



Introduction to Process Improvement

This Primer provides guidance for behavioral health treatment agencies to use in changing their organizations to improve access and retention. Some of the guidance offered here is based on evidence showing what factors lead to successful organizational change, and some guidance is based on the need to create a common framework to allow efficient communication within and among organizations. The improvement process being used relies heavily on The Model for Improvement in *The Improvement Guide*, by Langley, Nolan, Nolan, Norman, and Provost, San Francisco, Jossey-Bass Publishers, 1996. The guidance in this primer is also consistent with the approaches found in *The Change Book*, by the Addiction Technology Transfer Center (ATTC) National Network, and the Program Change Model, by Simpson, D.D. in the *Journal of Substance Abuse Treatment*, 22(4), 171–182.

Background

Organizations exist, and therefore change, to serve customers. Customers are served by the organization's processes - the series of action steps taken to convert inputs into outcomes. 85 percent of the problems that organizations have in serving customers are caused by their processes. Therefore, *to change an organization to better serve customers, it should solve problems that will improve its processes.*

- *Customer* is used broadly to include clients, families and friends, referral sources, payers, and the community. A distinction is often made between these customers, who are external to the organization, and the staff and departments within the organization, who are internal customers. The focus here is primarily on external customers, although both are critical to the success of an organizational change. We typically view staff as providers and clients as customers. But from the point of view of the process, staff and clients are both part of the process and are both customers and providers at various steps in the process.
- *Problems* in a process are discrepancies, or gaps, between actual and desired performance, e.g., process takes too long, process does not take long enough, missteps happen too often, or important steps do not occur often enough. Problems are solved by making changes that close the gaps.
- All *processes* have inputs, steps, and outcomes, for which data can be collected, measurements can be made, and changes can be developed and tested to lead to improvement.

What really matters for successful organizational change?

Solving problems with organizational processes is the same as solving any problem:

- Define the problem
- Generate solutions
- Implement solutions
- Evaluate solutions
- Repeat the four steps above until the problem is solved

If it is this straightforward, what keeps organizations from improving? What really matters for an innovative change to be successfully made and sustained in an organization? To answer the question, we turned to the evidence accumulated by studies that have examined 80 different factors across 640 companies in 13 different industries to isolate those factors that distinguish successful organizations from less successful ones (Gustafson and Hundt, 1995). It turns out only five factors matter:



1. Understand and involve the customer

This is by far the most important factor. Do not assume the customer's needs are known or are being met. Actively involve the customer in the development of the improvement. Make sure the improvement is noticeable to the customer and that it will meet one of the customer's key needs. Survey customers on a regular basis. Educate customers about new improvements.

2. Fix key problems (that let the CEO sleep at night)

What is keeping the CEO awake at night? The research indicates that it is crucial to select a project that addresses a key organizational goal. If the project can help CEOs sleep better, they will actively support the project and do everything in their power to make the project a success.

3. Pick a powerful change leader

The literature clearly shows that if you want to improve something, the person in charge of improving it must have power, prestige, and influence in the organization. They must also understand and respect the needs of the staff members (internal customers) who will be involved in the implementation process. Change leaders with inadequate time dedicated to their change leader role are not as effective.

4. Get ideas from outside the organization/field

This doesn't mean that outsiders or experts have all the answers; rather, it draws attention to the importance of learning from others' successes and failures. Looking outside the organization is an efficient way to find fresh ideas—the kinds of ideas that lay the foundation for a tailored and truly innovative improvement.

5. Use rapid-cycle testing

Pilot test all changes with clients to make sure they really are an improvement and that they make things better for the staff, not worse. Do not implement changes until you know they work. This process often requires several tries or cycles before all the bugs or errors are resolved. This is common—rarely is a change perfect upon the first try.

That's it. These five principles make the difference between successful and unsuccessful organizational changes.

A model for improvement

If these five principles are what really matter when making innovative changes in organizations, how can they be integrated into a problem-solving process for improving organizations? The Network for the Improvement of Addiction Treatment (NIATx) has developed several tools to guide organizations as they begin to apply these five principles.

Understand and involve the customer:

Conduct a walk-through exercise, experiencing access to your organization from the viewpoint of two customers: the client and a family member. Observe and identify the strengths and weaknesses of the



process from the customer's point of view. The Nominal Group Technique, a tool that promotes group participation in the decision making process, is another means of soliciting customer input. Including customers on your change teams is another effective way of meaningfully involving the customer.

Fix key problems (and let the CEO sleep at night):

Getting the commitment from the CEO or another Executive Sponsor is key. Work with them to identify problems to address. (See the NIATx Role of the Executive Sponsor for additional guidance.)

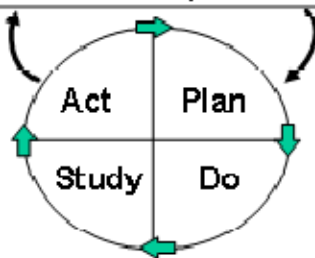
Pick a powerful change leader:

Make sure they have the influence in the organization to get problems solved. (See the NIATx Role of the Change Leader for additional guidance.)

As an integrating device for tying the last two principles together, we highly recommend using the Model for Improvement by Langley, Nolan, et al. It is both simple and flexible.

Model for Improvement

- 1. What are we trying to accomplish?**
- 2. How will we know that a change is an improvement?**
- 3. What changes can we test that will result in an improvement?**



Reference: Langley, Nolan, Nolan, Norman, & Provost. *The Improvement Guide*, San Francisco, Jossey-Bass Publishers, 1996.

Ask three fundamental questions:

1. What are we trying to accomplish?
2. How will we know if a change is an improvement?
3. What changes can we test that may result in an improvement?



And once a promising change has been identified, rapidly use the Plan-Do-Study-Act (PDSA) Cycle to turn a change idea into action. How does this Model for Improvement apply to NIATx or other addiction treatment or behavioral healthcare agencies? Look at each fundamental question and the PDSA Cycle:

1. What are we trying to accomplish?

The aims of NIATx are below. The aims of your agency may be somewhat different, but the aims should always be clearly defined.

- Reduce waiting time between the first request for service to the first treatment session
- Reduce the number of patients who do not keep an appointment
- Increase the number of people admitted to treatment
- Increase the period that patients stay engaged in treatment

2. How will we know if a change is an improvement?

It is important to collect baseline data prior to starting a change cycle. (See the NIATx Primer on Measurement for guidance.)

The average number of days between the first request for service and the first treatment session will decrease.

- The percentage of appointments that clients do not keep will decrease
- The number of admissions will increase
- The percentage of clients who make an initial request for service and continue through assessment and multiple prescribed treatment sessions will increase

3. What changes can we test that may result in an improvement?

Use what you learned in Walk-through exercises (See the NIATx Conducting a Walk-through guide for guidance) to identify problems in processes within your organization from the clients' point of view. Consider changes to test based on that experience. Prior to starting, you should decide the parameters of the change project, including where (e.g., location) you wish to introduce the change, as well which clients (e.g., level of care, population) you expect to impact.

The PDSA Cycle

The PDSA Cycle is an efficient way to learn what will work in your organization, and should be the foundation of every change you make. The PDSA Cycle begins with a Plan, and ends with Action based on the learning gained from the Plan, Do, and Study phases of the cycle:

(P)lan the change or test. What is the aim of the test, and how will we know if the change being tested is an improvement? What do we predict will happen? What steps are needed to prepare for the test, (who, what where, when)?

(D)o the plan. Document problems and unexpected observations. Begin to analyze the data.



(S)tudy the results. Complete the analysis of the data. Compare the actual results to the predicted results. Has the change resulted in an improvement? Why or why not? Summarize what has been learned.

(A)ct on the new knowledge. Should the change be increased in scope or tested under different conditions? Should the change be adopted, adapted, or abandoned? What will be the next cycle?

Get ideas from outside the organization/field:

In thinking of ideas to test, remember to look for innovative ideas outside of the organization, even outside the addiction treatment field. NIATx convened a meeting of experts, both inside and outside the field, to identify potentially promising practices to be tested. The promising practices have been categorized around nine paths, and suggestions for each of the following are available online:

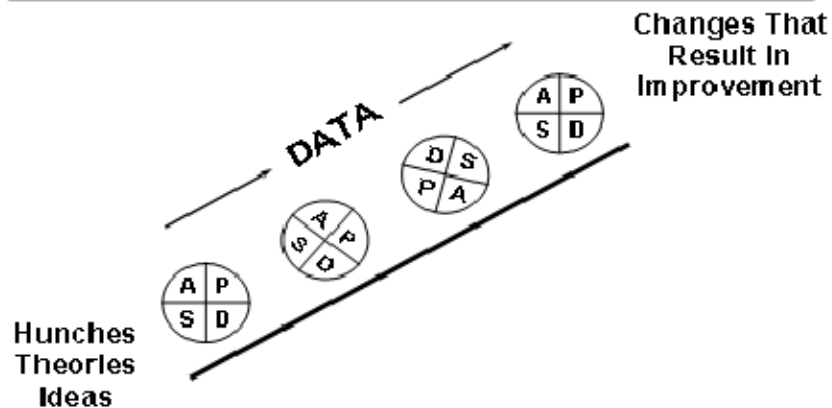
- Outreach
- First request for service
- Intake
- Moving patients into and through appropriate levels of care
- Therapeutic engagement
- Paperwork (including regulatory requirements)
- Scheduling
- Social support system involvement and engagement
- Contracting

Use rapid-cycle testing:

We, along with the authors of the Model for Improvement, strongly advocate the rapid-cycle testing of changes on a small scale and the subsequent use of other cycles to scale-up the changes. The PDSA Cycle should be used to test components of a large change. Do not use one cycle to attempt to accomplish everything. The use of multiple cycles for sequential testing and implementation reduces the risk as the change process progresses from hunches, theories, and ideas to actual changes that result in improvement. Keep in mind that not every idea will result in improvement. It is also helpful to plan the next three or four cycles ahead. Consider the progression of multiple cycles you think you will follow.



Repeated Use of Cycle



Reference: Langley, Nolan, Nolan, Norman, & Provost. *The Improvement Guide*, San Francisco, Jossey-Bass Publishers, 1996.

Test a change rapidly (within three weeks), on a small scale (two or three counselors instead of all), with a small sample (40 clients), and with simple data collection tools (by paper and pencil if necessary).

If the results of the first PDSA Cycle look promising, ramp up slowly. Do the PDSA rapidly, but make the next step bite-size. Add a few more counselors or a few more clients. If the results continue to look promising, take another bite-size step. If these bites are the right size (there is no magic formula) and they are tested rapidly, the organization will be learning what works and what doesn't at a small cost while actually improving. This can be an enormously satisfying experience for everyone involved.

In addition, it is not enough to determine that a change resulted in improvement during a particular test. As you learn, you will need to be able to predict whether a change will result in improvement under the different conditions you will face in the future.

Implement changes

At some point in the ramp up, the size of the increases in improvement will start to slow down, at which point the PDSA is then used to implement the change. Implementing a change means incorporating it into the day-to-day activities of the process. The shift from testing to implementation may be subtle. What should not be subtle is the identification of specific implementation changes that need to be made to make the improvement changes part of the every day fabric of work activities. Here is a preliminary checklist of implementation changes:

- Training
- Documentation
- Standardization of work activities



- Measurement
- Addressing and minimizing resistance
- Periodic self-audits

Sustain changes

At some point during implementation, the focus will shift to making sure the improvement changes are sustained over the long haul. This shift may also be subtle, but a special focus on sustainability of the changes is required to assure the changes stay implemented.

While the research on sustainability isn't as clear as the research on change, we can view sustainability as an innovative change in and of itself, and can apply the five key principles to sustaining a change:

- Involve the customer permanently. Continuously check to make sure the customer's needs are forever being met. Just as this factor is by far the most important for making successful organizational changes, it would be by far the most important for sustaining the change.
- Select important potential, or latent problems to monitor so they don't wake the CEO.
- Pick a powerful sustain leader (who may or may not be the same person as the change leader).
- Get ideas from outside the organization to see how others sustain their changes.
- Use rapid-cycle testing for all changes made specifically to sustain the improvement changes.