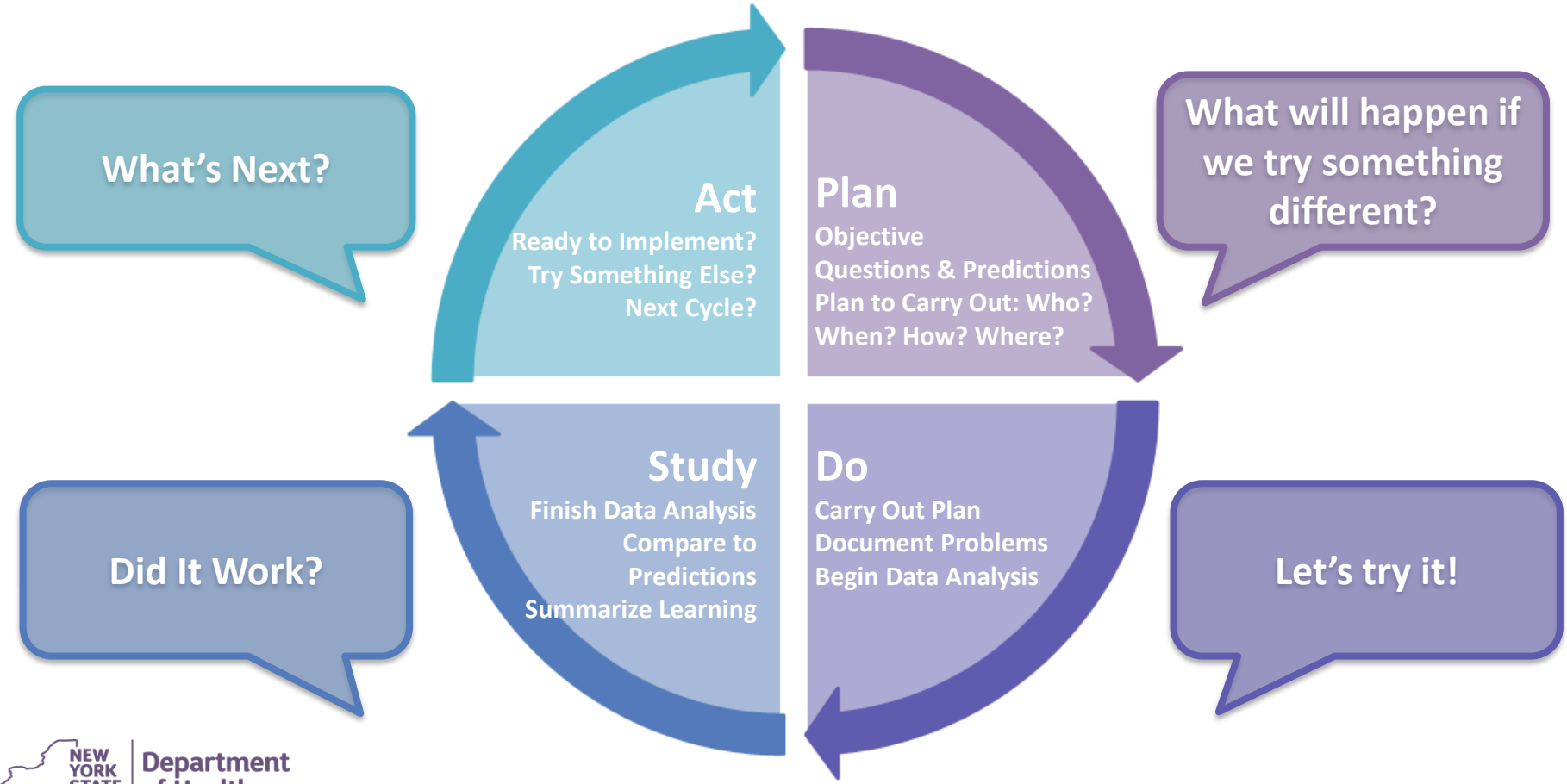
Opportunity for learning from “failures” without impacting performance

Document how much improvement can be expected from the change

Learn how to adapt the change to conditions in the local environment

Evaluate costs and side-effects of the change

Minimize resistance upon implementation



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MEANING IN FAILURE

Be sure to distinguish the reason for the failure:

- Change was not executed
- Change was executed, but not effective

If the prediction was wrong – not a failure!

- Change was executed but did not result in improvement
- In either case, we've improved our understanding of the system!

Be sure to fail FORWARD* into the next test

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SUCCESSIVE CYCLES TO TEST CHANGES

Plan **multiple cycles** for a test of a change

Think a couple of cycles **ahead**

Scale down the **size of test** (# of clients, location)

Test with **volunteers**

Do **not** try to get buy-in, consensus, etc.

Be **innovative to make test feasible**

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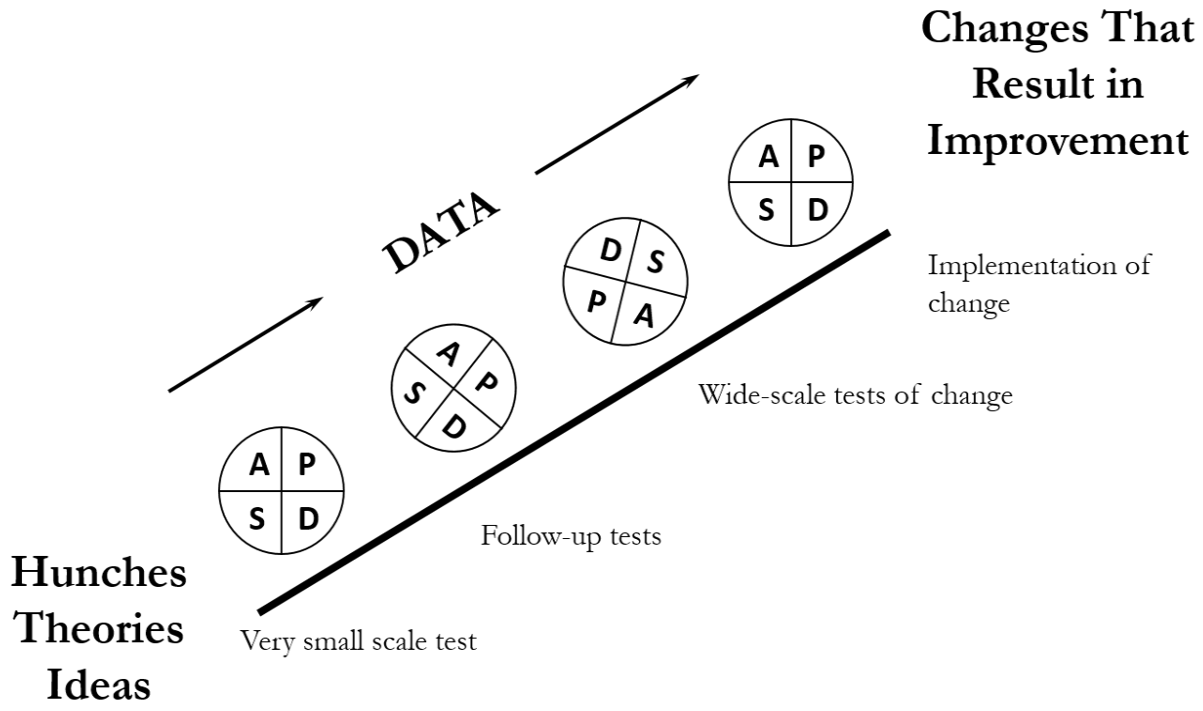
The Cycles Build on Each Other…



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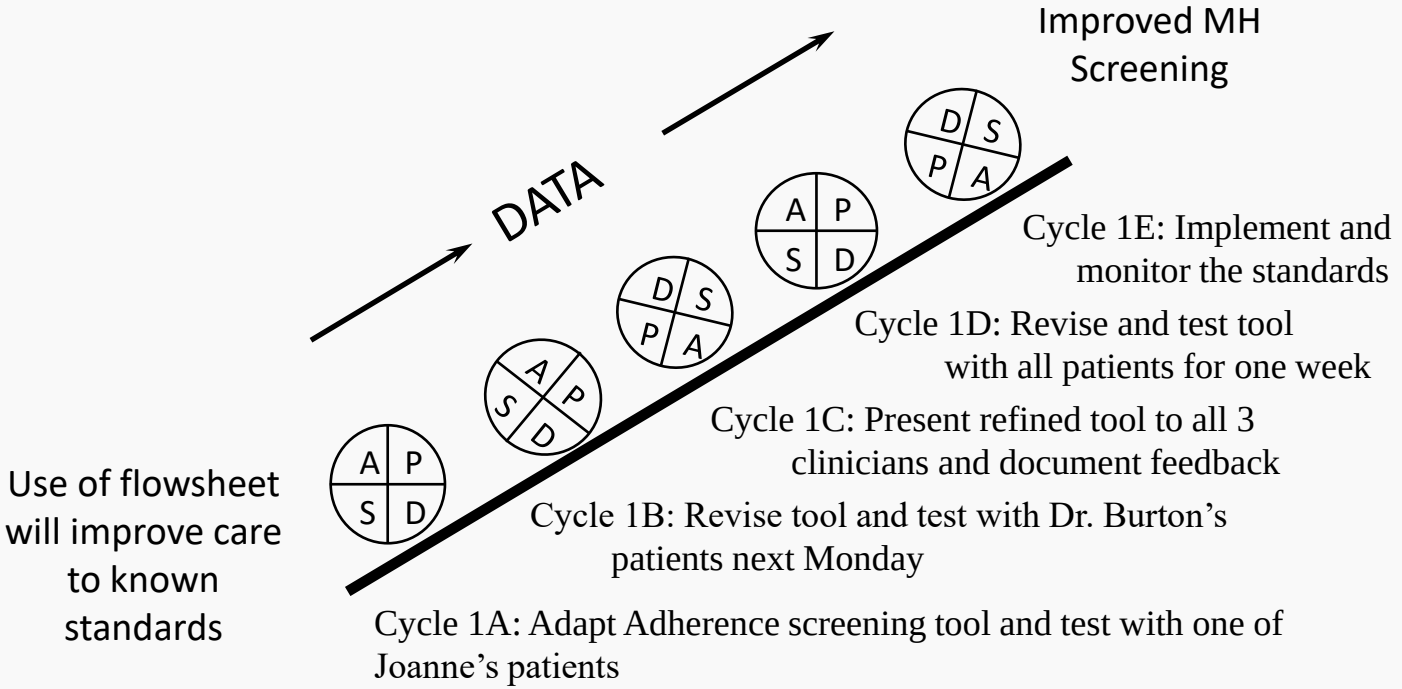
EXAMPLE: PDSA CYCLE TO INCORPORATE THE USE OF AN ADHERENCE SCREENING TOOL



Start Small and Build…..

TIPS FOR PDSA CYCLES

- learn from others (steal shamelessly, share senselessly)
- volunteers at first; then move to others
- useful, not perfect, data
- use “huddles”
- design towards sustainability

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PDSA PITFALLS

Investigation & Problem Framing Pitfalls

Poorly defining of the problem

Not clearly defining the criteria for success and how performance will be measured

Not identifying the key stakeholders

Planning Pitfalls

No theory of change connecting the intervention to its intended outcomes

Designing a data plan that is incapable of providing the required answers

Not consulting key stakeholders during the planning stage

Not planning for the ‘who, what, where, when, and how’ of implementation

Adopting weak interventions without considering more robust options

Not assessing cultural and structural barriers/facilitators related to the intervention

Not planning for sustainability if the intervention is successful

Not considering the intervention's failure modes and potential side effects

Reed, J. E., & Card, A. J. (2016). The problem with plan-do-study-act cycles. *BMJ quality & safety*, *25*(3), 147-152.

PDSA PITFALLS

Doing Pitfalls

Not implementing the QI intervention as intended

Not collecting the data as intended

Not capturing unanticipated learning

Failure to abandon the “Do” phase despite manifest failure or severe negative side effects

Studying Pitfalls

Not using results or not following the plan

Failing to communicate what has been learned

Acting Pitfalls

Failure to engage in ‘double-loop learning’ that questions the goals of the project

Moving too quickly from small-scale tests of change to full-scale implementation and sustainment

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Reed, J. E., & Card, A. J. (2016). The problem with plan-do-study-act cycles. *BMJ quality & safety*, *25*(3), 147-152.

PDSA Cycles &
The Geriatric 5Ms

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THE GERIATRIC 5MS

Mind	Mobility	Medications	Multicomplexity	Matters Most
• Maintaining mental activity • Helping manage dementia • Helping treat and prevent delirium • Working to evaluate and treat depression	• Maintaining the ability to walk and/or maintain balance • Preventing falls and other types of common injuries	• Reducing polypharmacy • De-prescribing • Prescribing treatments exactly for an older person's needs • Helping build awareness of harmful medication effects	• Helping older adults manage a variety of health conditions • Assessing living conditions when they are impacted by age, health conditions, and social concerns	• Coordinating advance care planning • Helping manage goals of care • Making sure that a person's individual, personally meaningful health outcomes, goals, and care preferences are reflected in treatment plans

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Source: Health in Aging Foundation. Available from: https://www.va.gov/covidtraining/docs/HIA_TipSheet_Geriatric_5Ms_19.pdf

INTERVENTION BACKGROUND

The **Clock-Drawing Test** or CDT is a quick way to screen for early dementia, including Alzheimer's disease.

The CDT can detect mental decline as people with dementia often have problems reading traditional clocks.

The CDT involves drawing a clock on a piece of paper with (1) numbers, (2) clock hands, and (3) a specific time. The inability to do so is a strong indication of mental decline.

Advantages of this test include an **absence of language and cultural biases**.

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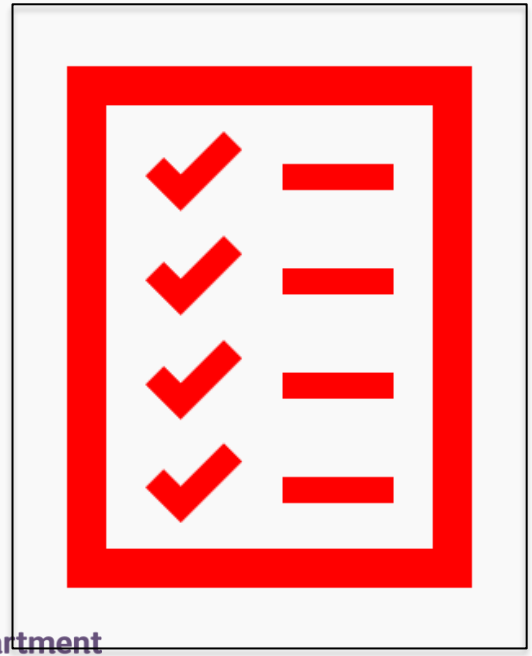
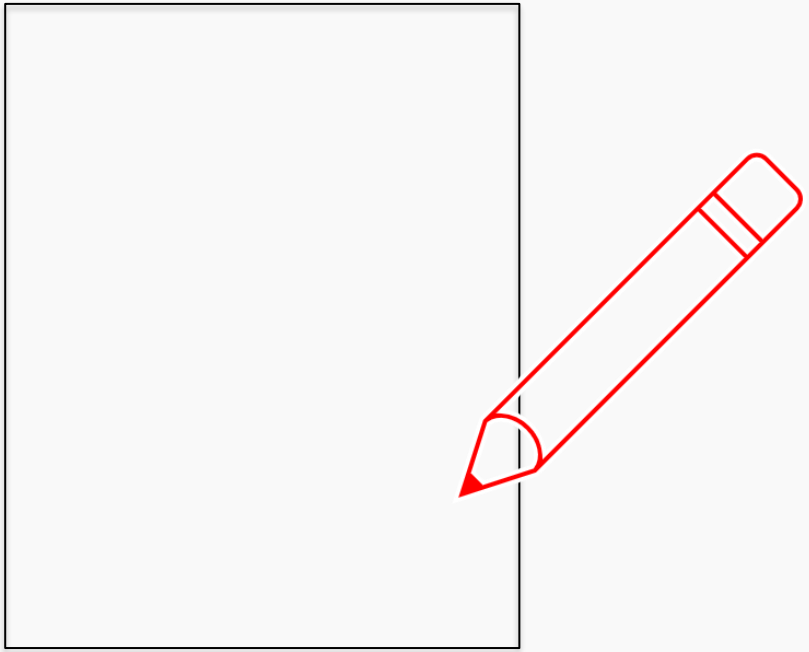
INTERVENTION MATERIALS

Instructions



Paper & Pencil



CDT INSTRUCTIONS

Step 1: Provide a blank piece of paper and a pencil.

It is best to provide a pencil with an eraser as this may help to lessen any frustration for the test taker.

Step 2: Say "*Draw a clock that shows the time as 10 minutes after 11.*"

The word "hands" is not used to avoid giving clues.

Step 3: Allow as much time as needed to complete the task.

If questions are asked, simply say "just do as you think best".

Step 4: Assess the clock, looking for abnormalities.

If the clock is drawn correctly, the score is 1; if there are abnormalities, the score is 0.

If the client is distracted or refuses to draw after having agreed to do so, you might consider these actions as a failure and seek a further assessment.

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ABNORMALITIES

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THE QUALITY IMPROVEMENT PROJECT

Aim: We will improve dementia screening in clients aged 65 and over from 0% to 50% by June 30, 2023.

Hunch: We can use the CDT to efficiently screen for dementia because it's quick, simple to complete, easy to score, and cost-effective only requiring a procedure, paper, and pencils.

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Plan

1.We will order **paper and pencils** for the CDT.

2.We will develop **instructions** to guide staff in conducting the CDT.

3.We will test the new CDT instructions with **1 provider** for **1 week** with **all eligible patients**.

4.At the end of the week, we will **ask the provider**:

- Were the instructions understandable and easy to use?
- Were clients able to complete the test?
- Did you have any challenges or barriers?
- Do you have any recommendations?

RESULTS FROM CYCLE 1

1. **Visually Impaired Client** – a client who was visually impaired could not perform the CDT
2. **Behavior** – a client's frustration with the CDT resulted in anger
3. **Procedure –** staff were unaware of whether they should keep the clock
4. **Procedure** – Staff were uncertain if they should tell a client they didn't pass
5. **Procedure** – Staff were uncertain where to refer clients and if a referral was an emergency
6. **Cycle Time** – The cycle was too long and there were too many errors to continue

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RESULTS FROM CYCLE 1

Study	Act	Retest
A visually impaired client could not complete the CDT.	Remove clients with poor or no vision from the eligibility.	Test when clients with poor or no vision are offered the CDT (not working)
A client's frustration with the CDT manifested as anger.	Train staff delivering the CDT in de-escalation.	Hard to Test; likely a necessary to add to a staff training
The procedure lacked key details about scoring and referrals.	Revise procedure to provide additional guidance on scoring and referrals	Repeat testing with revised procedures; add to a staff training
1 week was too long a period for testing.	Revise plan to scale testing to 1 morning or 1 afternoon	Test smaller scale during next cycle.

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PDSA CYCLE 2

Plan

1. We will revise the instructions to provide **more information on scoring & referrals**.
2. We will revise the eligibility criteria to **exclude anyone with poor or no vision**.
3. We will develop a staff training on **scoring and de-escalation techniques**.
4. We will retest the using the revised CDT instructions **with 1 provider for 1 morning with all eligible patients**.
5. At the end of the day, we will ask the provider:
    - Were the procedures understandable and easy to use?
    - Were clients able to complete the test?
    - Did you have any challenges or barriers?
    - Do you have any recommendations?

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CYCLE 2 RESULTS

1. **Client with a Physical Disability** – couldn't easily get into the room

2. **Family Member** – a client's family member would not stop helping draw the clock

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CYCLE 2 RESULTS

Study	Act	Retest
A client using a wheelchair could not access the room.	Change the CDT room to an accessible room.	Test by using a wheelchair to access the room
A family member interfered with the CDT.	Revise procedure to ask family members to step out during the CDT.	Test when family members come in with a client

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PDSA CYCLE 3

Plan

1.We will use an **accessible room** for the CDT.

2.We will revise the procedure to **ask family to leave during the CDT**.

3.We will retest the using the revised CDT instructions **with 1 provider for 1 morning with all eligible patients**.

4.At the end of the day, we will ask the provider:

Were the procedures understandable and easy to use?

Were clients able to complete the test?

Did you have any challenges or barriers?

Do you have any recommendations?

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RESULTS FROM CYCLE 3

1.The CDT instructions was understandable.

2.Clients were able to complete the CDT.

3.There were no barriers or challenges.

4.There are no recommendations for improvements.

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PDSA Cycle Activity

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THE GERIATRIC 5MS

The Geriatric 5Ms is a framework for optimizing geriatric care including mind, mobility, medications, multicomplexity, and what matters most.

Mind	Mobility	Medications	Multicomplexity	Matters Most
• Maintaining mental activity • Helping manage dementia • Helping treat and prevent delirium • Working to evaluate and treat depression	• Maintaining the ability to walk and/or maintain balance • **Preventing falls and other types of common injuries**	• Reducing polypharmacy • De-prescribing • Prescribing treatments exactly for an older person's needs • Helping build awareness of harmful medication effects	• Helping older adults manage a variety of health conditions • Assessing living conditions when they are impacted by age, health conditions, and social concerns	• Coordinating advance care planning • Helping manage goals of care • Making sure that a person's individual, personally meaningful health outcomes, goals, and care preferences are reflected in treatment plans

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Source: Health in Aging Foundation. Available from: https://www.va.gov/covidtraining/docs/HIA_TipSheet_Geriatric_5Ms_19.pdf

INTERVENTION BACKGROUND

The **30-second Chair Stand Test (30CST)** is a quick way to screen for reduced functionality.

The 30CST is used to measure functional lower extremity strength and endurance to identify individuals who might be at **increased risk of falls**.

The 30CST involves asking a client to sit in a chair and stand as many times as they can for 30 seconds. Clients who are unable to stand or can only stand a few times might be at increased risk for falls.

The advantage of this test is that it is **quick, easy, and requires little staff training or resources**.

INTERVENTION TOOLS

Instructions

Chair & Stopwatch

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INSTRUCTIONS

Step 1: Provide instructions.

Sit in the middle of the chair.

Place your hands on the opposite shoulder crossed, at the wrists.

Keep your feet flat on the floor.

Keep your back straight and keep your arms against your chest.

On "Go," rise to a full standing position, then sit back down again.

Repeat this for 30 seconds.

Step 2: On the word "Go," begin timing.
If the patient must use his/her arms to stand, stop the test. Record "0" for the number and score.

Step 3: Count the number of times the patient comes to a full standing position in 30 seconds.
If the patient is over halfway to a standing position when 30 seconds have elapsed, count it as a stand.

Step 4: Record the number of times the patient stands in 30 seconds.

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Part 1 Instructions

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PART 1 REPORT-BACK

Each team will:

1.Share a **brief** summary of their plan for testing The 30-second Chair Stand Test

2.Share **1 question** you would use during the study phase of your cycle.

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CYCLE 1 RESULTS

Study	Act	Retest
A client complained of a splinter from the wooden chair.		
A client broke the chair and cut their arm.		
A client fell into a workstation and broke the monitor.		
The new stopwatches did not have batteries.		

What action will you take as a result of the new learning?

Will that action need testing or retesting?

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Part 2 Instructions

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PART 2 REPORT-BACK

Each team will:

1.Share a **brief** summary of their plan for testing The 30-second Chair Stand Test

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CYCLE 2 RESULTS

Study	Act	Retest
The CEO stole the new chair and replaced it with a broken chair.		
The new chair rolled away every time someone tried to get up.		
The new stopwatches are hard to use, and the staff find them confusing.		

What action will you take as a result of the new learning?

Will that action need testing or retesting?

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Part 3 Instructions

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PART 3 REPORT-BACK

Each team will:

1.Share a **brief** summary of their plan for testing The 30-second Chair Stand Test

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QUESTIONS OR COMMENTS

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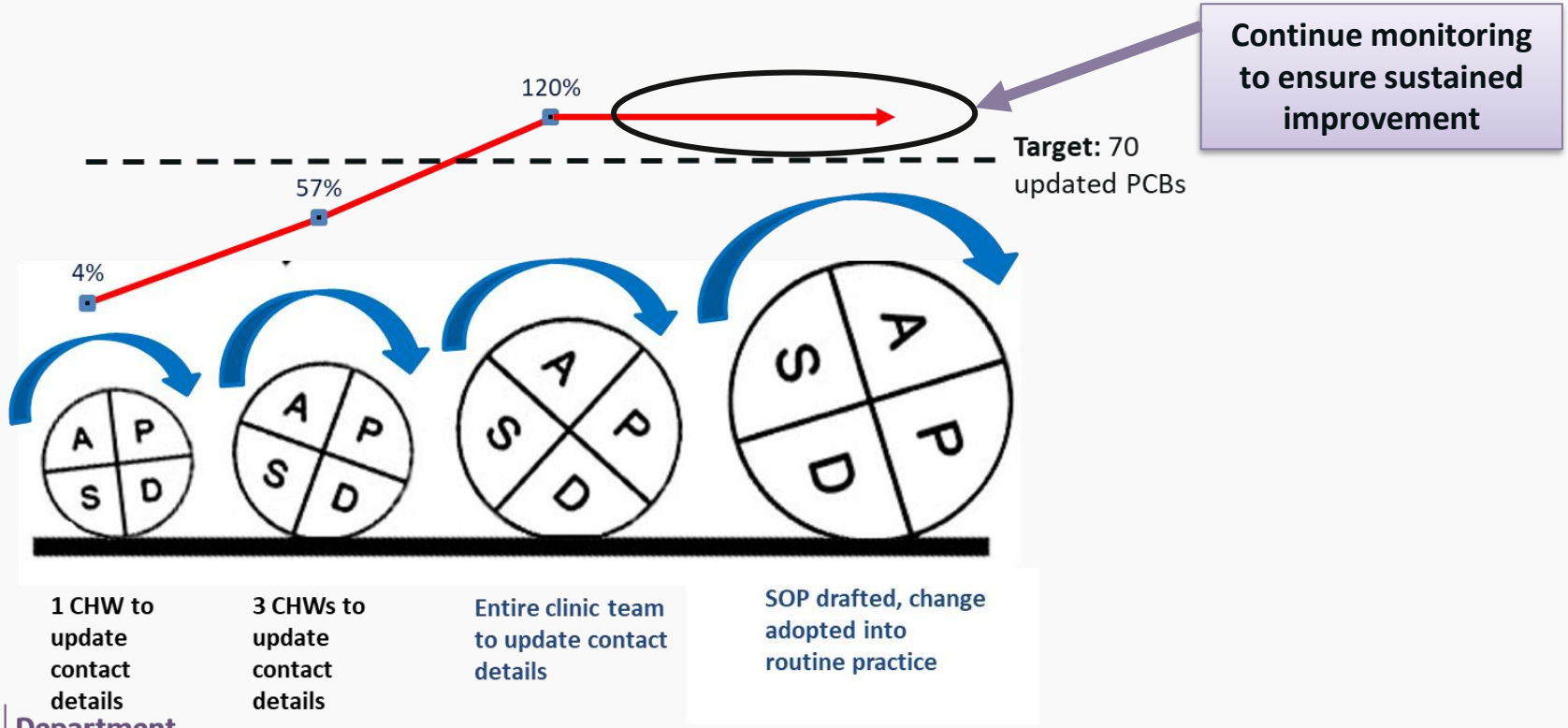
Sustain Results

AIMS ARE TIED TO QI WORK



RUN CHART

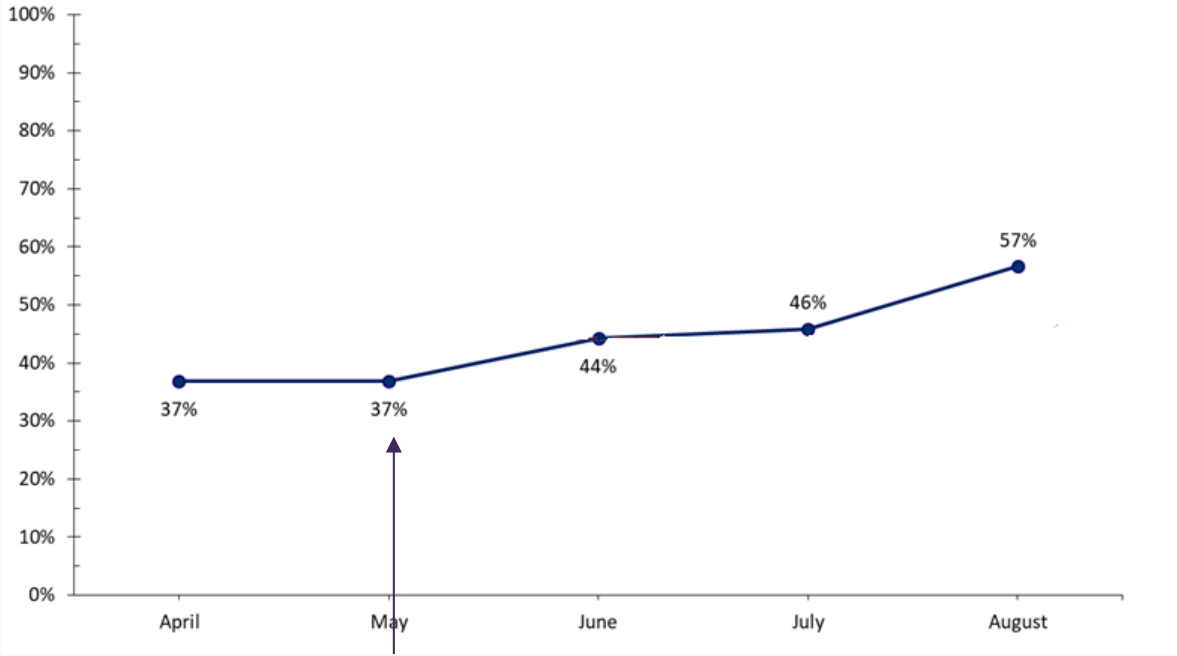
A run chart shows variation of data points over time and performance against an established goal.

It is a highly effective tool for measuring and analyzing changes in data over time. A run chart can illustrate improvements and setbacks as well as trends over time.

When used for quality improvement, a run chart can help your QI team understand if process changes are having the desired effect or if additional changes are needed to achieve the goal of the project. It is also useful to monitor changes once they are implemented to increase the likelihood of sustainability.

RUN CHART EXAMPLE

Viral suppression rate for ABC adolescent program



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Quality Improvement – The Model for Improvement

THE MODEL FOR IMPROVEMENT

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1. **Set the Aim**
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PDSA Cycles

doing part

Four steps for TESTING the change ideas you we develop

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QUESTIONS OR COMMENTS

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AHA MOMENTS

Thinking back over today's information and materials, is there anything from today that produced an "**aha**" or "**lightbulb**" **moment** where something made more sense than it did before or something new helped you to better understand?

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Thank You

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