Rapid Cycle Improvement (RCI) Training Resource

Health Services Advisory Group (HSAG): End Stage Renal Disease (ESRD) Networks

Agenda

- Practicing quality improvement (QI) in healthcare
- Conducting a root cause analysis (RCA)
- Understanding the “Plan, Do, Study, Act” (PDSA) QI cycle

Practicing QI in Healthcare

QI in Healthcare

- **QI:** Continuous process of identifying problems, examining solutions, and regularly monitoring solutions for improvement.
- View this five-minute video from the Institute for Healthcare Improvement website to better understand the benefits of QI in healthcare.
- Challenges for QI in dialysis:
  - Increasing quality requirements by facility organization, Centers for Medicare & Medicaid Services (CMS), etc.
  - Fear of change: Staff members can be resistant to change or adopting new practices.
  - Additional staff members: QI requires assigning staff members to monitor and measure changes.
  - Time: QI is a process that happens over time and results are not immediate.

Institute for Healthcare Improvement. Dr. Mike Evans Video. Available at http://www.ihi.org/resources/Pages/AudioandVideo/MikeEvansVideoQIHealthCare.aspx. Accessed on December 11, 2019.

QI in Healthcare (cont.)

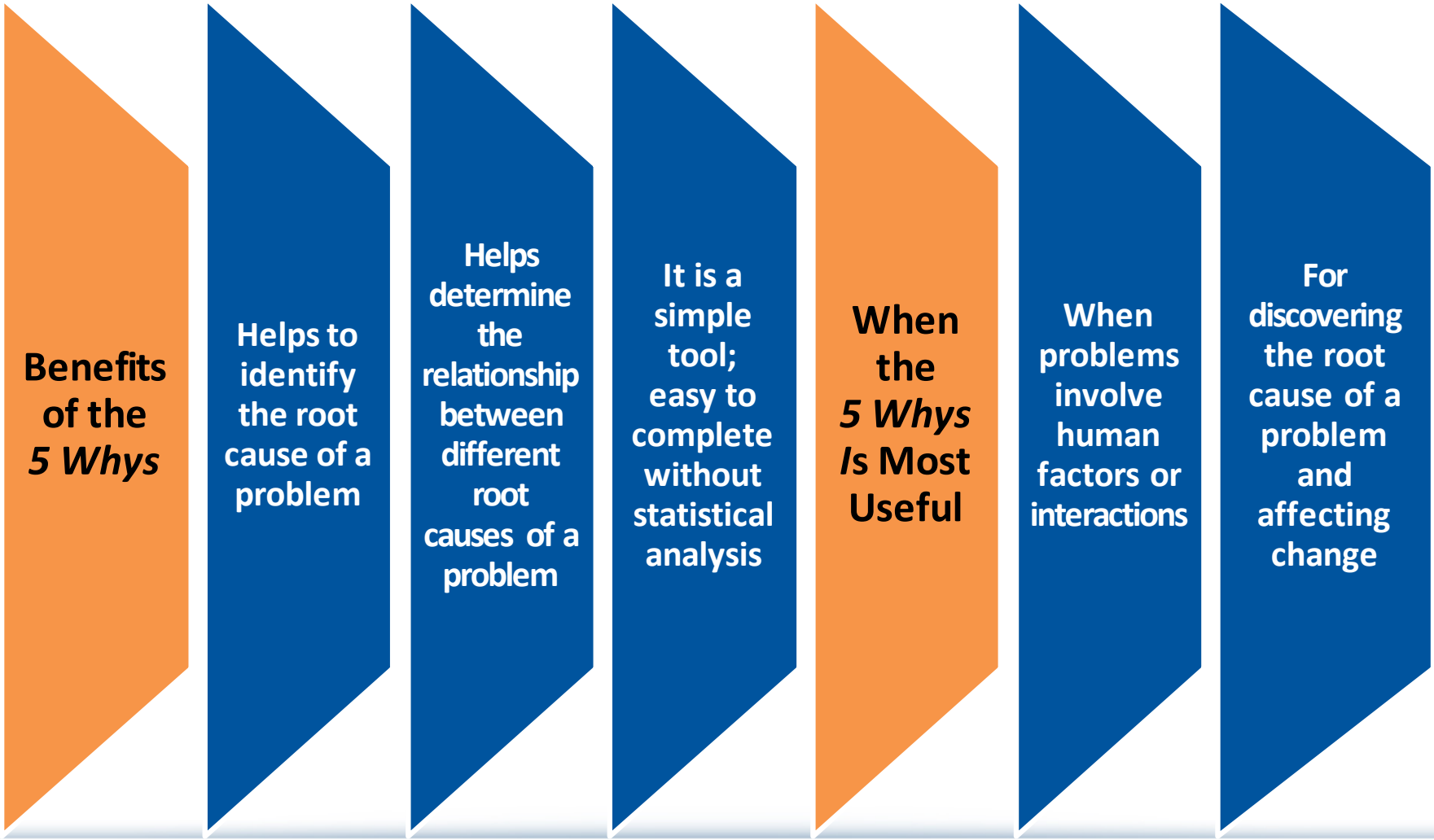
- Consider these questions when making improvements in the dialysis facility:
  - What is the facility going to improve and by how much?
    - Example: Improve staff members' hand hygiene before and after patient care by 30 percent by March 1, 2020.
  - What changes (interventions) can the facility make that will lead to facility improvement?
    - Example: While monitoring hand hygiene practices, install additional soap dispensers or hand sanitizer dispensers or educate staff members on evidence-based research demonstrating the effectiveness of proper hand hygiene.
  - How will you know if changes made by the facility have made an improvement?
    - Example: Nurse manager documents staff member hand hygiene practices or collects staff member hand hygiene self-reporting data.

Conducting an RCA

Conducting an RCA

- **RCA:** A simple, problem-solving technique that helps get to the root of a problem quickly.
  - Institute for Healthcare Improvement's (IHI's) video on conducting an RCA using the *5 Whys* exercise:
    - http://www.ihi.org/resources/Pages/Tools/5-Whys-Finding-the-Root-Cause.aspx
  - CMS *5 Whys* RCA information/tool:
    - https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/downloads/FiveWhys.pdf.

Benefits of Conducting the *5 Whys*



Completing the *5 Whys* RCA

Develop the problem statement. Be clear and specific.

Ask, "***Why did the problem happen?***"

To determine if the response is the root cause of the problem, consider "**If the most recent response were corrected, is it likely the problem would recur?**"

If the answer is **yes**, it is likely this is a **contributing factor**, not a root cause.

If the answer is a **contributing factor** to the problem, keep asking "*Why?*" until the root cause has been identified.

It often takes **three to five whys**, but it can take more than five!

Keep going until the team agrees the **root cause** has been identified.

Completing the *5 Whys* RCA: Example #1

Develop the **problem statement**. Be clear and specific.

Ask, "***Why did the problem happen?***"

It often takes **three to five whys**, but it can take more than five!

Problem statement: There is an increase in long-term catheters (LTCs) in the facility.

Why is there an increase in LTCs in the facility?
Answer: Patients are not being referred for a permanent access in a timely fashion.
Why are patients not being referred for a permanent access in a timely fashion?
Answer: No one in the facility is tracking when patients are being referred for a permanent access.
Why is no one tracking when patients are being referred for a permanent access?
Answer: A vascular access manager or team has not been established in the facility.

Solution: A vascular access manager/team is appointed to track and promptly refer patients for a permanent access.

Completing the *5 Whys* RCA: Example #2

Develop the **problem statement**. Be clear and specific.

Ask, "***Why did the problem happen?***"

It often takes **three to five whys**, but it can take more than five!

Problem statement: There is an increase in central venous catheter (CVC) infections in the facility.

Why is there an increase in CVC infection rates in the facility?
Answer: Newly admitted patients with CVCs are showing up to dialysis treatment with soiled and detached CVC dressings.
Why are new patient admits coming into treatment with a soiled and detached CVC dressings?
Answer: New patients are reporting that no one has educated them on how to care for their CVC.

Solution: A nurse educator is assigned to educate all new patients on how to care for their vascular access site upon admission to the facility and thereafter.

Completing the *5 Whys* RCA: Example #3

Develop the **problem statement**. Be clear and specific.

Ask, "***Why did the problem happen?***"

It often takes **three to five whys**, but it can take more than five!

Problem statement: There are low rates of patients being referred to vocational rehabilitation (VR) services in the facility.
Why are there low rates of VR referrals in your facility?
Answer: Patients are afraid of losing their healthcare benefits.
Why are patients afraid of losing healthcare benefits?
Answer: Patients have not been informed that their Medicare and Medicaid benefits can continue, even if they start working.
Why have patients not been informed about their continuation of benefits?
Answer: Patient educational materials are not available at the facility.
Solution: The facility creates a plan to educate eligible patients about VR services.

Completing the *5 Whys* RCA: Example #4

Develop the **problem statement**. Be clear and specific.

Ask, "***Why did the problem happen?***"

It often takes **three to five whys**, but it can take more than five!

Problem statement: There are low rates of patients being referred for transplant.
Why are there low rates of patients being referred for transplant?
Answer: Existing patients are not interested in being referred for a kidney transplant.
Why are existing patients not interested in being referred for a kidney transplant?
Answer: Existing patients have not been re-educated or recently assessed for readiness since first admitted to the facility.
Why have existing patients not been re-educated or assessed for readiness since first admitted to the facility?
Answer: The facility does not have a process to follow up with existing patients.
Solution: The facility creates a process and tracker for patient follow-up and re-education.

Completing the *5 Whys* RCA: Example #5

Develop the **problem statement**. Be clear and specific.

Ask, "***Why did the problem happen?***"

It often takes **three to five whys**, but it can take more than five!

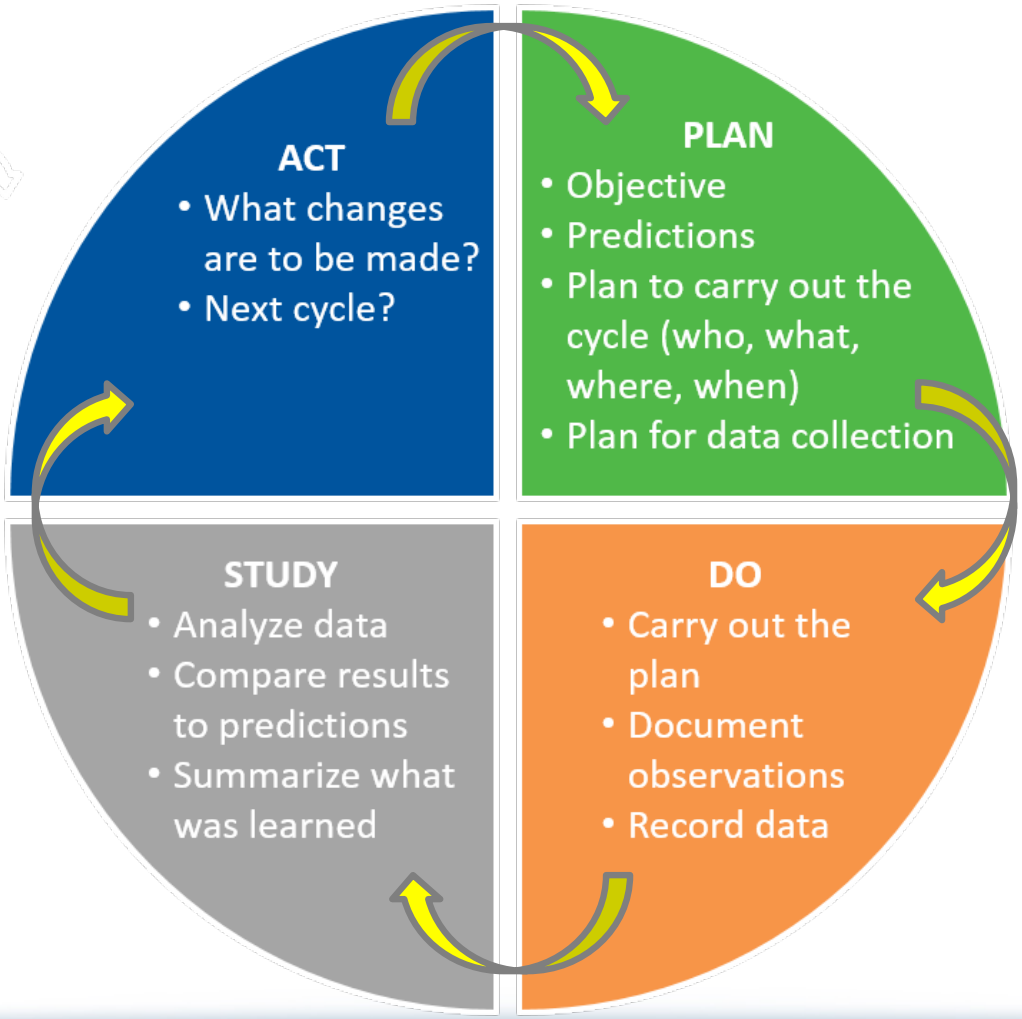
Problem statement: There are low rates of patients being referred to home dialysis.
Why are there low rates of patients being referred to home dialysis?
Answer: Patients are not interested in home dialysis due to misconceptions.
Why are patients not interested in home dialysis due to misconceptions?
Answer: Patients have not been educated about home dialysis to debunk misconceptions.
Why have patients not been educated about home dialysis to debunk misconceptions?
Answer: The facility lacks a staff Home Champion to educate patients about home dialysis to debunk misconceptions.
Solution: The facility identifies a staff Home Champion to educate patients and debunk misconceptions about home dialysis.

Understanding the PDSA Improvement Cycle

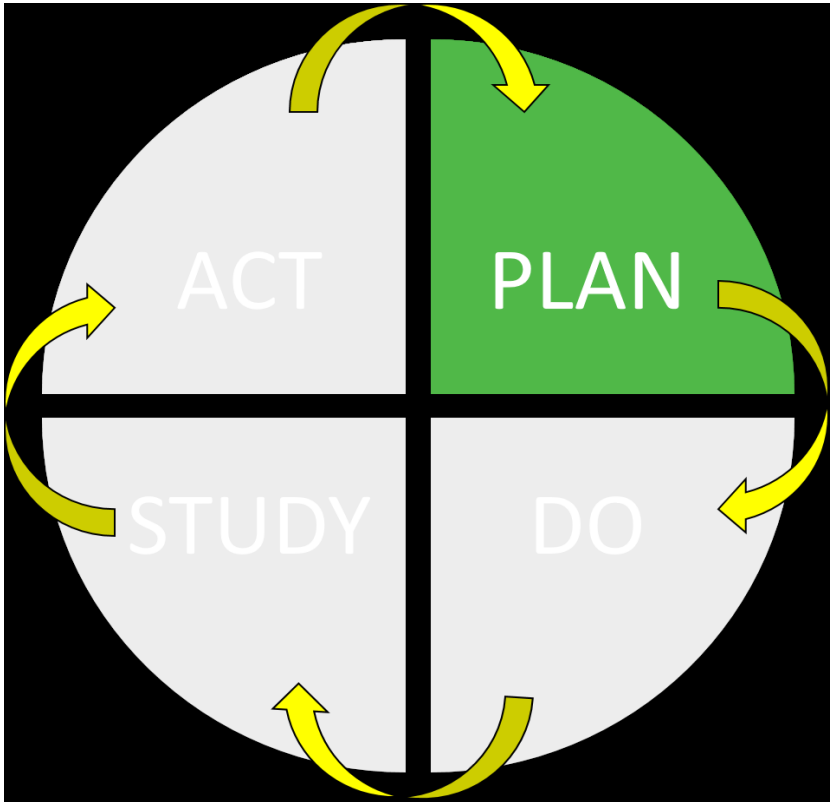
Understanding the PDSA Cycle

- **PDSA:** A method to test if a change that has been implemented in the facility was effective.
  - The PDSA also provides a framework to build on past changes and improvements made in the facility.
- IHI's PDSA cycle video:
  - http://www.ihi.org/education/IHIOpenSchool/resources/Pages/AudioandVideo/Whiteboard5.aspx
- Agency for Healthcare Research and Quality (AHRQ) PDSA cycle information:
  - https://www.ahrq.gov/health-literacy/quality-resources/tools/literacy-toolkit/healthlittoolkit2-tool2b.html.
- National Forum of ESRD Networks PDSA worksheet:
  - https://esrdnetworks.org/resources/toolkits/mac-toolkits-1/catheter-reduction-toolkit/pdsa-worksheet/view.

PDSA Cycle Improvement Model

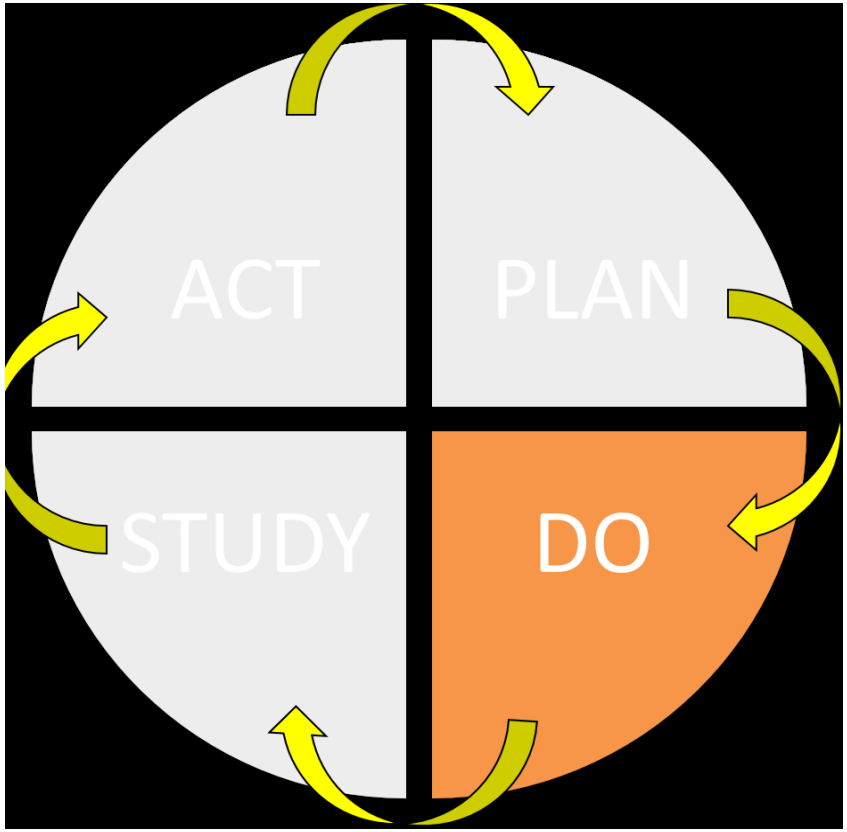


PDSA: Plan



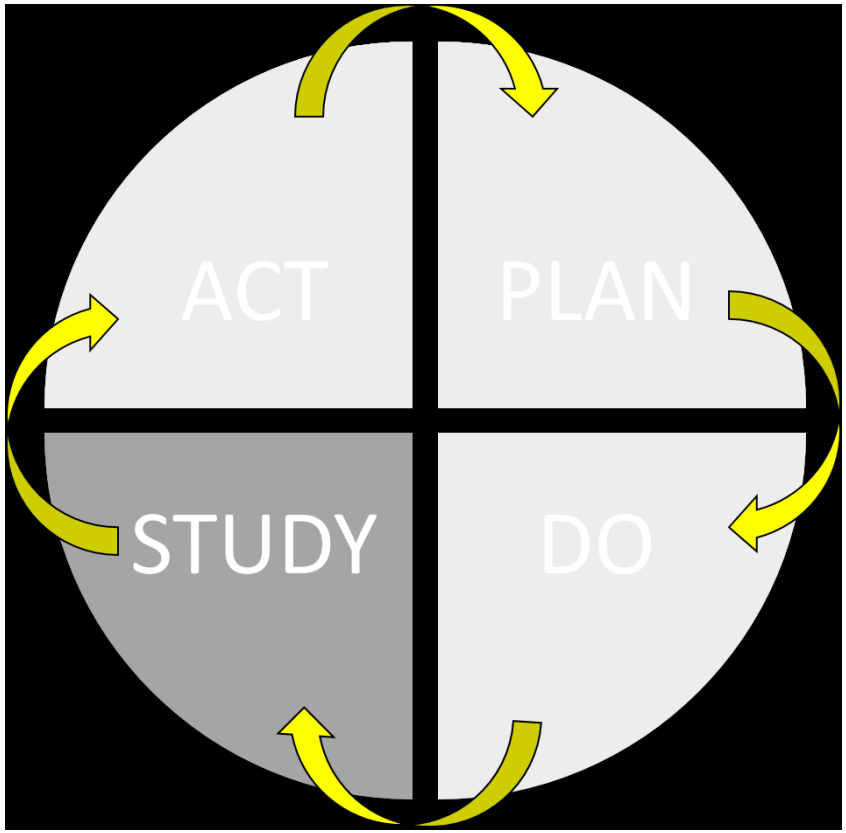
- Make objective predictions.
- Plan to carry out the cycle:
  - Who
  - What
  - Where
  - When

PDSA: Do



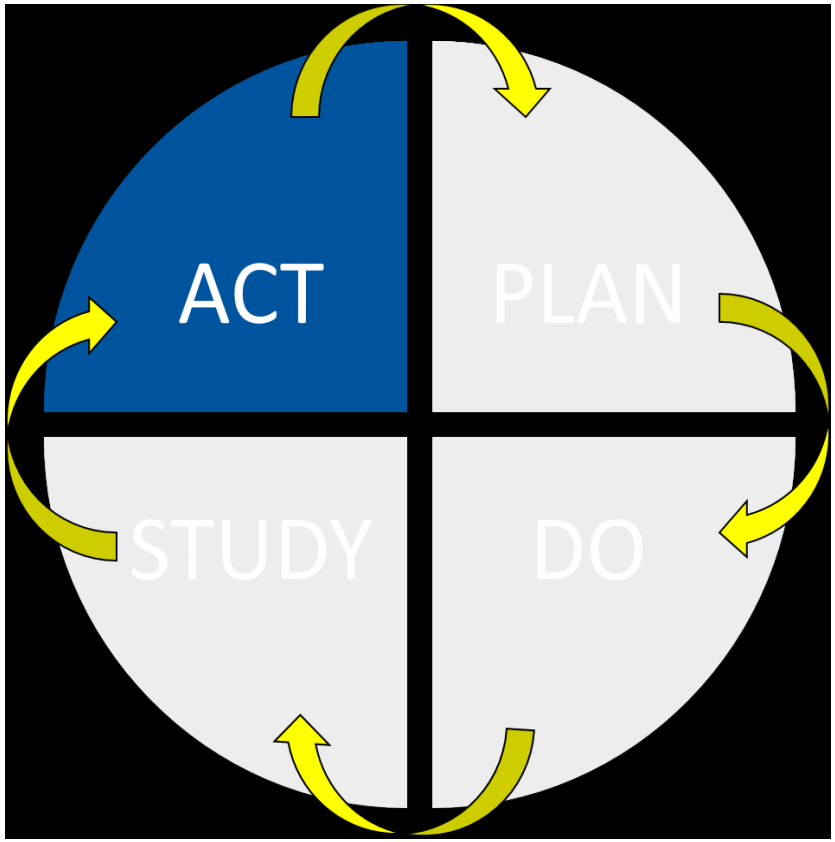
- Implement the plan.
- Document observations.

PDSA: Study



- Compare results to predictions.
- Identify changes to be made in the plan.
- Summarize what was learned.

PDSA: Act



- Make changes.
- Repeat the cycle.

HSAG HEALTH SERVICES ADVISORY GROUP

Thank you!

HSAG ESRD Networks:

https://www.hsag.com/en/esrd-networks/

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