MODULE 4

QUALITY IMPROVEMENT

THE LEARNING NETWORKS GUIDE: BUILDING A LEARNING HEALTHCARE SYSTEM NETWORK

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Learning Networks

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INTRODUCTION

The purpose of this Quality Improvement (QI) module is to describe the components necessary to develop a learning health system. The level of sophistication in implementing QI activities reflects the level of maturity of a learning network, which is assessed by the ability of a learning network to implement the key elements listed below in a way that propels participating centers' improvement effort.

KEY ELEMENTS

The ability of a learning network to integrate some or all of the below QI key elements into the infrastructure of a network is indicative of the maturity level reached by the network. For more information about the Learning Network Maturity Grid, see the "Annual Planning" section of Module 1: Systems of Leadership.

Network leadership and QI teams should keep the following key elements in mind as they design, launch, and sustain learning networks over time. The activities described under each phase aim to support the completion of those key elements.

Network Framework for Improvement

Learning networks should adopt a QI method for doing improvement work across multiple centers. Various methods exist. In healthcare, the Model for Improvement is widely accepted. The Systems Framework includes a description of the system you are working to change, a charter identifying the gap in care and the outcomes the LHS will accomplish, the Key Driver Diagram describing the theory for improvement, a change package, and a set of measures to track improvement.

Quality Improvement Projects Based on Strategic Plan

QI projects should be selected on the basis of supporting the strategic plan of the network. Networks create charters and Key Driver Diagrams that identify interventions that may have the potential to impact outcomes. However, selecting the QI interventions to test must be aligned with the priorities the network has set for itself in a strategic plan that takes into account resources available and other contextual variables at the time.

QI Learnings by Network Participants Shared with Other Practices

A key goal for learning networks is to improve faster. Having mechanisms in place to support the sharing of best practices and lessons learned is pivotal to the success of a network. Learning Sessions and Action Period Calls are a common way for networks to share. Additionally, the curation of a common shared platform with tools and templates available to network participants is important, as well as governance policies that decentralize the sharing so everyone can contribute knowledge.

Methods for Dissemination and Spread of Key Learnings Across Care Centers

Having a robust process for disseminating learnings beyond monthly calls and learning sessions is important. Ensuring centers have the tools to implement the work and sustain it reliably requires planning, best done through strategic planning efforts.

Quality Improvement Reports

Tracking performance is at the cornerstone of QI activities at a network level. The level of sophistication of the QI reports, whether they are generated manually or automatically using a sophisticated registry, and whether they integrate with other reports, reflects the maturity level of a network.

Quality Improvement Education and Training

Having a well-established QI training and education program can be an effective tool for bringing centers up to speed with key concepts and tools they will use to conduct their improvement efforts. Ideally, a network should aim to offer such service, along with a process for evaluating the relevance of the teaching content and assessing trainees' satisfaction.

Communication and Publication of QI Activities

Because learning networks are created with the goal to spread adoption of best practices faster and better, it is important that networks develop communication strategies to engage both internal and external stakeholders with information and targeted messaging about progress and efforts underway. Over time, publication on QI and Implementation Science activities provide additional venues to spread networks' learnings and establish a network as a leading source in its domain.

Data Transparency

Learning networks traditionally will publicize to their members how the network as a whole is performing. How each participating center performs against the network, or against each other, how providers' performance compares across the same center, or how transparent we want such data to be to the larger public, are all important questions for a network to decide upon. The higher the transparency level, the more mature a network is.

PHASE 1:
DESIGN & DEVELOPMENT

PHASE 1

Learning Network Design

Idealized Design

The Institute for Healthcare Improvement created Idealized Design to bring together organizations committed to comprehensive system redesign. New levels of performance can be achieved only through dramatic system-level redesign. Idealized Design enables the system to perform better in the future than the best it can do today. This guide describes the Idealized Design process in detail:
A Guide to Idealized Design (free registration required to download).

Design Meeting(s)

A Design Meeting, also referred to as an Expert Meeting, involves a panel of innovators/experts (patients, families, clinicians, researchers) meeting for one to two days to determine the "change concepts" for the network and to identify appropriate outcome measures. Change concepts are changes that have been proven to be effective in achieving improvements in a particular area. This meeting is neither an advisory meeting nor a brainstorming session. The intention is to set the expectations for the teams that will participate and develop the metrics against which the teams' progress will be assessed.

Design Meeting objectives:

- Build shared commitment to the mission of the network and advance the design efforts currently taking place
- Develop a system improvement framework for managing change
- Identify a set of changes that will create a learning health system (LHS) for the topic of focus
- Develop measures of a better system of care and research for the topic of focus to guide system improvement activities

The first step in planning a design meeting is to identify a comprehensive list of potential attendees. Participants should be individuals very interested in system redesign. Divergent ideas are acceptable, consensus is not required. Network leaders create the Design Meeting participant list from:

- Individuals who have achieved results (including patients, families, clinicians, researchers)
- Their professional contacts
- The literature

An ideal design meeting includes:

- 30-40 individuals: 15-20 experts plus the network team
- Network staff
- Opportunities for creativity, generative thinking, contribution, and fun
- Beginning to build the culture of high expectations for results, aspirational goals, alignment, solidarity, mastery, and generosity

Items for a network team to have completed before a design meeting may include:

- Draft diagram/"picture" of the network
- Draft charter (see "Network Charter" section below).

Resources

- Design Meeting Agenda Example (Appendix 4.1)

Ethnography

Learning networks are encouraged to complete an ethnography study to identify the profiles of the users in the health care system they are trying to (re)design. For details about ethnography studies, see Module 2: Governance and Management.

Theory for Improvement

Model for Improvement (MFI)

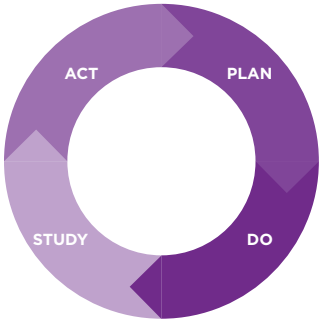
Don Berwick, former President and CEO of the Institute for Healthcare Improvement (IHI), declares "Managing quality is not just an intellectual endeavor; it is a pragmatic one. The point is not just to know what makes things better or worse; it is to make things actually better." The Model for Improvement (MFI) developed by Langley et al., guides improvement activities and compliments any underlying improvement theory used by an organization. (Langley et al., 2009) The MFI's two-part, pragmatic approach is proven to accelerate improvement. Part one asks three fundamental questions, which can be answered in any order. The Model for Improvement and associated activities are depicted below.

Part 2 of the Model for Improvement advances the activities from the theoretical basis of identifying potential changes to application by testing the impact of those potential changes. Testing is accomplished through the Plan-Do-Study-Act (PDSA) cycle.

Resources

- How to Improve
- IHI Open School Course QI 102: How to Improve with the Model for Improvement

Model for Improvement	Activities for Part One:
What are we trying to accomplish?	**Setting Aims** The aim should be time-specific and measurable; it should also define the specific population of patients or other system that will be affected.
How will we know that a change is an improvement?	**Establishing Measures** Teams use quantitative measures to determine if a specific change actually leads to an improvement. Collect baseline and improvement data to determine the effectiveness of changes.
What change can we make that will result in improvement?	**Selecting Changes** Ideas for change may come from research, best practices from others who have successfully improved, or from persons actually performing the process.

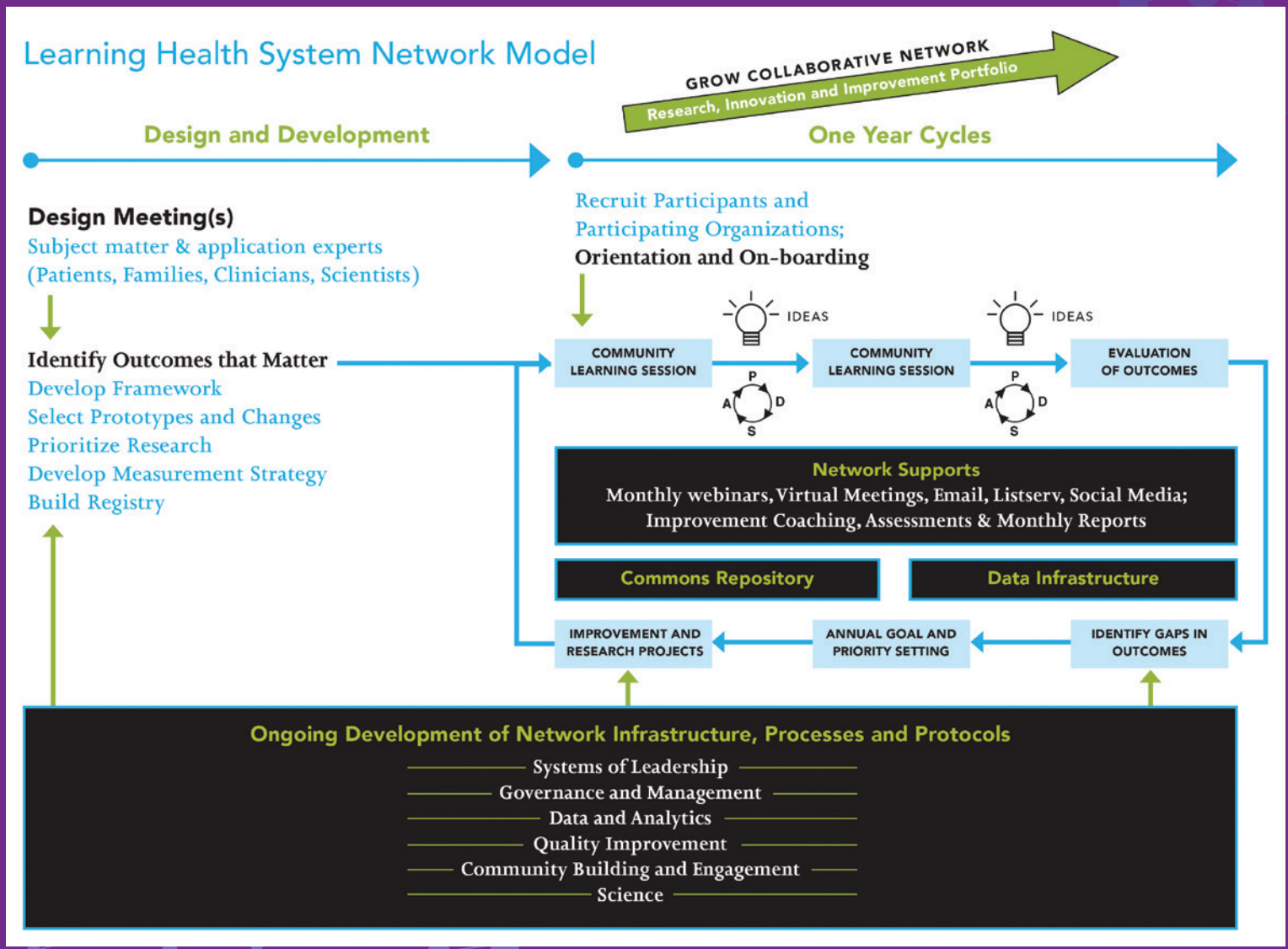


Activities for Part Two:

Testing Changes

The Plan-Do-Study-Act (PDSA) cycle is shorthand for testing a change in the real work setting — by planning it, trying it, observing the results, and acting on what is learned. This is the scientific method adapted for action-oriented learning.

NETWORK MODEL



The PDSA Cycle

Once a team performs the Model for Improvement Part 1 activities, they are ready to conduct tests of change using the PDSA cycle. The Plan-Do-Study-Act (PDSA) cycle was originally developed by Walter A. Shewhart as the Plan-Do-Check-Act (PDCA) cycle. W. Edwards Deming modified Shewhart's cycle to PDSA, replacing "check" with "study."(IHI, 2015) (Provost L, 2015) The Plan-Do-Study-Act (PDSA) cycle is the backbone of improvement, serving as a framework for planning a small test of change, trying it in a limited fashion, observing the results, and acting on what is observed.

When initiating improvement activities, testing small is key to success, yielding valuable insight to build knowledge. An example of a small test could involve an informed staff member testing a change to one process step with one patient. Subsequent PDSAs are planned based upon analysis or "study" of previous test results. New tests are adapted to mitigate or improve problems observed in previous tests, building over time processes that successfully and reliably perform better. As successful processes are built, tests are expanded to include more numbers, staff, conditions, or other applicable aspects. Broader testing will confirm the success of your new process, expose improvement needs directly related to the targeted process, or may reveal other processes that are linked to or influence the targeted process. Efforts to improve multiple, parallel, or linked processes are managed through PDSA ramps.

PDSA Ramps

Healthcare is complex and improving any one process may necessitate altering others linked to it. One tool to track and inform teams about concurrent improvements is the PDSA Ramp tool.

After initially testing changes on a small scale and building successful and reliable processes, testing continues, progressively expanding to more patients, shifts, situations, etc. The learning from each test is applied then re-tested with the new condition (patient, shift, etc.), continually improving the process and validating that the desired results are achieved. When consistent results are attained and enough confidence in the new process is reached, testing is concluded. The new process is ready to be implemented on a broader scale, for example, with an entire population or the entire unit.

Implementation

Once the tests of change have been refined through several progressively larger PDSA cycles and the new process reliably produces desired results, implementation into routine work is possible. Implementation means permanent change to the workflow within the targeted area, which, depending upon the scale, may span a work unit or involve the entire organization. As with all process improvements, the implementation phase can benefit from use of the PDSA cycle.

Resources

- IHI Resources
    - Science of Improvement: Testing Changes
    - Science of Improvement: Tips for Testing Changes
    - What's an Easy Way to Learn about PDSA Cycles?
    - Plan-Do-Study-Act (PDSA) Worksheet
    - Multiple PDSA Ramps
    - Science of Improvement: Implementing Changes

Systems Framework

The Systems Framework includes the creation of a charter, Key Driver Diagram, measures and change packages, as described in the following sections.

Network Charter

A Network Charter is the key, foundational document for any learning network. It outlines shared aims, measures, methods, timelines, and roles/responsibilities. It articulates the gap in care, states the mission and aim for the network, describes the benefits of undertaking system redesign, presents potential outcome and process measures at the level of the system and the clinical care site, and sets expectations for participating teams. The Network Charter sets the stage for teams to understand in a more comprehensive way the work they are undertaking in a network.

The purpose of a Charter is to:

- Provide concise information about the purpose for the network
- Orient new team members to the work
- Keep the team focused on the key process being targeted for improvement
- Prevent "scope creep" and other out-of-scope work
- Promote commitment and ownership of the problem by the team
- Provide a meaningful contract between organizational leadership and the improvement team (linking improvement work to the organization's priorities).

Charter elements include:

- Team composition and roles
- Background and problem being addressed
- Approach to be taken
- Overall aims and measures
- Project timeline
- Team interaction, meetings, and communication.

The length of time to create the Charter can vary from two to four months depending on content area, knowledge known about the gap, available evidence, number of faculty members involved, and other external factors.

A Charter should follow this basic outline:

- Background
- Network purpose/mission
- Network measures (outcome, process, balancing)
- Network Change Package/Factors to test (this is the core of the expert design meeting)
- Methods
- Participants
- Expectations and boundaries
- Key Driver Diagram/Systems framework
- References

Resources

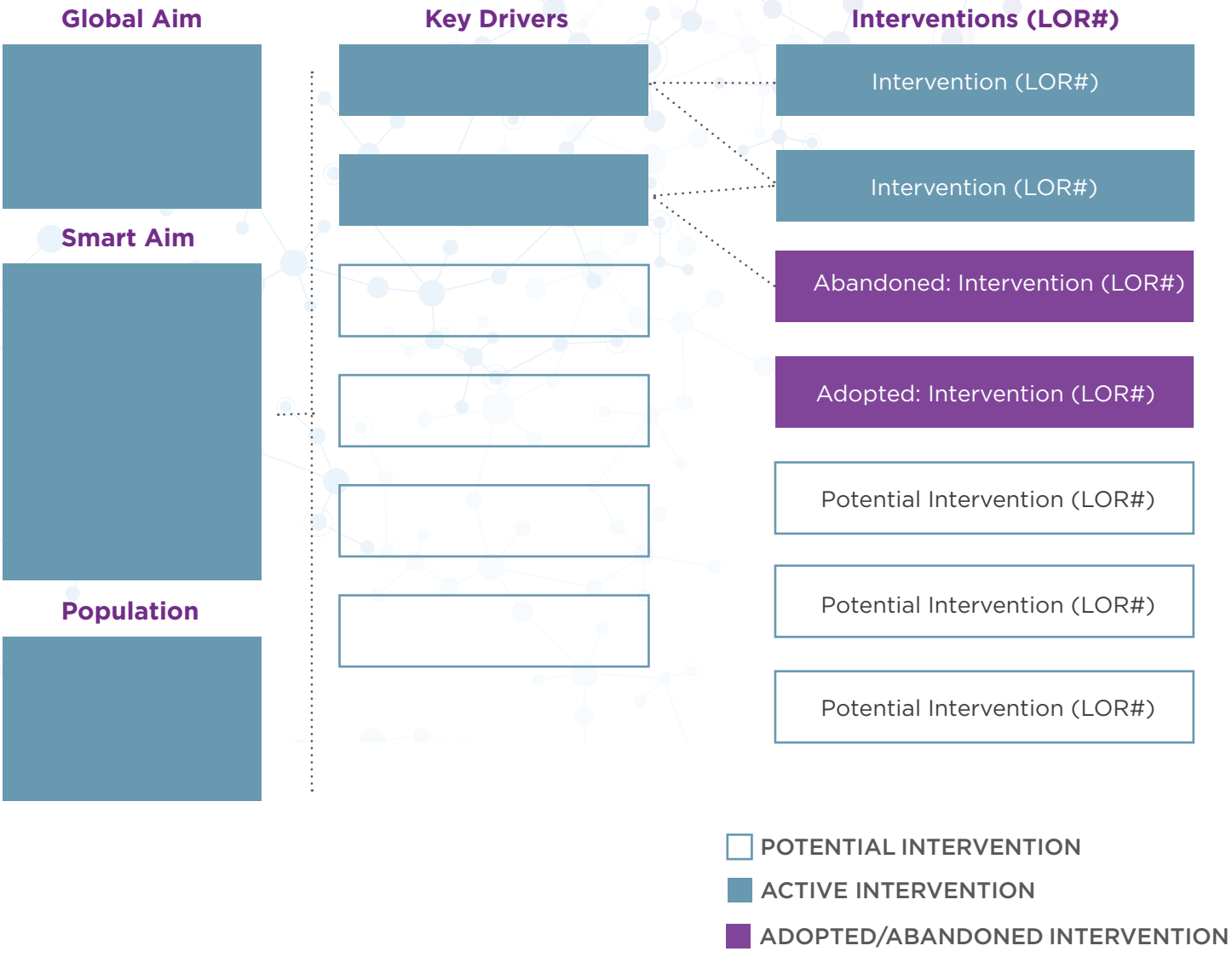
- Network Charter template (Appendix 4.2)

Key Driver Diagram

The Key Driver Diagram (KDD) is a tool for visually representing a shared theory of how to achieve the desired improvement or aim. Constructing KDDs creates a common mental model depicting the factors and associated interventions that, when reliably implemented, are expected to achieve the goal. KDDs provide the improvement team with a structured improvement roadmap reflecting consensus-based knowledge, research, observation, experience, and processes believed to achieve the aim. (Provost L, 2015)

Below is the current KDD format used at Cincinnati Children's. KDDs include a Global Aim and SMART Aim, then organize improvements into categories of Key Drivers (the "what" you need to accomplish the aim) and discrete, applicable interventions (the "how" e.g., actions, changes and interventions related to the Drivers) providing a theory for change.

KEY DRIVER DIAGRAM (KDD)



A SMART Aim is a **S**pecific, **M**easurable, **A**ctionable, **R**ealistic, and **T**ime-bounded objective that focuses the work of the network. Interventions may reflect research and best practices but are often established as a result of PDSA testing. Key Driver Diagrams represent current understanding and thus, are edited as learning occurs. The initial KDD used to launch an improvement initiative will likely change as PDSAs identify new best practices or as additional interventions are developed. The final KDD provides a valuable tool, guiding others to successfully achieve similar results.

Before drafting a learning health system Key Driver Diagram, it is essential to:

- Establish a vision for the ideal state for the target population, and
- Identify/discuss barriers to achieving the ideal state.

Resources

- SMART Aim

Measures Development Overview

How will we know that a change is an improvement? Measurement is a critical part of testing and implementing changes; measures tell a team whether the changes they are making actually lead to improvement. To achieve buy-in from all stakeholders in the learning network, it is important to start with the Aim of the network which is developed through consensus of the stakeholders. The initial Key Drivers provide the basis for measure development.

Use a balanced set of measures for all improvement efforts: outcomes measures, process measures, and balancing measures.

Outcome Measures: The Big "So What?"

Outcomes are the events, occurrences, or changes in conditions, behavior, or attitudes that indicate progress toward a project's goals. Outcomes are specific, measurable, and meaningful.

How does the system impact the values of patients, their health and wellbeing? What are impacts on other stakeholders such as payers, employees, or the community?

- For diabetes: Average hemoglobin A1c level for population of patients with diabetes
- For access: Number of days to third next available appointment
- For critical care: Intensive Care Unit (ICU) percent unadjusted mortality
- For doing well in school: Grade Point Average

Process Measures: What We Do

Are the parts/steps in the system performing as planned? Are we on track in our efforts to improve the system?

- For diabetes: Percentage of patients whose hemoglobin A1c level was measured twice in the past year
- For access: Average daily clinician hours available for appointments
- For critical care: Percent of patients with intentional rounding completed on schedule
- For doing well in school: Number of hours spent studying each night or percent of homework assignments completed

Balancing Measures: Looking at a System from Different Directions/Dimensions

Are changes designed to improve one part of the system causing new problems in other parts of the system?

- For reducing time patients spend on a ventilator after surgery: Make sure reintubation rates are not increasing
- For reducing patients' length of stay in the hospital: Make sure readmission rates are not increasing
- For increasing the number of hours spent studying each night: Make sure that the number of hours that the student is sleeping per night doesn't decrease significantly. Students might miss sport practices due to increasing hours of homework.

See Module 6: Data and Analytics for more details about developing measures.

Resources

- Science of Improvement: Establishing Measures

Change Package

A Change Package is a concise and practical document that includes ideas and inspiration for teams seeking to apply quality improvement methods in order to increase the effectiveness and efficiency of their care processes and outcomes. Change packages focus on a specific condition, care process, or health system feature and generally include background material; a summary of evidence or best practices; and specific tools, strategies, and examples that can be applied to improvement work. Change packages are typically developed and iteratively refined over time by testing strategies with patients, families, and clinicians in practice.

Change Packages are initially developed during the design stage and again at the start of new projects. Different types of change packages include those that are completed before changes are tested, and others that are completed after changes have been tested, to disseminate or spread changes (e.g., OPQC Progesterone Change Package).

PHASE 2:
YEARLY CYCLES

PHASE 2

Learning Sessions/Community Conferences

Learning Sessions, also called Community Conferences, are an opportunity for all stakeholders in the system to come together to recap on progress made thus far and look at the future. They are critical in creating a sense of community, a safe space where people can openly share with and learn from each other.

A network's quality improvement work is typically a focal point of these sessions or conferences. They represent opportunities to introduce the network to a new KDD and interventions, a new change package, or performance metrics relative to the implementation of the change package. As a network demonstrates improvement, it can use the Learning Session to celebrate achievements, introduce a new QI project, and move the network towards more complex activities. QI research can also start playing a more prominent role in the agenda as the network matures.

For details about how to operationalize a learning session, see Module 2: Governance and Management.

Agenda Development

Overall Objectives

One of the first things to develop is the overall objectives of the Learning Session or Community Conference. In many cases, the overall objectives are connected to the current stage of the network and reflect the goals of the network. For newer networks, overall objectives should include activities to bring the network together and share the Key Driver Diagram, change package, or model care guidelines developed prior to the Learning Session or Community Conference. For more mature networks, objectives may focus on a piece of the Key Driver Diagram or change package.

As objectives are being developed, it is important to consider the CME/CNE (continuing medical/nursing education) process. In most cases, CME and CNE credits are offered for Learning Sessions and Community Conferences. Some questions to consider as you are developing overall objectives are:

- What is the stage of the network (new, existing)?
- How are teams currently operating with respect to the network mission and goals? How does the network want teams to change?
- Who are the teams that will be attending?
- How will the network know that change is an improvement?

From these questions, two to three specific, measurable, overall objectives should be developed. The combination of the overall and learner objectives should form the basis of the agenda. For more on obtaining CME credit, see Module 2: Governance and Management, "Set Up QI Infrastructure."

Learner Objectives Development

Once overall objectives are developed, learner objectives should be developed. If the Learning Session or Community Conference is going to offer CME and/or CNE credits, learner objectives need to be developed with those guidelines in mind.

As learner objectives are developed, the following questions should be considered:

- What content should be covered to achieve the purpose or overall objectives of the Learning Session or Community Conference?
- How should content be delivered?
- What barriers could teams encounter in implementing the recommended actions from the Learning Session or Community Conference? How could the Learning Session or Community Conference address and remove those barriers?
- What can be done outside of the Learning Session or Community Conference to affect change?

From these questions, two to four overarching learner objectives should be developed. Learner objectives should be specific, measurable, and describe the knowledge and competence that will be addressed in the Learning Session or Community Conference. To meet CME/CNE requirements, learner objectives must begin with a verb. Unacceptable verbs: learn, understand and know.

As an example, learner objectives from the Fall 2016 ImproveCareNow Community Conference were as follows:

- State several new ideas for improvement in care and outcomes for patients with IBD—ranging from those who are newly diagnosed to those transitioning to adult care
- Apply new communication methods aimed at deepening partnerships with IBD patients and parents
- Advance participation in ImproveCareNow Learning Labs and the structure of the learning network.

Agenda

The agenda is developed based on the overall and learner objectives. Some things to consider when developing the agenda are:

- **Duration** of the Community Conference or Learning Session: Typically, Learning Sessions or Community Conferences are between one to one and a half days long.
- **Maturity** of the network: The first few Learning Sessions focus on providing the information, tools and technical support needed for the teams to begin their improvement journey. In Learning Session 1, the focus will be on introduction and application of the improvement methodology, overview of the change package and measurement strategy, and introduction of improvement teams. In subsequent Learning Sessions, the focus changes to reinforcement of the improvement methodology and learning from data. The improvement teams also "teach" each other and share strategies for overcoming barriers to implementation of the change strategies.
- **Format** of the Community Conference or Learning Session: It is preferable to use a variety of formats to present information. Typical formats include, but are not limited to: lecture, panel discussion, plenary, small group discussion, interactive workshop, and case-based discussion.
- **Plenary vs. Breakout time:** It is essential to have a combination of plenary (main group, all participants are together) and breakout time. It is common to mix plenary and breakout times so participants are not sitting in one place for too long.
- **Network-driven vs. Community-driven** content: In more mature networks, agendas should have a mix of network- and community-driven content. Participants generally wish to learn from both network leaders and other teams. See Request for Proposals example to gather topics and presenters from the community.
- **Develop a high-level agenda** first to ensure all objectives are included in the overall planning. Fill in the content and speakers as you further define the Learning Session curriculum.
- **Presenters** should be chosen from among the faculty or outside content experts. They should be well versed in the evidence base for the change concept they will be teaching and should have practical experience in the successful implementation of the change. Presenters should be coached to develop a presentation that is informative and actionable.
- **Learning session agendas** should adopt action-based learning where participants have the opportunity to apply or discuss the content in order to maximize effectiveness. Teams should leave a Learning Session with plans to test changes soon after they return to their home base.

Resources

- Agenda from an ImproveCareNow Community Conference (Appendix 4.3)
- Request for Proposals Example from a Learning Networks Community Conference (Appendix 4.4)

QI-Specific Portions of the Learning Session or Community Conference

Two QI-specific portions of the Learning Session or Community Conference are the setting of 90-day goals/PDSA cycles and QI teaching sessions.

Often, it is beneficial to allow teams to work together to develop the 90-day goals and PDSAs they will execute when they leave the conference. The network should have a mechanism to collect this information and follow up on it after the conference.

All Learning Sessions or Community Conferences should include at least one QI teaching session. This will allow all the teams to stay grounded in the Model for Improvement. QI sessions should be based on the needs of the network and linked to the overall and learner objectives.

Standard agendas for the Learning Sessions or Community Conferences

Standard agendas for the first three Learning Sessions were developed for the Breakthrough Series (BTS) Model.

Pre-work

Objectives of Pre-work

Pre-work before a learning event is used to prepare participants for productive in-person learning events. It can be beneficial in the following ways:

- Gain alignment – when there are perceived differences in opinion that address "elephants in the room" in a professional way
- Learn from others
- Prepare deep and thoughtful questions on tough topics
- Identify commonalities and differences to address at the learning event

Best practices:

1. Use a standard template that is tested by a few teams for the participants to complete.
2. Ask questions that seek to identify commonalities between teams.
3. Prior to sending the pre-work template to teams, have a call with all participants to review the pre-work and gain alignment with the expected content each team should submit for each question. At the end of this call, ask for each teams' personal commitment to complete and return the pre-work by the due date.
4. Require the homework to be submitted by all participants a minimum of one and one-half weeks before the event to allow time for staff collation.
5. Organize pre-work submissions by highlighted topic (not by hospitals) and summarize learnings when able.
6. Send the collated pre-work submission in total to all participants a minimum of 1 week prior to the event requesting their thorough review prior to the event.

A SUMMARY OF THE OBJECTIVES, COMPONENTS AND SPECIAL SESSIONS ARE BELOW.

	LEARNING SESSION 1	LEARNING SESSION 2	LEARNING SESSION 3
OBJECTIVES	• Identify the three questions in the Model for Improvement • Refine and focus your aims and measures, and develop a strategy for accelerating change • Leave ready to handle obstacles and to start immediately	• Describe the change framework and change package for the network • Apply the Model for Improvement • Add additional change strategies and develop spread strategy	• Develop a plan for completing network work • Develop a plan for spreading the changes beyond pilot team • Develop a plan for continued senior leader involvement
COMPONENTS	• Introductions by Chair and collaborative staff • Faculty expert establishes the vision and describes the gap • Faculty presents a Systems View of the topic (i.e., Chronic Care Model) • Faculty present the Change Framework/KDD and Change Package • Faculty members run breakout sessions delving into the details of the Change Package • Teams share what they have started through Storyboards • Introduction of The Model for Improvement and PDSA Cycles • The teams plan their first PDSA cycle and project plan during team time • Teams share their project plan with others to encourage "All Teach, All Learn" • Prepare for Action Period (AP) 1 • Prepare teams for reporting	• Welcome and Progress (share current data) • Review of Change Framework/ KDD and Change Package • Highlight stellar performers – 1 or 2 teams present their progress to date • Teams share progress to date in small breakout groups • Faculty members run breakout groups on components of the Change Package • Teams share progress through Storyboards • Provide support for measurement problems and issues • Advanced teaching of QI methods – PDSA ramps and testing in multiple areas • Team Time - meetings to develop PDSA and ramps • Teams share project plans • Prepare for AP 2	• Welcome and Progress (share current data) • Team presentations • Teams share progress to date in small groups • Teams share progress through storyboards • Provide guidance regarding sustaining and spreading changes • Teams develop project plan that includes multiple PDSA cycles for AP 3 • Special track for Senior Leaders • Teams share project plans • Prepare for AP 3
SPECIAL SESSIONS	• Senior leader session • Guest speaker • Breakout session for data reporters	• Parent panel • Guest speaker on topics of interest (e.g., culture)	• Guest speakers

Topics to consider addressing in pre-work

1. Recommended draft documents for review (aims, drivers, interventions, process maps, measures)
2. Supporting literature/evidence
3. Baseline data
4. Registries and/or logs
5. "Elephants in the room"
6. Past failures and learnings
7. Data collection tools

Resources

- Learning Session Pre-work Example (Appendix 4.5)

Work Plan

The Learning Session Work Plan consists of tasks that are vital for an event to run smoothly and successfully. See more about work plans in Module 2: Governance and Management.

Facilitator Agenda

A facilitator agenda is a detailed agenda for a Learning Session or Community Conference.

Facilitator agendas are used to help guide session facilitators and staff supporting the Learning Session or Community Conference. They are very detailed and show logistical details not included on the participant agenda. A good facilitator agenda will be a "one stop shop" for all logistical and staffing information in the Learning Session or Community Conference.

A facilitator agenda contains the components:

- Date
- Time
- Session Title
- Speaker(s)
- Facilitator(s)
- Supporting Personnel/Staff, noting role of each person
- Session Location
- Session Set-Up Notes
- Materials Needed for Session
- Pending Questions or Outstanding issues for Session
- Notes and Comments

Facilitator Agenda Tips:

- Design for ease of comprehension, readability and printability
- Avoid "over-formatting" the document as this makes it difficult to add or delete information
- Use a font that is easy to read
- Walk through the facilitator agenda multiple times prior to the Learning Session or Community Conference, documenting and resolving issues in the "Pending Questions or Outstanding Issues for Session" column
- Avoid edits by multiple people and creating multiple copies
- During the Learning Session or Community Conference, review the facilitator agenda before each day's session

Storyboard Session

Storyboards are a tool used to communicate a team's work to a broad variety of audiences. Within the context of a learning network, storyboards are most often used to communicate information about a team and its quality improvement work. A storyboard aims to provide information in a visually appealing way while concisely communicating key points. Storyboards are also used to tell the story of the journey the team is making to change usual practices into better practices and improved outcomes. From annotated run charts to photos of team members and patients, the story in a storyboard is compelling if it is both personal and generalizable. A goal is to prompt attendees to think, "If they can do that, I wonder what we could do if we put our minds to it?"

In the learning network setting, storyboards are most often used as part of a Learning Session or Community Conference. Storyboard sessions allow participants to learn about the current work of many teams at one time in an interactive way.

It is strongly recommended that each team preparing a storyboard do so using a standard template. This template can be distributed as part of the Learning Session or Community Conference pre-work. Teams should be encouraged to have fun and personalize their storyboards while communicating the information the standard template requests.

In general, a storyboard should clearly communicate the:

- Aim statement
- Improvement theory
- Data and tools used, and results achieved
- Quality improvement tools used
- Learnings
- Barriers challenges requiring help from network

It is often helpful to design an activity for participants to complete while viewing and reading storyboards. This enhances the learning and sharing experience by making the storyboard review more interactive. Some examples of activities that can be linked to storyboards are as follows:

Scavenger Hunt – Participants receive a scavenger hunt question and answer sheet. Typically, two to three points from each storyboard are turned into questions. The storyboard activity can be wrapped up by reviewing some or all the questions and answers. This activity is especially helpful for newly formed network teams to become better acquainted.

What Will My Team Test Next Week? – Participants are asked to review all the storyboards and identify two to three actionable ideas relevant to problems or barriers experienced at their center. This activity can be wrapped up by asking each team to share one small test of change they will test when they return to their center.

Interview – Participants are given an interview sheet and are asked to interview representatives from some or all of the storyboards. This activity can be wrapped up by asking several members of the audience to share something they learned. It may be helpful to try to tie the learnings to the overall theme or goal of the Community Conference or Learning Session.

Storyboard Rounds – Teams are gathered into small groups (ideally 5-7) for presentations of each storyboard in the group. Each group should have a facilitator. Each team in the group presents their work briefly with help from the facilitator focusing on PDSA testing, learnings, and next steps. Following each team presentation, questions from the group are answered.

ACTION PERIOD CALLS/LEARNING LABS

In the Breakthrough Series Collaborative model, Action Period (AP) calls were the foundation of communication across the miles and time between Learning Sessions. Generally taking place once a month (though sometimes offered at two different time options to accommodate teams' schedules), AP calls are conference calls that enable teams to share information and learn from national experts and other healthcare organizations. The aim is to build collaboration and support the organizations as they try out new ideas, even at a distance.

As collaboratives grow into enduring networks, AP calls can become unwieldy and crowded—there are simply too many people on the line to engage in interactive discussions. These conversations become harder to manage and the background noise from a growing number of clinical settings can be a distraction. It often becomes necessary to keep people on mute, thereby turning the calls into one-way lectures with limited interaction. Additionally, the big ideas that need to get shared can get "drowned out" by the sheer size of the group. Maybe a clinic nurse is reticent to speak up on a large conference call, or a parent partner has a great idea but is concerned about putting it out there for the whole network to evaluate. At the same time, the content of these calls can become less relevant to various members of the community.

As networks evolve, content becomes less "one size fits all." Beginning teams need a focus on the basics and more advanced teams want to stretch their knowledge and skills. Additionally, smaller groups can obviate the need to have participants on "mute" and enhance the opportunity for peer mentoring, sharing, and distributed leadership. In short, it becomes challenging to collaborate and share seamlessly as networks grow. Some learning networks decide to segment their communities into smaller groups, either for specific topic-related calls or for a more enduring team grouping approach such as the creation of "Learning Labs." (Myers, 2015)

Even as these new calls are added, there are some topics and news of general interest to the network that should be shared in a traditional AP call format. Therefore, it is important to keep the larger community connected via large network-wide calls. In some networks, these calls will continue monthly in addition to Learning Lab or smaller calls. In other networks, network-wide calls will happen once every other month, with the smaller calls in the intervening months. Additional models for blending the two approaches will likely emerge.

Agenda Development

The focus of the AP call is based on the phase and maturity of the learning network. Understanding the progress of the sites and the overall curriculum for the learning network will help structure the agendas for the AP calls. In general, the bulk of the call should be focused on review of current status (e.g., data), teams sharing their successes and challenges, and peer coaching.

To develop the agenda, alignment should first be gained on a few tools from network leadership, including:

- Latest learning network change packages
- Yearly curriculum/strategy for the network
- Network level Key Driver Diagram

In addition, the agenda may reference the routine monthly activities, such as:

- Data dashboards and run charts – for tracking progress
- Follow-up items from the last Action Period call
- Emails/phone call questions that were asked and relevant to larger group
- Network-wide communication
- Identify one or more teams who can share a success or challenge
- New content based on the curriculum

Using the lists above, the team should identify actions and decisions necessary to meet the network project charter's objectives and timeline. Next, they should prioritize those actions and decisions, and link them to higher-level objectives. Then, they should select the higher-priority actions that need to be accomplished to achieve the meeting objectives. These actions will naturally turn into agenda items. The most important topics should be first on the agenda. Finally, the group should determine the needed time and facilitator/speaker for each agenda item.

Best Practices

- Prepare the participants for the call by informing them of the topics that will be discussed
- Ask participants to prepare their problems and successes ahead of the call so they can be shared on the call
- Allow adequate time for site sharing following the "all teach, all learn" philosophy
- Utilize the chat box during the call to increase participation
- Send the final objectives and slide deck PowerPoint two business days ahead of the meeting
- At the call wrap-up, ask participants what they will commit to do as a result of the call
- Use polling options to gather satisfaction feedback

Moving from AP Calls to Learning Labs

As a network matures, AP calls may become too big and unwieldy. Some networks have developed a "Learning Lab" approach to segment their network into enduring team groups.

The first step in moving from AP calls to a Learning Lab approach is to ensure there is clear alignment on the objectives of the Learning Lab calls, because this will provide guidance as to the best grouping method. Select the appropriate method that is most likely to support your objectives. There are several approaches to consider in grouping teams:

Method	When to Consider
Organization size or physical attribute	• When smaller organizations have different barriers to larger organizations • Hospitals might have a different change management strategy
Regional proximity	• When there is potential for regional in-person time • If there are past relationships that regional proximity has generated that can be utilized for learning
By work stream	• If there are potentially multiple and or distinct unrelated interventions
Separating new versus mature organizations	• When new organizations need onboarding base-line knowledge that is distracting mature organizations progress
Mixing new and mature organizations	• When new organizations are struggling to build will or reluctant to believe progress is possible
Separating leading versus lagging organizations	• When lagging organizations are stuck and are taking time and resources from the group • When there is negativity or complaining from either group
Randomly or alphabetically	• When there isn't a clear method • If there are past or potential disruptive personality conflicts

While there are many benefits to transitioning away from the traditional AP call model, there are indeed several challenges associated with it that are surmountable with careful planning and communication. Challenges include:

- Scheduling workload associated with increase in call frequency/volume
- The need to develop and present more targeted content for small groups

Despite these challenges, establishing Learning Labs and associated team calls seems to have led to improvement in several networks, including enhanced participation, sharing of ideas, and the emergence of new "teachers" as participating individuals step up and help lead in a smaller group setting.

Monthly Reporting

Monthly reporting is important to the network's ability to track QI activities happening across a network. Networks usually start with all centers focusing on the same set of interventions and demonstrating improvement along the way. As networks grow, and/or high achievers start reaching the improvement goals and demonstrating reliability in sustaining the change over time, it becomes necessary to allow smaller groups to work together on new ideas, KDDs, change packages, and ultimately interventions. Monthly reporting becomes critical to keep track of all the testing and progress being made.

PHASE 3:
SUSTAINING THE IMPROVEMENT PROJECT WITHIN A NETWORK

PHASE 3

Once a learning network goal is attained and improvement is achieved as noted on the associated run or control chart, the team then moves from implementing to sustaining the gains by integrating the process into daily work. (Scoville et al., 2016)

An effective Sustainability Plan describes responsibilities, monitoring and mitigation activities, timeframes, and other specifications that ensure continuation of the new, more effective process.

Resources to support sustainability:

- IHI Sustaining Improvement White Paper

Spread and Dissemination

Spreading a process improvement that was successful in one area may present different challenges to another area or facility. Employing the Model for Improvement and PDSA cycles are effective approaches for testing and adapting the changes to a new, unique environment. Utilize the Spread Checklist to guide decisions as to whether to spread to additional units, conditions, or facilities.

Resources to support spread:

- Science of Improvement: Spreading Changes
- IHI Framework for Spread White Paper

YOUR IMPROVEMENT SUGGESTIONS

We strive to provide the best guide and resources for you. How did we do?

Your feedback helps us continuously improve. Please share your feedback with us: https://www.surveymonkey.com/r/ZHGJF88. Thank you!

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