

Quality Improvement Process Using Plan, Do, Study, Act (PDSA) – Planning for Action

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**WE
WILL**

PREVENT PRESSURE ULCERS.
KNOW THE FACTS. TAKE ACTION.

Quality Improvement is not...

- Rocket science



- Too complicated to attempt



- Just more to do



- More red tape



Quality Improvement is...

- Finding the way to do it...
 - Better
 - Faster
 - Easier
- Part of our everyday life

Quality Improvement

- Is used to make improvements to a process
- Focuses on making an entire system's outcomes better by constantly adjusting and improving the system itself, instead of searching out and getting rid of "bad apples"

Think of ways you try to improve your own processes everyday; whether it's caring for your family or doing your work...

Linda's Story

QI Principle

- Your systems are creating your outcomes.
- What you're doing is getting you what you're getting
- To **GET** something different, you have to **DO** something different.

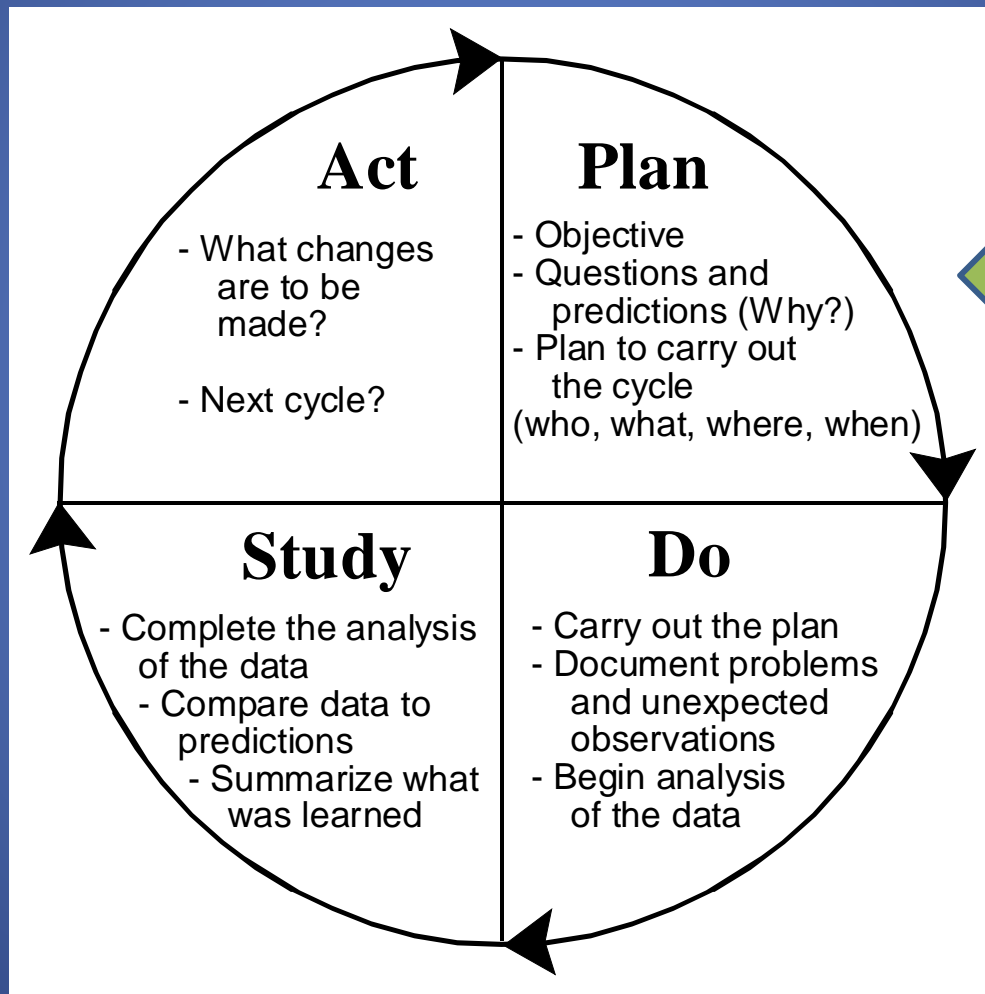
Plan, Do, Study, Act (PDSA)

- Keys to Success
- Collaboration
- Pilot-testing
- Measurement

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Quality Partners of Rhode Island

The PDSA Cycle for Learning and Improvement



Start with
this step



First Question—What are we trying to accomplish?

- Aim content:
 - Explicit over-arching description
 - Specific area of focus (population)
 - Goals
- Aim characteristics:
 - Time specific
 - Measurable
 - Define project unit

The “What” of Pressure Ulcer Prevention: Six Key Interventions

- Conduct a pressure ulcer admission risk assessment for all patients.
- Reassess risk for all patients daily.
- For all patients identified as being at risk for pressure ulcers:
 - Inspect skin daily.
 - Manage moisture: Keep the patient dry and moisturize dry skin.

The “What” of Pressure Ulcer Prevention: Six Key Interventions

- For all patients identified as being at risk for pressure ulcers:
 - Optimize nutrition and hydration.
 - Minimize pressure: Ensure that patients are turned every two hours and use pressure-relieving surfaces.

Nursing Home Pressure Ulcer Self-Assessment Worksheet

(Please submit one form per facility and keep a copy for your team.)

Name of Nursing Home: _____

City or Town: _____

Use this worksheet to review your current processes for preventing and managing pressure ulcers in your nursing home (NH). Use the scale below to mark the box that best describes the frequency for each item.

4 represents that this ALWAYS happens

2 represents that this SELDOM or RARELY happens

3 represents that this FREQUENTLY or USUALLY happens

1 represents that this NEVER happens

| Process | 4 | 3 | 2 | 1 |
|--|---|---|---|---|
| 1 Our NH performs a comprehensive pressure ulcer risk assessment within the first 24 hours of admission. Please indicate what tool: Braden____ Norton____ Other_____ | | | | |
| 2 Our NH performs a head-to-toe skin inspection prior to or at bedtime the day of admission. | | | | |
| 3 Our NH implements interventions that correlate with each identified risk factor after admission risk assessments are performed. | | | | |
| 4 Our NH performs daily skin inspections by the nursing assistants and results are reported to the appropriate staff. | | | | |
| 5 Our NH performs weekly skin assessments by the licensed staff and changes are addressed. | | | | |
| 6 Our NH monitors pressure ulcer risk factors on an ongoing basis... Weekly for the first four weeks after admission _____ With a change of condition _____ Quarterly _____ | | | | |
| 7 Our NH effectively communicates results of both risk assessments and routine skin assessments to all appropriate staff including CNAs. | | | | |
| 8 Our NH informs residents and families about the resident's pressure ulcer risk. | | | | |
| 9 Our NH follows written processes (policies and procedures) for pressure ulcer prevention. | | | | |
| 10 Our NH provides pressure ulcer prevention training as part of the orientation process. | | | | |
| 11 Our NH provides pressure ulcer prevention training/in-servicing on an ongoing basis to all staff. (Fill in how often per year _____) | | | | |
| 12 Our NH educates residents and families about pressure ulcer prevention and how they can help prevent pressure ulcers. | | | | |
| 13 Our NH actively involves residents in care planning. | | | | |
| 14 Our NH actively involves families in care planning. | | | | |
| 15 Our NH involves CNAs in care planning. | | | | |
| 16 Our NH implements policies and procedures/protocols when a new pressure ulcer is identified. | | | | |
| 17 Our NH discusses pressure ulcer treatment options with residents and families to arrive at treatment decisions and keeps them informed of treatment progress. | | | | |
| 18 Our NH uses the PUSH tool for tracking progress on existing pressure ulcers. | | | | |
| 19 Our NH changes pressure ulcer treatments/interventions after two weeks if no improvement is assessed. | | | | |
| 20 Our NH uses decision-making tools to determine the type of support surface needed for individual residents. | | | | |
| 21 Our NH tracks residents with both nosocomial pressure ulcers and those admitted with pressure ulcers. | | | | |

PLAN: *Select your Goals*

- Write down all goals
 - Short-term goals
 - Long-term goals
 - Post-goals
- Write down the goals with a timeline
 - Example: By the end of 3 months, 100% of all newly hired staff will have education on pressure ulcer prevention during their orientation
- Re-evaluate goals periodically

Redesign Your System

- Design “what to change” from findings of the baseline data
- Take one corrective step at a time
- Do not try to solve all the problems at once

Second Question—**How will we know that a change is an improvement?**

- Measure over time using run charts
- Make measurement intervals as short as possible – weekly instead of monthly
- Monitor measurements and change as needed

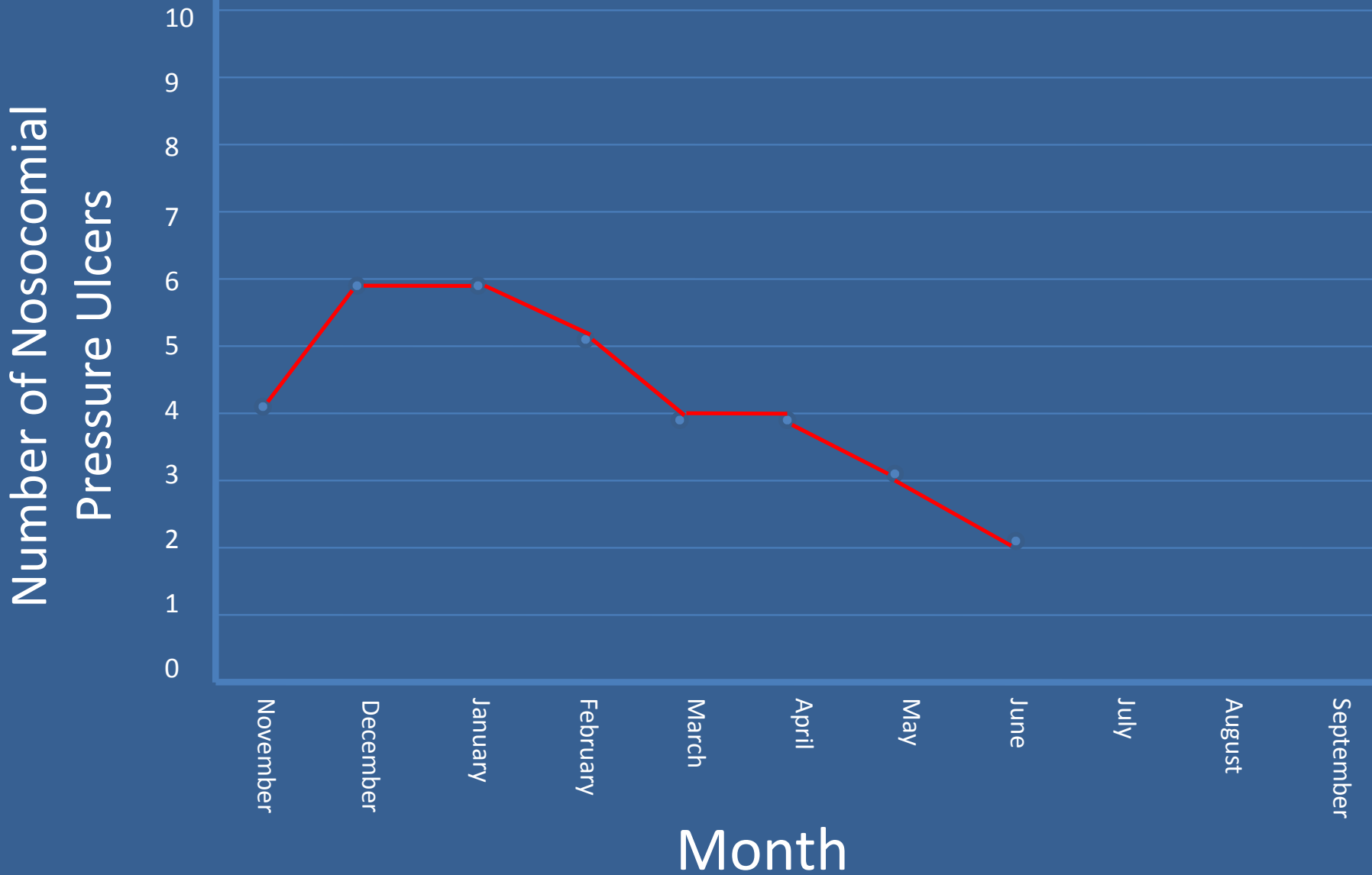
1. Name of Long Term Care Facility _____ City _____
(Please print)

PRESSURE ULCER DATA COLLECTION TOOL _____ Month/Yr _____

| PRESSURE ULCERS PRESENT ON ADMISSION (COMMUNITY-ACQUIRED) | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|
| Resident Identifier (do not use actual names or medical record numbers) | 2. RES ID | | | | | | | | | | |
| | 3. Admit Date | | | | | | | | | | |
| 4. Numbers of pressure ulcers at each stage upon admission | Stage I | | | | | | | | | | |
| | Stage II | | | | | | | | | | |
| | Stage III | | | | | | | | | | |
| | Stage IV | | | | | | | | | | |
| | Unstageable | | | | | | | | | | |
| | Deep tissue injury | | | | | | | | | | |
| 5. PU risk assessment completed upon admission this month | Yes | | | | | | | | | | |
| | No | | | | | | | | | | |
| 6. Resident identified with "risk factors" based on the admission risk assessment. | Yes | | | | | | | | | | |
| | No | | | | | | | | | | |
| | Unknown if not completed upon admission | | | | | | | | | | |
| NOSOCOMIAL (FACILITY-ACQUIRED) PRESSURE ULCERS | | | | | | | | | | | |
| Resident Identifier (do not use actual names or medical record numbers) | 7. RES ID | | | | | | | | | | |
| | 8. Date Found | | | | | | | | | | |
| 9. Number of acquired pressure ulcers at each stage | Stage I | | | | | | | | | | |
| | Stage II | | | | | | | | | | |
| | Stage III | | | | | | | | | | |
| | Stage IV | | | | | | | | | | |
| | Unstageable | | | | | | | | | | |
| | Deep tissue injury | | | | | | | | | | |
| 10. PU risk assessment completed upon discovery of PU | Yes | | | | | | | | | | |
| | No | | | | | | | | | | |
| 11. Resident identified with "risk factors" | Yes | | | | | | | | | | |
| | No | | | | | | | | | | |
| | Unknown if risk assessment not completed upon discovery of the pressure ulcers | | | | | | | | | | |
| 12. Average daily census in long term care facility, even if no pressure ulcers were identified this month _____ | | | | | | | | | | | |
| 13. No pressure ulcers were identified this month <input type="checkbox"/> | | | | | | | | | | | |

14. Team Member completing tool _____ Title _____

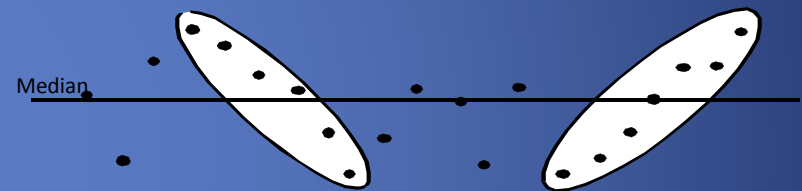
Run Chart



Run Chart: Rules for Identifying Statistically Significant Change

Rule 1

Rule 2



Trend: 5 points in row
headed in same direction
Note: Ties between two consecutive
points don't cancel or add to a trend

DO: *Implement Change*

- Carry out a test
- Pilot test on one unit
- Short period of time
- Small number of residents/patients
- Communicate, educate, and inform all staff about the plan
- Assign one person to be responsible

Why test?

- Increase belief that change will work
- Document how much improvement can be expected from the change
- Learn to adapt change to other conditions/
your environment
- Evaluate costs/side-effects of change
- Minimize resistance to implementation

Testing vs. Implementation

- Testing—Trying and adapting existing knowledge on small scale. Learning what works in your system.
- Implementation—Making this change a part of the day-to-day operation of the system
 - On the pilot unit with the pilot population
 - Not after just one test!

Testing vs. Implementation

- Spread—Taking the change beyond the pilot unit/population
 - Other parts of the organization (Imaging, ER, OR, clinics; to other populations medical, surgical, pediatrics)

Principles for Testing

- Test to evaluate if a new idea or innovation will work
 - “Screening”: Adopt / Adapt / Abandon
- Test small – principle of “oneness”
 - One nurse, one shift, one patient/resident, one change-of-shift report
- Engage those interested in testing
 - “Nurse Friendly” or “Curious Team Member”

Principles for Testing

- Don't wait for a committee approval, go to the committee after you have tested and have some data to support the new changes
- Make a prediction before you test that is a statement of your expectation
 - ✓ Compare result of test to prediction to increase learning

Principles for Testing

- Collect some data that will provide a baseline and ongoing measurement
- Run multiple tests simultaneously
 - Test several things at once: Turn clock, pressure ulcer kits, standard risk assessment tools
 - It takes many tests to build innovation
 - Sequence of tests

Principles for Testing

- Involve other units and multiple stakeholders (emergency department, surgical suite, imaging)

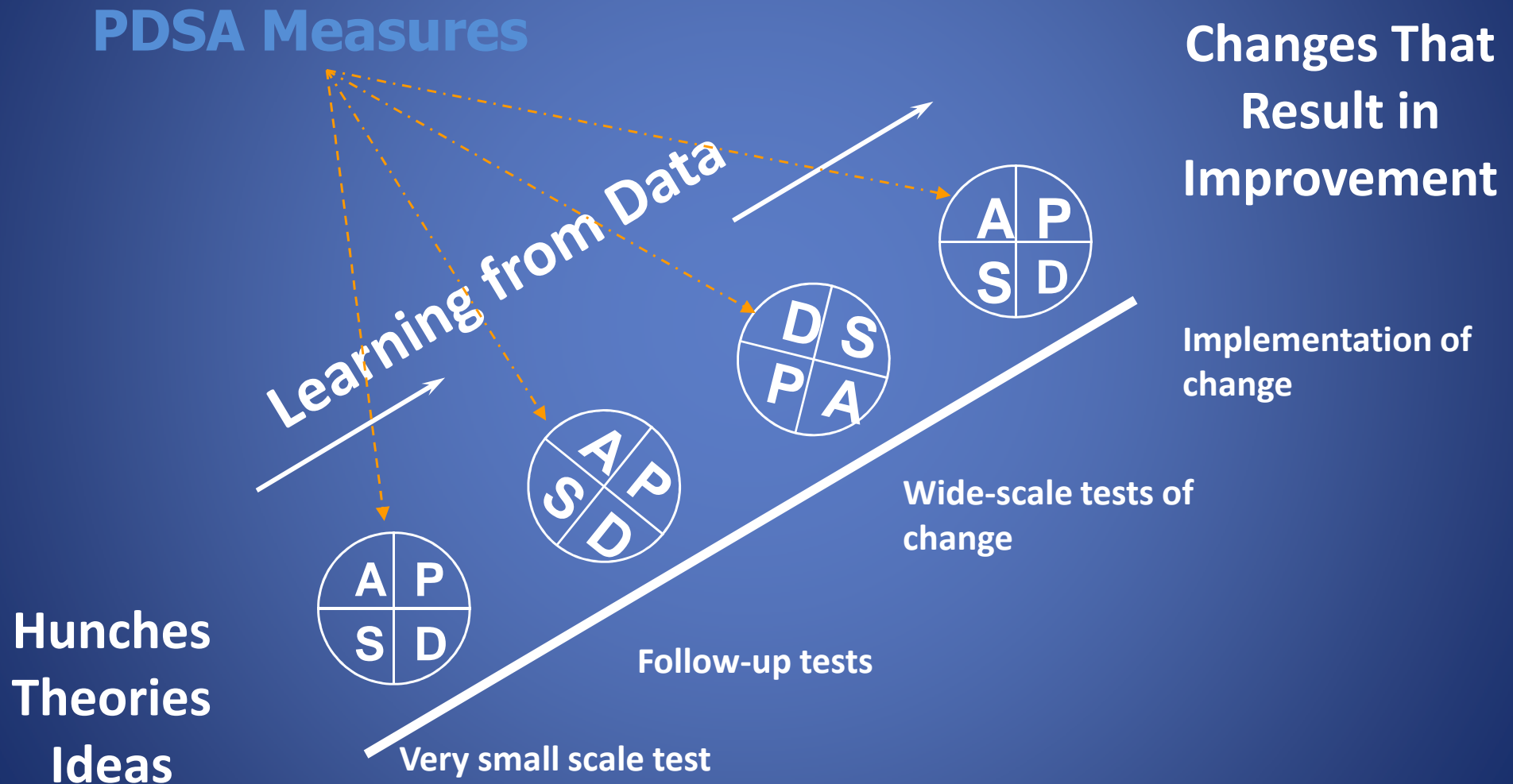
Successful Cycles to Test Changes

- Plan multiple cycles for a test of a change
- Think a couple of cycles ahead
- Initially, scale down size of test (# of patients/ residents, location)
- Test in parallel rather than sequentially
- Test with volunteers

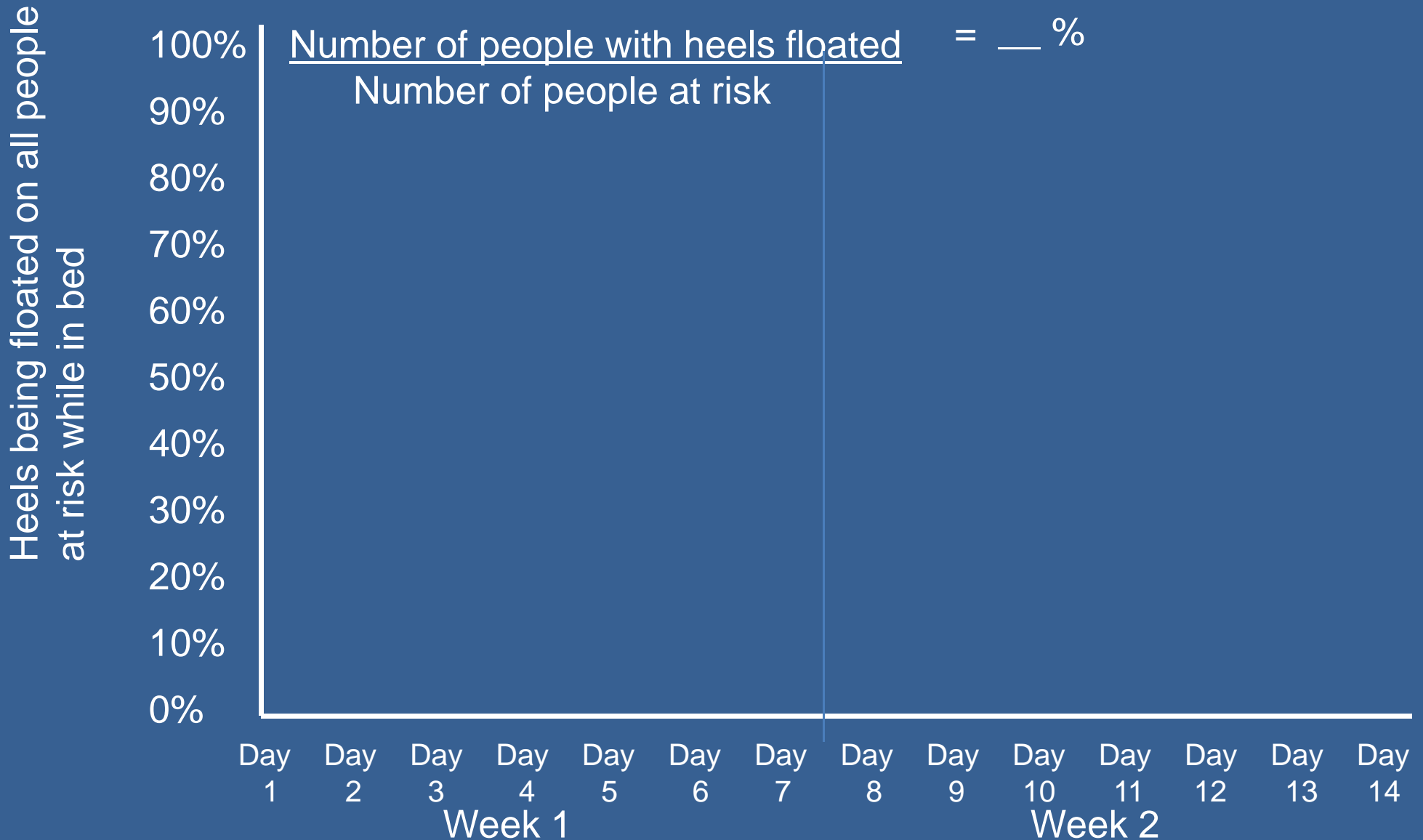
Successful Cycles to Test Changes

- Do not try to get buy-in or consensus for test cycles
- Be innovative to make test feasible
- Collect useful data during each test
- In latter cycles, test over a wide range of conditions

Repeated Use of Cycle



Data for Measurement



Repeated Use of Cycle

PDSA Measures

A physical trigger “green pillowcases” will be successful in ensuring that heels are floated while in bed.

Learning from Data



Heels were being floated while person was in bed.

Implemented facility-wide after one month; re-evaluated every two weeks for three months, then quarterly

Expanded to second unit and tested.

Skin team inserviced staff in all departments to observe use of green pillows and report to the charge nurse when not under heels. Re-evaluation demonstrated all green pillows were under heels.

Use of green pillowcases were trialed on one unit for a week for elevating heels. Evaluation after one week demonstrated that green pillows were being found in wheelchairs, under heads, etc.

Common Interventions That Do Not Work “ALONE”

- New forms
 - Be form neutral—take one away if you add another one
- Staff education
- Posting memos
- Revising policies

Do these things in combination!

Revise and Re-evaluate

- Remember the first interventions do not always work
- Use another PDSA cycle until it works as expected

PDSA Benefit: “It is a Test!”

- You can see “what worked” vs. “what did not”
- Decide on “what should be kept” and “what should not”
- Use theories and ideas to create changes that will result in improvement.

STUDY

- Re-collect the same data and compare against baseline findings
- Evaluate if the process improved as expected
- Summarize lessons and barriers

Evaluate Change

- Was it simple? (Keeping it simple helps ensure that it will continue)
- Were the intervention(s) easily understood and accessible? (Does it make sense and do staff know the why, where, when, and how?)
- Were all the staff aware of the project? (Awareness and input will help in preventing sabotage)

ACT

- Review pilot test evaluation data
- Determine successes and failures—are modifications needed?
- Expand the test to involve other staff
- Adapt, adopt, abandon
 - Adopt—keep the change as tested, make it part of the process

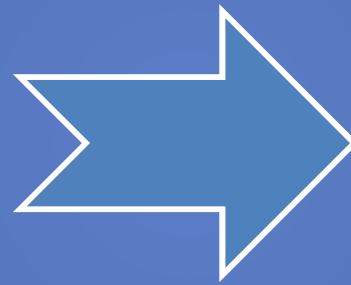
ACT

Adapt, adopt, abandon

- Adapt—make the changes needed to make it workable
- Abandon—let it go, if it didn't work, don't try to keep it (but we've always done it this way)
- Document and report results
- Finalize your system change—spread into each other area requires testing

Change Concept

All
improvement
requires
change...



yet
all change
does not lead
to improvement