

# CSAT TA Package

## Developing and Implementing Continuous Quality Improvement for Treatment Programs

Substance abuse treatment providers like you are facing increasing pressures to do more with less funding and fewer resources. You probably face pressures to increase the quality of services and to reduce program costs. How can you accomplish these goals?

For years, businesses and general health organizations have implemented continuous quality improvement (CQI) techniques as a way to make their organizations more efficient (Deming, 2000; Langley et al., 2009). Integrating CQI strategies into your substance abuse treatment program can help you better manage your resources and help you deliver quality care to your clients.

**About This Guide.** This Technical Assistance (TA) Package was developed by the Center for Substance Abuse Treatment (CSAT) using Government Performance Results Act (GPRA) data to help treatment program management and staff members achieve three main goals: (1) to increase knowledge about CQI techniques, (2) to develop the skills to implement CQI processes, and (3) to evaluate the effectiveness of CQI interventions.

**What Is in This Guide?** This TA Package will guide the reader through key issues related to a CQI approach called the *Process Improvement Model* and:

- Provide a general overview of the CQI process
- Illustrate how the CSAT-GPRA Web site can help identify problems and measure performance
- Demonstrate how to implement a CQI process
- Review factors that ensure successful CQI processes
- Examine suggestions for incorporating CQI into your program

This guide presents a set of CQI strategies that can help you to identify areas to improve in your organization. It also provides strategies that staff members can use to improve the delivery of care to clients. The guide will demonstrate how once you identify key problem areas, you can then identify strategies to improve your program's ability to deliver quality services to your clients.

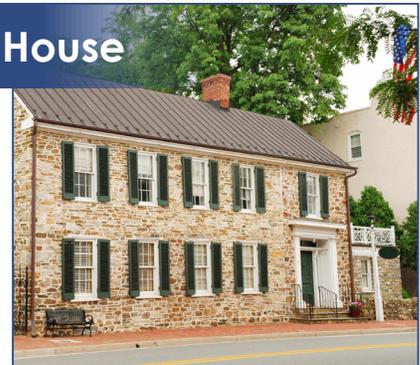
To illustrate an example of the CQI process, this guide will use a hypothetical treatment program called Centerville House, a residential program that provides a wide range of services, including HIV-related education and treatment. Using Centerville House, the guide walks through an example in which the area targeted for improvement is program-level change.

This guide will refer to CSAT-GPRA data and reports, which can be used for CQI. You can access these reports on your program from the CSAT-GPRA Web site if you are a CSAT grantee. If you are not a CSAT grantee, you likely collect the same types of data, can run similar reports as described, and can use this information for CQI initiatives.

All programs can obtain important resources to help develop and implement the CQI process from the Substance Abuse and Mental Health Services Administration (SAMHSA) Web site at [www.samhsa.gov](http://www.samhsa.gov). CSAT grantees can also obtain information from the Government Project Officer.

### Centerville House

- Learn about CQI techniques
- Implement CQI processes
- Evaluate the effectiveness of CQI interventions



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### Part 1: Overview of the CQI Process

There are several approaches and models for implementing CQI. SAMHSA and CSAT have adopted the Process Improvement Model.<sup>1</sup> This model of CQI uses the following four main steps: Plan, Do, Study, and Act (PDSA). (It is often called the *PDSA cycle*.) As illustrated in the graphic below, a core characteristic of the CQI process is that you are continually engaged in improving quality.

### The PDSA Cycle

Each step of the PDSA cycle involves major activities that give you opportunities to involve your staff, include your clients, and to ensure a relevant, doable, and successful improvement process.

#### Plan

- Identify one specific area for improvement at a time.
- Decide on which strategy to use for that specific area of improvement.

#### Do

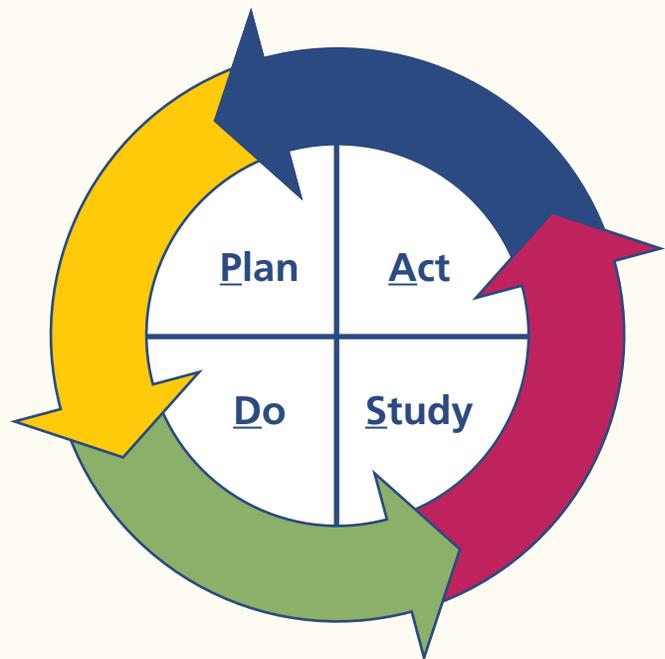
- Implement the planned change in your treatment setting (often on a pilot basis).

#### Study

- Assess the effects, both positive and negative.

#### Act

- Expand implementation if the effort is successful.
- Consider other strategies if the effort is unsuccessful.
- Once this problem has been successfully addressed, identify another area or strategy for improvement.



<sup>1</sup> The NIATx CQI model [www.niatx.net](http://www.niatx.net) (2008) is based on "The Model for Improvement" in Langley et al. (1996), which, in turn, is based on the Deming/Shewhart cycle (Deming, 2000).

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### Part 2: The CSAT-GPRA Web Site: A Tool for Identifying the Problem and Measuring Performance

The CSAT-GPRA Web site can be an important tool in your CQI process. You or your evaluator can generate reports based on your CSAT-GPRA data to help identify an area (or areas) that needs improvement. Using CSAT-GPRA data, you can review your project's performance in relation to:

- Enrollment and retention, using a *6-Month Follow-up Rate Report*
- The types of services your clients are utilizing, using a *Frequency Report*
- The effects of those services on various client outcomes (e.g., abstinence, risk behavior, criminal justice involvement, employment/education, social connectedness), using a *6-Month Follow-up Change Report*

Title	Description	Detailed Description
<a href="#">SBRT Distribution</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">Intake Coverage Report</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">3 Month Follow-up Rate</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">6 Month Follow-up Rate</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">12 Month Follow-up Rate</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">Intake Graph Report</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">Intake/Follow-up Rate Graph Report *NEW*</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">Grantee Delinquency</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">3 Month Follow-up Change Report</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">6 Month Follow-up Change Report</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">12 Month Follow-up Change Report</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">Grantee Cost</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">Summary Cost</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">Frequency Report</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">Cross-tabulations Report</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">Missing Data Frequency Report</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">3 Month Follow-up Notification</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">6 Month Follow-up Notification</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">12 Month Follow-up Notification</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">Combined Intake Coverage/Follow-up Report</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">Poor Performance Report</a>	Synopsis	<a href="#">Detailed Description</a>
<a href="#">Drug Use Report</a>	Synopsis	<a href="#">Detailed Description</a>

You can use the *Frequency Report* to identify the types of clients that appear to be doing better or worse than others. CSAT-GPRA data are great for examining client characteristics at intake and examining whether improvement was sustained at the 6-month follow-up.

You might also want to set short-term goals using your internal program data. Staff and clients are also valuable resources for identifying areas of improvement, brainstorming potential solutions, and providing immediate feedback on the feasibility of potential solutions. Obtaining both staff and client feedback is valuable as you refine your CQI process and look for buy-in to program changes.

### Obtaining Your Reports

CSAT grantees can easily generate and use the data reports described in this TA Package. To do so, login to the CSAT-GPRA Web site at [www.samhsa-gpra.samhsa.gov](http://www.samhsa-gpra.samhsa.gov). Next, select "Reports," and navigate to the Discretionary Services Report Menu. You will have to enter your username and password. You can then view the Discretionary Services Report Menu page.

From this page, you can select from several different reports, including the *6-Month Follow-up Rate Report*, the *6-Month Follow-up Change Report*, the *Frequency Report*, and so on. For each report, you will have to select specific options, such as time span and client characteristics.

The mission of the Government Performance and Results Act (GPRA) of 1992 is to improve the confidence of the American people in the capability of the Federal Government by holding all Federal agencies accountable for achieving program results. Under GPRA law, the Substance Abuse and Mental Health Services Administration (SAMHSA) and its three Centers - the Center for Substance Abuse Treatment (CSAT), the Center for Substance Abuse Prevention (CSAP), and the Center for Mental Health Services (CMHS) - are required to set program-specific performance targets, to measure program performance on a regular basis against those targets, and to report annually to Congress on the Centers' results. In short, GPRA is intended to increase program effectiveness and public accountability by promoting a new focus on results, service quality, and customer satisfaction.

For more CSAT GPRA information contact:  
Toll-free: 1-888-507-9351  
[GPRA Help Desk](#)

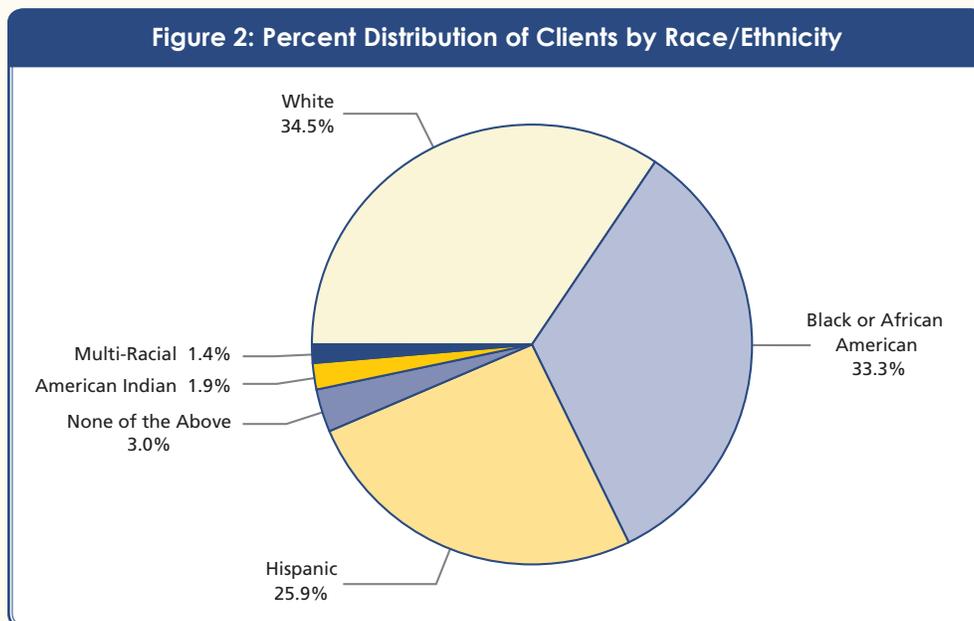
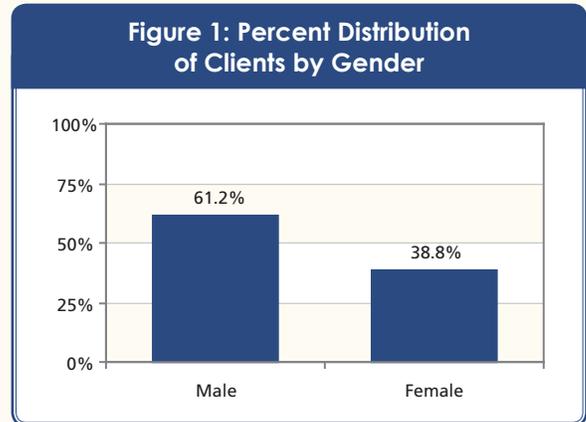
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### Part 3. Implementing the First PDSA Cycle: Organizational Improvement

The following is a step-by-step example of how our hypothetical grantee, Centerville House, used the four-step PDSA CQI process through a treatment improvement cycle. Centerville House is a residential substance abuse treatment program. It serves men and women, providing substance abuse treatment, general educational development (GED) courses, vocational training, recovery support, and aftercare housing.

Centerville House also provides prevention classes, testing, and medical treatment for HIV. It receives CSAT funding through a Targeted Capacity Expansion/HIV grant. It serves a wide range of clients in terms of demographic characteristics and types of substance abuse problems (see Figures 1 and 2; Table 1).



**Table 1: Top 5 Drugs Clients Reported Using at Intake**

Rank	Drugs Used	Percent Reported
1	Any Alcohol	30.2%
2	Cocaine/Crack	19.8%
3	Marijuana/Hashish	17.7%
4	Methamphetamine or other amphetamines	7.3%
5	Oxycontin/Oxycodone	4.4%

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### Step 1. “Plan”: Selecting a Target and Developing Your Strategy

This first step involves identifying a specific target for improvement and then developing an approach to change some aspect of the organization's practices.

**Getting Started—Review the Reports.** On a weekly basis, the director of Centerville House reviews two reports: the *Combined Intake Coverage/Follow-up Report* and the *6-Month Follow-up Change Report*. The director notices that enrollment was excellent at over 100% of the target number, and the follow-up rates were slightly above 80% (Table 2). While the 6-month follow-up rate was good, the director wondered whether some clients were more difficult to retain than others.

Grantee Information	Intake Coverage Rate	6-Month Follow-up Rate
Centerville House	102%	82%

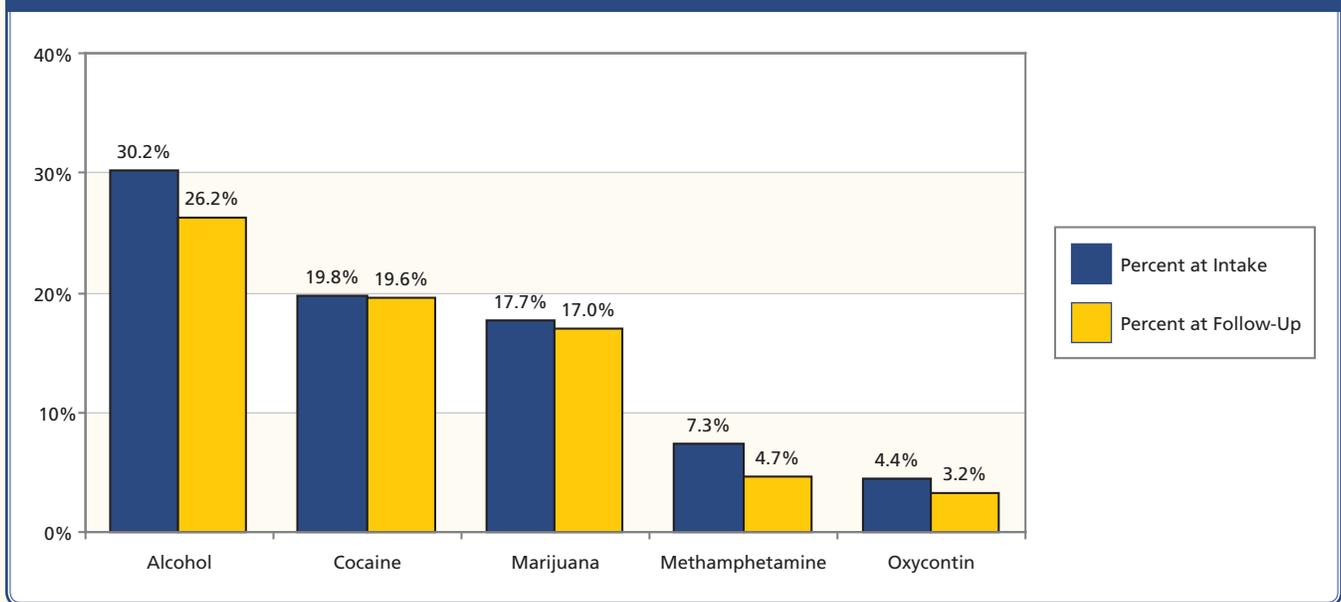
The director then reviewed the CSAT-GPRA outcome measures comparing intake to 6-month follow-up using the *6-Month Follow-up Change Report*. While the director was very pleased at Centerville House's rate of change on several outcomes, the change in abstinence and social connectedness was much lower than the other CSAT-GPRA measures (Table 3).

GPRA Measures	Percent at Intake	Percent at 6 Month Follow-up	Rate of Improvement
Abstinence: Did not use alcohol or illegal drugs	24.3%	32.4%	33.3%
Crime and Criminal Justice: Had no arrests in the past 30 days	50.5%	75.5%	49.5%
Employment/ Education: Were currently employed or attending school	33.6%	71.2%	111.9%
Health/Behavioral/Social Consequences: Experienced no alcohol-related or illegal drug-related health, behavioral, social consequences	40.0%	65.7%	64.3%
Social Connectedness: Were socially connected	60.5%	70.5%	16.5%
Stability in Housing: Had a permanent place to live in the community	28.7%	68.2%	137.6%

**Selecting a Focus for Improvement.** The director shared these reports for discussion at the weekly staff meeting. The program staff first reviewed each of the client outcomes shown on the *6-Month Follow-up Change Report*. The staff were pleased about the data because the data verified that their efforts had reduced many of their clients' risky outcomes. However, the data raised a concern about abstinence and social connectedness. The staff wanted to obtain a better understanding of their population to help target those clients who need more specialized services.

Program staff decided to focus on abstinence first. They ran detailed reports on the specific drugs used at intake and at the 6-month follow-up (see Figure 3). These reports showed that alcohol and other drug use had diminished greatly from intake to the 6-month follow-up but that cocaine use was high at intake and at follow-up. The staff decided that tailoring treatment to clients who had problems remaining abstinent from cocaine use might increase overall abstinence and retention rates.

Figure 3: Alcohol/Drug Type Use at Baseline and 6-Month Follow-up



**Planning a Strategy.** In a brainstorming meeting, counselors identified the need to strengthen services for clients who use cocaine. While Centerville House offered several treatments based on evidence-based practices (EBPs), none focused specifically on reducing cocaine use.

The Centerville House clinical director conducted a review of the EBPs that address cocaine use. She searched SAMHSA's National Registry of Evidence-Based Programs and Practices at [www.nrepp.samhsa.gov](http://www.nrepp.samhsa.gov). Using the keyword "cocaine," the clinical director identified 25 EBPs.

After discussing the different types of interventions with her staff, the clinical director selected one that focuses on skills-building to reduce cocaine use. This intervention uses a 4-week group format, includes a detailed manual, and was developed for implementation in a residential treatment center. It seemed like a good fit for the clients, program, and staff.

### Step 2. "Do": Implementing the Change Plan

This step involves making a specific change in some aspect of your organization's practices to address the problem you identified in Step 1. It includes piloting the new approach and collecting data to evaluate whether the new approach resulted in short-term changes.

At Centerville House, the clinical director trained several counselors to deliver the new manualized treatment. Also, a sample of clients who indicated cocaine use in the past 30 days on the CSAT-GPRA tool at intake were enrolled to participate in a pilot group for 4 weeks. These clients also continued participating in their standard treatment sessions.

The evaluator developed a simple tracking sheet that staff used to record urinalysis results and self-reported cocaine use over the 4-week period (Table 4). The staff also developed sign-in sheets so that they could track group attendance by each participant. At weekly staff meetings, the staff reviewed the progress of implementing the new intervention. They discussed what seemed to be working well with the new intervention and barriers to implementation. They also reviewed other key events that might have an effect on client outcomes, such as staff turnover.

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**Table 4: Tracking Sheet**

Baseline				
Client Name	Date	Attended Session (Y/N)	UR (Pos./Neg.)	S-R Use (Y/N)
Mr. Smith	2/10/2008	Y	+	Yes
Ms. Smith	3/2/2008	Y	+	Yes
Mr. Doe	4/1/2008	Y	+	Yes
Ms. Doe	4/5/2008	Y	+	Yes

Week 1					Week 2			
Client Name	Date	Attended Session (Y/N)	UR (Pos./Neg.)	S-R Use (Y/N)	Date	Attended Session (Y/N)	UR (Pos./Neg.)	S-R Use (Y/N)
Mr. Smith	2/17/2008	Y	+	No	2/24/2008	N	N/A	N/A
Ms. Smith	3/9/2008	N	N/A	N/A	3/16/2008	Y	+	No
Mr. Doe	4/8/2008	Y	-	No	4/15/2008	N	N/A	N/A
Ms. Doe	4/12/2008	Y	+	Yes	4/19/2008	Y	+	Yes

Week 3					Week 4			
Client Name	Date	Attended Session (Y/N)	UR (Pos./Neg.)	S-R Use (Y/N)	Date	Attended Session (Y/N)	UR (Pos./Neg.)	S-R Use (Y/N)
Mr. Smith	2/25/2008	Y	-	No	3/5/2008	Y	-	No
Ms. Smith	3/23/2008	N	N/A	N/A	3/30/2008	Y	-	No
Mr. Doe	4/22/2008	Y	-	No	4/29/2008	Y	-	No
Ms. Doe	4/26/2008	N	N/A	N/A	5/2/2008	Y	-	No

NOTE: S-R = self-reported. UR = Urinalysis.

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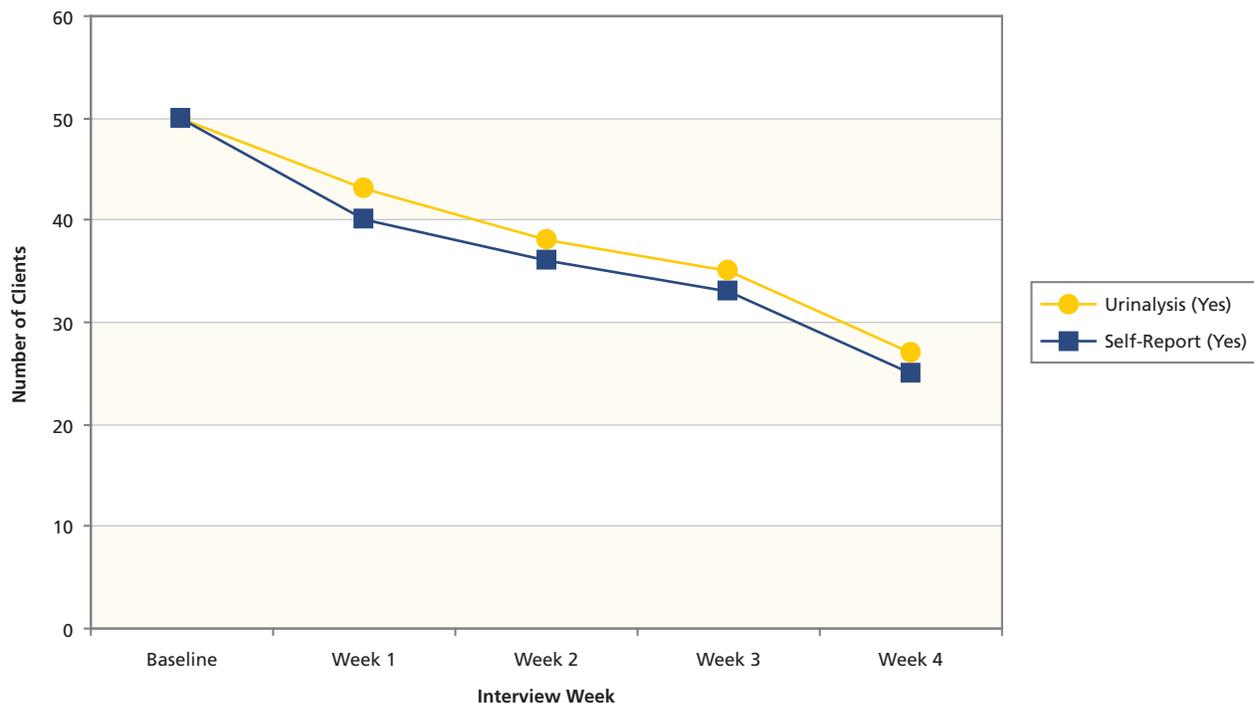
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### Step 3. “Study”: Learning From the Results

The focus of this step is to review the data collected during the “Do” phase to determine if your program has achieved the desired outcome of implementing a change in the program. When looking at their internal tracking data, the staff at Centerville House noticed a decline in both positive urinalyses and self-reports of cocaine use on the tracking sheet.

Program leaders included the client feedback in their weekly group notes and could compile these for staff meetings to discuss progress regarding the group. Clients reported that the coping skills that they were learning were very helpful to reduce their desire to use cocaine. As a result, the intervention was implemented by all counselors in their treatment protocols. The intervention was too costly to implement for all clients. However, the program’s targeting of specific clients did help reduce costs related to tracking and follow-up.

Figure 4: Urinalysis and Self-Reported Change, From Baseline to Week 4



PDSA cycles are focused on rapid changes. However, the Centerville House director also was interested in clients' longer-term outcomes. The CSAT-GPRA 6-Month Follow-up Change Report on outcomes provides a longer-term look at performance data. It does not provide short-term data on how a change is immediately impacting clients. The director plans to track the frequency of cocaine use and change from intake to the 6-month follow-up in order to examine whether the positive outcomes are sustained.

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### Step 4. “Act”: Acting On What You Have Learned

The focus of Step 4 is taking action based on the lessons learned. Indeed, Centerville House staff learned important information from the program-wide implementation and the review of the resulting data. The intervention was very successful for female clients, but not as effective for male clients. With this information, the director and staff decided to continue to use the intervention for women and to explore other options for men who reported using cocaine within the past 30 days at intake.

To do so, the director will once again cycle back to the beginning of the four-step CQI process, starting with Step 1, “Plan.” As Centerville House begins this new round of quality improvement focusing on its cocaine-using male clients, it truly becomes a “continuous” quality improvement program.

During the first cycle of CQI, Centerville House successfully identified, piloted, and evaluated an EBP intervention designed to improve abstinence for clients reporting cocaine use. In the second cycle of CQI, program staff expanded the EBP intervention program-wide and again evaluated the results. In the third cycle, staff will plan, implement, study, and act on a new intervention for their male cocaine-using clients. The results of this future round of CQI will, in turn, inform Centerville House about future improvements that it may seek through this process.

### Part 4. Factors Ensuring Successful CQI

There are several factors that ensure that the CQI process will likely be successful (see Gustafson & Hundt, 1995).

**Involve Staff and Clients.** Centerville House staff reviewed their CSAT-GPRA reports to see how they were doing in relation to process measures, such as enrollment, tracking, and how clients were doing in relation to CSAT-GPRA client behavior outcomes. However, these data only tell part of the story. Thus, it is critical to gather information from staff and clients at all points in the process. This information can be obtained informally or through formal techniques, such as focus groups and feedback surveys.

**Focus on Key Problems First.** What are the problems that are of the greatest concern to staff, administrators, and clients? Centerville House chose a problem that was central to client success—the key outcome measure of abstinence. The program staff also chose a target group that formed a large proportion of their overall set of clients—clients reporting cocaine use at intake.

**Select a Change Leader.** Identify an individual to coordinate each CQI effort. Centerville House had a licensed director and clinical supervisor available to co-lead the CQI effort and lead the staff in the change process. The director and clinical supervisor did this by providing training and ongoing supervision of the counselors and overseeing the successful implementation of the new intervention.

**Get Ideas From Outside the Organization and the Field.** Which of your partners have succeeded in areas where you would like to improve? How did they do it? Are there other grantees that may have experience making the improvements you would like to make? Do your staff members or program alumni have suggestions? In our example, Centerville House reviewed the SAMHSA EBPs that were suitable for the problem it wanted to address and convened a staff meeting to review and select the intervention that seemed most appropriate for its clients, program, and staff.

**Examine Sustainability of Changes.** The CQI process is focused on rapid assessment, testing, and implementation of successful strategies. To be most efficient, it is useful to find out if the changes you made were sustained and thus a good investment of your resources. Centerville House reviewed the 6 month change rates for cocaine-using clients and identified a reduction in their cocaine use. Program staff also examined follow-up outcome rates for each quarter over the next year for clients who tested positive for cocaine use at baseline and subsequently attended the group.

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### Part 5. Review of the PDSA Cycle

As you can see, the PDSA cycle is a useful tool that treatment program staff can use to turn ideas for change into actions. The PDSA model is simple in structure and natural in execution. It uses a natural flow of information gathering, decisionmaking, action, and assessment. It involves a series of short rapid cycles, with each cycle from planning through implementation taking only a couple of weeks.

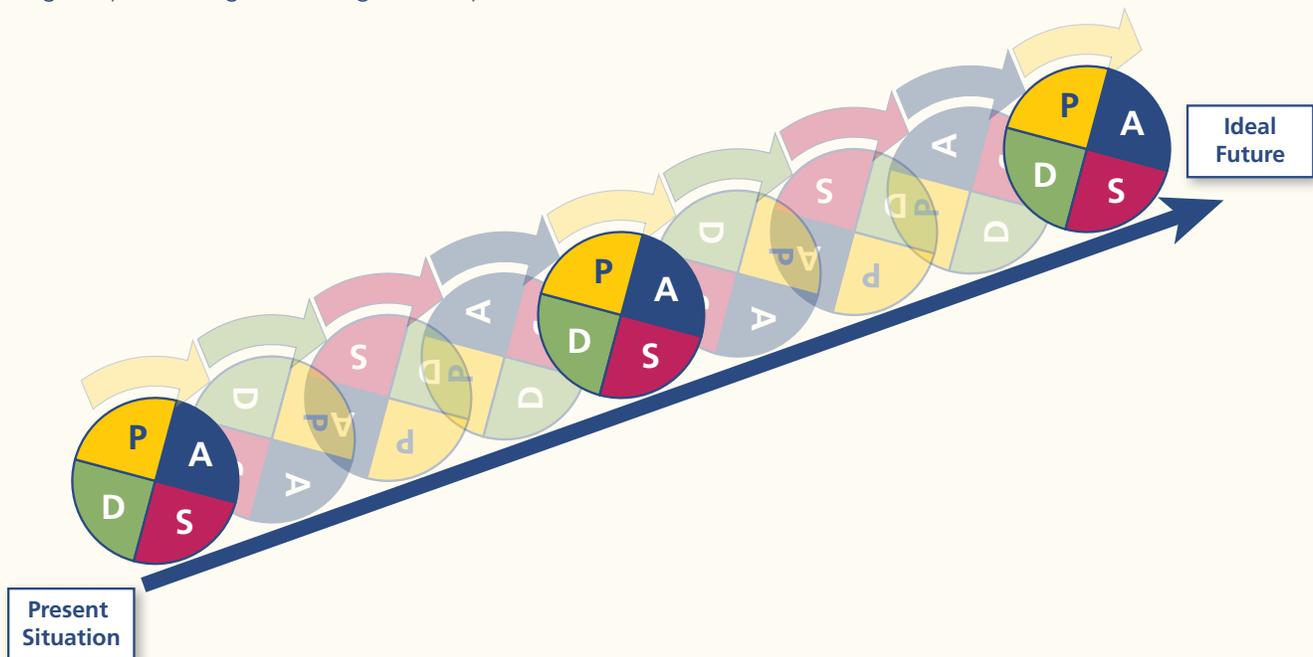
The results of each change cycle are compared to baseline measurements to ensure that the change is actually an improvement. Only when a change cycle results in a significant improvement in the existing process is the change fully implemented.

Using the PDSA model to test changes can help you do the following:

- Minimize risks, resources, and time
- Reduce disruptions to clients and staff while making changes
- Promote acceptance and reduce resistance to change by starting on a small scale
- Learn from both the ideas that succeed and those that do not

By starting with small changes to test ideas quickly and easily, and by using simple measurements to monitor the effects of changes over time, the PDSA model can lead to larger improvements through successive quick cycles of change.

Importantly, the PDSA approach is not meant to be a single event. Rather, it is meant to be a series of short, rapid cycles that can eventually lead to large and meaningful improvements. This means not doing it once, but rather using the process again and again until your desired results have been achieved.



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### How to Incorporate CQI Improvement into Your Program

Incorporating a CQI process into your program may seem overwhelming at first. However, the PDSA CQI model is simple in structure and natural in execution. It can be helpful to consider a few key questions that you might ask at each stage in the PDSA cycle.

#### Step 1. “Plan”: Select a Target and Develop Your Strategy

You can use outcome data and reports to help you identify and select a target. You might ask the following questions:

- What are the characteristics of clients entering our program?
- What types of services are our clients using?
- How do the services we provide impact client outcomes, such as abstinence, risky behaviors, criminal justice involvement, employment/education, social connectedness, and housing?
- Are we successful at retaining our clients?

Once a target has been selected, brainstorm with your team:

- Can we influence this outcome?
- What potential strategies might we use to address this type of issue?

#### Step 2. “Do”: Implement the Change Plan

To implement a change, you may want to consider the following questions:

- What do we need to do to implement our intervention?
- What are our staffing and training needs related to the intervention?
- How can we effectively track results?

#### Step 3. “Study”: Learn From the Results

Your change plan should include a plan to track results. At this stage, you might ask:

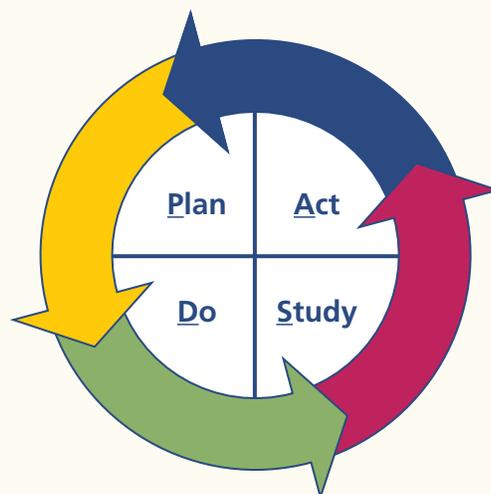
- What can the data collected specifically for this intervention tell us about the short-term effects?
- What can CSAT-GPRA or other data collection tell us about the long-term effects of the intervention?

#### Step 4. “Act”: Act On What You Have Learned

After studying the results, the next step is to take action on what you have learned:

- If the change you made on a pilot basis was successful, you may then choose to fully implement the strategy.
- If you think the change can be further improved, you may go back to Step 1, “Plan,” to modify your strategy.
- If the change was unsuccessful, you may discontinue the intervention.

The PDSA cycle of CQI is designed to constantly improve quality. There is always room for improvement. As in our Centerville House example, there is unlimited potential for quality improvement in your organization.



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