

Changing Systems Curriculum

Step 1: Statement of Aim

The Statement of Aim specifically indicates the goal of the quality improvement initiative.

- What is the specific Aim of the improvement project?
- What specifically is trying to be accomplished?

Characteristics of an Aim:

1. Specific
2. Measurable
3. Addresses health care problem

Example of a Statement of Aim:

To have 75% of patients with diabetes mellitus have a HgbA1C value <7.0 in one year.

This statement is a well-written Aim. Why?

The Aim is measurable and addresses the health care problem.

Are the following examples of Aim Statements "good" or "bad"? Why?

1. Aim: To Improve the health of patients with diabetes mellitus
2. Aim: Reduce length of stay for stroke patients to 5 days or less.
3. Aim: Admit most of the elective patients on the day of surgery.
4. Aim: Lower LDL levels to <100 in patients who have experienced a myocardial infarction.

Data-Based Concepts: Benchmarking

Benchmarking allows you to determine whether the health care services you are providing are meeting a standard of care found in other providers. Benchmarks may include the following examples:

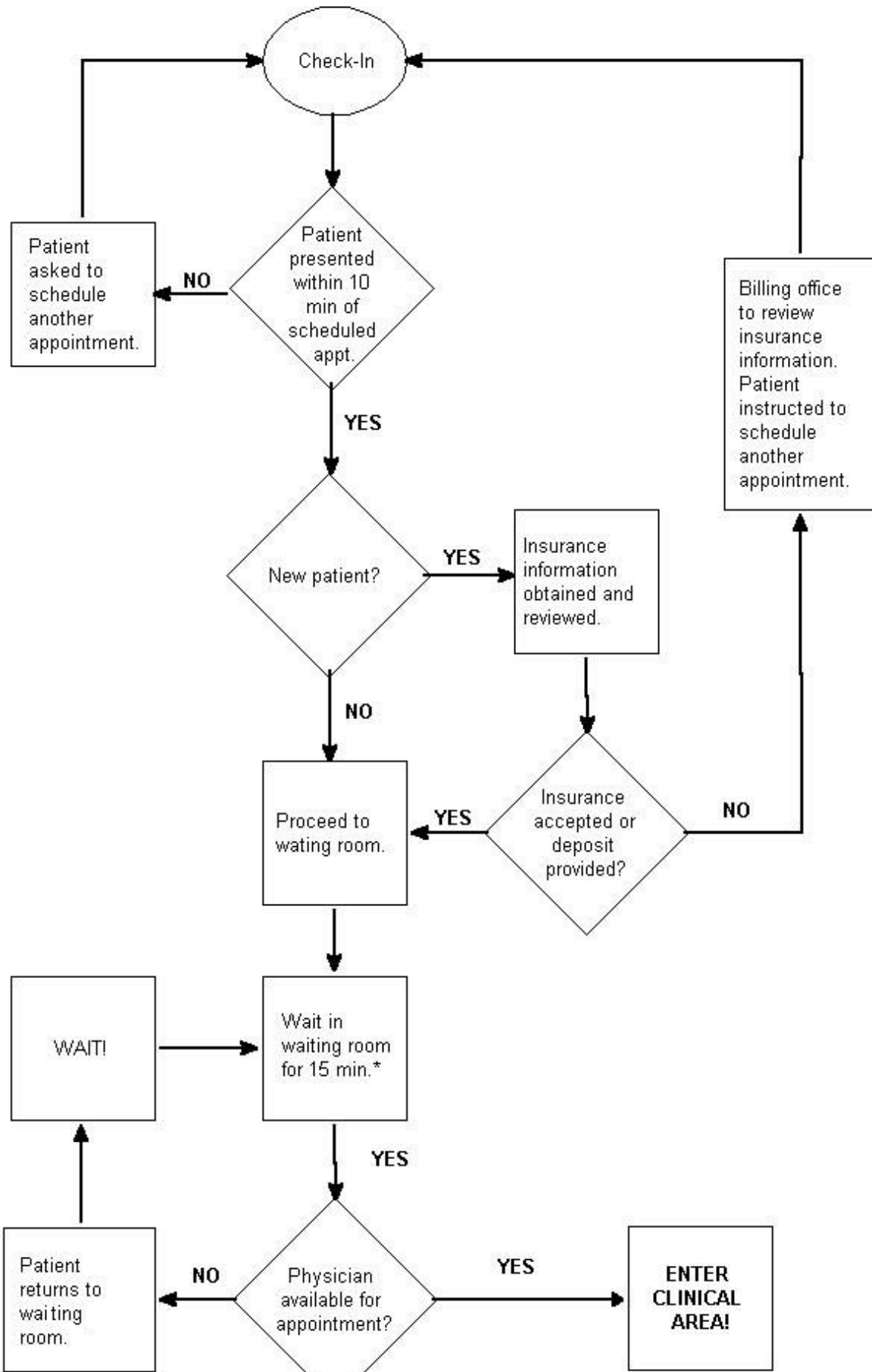
Service	Benchmark
Childhood immunizations	90%
Diabetes mellitus: HgbA1C level during past 3-6 months	75%
Waiting time to see the physician	15 min.

In addition, benchmarks can be goals set as a standard by an organization. The American College of Sports Medicine has set an exercise benchmark: Accumulate at least 30 minutes of moderate exercise on most days of the week.

Need data collection form – simple! Can just be a tick sheet!

Study flow, limiting factors, etc.

Patient Waiting Flowchart



FOCUS and PDSA Method

What is it?

The FOCUS-PDSA Method is a technique commonly used for Quality Improvement initiatives.

Why is it used?

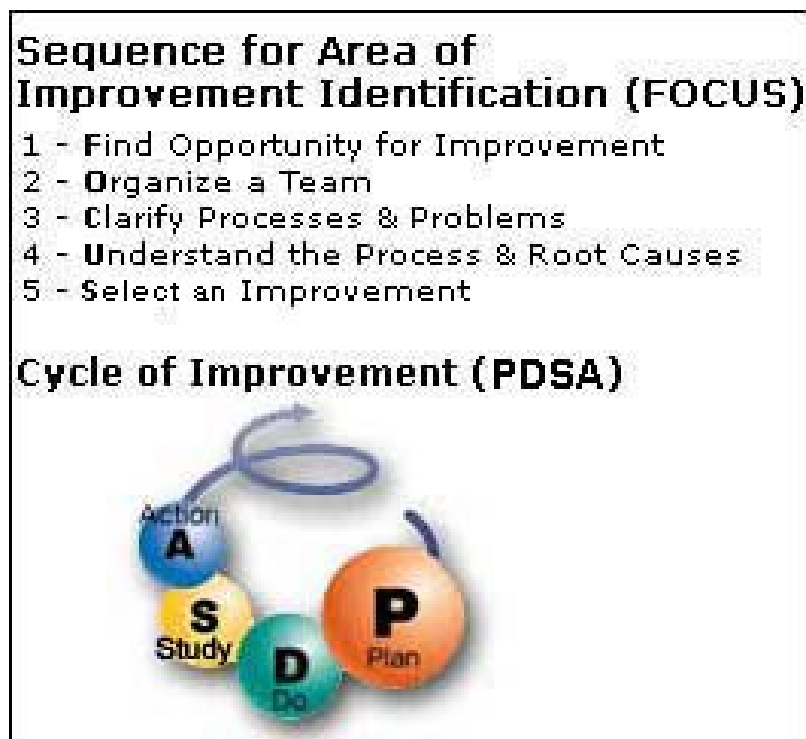
This method can be used to successfully complete the following tasks:

- **Change** how a service is provided based upon data in a common sense approach.
- **Measure** the impact of these changes.

This method is divided into two parts:

Sequence - This is the FOCUS phase. During this phase the team determines the **sequence** for the planned improvement.

Cycle - This is the PDSA phase. During this phase the team continually **cycles** through a process of implementation and review.



FOCUS and PDSA Method

F – Find Opportunity for Improvement.

Projects with the potential for greatest impact should be selected. Criteria for prioritizing Quality Improvement initiatives may include any of the following:

Issue:

- High volume services
- High risk services
- Problem prone services
- New technology
- Customer needs
- Monitored data

Example:

- Heart failure admissions to the hospital
- Evaluation of chest pain in the emergency room
- Medication orders
- Computerized medical records
- Parking, parking, and more parking
- Health maintenance services provided

Additional Examples

1. Patients with Hypertension

In review of patient records, individuals with the diagnosis of hypertension have an average blood pressure (most recent measurement) of 160/99.

AIM: The average blood pressure for patients diagnosed with hypertension presenting to our clinic will be less than 140/90.

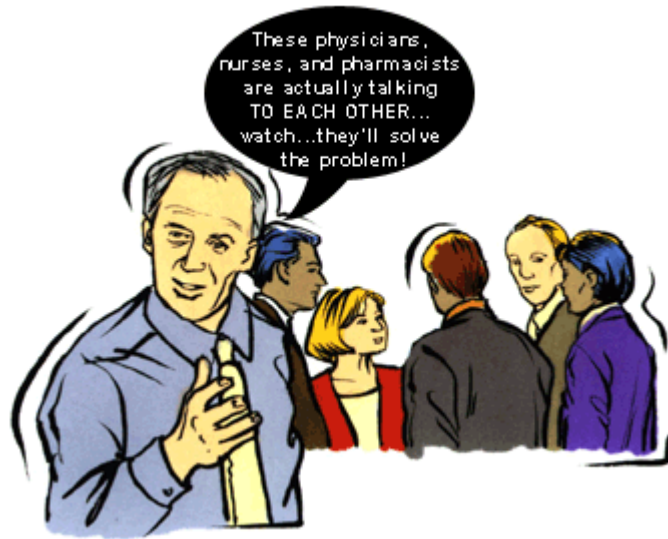
FOCUS and PDSA Method

O – Organize a Team.

Teams are organized to address issues that cannot be resolved by individuals acting alone. As such, effective teams consist of people who possess the following characteristics:

- Daily working experience with the process being addressed.
- Extensive knowledge about the process.

As a result of having these characteristics, the team is in the best position to improve the situation.



Remember: Important processes involve more than one department or discipline in order to provide a service. Teams need to be composed of members with diverse skills and accomplishments focused on one goal (improvement of the service) to be successful.

Example:

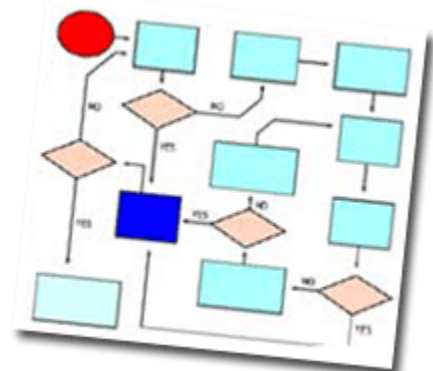
To address the issue of elevated blood pressures in individuals with hypertension, a team composed of several physicians, nurses, and clinical pharmacists was created.

The roles and relationships between team members is an important determinant of team success. As such, individuals working on a team are frequently asked to serve one of two roles:

- **Leader:** The person who is most knowledgeable about the process and goals and accepts overall responsibility for team success.
- **Team members:** Individuals who accept the responsibility of supporting the leader, actively participating in group activities, and remain committed to the successful completion of the aim.
- **FOCUS and PDSA Method**
- **C – Clarify Processes and Problems.**
- To provide consistent information to team members, the current process should be specifically delineated.

A **Flow Chart** is a tool that effectively delineates the steps of a current process.

- **Example:** To clarify the treatment of individuals with hypertension, the process of routine care in the clinic is reviewed by utilizing a flow chart.



FOCUS and PDSA Method

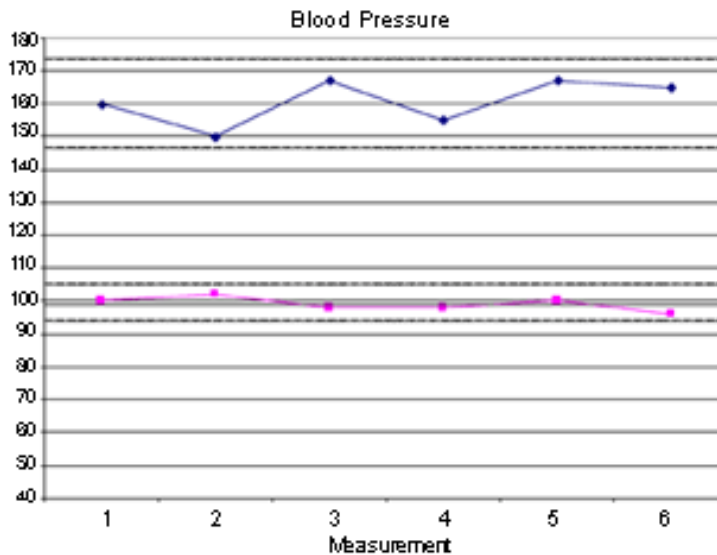
U – Understand the Process and Root Causes of the Problem.

As you track data over time, you can begin to understand the common cause variation as it occurs over time (i.e., if you keep doing what you have done, you will continue to get the same results).

Examples

1. Patients with Hypertension

The average blood pressure for patients diagnosed with hypertension is 160/99. This level has been stable for the past several years. Based upon a chart review, patients appear to present for routine blood pressure evaluation, elevated readings are recorded, and no medication changes are made or other therapies introduced.



FOCUS and PDSA Method

P – Plan the Improvements.

- State the objective of the improvement.
- Plan how the improvements will be implemented and how they will be studied.
- Develop a plan to test the change.
- Identify the individual who will be responsible for implementing each change of the study.

Examples

1. Patients with Hypertension

Physicians will be provided individual information regarding their patients with the diagnosis of hypertension. The last three recorded blood pressures, individual and average, will be provided on a quarterly basis. In addition, medication suggestions will be provided for patients with average blood pressure >140/90.

FOCUS and PDSA Method

D – Do/Implement the Plan.

- What are we learning as we progress with the study?
- Is the data being collected?
- Are the problems and observations being documented?

How is the improvement initiative going?

FOCUS and PDSA Method

S - Study the Results

Examples

1. Patients with Hypertension

Based upon recent information, the average blood pressure for individuals with the diagnosis of hypertension remains >140/90. In review by specific providers, the physicians who have experience with Quality Improvement have markedly improved blood pressure levels in their patients. Those physicians who have demonstrated little or no improvement have no experience in Quality Improvement.

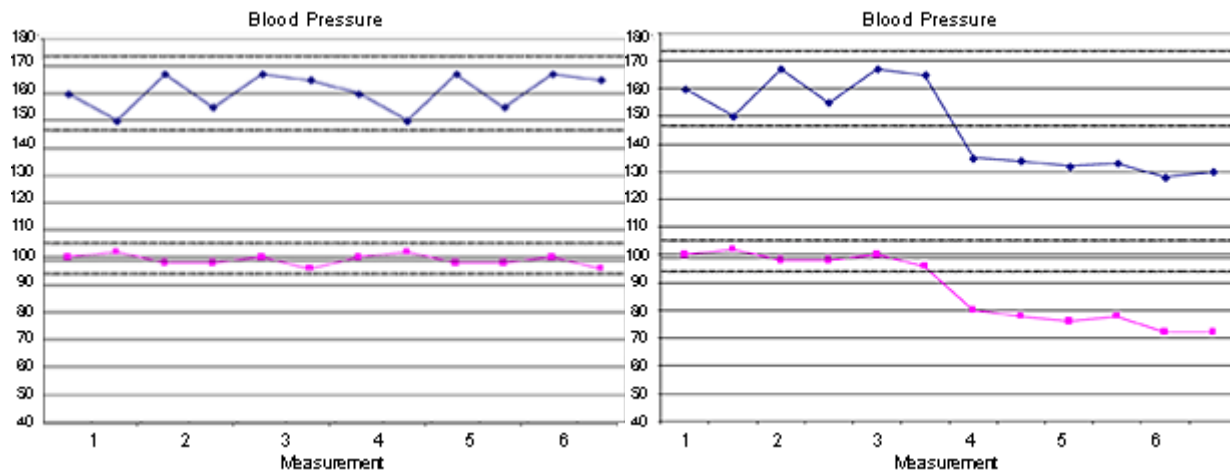


Figure A.

Patients whose physician **does not** practice quality improvement.

Figure B.

Patients whose physician **does** practice quality improvement.

FOCUS and PDSA Method

A – Act on the Findings.

Based upon your findings, another PDSA cycle may be initiated to further improve the process. Remember, these are cycles of trial-and-learning. Despite not making a significant improvement in a process or system, the implementation and subsequent result of an intervention will provide you

Examples

1. Patients with Hypertension

The physicians whose patients with hypertension have an average blood pressure $<140/90$ will receive a financial bonus at the end of the year. Those physicians whose patients with hypertension have an average blood pressure $>140/90$ will be asked to complete the online instructional module on Quality Improvement and recommend an additional Plan for Improvement (see Figures A and B below).

valuable information for subsequent changes.

FOCUS and PDSA Method: Examples

For your review, we have included the following examples of successful Quality Improvement initiatives following the FOCUS-PDSA Method:

Example 1:

- F** **Find Opportunity for Improvement:** Patients with the diagnosis of hypertension should have the most recent blood pressure measurement of <140/90.
- O** **Organize a Team:** Physician, pharmacologist, nurse, receptionist.
- C** **Clarify Processes and Problems:** Using a flowchart, you outline the current process of routine blood pressure follow-up for patients with hypertension.
- U** **Understand the Process and Root Causes:** Based upon review, no interventions occurred despite repeated blood pressures >140/90.
- S** **Select an Improvement:** Optimization of antihypertensive medications.
- P** **Plan:** Monthly, a chart review will be conducted by the pharmacologist. Recommendations for specific antihypertensive medications will be provided to the physician on specific patients by the pharmacologist.
- D** **Do:** The monthly consults are provided.
- S** **Study:** After three months, you note that 75% of patients with hypertension have a recent blood pressure measurement of <140/90.
- A** **Act:** The chart review is incorporated into the daily activities of the practice. Of note, only 60% of the patients with the diagnosis of hypertension have been seen during the past 6 months.

FOCUS and PDSA Method: Examples

Here is another example following the FOCUS-PDSA Method:

Example 2:

- F** Weight loss such that your BMI is 19-25 (or a weight < 195 lbs).
 - O** You, your significant other, and your dog.
 - C** A flow chart of daily activities indicates large meals towards the end of the day and very infrequent physical activity.
 - U** Based upon the measurement of a pedometer, you walk, on average, two miles per day.
 - S** Increase your level of physical activity.
-
- P** On an every other day basis, you will walk your dog (a very energetic pointer) three (3) miles before work in the morning in order to burn an additional 1,500 calories per week.
 - D** You are able to walk on Monday, Tuesday, Thursday, Saturday, and Sunday.
 - S** You construct a control chart and demonstrate a significant increase in miles walked per week.
 - A** In an updated control chart of your weight, you note a weight loss trend. To increase the weight loss, you begin to review your dietary habits. As such, you find an area for improvement and begin the FOCUS PDSA cycle again.



FOCUS and PDSA Method: Examples

Example 3:

- F** Physicians and nurses frequently note that they leave the office late (well after the last appointment time of 4:40 pm and the standard 5:00 pm closing time). This problem causes nurses to work late and increases practice expenses in overtime wages paid.
- O** Physician, nurse, receptionist.
- C** Your team develops a flow chart demonstrating the current process of patient registration (check-in), visit with physician, and check-out.
- U** Using a time study, you note that, on average, the last patient of the day checks-out at 5:30 pm. In addition, you note many over-booked patients, patients arrive late, inconsistent amount of time spent with each patient, etc.
- S** The last patient of the day will check-out before 5:00 pm.
- P** Instead of forcing patients into 15 minute time slots, you determine the average time the physician spends with a patient. Working collectively, the physician, nurse and receptionist have determined that the average patient spends 10 minutes with the physician. In addition, six patients call in wanting to be seen that day.
- D** The schedule is revised to include 10-minute appointments, no overbooking, and 6 appointments left available for the same day patients.
- S** After the revision of the schedule, a time study indicates that the last patient checks-out at 5:10 pm.
- A** An improvement has been made, though the goal not completely reached. To reach the goal, another improvement plan is developed.

FOCUS and PDSA Method: Practice Exercise

Now split into teams and discuss your QI project that you would like to study.

Use the FOCUS technique to define your project.

Use the PDSA cycle to determine your intervention.

F

O

C

U

S

Using the information above, briefly describe a Plan and Do portion of the PDSA cycle that would address a root cause stated above.

P

D

S

A
