MODULE 1

SYSTEMS OF LEADERSHIP

THE LEARNING NETWORKS GUIDE: BUILDING A LEARNING HEALTHCARE SYSTEM NETWORK

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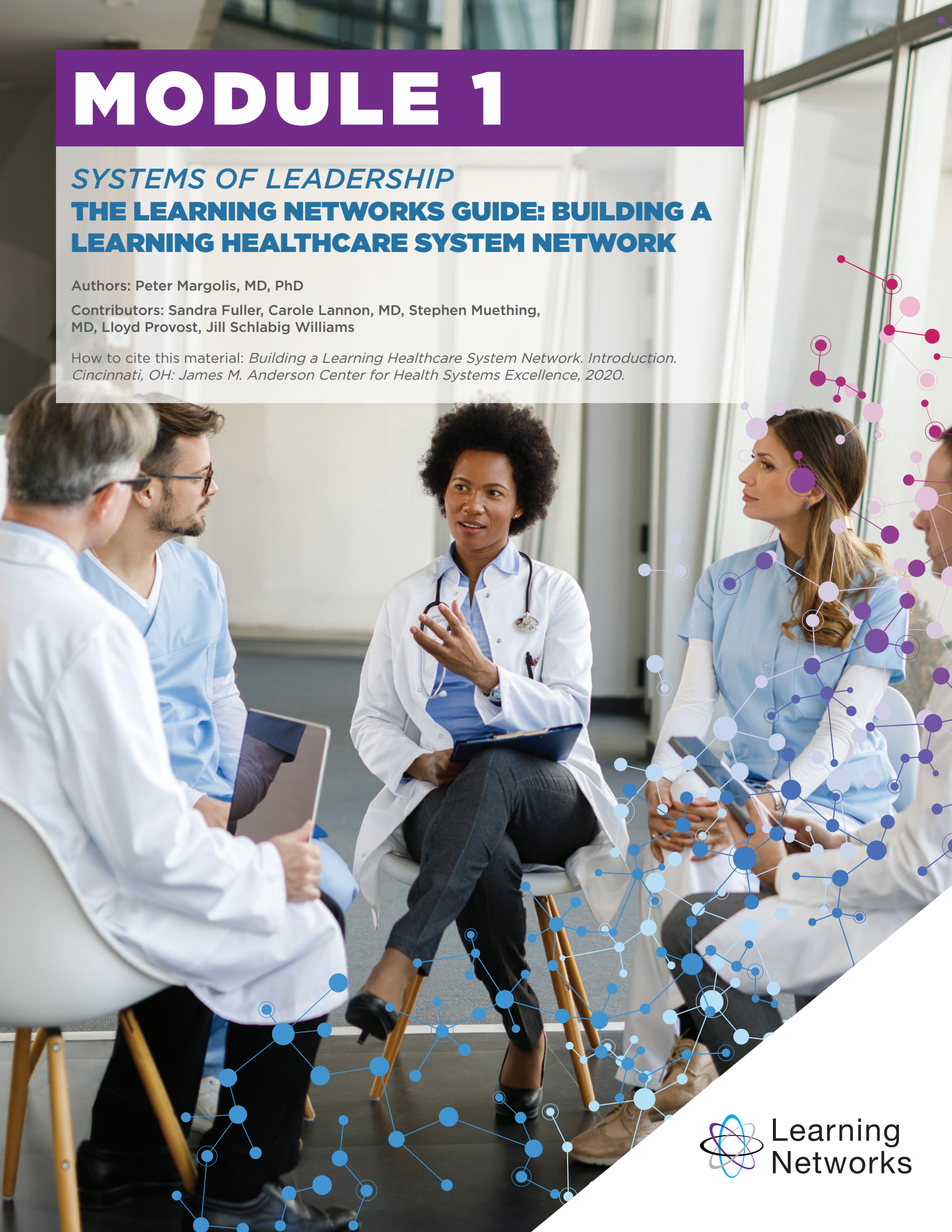

Learning Networks

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INTRODUCTION

A central role of network leaders is to facilitate the alignment of all participants around the common goal of improving the health of a defined population. (Britto et al., 2018) Leaders ensure that the mission, vision, and values are defined and visible, are understood by participants, and are used to align and guide the network's activities. Network leaders seek to build a sense of shared responsibility and accountability for outcomes and to facilitate learning from performance data. Within the network, there is a high degree of transparency across sites and ongoing sharing of process and outcome measures. Data are used to illustrate variation across sites in a way that stimulates curiosity and that promotes learning from those achieving unusually good results. For example, high-performing sites are often invited to teach others how they made improvements. A focus on the use of data for improvement rather than judgment or evaluation—and of sharing not only what works, but also what doesn't—promotes trust.

For example, a key premise in the Solutions for Patient Safety (SPS) Network, and a condition of acceptance, is that participating hospitals commit that they will not compete on safety, including publicly displaying their rates against the network's rates. In addition to undertaking specific projects, such as a central-line infection prevention bundle, all members of SPS must also commit to building a safety culture. Together, these approaches maintain a focus on improving outcomes and encourage participants to observe their own results relative to others and learn from the experience of others.

Leaders also emphasize that impact will be accelerated through generous sharing of ideas, knowledge and know-how. For example, messaging in the ImproveCareNow Network (ICN) focuses on the value of being part of a larger community, the fact that individual action makes a difference, and the importance of being part of the solution. ImproveCareNow's credo—to share seamlessly and steal shamelessly—promotes an "all teach, all learn" culture of collaboration to encourage sharing of ideas and care practices.

Resources

- For an introduction to collaborative innovation networks, see the book "Swarm Creativity: Competitive Advantage through Collaborative Innovation Networks" (Gloor, 2006)

KEY ELEMENTS: OVERVIEW AND LEADERSHIP ACTIVITIES

This section introduces the organizational architecture of a network and key activities for leaders of networks.

What is the Organizational Architecture of a Network?

All networks use an "actor-oriented" network organizational architecture. (Britto et al., 2018) "Organizational architecture" refers to the way that an organization arranges itself to coordinate and control activities and to make decisions about distribution of resources and effort.

"Actors" are people, organizations, databases and registries that are part of the network. The actor-oriented organizational architecture differs from hierarchical or matrix organizations. It is more flexible and adaptable, allowing more distributed decision making to enable large groups of people (patients, families, clinicians, researchers, and health systems leaders) to self-organize to solve problems in the healthcare system that are important to them.

The actor-oriented network organizational form has three components: 1) alignment of participants around a common goal, 2) use of standards, processes, policies and infrastructure to enable multi-actor collaboration, and 3) reliance on a "commons" where information, knowledge, resources and know-how to achieve that goal are created and shared. The model recognizes that humans are predisposed to be cooperative and that an appropriately designed organization can facilitate these predispositions, thereby facilitating cooperation and coproduction, at scale, to improve health, care, and outcomes. Coproduction in healthcare is defined as "The interdependent work of users and professionals to design, create, develop, deliver, assess and improve the relationships and actions that contribute to the health of individuals and populations." (Batalden et al., 2015)

In their book, New Power, Jeremy Heimans and Henry Timms describe three types of network participants (Heimans and Timms, 2018): Platform Stewards, Super-participants, and Participants.

Platform stewards have the ability to control, or substantially influence, who is allowed to participate in the community, its governance and decision making, its norms and structure, how value is distributed, and even whether the platform underlying the network lives or dies.

Super-participants provide most of the energy of the community. They are the most active contributors to the network and create its value. The most engaged users and those who contribute the most are some of the most influential voices inside the community (and they also have the most to lose).

Participants are the people who "take part" in a networked community and form the vast majority of individuals and users. In the case of learning health networks, these individuals may not even be aware that they are benefitting from the network.

The challenge of a network is how to weigh the needs of these three different groups, which can fall into conflict.

Leadership Activities: Developing a Systems View

W. Edwards Deming, widely acknowledged as the leading management thinker in the field of quality, defined a system as a set of interconnected people and processes that share a common aim. A key activity for leaders is to help network participants understand how their activities contribute to the success of the network. Diagrams that illustrate the key components of the networked system are very useful for accomplishing this goal. Leaders may develop a series of illustrations including Key Driver Diagrams that show the relationship between network activities and the desired outcomes, as well as logic models that illustrate how the initial activities of the network will lead to the desired outcomes.

Identifying Key Processes in the Network System

Leaders may also develop a "Linkage of Process" diagram (API, 1998) to shows key processes that the network uses. Most learning networks share common processes. Examples include network leadership; network management; quality improvement; institutional review board (IRB) and regulatory functions; research; informatics and data analytics; and patient, family and clinician engagement. Nascent networks should start thinking early on about the interdependencies of these processes, the related people necessary to execute them, and their roles and responsibilities.

All network team members need to share a common understanding of these systems and processes. In coordination with leadership, network managers do the daily work and drive the network toward better outcomes and greater maturity. The "ideal" state of this component is the presence of an effective, efficient management system with an integrated system view.

Resources

- Architecture of Collaboration (Fjeldstad et al.)
- New Power Chapter 5. "What makes new power communities work?" (Heimans and Timms, 2018)
- PARTNERS System Diagram (Appendix 1.1)
- Cystic Fibrosis Learning Network (CFLN) Clinic Level KDD (Appendix 1.2)
- CFLN KDD (Appendix 1.16)
- Linkage of Process chapter in the book Quality as a Business Strategy (API, 1998)
- Driver Diagram Tools

Leadership Activities: Developing Shared Purpose

The leadership team plays a key role in developing a sense of shared purpose among all network participants. This effort includes setting a vision for the network, developing a statement of purpose, and articulating guiding principles.

Central to the success of a network is an unrelenting focus on outcomes that matter most to patients, families, and clinicians. Networks are communities that come together to improve the health of a population of people living with a specific condition. Leadership must design the network precisely to accomplish something greater than any one member could achieve alone.

Shared purpose is not a complex concept, but leaders typically do not come to a network thinking about improving outcomes at a population level. They may be accustomed to improvement within one organization or health system, to research focused on a specific question or project, or to quality improvement collaboratives that are time-limited with a narrower focus on improving evidence-based care alone.

Shared purpose in a network means thinking about improving care and outcomes for every patient in the network's population, not just those at a single organization. Developing this shared commitment takes time and enduring commitment to purpose. The leadership group may need to engage in reading, coaching, mentoring, and interaction with other networks to appreciate how to accomplish this goal and begin to develop their own sense of shared purpose.

For example, in Solutions for Patient Safety (SPS), a prominent national patient safety network, leaders have come to talk about "owning" the harm that happens at other network hospitals so that there is a sense of shared learning and accountability.

Shared purpose also entails an acceptance that the network will be an enduring effort. Unlike a Breakthrough Series (BTS) Collaborative that may disband after achieving its goal, a network never stops. A BTS may work from 6 to 15 months to seek improvement in a focused topic area. In contrast, for a learning network, there will always be new opportunities to close gaps in outcomes, new resources that are needed, and new science to be undertaken. With this shared understanding and clarity around a network's shared purpose, network leaders can then move on to crafting a unique vision, mission and aims/goals.

Resources

- Mission statements:
  - ImproveCareNow
  - Solutions for Patient Safety
- Overview presentation: All Children Thrive (Appendix 1.3)
- Guiding principles for networks (Appendix 1.4

Leadership Role in Using Data

In a learning network, the effective use of data for learning via quality improvement and research efforts is essential to successfully leading a network. Leaders use data for learning rather than accountability. Data are used to call attention to the gap between current and desired performance and to learn from variation in performance across care centers. Access to shared performance data can be an important motivator for care centers to join a network.

Learning networks should establish **a few measures that serve as "true north"** and that indicate the outcomes that are important. These key measures must be aligned with the written purpose statement of the network. For example, in the national Solutions for Patient Safety network, a key measure used is the number of serious safety events. For the National Pediatric Cardiology Quality Improvement Collaborative (NPC-QIC), a key measure used is mortality during the inter-stage period. A key role of leaders is to encourage shared commitment to progress towards better performance across all people affected by a condition.

Transparency of data in a network is central to learning and to the culture of shared purpose. Most networks share data very transparently within the network. Some, like the CF Foundation, may share performance data publicly. Others have policies that limit public sharing of site-by-site data but share aggregate data as a data dashboard on the network's website.

A **dashboard** or "family of measures" is used to describe the health and performance of the network. A dashboard is an easy to read, often single page, real-time report, showing a graphical presentation of the current status and historical trends of an organization's key performance indicators as run charts or control charts. For more details on dashboards, see Module 6: Data and Analytics.

A key role of network leaders is to establish regular monthly review of progress on dashboard measures and to emphasize the use of data in all network interactions, including conferences and webinars.

Resources

- ICN Dashboard (Appendix 1.5)
- SPS online reports

Leadership Activities: Engaging All Stakeholders

Networks are coproduced by the participants. A network is an open community where individuals can bring their expertise and experience to improving the health of a population of patients. A key role for network leaders is to build participation across stakeholder groups, which can include:

- Patients, family members and caregivers
- Clinicians
- Researchers and scientists
- Hospital division heads, administrators and C-level leaders
- Government agencies
- Foundations and nonprofits
- Community groups

The book New Power (Heimans and Timms, 2018) identifies three key leadership behaviors that support the development of a participatory community:

1. Signaling is the way a leader engages the community through speech, gesture and actions to engender a sense of agency. In the ImproveCareNow Network, for example, the community organizing, and engagement activity uses personal stories and what organizers call "public narrative" to convey key messages about participation and a sense that all members of the community can make a difference.

2. Structuring is how the community puts into place the structures and practices that enable participation and agency including the many ways that networks engage their communities in a culture of "all teach, all learn."

3. Shaping is how the leaders set the overall norms, especially in ways that go beyond formal authority. In successful networks, the norms are so well understood and adopted that they are upheld by participants without reliance on the leader.

It is important to recognize that building community takes time. Many participants have not interacted as equals in the past. Particularly in healthcare, there can be strong power differentials between physicians and patients, for example, and widely divergent vocabularies. A key part of the network's design activities is to enable the community to form, allowing time for dialogue and the development of shared understanding.

The beginning of a network is often catalyzed by a "design day." Design days provide a useful structure and process for allowing such interactions to take place. The individuals who come together to form a network will have a strong influence on the network's culture, so it is important for leaders to be thoughtful about the culture that they are trying to create.

Resources

- Invitation to a design day (Appendix 1.6)
- Example blog posts from ICN about community:
    - A snapshot of time (2017)
    - Reflections from a patient
- Sample community presentation or video (e.g., CFLN video ignite talks)
- Engagement and community organizing resources – see Module 5: Engagement and Community Building

Demonstrating the Network's Value

Networks exist to nurture the capability of participants to achieve their goals of better health. Network leaders recognize that participating organizations and individuals join the network voluntarily. All participants contribute their time, effort, and data toward achieving shared network goals.

Network leaders hold the responsibility of helping to facilitate the creation of value by working to ensure that all of its participants will achieve better results, faster, by being part of the network. Accelerated improvement towards a common goal or outcome is a key element in the network value equation. Other contributing factors include learning best practices from other centers, engaging patients and families in contributing knowledge and expertise, and gaining access to the network and its data for research and overall cost savings in the delivery of care. Network value can thus be quantified financially and/or in terms of outcomes improvement.

Much of the value in a network comes from its impact on healthcare processes and outcomes, the new knowledge that is generated, and the creation of a community of learners and improvers working to improve the health of patients and families. In addition, participation in a network has the potential to reduce variation and overall cost of care delivery. (Britto et al., 2018)

In many cases, an annual participation fee from participating care centers funds the network's operations. In other networks, operational costs are covered by foundational or other philanthropic support with supplemental grant and/or industry funding. For networks whose participants contribute a site fee, the cost of participation can be considered a value proposition. Member sites that pay membership fees expect to receive value in return for their contributions of money, data, and clinicians' time and effort. A center that pays to support the network must believe their respective center is getting better because of their participation. If the network can show that the outcomes improvements realized as a result of being a part of the network result in a greater overall cost savings than the total cost of participation, the value demonstrated by the networks is clear.

Feedback about network progress and outcomes is helpful and necessary; this feedback may take the form of regular communications and/or an annual report. (e.g., SPS Annual Reports). Network leadership and management should empower center leaders with sufficient information to explain to their respective institutions why participating in the network makes sense for them. Examples of presentations on the value of networks are included as resources (Appendix 1.11). Ideally the network would produce regular reports summarizing activities during the past quarter or year and progress towards outcomes.

The network's finances should be as transparent to network members as possible (of course, this does not mean sharing personal salary information or funders' confidential information). Network members will want to know why it costs a given amount of money each year to be part of a network. Determining the annual participation fee is not formulaic. A network's financial model is often created from the bottom up, beginning with network annual operating expenses. If the network has other sources of funding, the participation fee may simply cover the financial gap in necessary annual operating expenses.

Even if the network is funded by other sources, network members will want to know where the money goes, what infrastructure support is needed, and why the network makes strategic choices to pursue certain activities and not others. Opaque finances are a threat to the network's sustainability.

Another indicator of the network's value could be a commitment on the part of leadership to drive down per-site network costs, year-on-year. Leaders should be concerned about the per-site cost both in the beginning of a network, when there are multiple startup costs, and also in later years, when leaders of a mature network should adopt a continuous improvement approach to drive costs out of the system.

Examples

- NPC-QIC "ROI Abstract" for its members. Since improving infant patients' survivability was the network's key outcome goal, the network's leadership showed how participating hospitals' success in reducing infant mortality could lead to greater hospital revenue as well as downstream reputational effects and patient referrals. This network was able to increase its annual participation fee without losing any network member clinics.
- Solutions for Patient Safety estimated savings (Appendix 1.7). The network developed a compelling methodology to calculate these cost savings, and has made the methodology transparent to funders and other stakeholders.
- IROC report on year-long design phase (Appendix 1.8). This Improving Renal Outcomes Collaborative (IROC) report, produced for all its member sites, detailed the design phase methodology, recommended interventions/change packages (Appendix 1.9), and outlined next steps for the network. Site improvement teams then used this report to justify their respective institutional funding requests for the following year. The report is also meant to be used as a recruitment and onboarding tool for new centers.

Resources

- ICN participation letter (Appendix 1.10)
- IROC network value for administrators presentation (Appendix 1.11)

FIGURE 1 – NETWORK VALUE TO STAKEHOLDERS

Patients

More reliable, effective care that drives better outcomes

Accelerates cures and treatments

Strong voice in care and research priorities

Opportunities to participate in their own care and to contribute to health system transformation

Clinicians

Tools, training and support for better care

Career development

Shape care system and research priorities

Access to innovations and resources for innovation

MOC, CME, CNE credit

Opportunities to participate in research

Researchers

Large-scale, comprehensive, data

Network of expertise and collaborations

Engaged patients and clinicians

New research funding opportunities

More competitive applications

Career development opportunities

Payers

Improved quality of care and outcomes

More predictable risk representative research

Better patient engagement

Engaged, aligned clinicians and researchers

LHS Network

Shared purpose of better health

Highly engaged patients, clinicians, researchers and institutions

Shared assets and innovations open to all

Ongoing source of innovations

Demonstrated results in driving change in care for scale

Training capability

Opportunities for networking

Size and scale necessary for rare disease studies

Interoperable, federated, curated clinical data from millions of patients

Access to biorepository and genomic data

Streamlined IRB and regulatory infrastructure

Disease Advocacy Groups

Faster impact on outcmoes and care. Faster progress towards cures

More research per dollar of funding

Access to institutional expertise and capabilities

Reduced technology development and maintenance costs

Access to innovations at lower cost

Institutions

Realize core mission faster, cheaper and better

Faster learning about best practices by drawing on experience across institutions

Access to better practice (clinical and research) tools

Builds improvement capability as part of daily work (cheaper than courses)

Increased opportunities for researchers

More competitive research applications

Access to new funding streams

Network performance drives local, state and national advocacy

Fulfill MOC, CME, US News requirments

Industry

Larger studies, more representative populations, more valid answers

Access to engaged patients and clinicians

Access to expertise

Streamlined study infrastructure

Real world data from millions of patients across varied settings

Speed to application of findings

Federal and Foundation Sponsors

Speed to impact

More research per dollar of funding

More representative research

Ability to demonstrate impact on outcomes

Sustainability following start-up investment

PHASE 1:
DESIGN & DEVELOPMENT

PHASE 1

Define Network Purpose and Develop a Design Charter

Create a Purpose Statement

A key first step of network design involves creating a statement of purpose in order to align stakeholders around a common goal of improving the health outcomes that matter most to patients. The statement should be an ambitious declaration that reflects "what matters most" to patients, families and clinicians. Leaders will find it easier to recruit new teams with a clear vision and mission.

Process Tips

- Plan for about four hours of meetings with leaders to achieve alignment
- Get a first draft out
- Do two rounds of edits (getting input from key stakeholders) and then use that as a working document with others participating in the design exercise
- See this as a living document to refine during the design phase

Examples of purpose statements

- ImproveCareNow Network - "Our purpose is to transform the health, care and costs for all children and adolescents with Crohn's disease and ulcerative colitis (Inflammatory Bowel Disease or IBD) by building a sustainable collaborative chronic care network. We are enabling patients, families, clinicians and researchers to work together in a learning healthcare system to accelerate innovation, discovery and the application of new knowledge."
- Ohio Perinatal Quality Collaborative - "The Ohio Perinatal Quality Collaborative (OPQC) is a statewide consortium of perinatal clinicians, hospitals, and policy makers and governmental entities that aims, through the use of improvement science, to reduce preterm births and improve birth outcomes across Ohio."
- Solutions for Patient Safety - "Our Mission: Working together to eliminate serious harm across all children's hospitals."

Ask yourself . . .

- Is the statement easy to understand, motivating, aspirational and exciting?

One network leader described the purpose statement as "something anyone can say 1,000 times. Leaders should be comfortable saying it to their teams every day."

Develop a Charter for the Design of the Network

The Network Design Charter provides a summary that will be used to plan and guide the activities of participants during the design process.

What are the components of a design charter?

- What we expect the network to achieve
- Description of the stakeholders who will come together to undertake the design
- Desired network characteristics or "requirements" the network system should achieve
- Description of the team structure and roles during the design phase
- Description of the timeline and activities to be conducted
- Expected outputs of the design process. This will include the theory and process for achieving it and measures to assess progress. An aim for the next year of network operations is an important output of the design phase.

Process Tips

- This activity requires teamwork by the network improvement leaders, the subject matter expert leader, quality improvement (QI) coach and project leader/manager
- Plan for multiple iterations over about a three- to four-week period

Ask yourself . . .

- Do we have an understandable, compelling purpose statement?
- Are the roles and team structure for the design phase clear?
- Do we have a good first draft of requirements that would make the network a success?
- Have we identified all relevant stakeholder groups?

Resources

- C3N Design Charter (Appendix 1.12) Also see, Collaborative Chronic Care Networks (C3Ns) to transform chronic illness care
- Network design work breakdown structure (Appendix 1.13)

Developing Leadership Roles in a Network

Networks need a combination of leaders. In many networks, leadership roles may be shared. All leaders should have achieved a level of respect among colleagues and have a collaborative leadership style.

Together with network staff, the leadership team coproduces the activities of the network. Leaders are often known as "faculty." Their expertise spans the various domains of the network (e.g., content, QI, engagement, research). An individual in one of the above roles may act as the liaison between the network and sponsoring organizations to align the network's purpose and the sponsoring organization's priorities.

What strategic and content leadership roles does a network need?

Content Experts – are well respected, well-known leaders in the fields relevant to the network. These individuals should not only know the latest content but should have also produced results applying the content. They know both the "what" and the "how." The role of the content expert leaders is to create a shared vision and provide intellectual leadership for the topic, to assist in forming and guiding a faculty group that plans the network's activities, and to assist the improvement lead and quality improvement specialist in developing the conceptual framework, the execution plan, and the measurement and learning system.

Additional Content Experts – are often recruited as part of the leadership team. These Faculty must be well versed in the clinical evidence base for the chosen topic. They must also have practical experience and have achieved success in improving care. Content experts should mirror the professional roles and types of organizations of the participating teams. They should have excellent communication and problem-solving skills and the ability to coach others.

Collaborative Quality Improvement and Scientific Lead – should be an expert with advanced quality improvement expertise including theory, methods and application. The improvement lead should have expertise in collaborative QI including all phases of network development: design, development, and implementation. The improvement lead is responsible for the overall design and execution of the measurement, implementation, and learning system for the network as well as for providing guidance on collaborative improvement, QI methods, and network development. Ideally, this individual should also have strong training in clinical epidemiology and health services research.

Patient and Family Leaders – bring personal expertise and experience, knowledge, and passion to guide the work of the network. They often have developed innovations, or they may have organized patients to contribute to care, clinical services, community development and/or advocacy.

What operational and management roles does a network need?

Strategic and content leaders are supported by network staff leaders who typically include a lead quality improvement coach/specialist, lead project manager, and a lead analyst. Mature networks may also have an executive director.

Role descriptions are available in Module 2: Governance and Management.

How is work organized in a network?

Networks typically have workgroups focused on the following topics:

- Collaborative QI
- Engagement
- IT
- Analytics

Some networks enlist scientific advisory councils to provide high-level expertise on specific topics such as advanced QI methods, research methods, engagement and more.

Example organizational structure

- CF Learning Network Design Phase organizational structure (Appendix 1.14)

Ask yourself . . .

- Are the strategic and content leaders widely respected in the community? Do they have a collaborative leadership style?
- Have leaders' previous efforts produced results? Better health? Effective innovations?

Resources

- Example of learning network leadership composition:
  - CF Learning Network
  - ImproveCareNow
  - Ohio Perinatal Quality Collaborative
  - Solutions for Patient Safety
- Roles in a Learning Network may be useful as a description of roles needed to support quality improvement (see Module 2: Governance and Management Appendix 2.1)

PHASE 2:
IMPLEMENTATION & YEARLY CYCLES

PHASE 2

Network as a System

A system diagram is a visual illustration of a system and its components and interactions. It is a high-level presentation of essential parts of a system's design. System diagrams are useful so that network participants can see where they "fit in." It is likely that the network will need several different diagrams.

Process tips

- Use the actor-oriented architecture as the framework: Shared purpose, commons, infrastructure
- Identify the purpose of the network
- Identify the boundaries of the system. What organizations are inside and what are outside?
- Identify participating organizations
- Identify what is shared
- Identify infrastructure components
- Develop a diagram that shows how these components are linked

Resources

- Look at the Linkage of Process chapter in the book Quality as a Business Strategy (API, 1998) as a means to develop an illustration of network processes (network leadership, network management, quality improvement, IRB-regulatory, research, informatics, data analytics, site/center management, patient/family and clinician engagement)

Examples

- PARTNERS System Diagram (Appendix 1.1)

Data and Dashboards

A dashboard is a graphical presentation of the current status and historical trends of an organization's key performance indicators to enable informed management decisions. Dashboard data are presented as statistical process control charts, with performance on a key measure displayed on the y-axis, and time displayed on the x-axis. The dashboard will use a small multiples layout featuring a series of similar graphs or charts using the same scale and axes and allowing for easy comparisons. Networks use dashboards at multiple levels: Network, care center and specific projects.

Why use a dashboard?

- The dashboard supports a "system view" of performance
- The dashboard enables learnings about the relationship between changes and outcomes
- Properly formatted dashboards enable care centers to compare their performance to others to learn from variation

Process tips

- At a network level, the dashboard should include a balanced set of measures. Options to consider include:
    - o Results (the most important outcomes and process measures)
    - o Network engagement (e.g., % of teams that are participating in events, % of teams using portal/website/intranet, # of downloads of the data, % of care centers sharing results/processes)
    - o Patient and family participation (e.g., number of patients in the registry, % of leadership from parents/patients)
    - o Data quality (e.g., completeness of data)
    - o Measures of network reach (e.g., number of care centers)
    - o Network financial performance
- Establish a dashboard review as part of the monthly rhythm of management activities of the network

Examples

- Solutions for Patient Safety dashboard
- ImproveCareNow network level dashboard (Appendix 1.5)
- SPS's one-page Navigator Report (Appendix 1.17): It is modified and distributed annually. SPS also has a "Hospital Performance Report" that provides a snapshot overview for executive leaders on how their hospital is performing for each metric (Appendix 1.18)

Resources

- Science of Improvement: Establishing Measures

Leadership Communication

A key role of network leaders is to facilitate alignment around the common goal of improving the health of a defined population. Leaders ensure that the mission, vision and values are defined and visible, are understood by participants, and are used to align and guide the network's activities.

Leader communication activities should be aimed at:

Building a sense of shared responsibility and accountability for outcomes

Facilitating learning from variation in performance data

Building a high degree of transparency across sites by network and sites sharing results at meetings and webinars of measures of aggregate and site-level performance, including outcome and process

Illustrating variation across sites in a way that stimulates curiosity and learning from those achieving unusually good results

Maintaining a focus on improving outcomes; encouraging participants to observe their own results relative to others and learn from the experience of others

Emphasizing that impact will be accelerated through generous sharing of ideas, knowledge and know-how (e.g., ImproveCareNow's credo - "share seamlessly and steal shamelessly" - encourages sharing of ideas and care practices)

Sharing the many opportunities for involvement (e.g., leadership roles, work groups, quality improvement teams) with the goal of building leadership that is distributed across all levels of each network and of coproduction of services.

Ask yourself . . .

- Are high-performing sites invited to teach others how they made improvements?
- Is the focus on data for improvement rather than judgment or evaluation?
- Are we sharing not only what works, but also what doesn't, which promotes trust?
- How are parents/patients involved in the data sharing process?

Examples

- C3N Brand Architecture workbook (Appendix 1.19)
- ICN Communications brand book (Appendix 1.20)
- ICN Awareness/follow-up cards (Appendix 1.21)
- Steve Muething's talk on SPS is a good illustration of the use of stories
- ICN video
- NPC-QIC video
- Example of an Ignite Talk
- SPS Annual Reports

Resources

- IHI Psychology of Change white paper
- ICN guidance on story telling (community organizing tool kit) (Appendix 1.22) and Personal Story Builder Worksheet (Appendix 1.23)
- For an introduction to the concept of collaborative innovation networks, see the book "Swarm Creativity: Competitive Advantage through Collaborative Innovation Networks" by Peter A. Gloor, Oxford University Press, 2006 (Gloor, 2006)
- Another view of the power of collaboration is offered in the Harvard Business Review article "Understanding 'New Power,' by Jeremy Heimans and Henry Timms (Heimans and Timms, 2014)

Annual Planning

Learning networks build capability over time to support clinical care, improvement and research. Annual planning provides a useful cadence to ongoing network development. A general approach to annual planning can be found in Associates in Process Improvement's Quality as a Business Strategy (API, 1998) and in Chapter Fourteen of The Improvement Guide. (Langley et al., 2009)

The Learning Network Maturity Grid

The Learning Network Maturity Grid is a tool to support planning to develop key network capabilities. The goal of the framework is to facilitate strategic decision making for those designing, implementing and supporting learning networks. The grid provides a means to assess network development and processes so that network leaders can use this information in making strategic choices to develop their networks into systems that improve healthcare and outcomes.

The maturity grid includes six domains of capability that are important in networks: systems of leadership, governance and management, quality improvement, engagement and community building, data and analytics, and research (or science). The grid is based on the concept of a Capability Maturity Model (CMM) that was developed for managing software development. A maturity grid can be viewed as a set of structured levels that describe how well the behaviors, practices, and processes of an organization can reliably and sustainably produce required outcomes.

A maturity grid can be used as a benchmark for comparison and as an aid to understanding. For example, the grid can be used to compare similar processes at different organizations. In the case of the CMM, for example, the basis for comparison would be the organizations' software development processes.

The model involves several aspects:

Domains and key processes: A cluster of related processes and activities (e.g., science) that, when performed together, achieve a set of goals considered important.

Maturity Levels: A five-level process maturity continuum where the uppermost (fifth) level is an ideal state where processes would be systematically managed by a combination of process optimization and continuous process improvement.

Goals: Each domain is divided into goals that summarize the states that must exist for that key process area to have been implemented in an effective and lasting way. The extent to which the goals or milestones have been accomplished is an indicator of how much capability the organization has established at that maturity level. The goals signify the scope, boundaries, and intent of each key process area.

Following the annual planning activity, networks may charter specific improvement initiatives and use appropriate tools to support their execution over the timeframe planned for each initiative (see resources) using the Model for Improvement.

Resources

- Learning Network Maturity Grid Excel file (Appendix 1.24)
- IHI Project Design & Evaluation Guide (Appendix 1.25)
- *Practical recommendations for the evaluation of improvement initiatives (Parry et al., 2018, Pages 29-36)*
- Chapter Fourteen of The Improvement Guide (Langley et al., 2009)
- Quality as a Business Strategy (API, 1998)

PHASE 3:
SUSTAINING THE NETWORK

PHASE 3

Financial Sustainability

Financial sustainability refers to the ability of a learning health system to cover all of its expenses and planned initiatives without requiring supplemental investments from a host institution or other entity that is not an official participant, funder, investor, customer or donor. For a complete discussion of financial sustainability within learning networks, see Module 3: Financial Sustainability.

Issues to consider . . .

- No funding comes without "hooks" or expectations. Ideally, leadership can find sources of funding that are completely aligned strategically with the network and require very little input to attain or maintain. More realistically, however, there are costs involved with securing and keeping sources of funding; meanwhile, there may not be perfect alignment between funders' strategic priorities and the priorities of a network's leadership.
- Federal and state funders can be very demanding in terms of contracting and reporting, in addition to their different/additional strategic demands on the network.
- Networks will want to consider carefully whether to pursue and accept industry funding; patients, families and clinical leaders will want to understand key issues and provide their input.

Recruiting and Developing Network Leaders

Network management becomes the hub where all activities of design, implementation and ongoing yearly cycles of growth and improvement inside a learning network meet. Effective coordination and organization of these activities has the power to help the network go farther, faster. The person who will act as the chair of the future network, is responsible for identifying the team that will provide day-to-day support during the design phase, including a project manager and a QI team, as well as design and early network leaders, a group of peer leaders who can help during the design phase. For a more complete discussion of network leaders, see Module 2: Governance and Management.

Key concepts in developing network leaders

- Networks depend on voluntary participation by a wide variety of individuals. Participation of volunteers may wax and wane. Therefore, a plan, structure and resources for ongoing development of new leaders is critical.
- Developing and empowering the next group of network leaders is an activity that is central to the ongoing success of a network organization.

Opportunities for building leaders

The basic structure of networks is organized around healthcare organizations. These organizations are grouped into 'nodes' which may represent regions, naturally occurring affinity groups (e.g., psychosocial professionals, patients), or similar types of centers based on contextual factors such as organizational size, academic vs. non-academic. Each group is an opportunity to develop peer leaders.

It is important to be very intentional and to develop a process for developing leaders of groups. The SPS network has a formal process for nomination of regional leaders, for example. The selection of leaders should be based on individual's demonstrated performance and engagement in achieving specific network goals. This approach is what community organizers call the "ladder of engagement." This model is different from the model used by many professional organizations that do not have performance and contribution as criteria for the selection of leaders.

A key activity for all leaders in a network is to consider their own role in developing others.

Developing a succession plan

- The network's leadership team should always be identifying and mentoring the next wave of network leaders to take their place or join them on the leadership team.
- Several of the networks have developed transition-succession plans for new leaders to take the place of others because of retirement or leaders moving on to new roles.

Resources

- SPS Guidelines for Establishing a Leader Nomination/Rotation Process (Appendix 1.26)
- SPS Guidelines for an Effective Appreciation Note (Appendix 1.27)
- Swarm Creativity (Gloor, 2006)
- Swarm Leadership and the Collective Mind: Using Collaborative Innovation Networks to Build a Better Business, chapter on C3N (Gloor, 2017)
- New Power (Heimans and Timms, 2018)
- ICN Community Organizing materials (a set of videos created as part of a learning series designed to teach about how to engage the community)
- Options for Large-scale Spread of Simple, High-impact Interventions (Massoud et al., 2010)

FOR FURTHER READING

- Getting the most from a Learning Session (Appendix 1.28)
- Network Maturity Grid Systems of Leadership Table (Appendix 1.29)
- Building Leadership in an Open Source Community
- Marsolo K, Margolis PA, Forrest CB, Colletti RB, Hutton JJ. A Digital Architecture for a Network-Based Learning Health System: Integrating Chronic Care Management, Quality Improvement, and Research. EGEMS (Wash DC). 2015;3(1):1168. Published 2015 Aug 17. doi:10.13063/2327-9214.1168
- The Breakthrough Series: IHI's Collaborative Model for Achieving Breakthrough Improvement. IHI Innovation Series white paper. Boston: Institute for Healthcare Improvement; 2003. (Available on www.IHI.org)
- Crandall WV, Margolis PA, Kappelman MD, et al. Improved outcomes in a quality improvement collaborative for pediatric inflammatory bowel disease. Pediatrics. 2012;129(4):e1030-41.
- Margolis PA, Peterson LE, Seid M. Collaborative Chronic Care Networks (C3Ns) to transform chronic illness care. Pediatrics. 2013;131 Suppl 4(Suppl 4):S219-23.

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!

REFERENCES

API, A. I. P. I. 1998. Quality as a Business Strategy, Austin, TX, API.

BATALDEN, M., BATALDEN, P., MARGOLIS, P., SEID, M., ARMSTRONG, G., OPIPARI-ARRIGAN, L. & HARTUNG, H. 2015. Coproduction of healthcare services. BMJ Qual Saf, 1-9.

BRITTO, M. T., FULLER, S. C., KAPLAN, H. C., KOTAGAL, U., LANNON, C., MARGOLIS, P. A., MUETHING, S. E., SCHOETTKER, P. J. & SEID, M. 2018. Using a network organisational architecture to support the development of Learning Healthcare Systems. BMJ Qual Saf, 27, 937-946.

GLOOR, P. A. 2006. Swarm creativity: Competitive advantage through collaborative innovation networks, Oxford University Press.

GLOOR, P. A. 2017. Swarm leadership and the collective mind: Using collaborative innovation networks to build a better business, Emerald Publishing Limited.

HEIMANS, J. & TIMMS, H. 2014. Understanding "new power". Harvard Business Review, 92, 48-56.

HEIMANS, J. & TIMMS, H. 2018. New power : how power works in our hyperconnected world --and how to make it work for you, New York, Doubleday.

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, John Wiley & Sons.