Tracking data to inform improvement

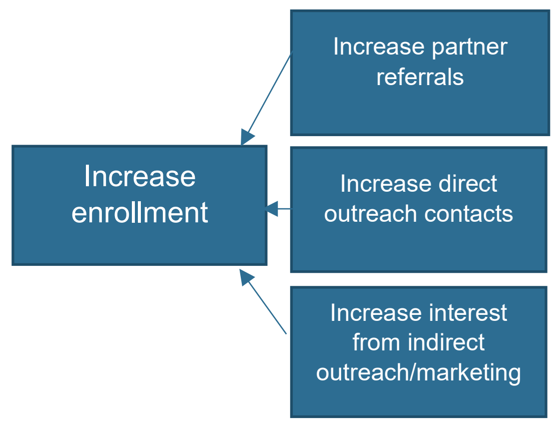
Data helps your CQI team understand and tackle sticky challenges and make informed decisions about next steps. Without data, your team might rely on inefficient, potentially ineffective trial-and-error approaches to improvement. Being data-informed means deciding what to track, setting targets to define success, and then actively reviewing data to inform next steps. To track data for CQI, start with your ultimate improvement goal, determine interim goals to support progress, and decide on the actions needed to reach those goals. This tip sheet presents key steps for setting up a data tracking approach to inform and monitor CQI. The September 2023 and October 2023 CQI office hours also covered this topic.

Step 1: Determine a wildly important goal (WIG) and a pathway to reach it

A WIG is the most important thing a team is trying to accomplish through CQI. Use your ongoing program monitoring processes and feedback from staff to determine your WIG.

Charting a path to improvement. Once the team determines its WIG, break it down to identify what will drive improvement. For example, what sources contribute to program enrollment? As shown in Exhibit 1, these might include partner referrals, direct outreach in the community, and indirect outreach or marketing. By identifying these drivers, or interim goals, the program is starting to build out its theory of improvement which is the path that will lead the program to its WIG. Ask your staff to share their perspectives on what factors will drive improvement towards your WIG. When the interim goals are identified, use a prioritization matrix to identify which one to focus on first based on your team's assessment of its feasibility and impact on the WIG.

Exhibit 1: Theory of improvement



Example: While assessing its interim goals on a prioritization matrix, the Stronger Together program realizes it has limited staff capacity to increase direct outreach in the community. The team pulls enrollment data from nFORM and sees that most enrollees are coming from partner agencies. Given this, they decide to first focus on increasing enrollments generated from referral partners.

Step 2: Create targets for your goals

Without targets, goals are not measurable and therefore cannot be used to assess progress. Grant teams set enrollment and participation targets in partnership with ACF; when your WIG is not directly tied to an ACF benchmark, you will need to set an internal target. To set a target for your WIG, start with historical data related to the WIG, refer to outside literature and program guidance, and decide with your staff on a target that is achievable but motivating. For example, if a program's WIG is to increase exit survey completions, examine survey completion rates since the start of the grant. The program may have historically collected exit surveys from 60 percent of its clients, but wants to aim for 80 percent, as that seems achievable to staff. Start with your target for the WIG and work backwards to set targets for your interim goals.

Example. The Stronger Together program has a grant target of enrolling 150 clients per year; they are falling short of that target so make it their WIG. To set a target for its interim goal of increasing referrals from partners, the team analyzes its enrollment data from nFORM to determine that 75 percent of enrollees are coming from partner agencies. Given this, they set a goal of 114 enrollments, or 75 percent of 150 (see Exhibit 2). Through internal program data, the team discovers that approximately 40 percent of partner referrals lead to enrollments and so sets a target of 285 partner referrals; this is the number of referrals it would take to generate 114 enrollments from partners with a referral-to-enrollment conversion rate of 40 percent (Exhibit 3). The Stronger Together team views this target as achievable and they are excited to aim for it.

Exhibit 2: WIG: Enroll 150 clients per year

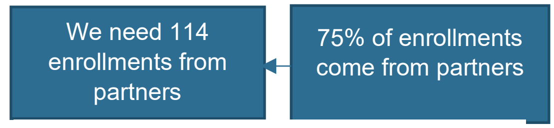
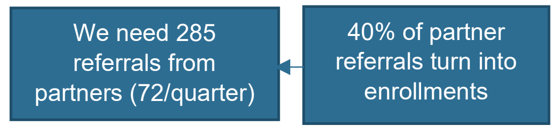
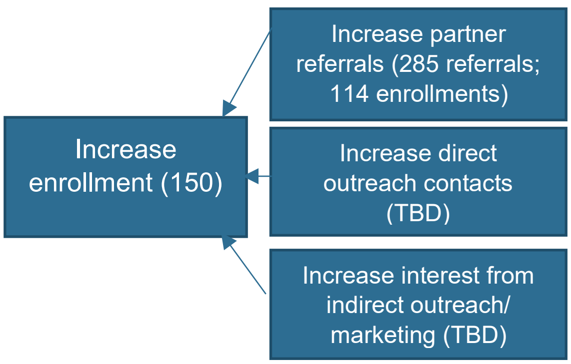


Exhibit 3: Interim goal: Generate 114 enrollments from partners



Updating the theory of improvement. Once you develop achievable targets for your WIG and interim goal, add them to your theory of improvement (Exhibit 4). If there are multiple paths to your interim goal, identify each path and then set targets to clearly define each one.

Exhibit 4: Theory of improvement



Example. To determine how best to increase partner referrals, the Stronger Together team can reach out to current partners to learn how many clients they serve each year and discuss whether a higher percentage might be eligible for the grant's program. They can also discuss ways to increase the conversion rate of partner referrals into enrollments. For example, partners may need more information about program eligibility and marketing materials in additional languages to better identify and generate interest among potential enrollees. The team can then determine how many more referrals they will need from new partners after generating the anticipated number of referrals from existing partners. Keeping in mind the capacity of partners in the pipeline, how many more might the team need from new partners to reach 285 referrals?

Step 3: Determine the activities required to reach your goals

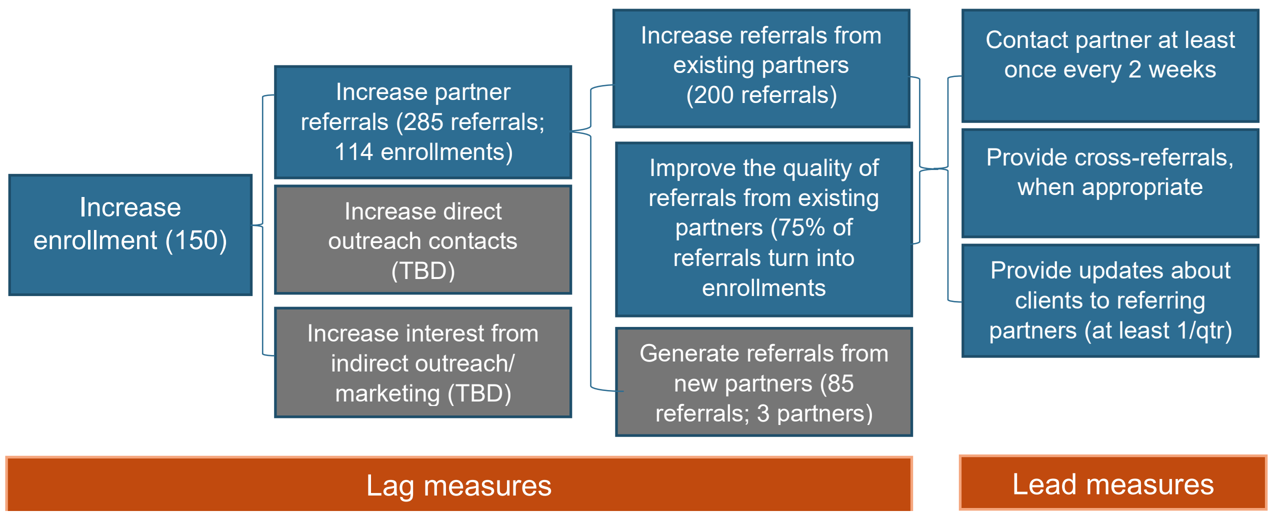
By determining your WIG and interim goals, your team has specified where it wants to go but not all the activities needed to get there. The WIG and interim goals are assessed using lag measures, or indicators of what has been achieved. They take time to assess, which means they do not offer real-time feedback on progress. The activities the team undertakes to progress toward its WIG and interim goals are assessed using lead measures, or indicators that can be measured immediately and are predictive of future performance.

Draw on your practice knowledge to determine what activities are needed to reach your goal. If the team gets stuck, consider bright spots, or successful examples, and identify the factors that supported success. Check with peers, TA providers, and relevant resources for additional ideas.

Example. If the Stronger Together team's interim goal is to foster stronger relationships with existing partners, what has the team learned about what good partner maintenance looks like? They may pick a partner with whom the team already has a close, reciprocal relationship – what does the team do to maintain that relationship? The team may identify relevant, easy-to-measure actions such as maintaining biweekly communication, reciprocating referrals, and providing updates to partners on referred clients.

Updating the theory of improvement. When your team has identified the activities needed to reach its goals, update your theory of improvement (Exhibit 5). If the activities your team identified do not succeed, use successive CQI cycles to identify and test other activities that will support progress toward your goals. As you learn through cycles, refine your theory of improvement.

Exhibit 5: Theory of improvement



Note: Blue boxes highlight active CQI efforts; in this case, the team prioritized improving referrals from existing partners first.

Step 4: Gather the data required to track your measures

Identify the data that you need to track lead measures and assess progress on your WIG and interim goals, and the sources for the data—view the February 2023 CQI office hours for more information on how to do this. You may be able to use nFORM data tools to track some or all of your lead measures. When you need additional data, for example to track outreach efforts or meetings, teams may need to develop separate trackers.

When developing a tracker, be sure that your team is only tracking data points that are relevant to your goals. If a metric is not part of your theory of improvement, do not include it in the tracker. To find the right balance, work with the expected users to design the tracker and determine key data points.

Example. The Stronger Together team determines that it needs data on referrals by partner (successful or unsuccessful) and indicators of whether biweekly communication and partner updates are happening. Exhibit 6 shows an example of an activity tracker they develop to monitor whether biweekly contacts are happening with key partners. It also includes fields to document the nature of the communication to help the team understand whether certain types of communication are more promising than other types for relationship building (e.g., phone calls vs. emails).

Exhibit 6: Partner communication activity tracker

Partner Communication Log

Please enter communication via in-person meetings, phone calls, emails, and social media at the start of each new month!

Date of communication	Partner organization name	Contact name	Type of communication	Successful contact?	Notes
5/25/2023	McLean County Health Dept.	Troy Masters	Phone call	Yes	Checked in about a client Troy referred
6/1/2023	Unit 5 School District	Trish Johnson, secretary	Email	Yes, received email back	Forwarded an invite to an upcoming community forum of interest
6/3/2023	Center for Youth & Family Solutions	Simon Bartlett	Phone call	No, left voicemail	Called to schedule meeting to plan upcoming event
6/5/2023	Center for Youth & Family Solutions	Simon Bartlett	Email	No response	Followed up with email about planning

Step 5. Pull key measures together in a dashboard and review regularly

After you determine how to gather and track key data points, develop plans for reviewing key metrics with the larger team involved in working towards the WIG. Your team can consolidate metrics from your theory of change in one place using a dashboard, as data may come from several sources (including nFORM, custom trackers, and internal data systems). Dashboards help teams review key data points to track progress toward a goal and assess links between data points to test the theory of change. Ensure your dashboard includes lead and lag measures related to the WIG, interim goals, and key activities. For tips and design suggestions related to CQI dashboards, see the following resources.

Using 4DX to Support Improvement Efforts, a tip sheet that covers the four disciplines of execution (4DX), a framework that supports progress towards goals. The third discipline relates to developing a compelling dashboard.

December 2022 CQI Office Hours: Building a Compelling 4DX Dashboard, a slide deck from office hours on developing strong dashboards to support tracking toward a goal.

For more on reviewing dashboards, see the above tip sheet or the January 2023 office hours.

January 2023 Office Hours: Establishing a Cadence of Accountability, a slide deck from office hours on using WIG sessions for reviewing dashboards and making commitments.

Sources: Langley, G. J., Moen, R. D., Nolan, K. M., Nolan, T. W., Norman, C. L., & Provost L. P. (2009). The improvement guide: A practical approach to enhancing organizational performance. San Francisco, CA: Jossey-Bass.

This tip sheet was prepared by Annie Buonaspina, Allon Kalisher, and Scott Richman of Mathematica, Washington, DC, (2024) under contract with the Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services (HHSP233201500035I/75P00120F37054). OPRE Project Officers: Rebecca Hjelm and Harmanpreet Bhatti. Mathematica Project Director: Grace Roemer.