In its report *Crossing the Quality Chasm* the Institute of Medicine’s (IOM) proposed guidelines for comprehensive health system change included shared knowledge and free flow of information, evidence-based decision making, the need for transparency, and collaboration among clinicians and institutions. A rapidly evolving substance abuse prevention knowledge base, in combination with the shifting political landscape and economic realities in New Hampshire (NH) create an environment of increasing complexity that requires continuous learning and adaptation. An essential role exists for learning organizations in improving existing services as well as improving the capacity to address future demands by closing the gap between research and practice.2

Current health care reform efforts emphasize an essential focus on prevention to address quality and cost issues, particularly related to innovation and implementation of evidence based practice.3

"Innovation . . . is generally understood as the successful introduction of a new thing or method . . . Innovation is the embodiment, combination, or synthesis of knowledge in original, relevant, valued new products, processes, or services."4

Innovation implies creativity, but also requires putting ideas into action to make a difference. Technology transfer is “…the science of application of knowledge to practical purposes."5 p. 11 Successful implementation of evidence-based practices through technology transfer depends upon the interdependence of three components: the evidence (as in the evidence-based intervention), the context (the environment or setting in which the proposed change will be implemented), and the facilitation of the process of implementation.6 Strategies to foster systems change and support professional development among prevention providers and practitioners include:

- using data and information to create learning organization at all levels of the substance prevention system,
- applying existing substance abuse prevention knowledge, and
- creating new knowledge regarding prevention science within the unique NH cultural context and prevention system.

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The NH Center for Excellence will implement these strategies through a learning collaborative (LC) approach.

**Methodology**

The LC approach is an adoption and improvement model that focuses on spreading and adapting best practices across settings and creating changes within organizations that promote the delivery of best or better practices. LCs have provided successful venues for performance improvement and systems change within the health care setting. Existing knowledge about this method offers a springboard for adaptation from the health care arena to the prevention domain.

“…A [learning collaborative]… involves selecting a topic for improvement, developing change principles from existing evidence of best practice, identifying measures for improvement, and testing change ideas with an aim of making the system better …[it includes] a series of learning workshops…interspersed with action periods when progress is measured and reported…”

Learning collaboratives provide venues for experiential learning that enable the development of systems thinking and learning organizations. Systems thinking encourages discovery and understanding of the dynamic interrelationships within and between systems. A unique benefit of systems thinking is the capacity to recognize patterns that might be indiscernible unless processes are reflected upon and viewed from a broad perspective.

Learning organizations create environments that engage all stakeholders in improvement processes through the development and application of evidence. Effective learning environments enable people to access resources, make sense of their environments, and construct meaningful solutions to problems. Effective learning environments recognize the contributions of experience and encourage learning from mistakes, and foster innovation.

“Innovation is fostered by information gathered from new connections… [it] arises from ongoing circles of exchange, where information is not just accumulated or stored, but created…”

The aim of the CFEX LC is to foster the development of learning organizations within the prevention system through the development of systems thinking and the application of a systems approach among substance abuse prevention providers and practitioners in the implementation of

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evidence-based interventions. Learning teams within a learning collaborative benefit from the experiences of similar organizations, or organizations implementing similar practices.\textsuperscript{10} The NH CFEX LC will provide tools and resources to support a process of shared reflection and experiential learning related to the implementation and evaluation of evidence-based substance abuse prevention interventions. Activities will focus on achieving measurable process improvement through the adoption of evidence-based practices. The LC will apply current technology transfer and implementation science to foster the infusion of evidence based prevention interventions.

Based on the premise that technology transfer occurs through an intentional process of performance improvement\textsuperscript{11}, the LC will use an action-learning methodology\textsuperscript{12} to facilitate the development of learning teams from each of the Strategic Prevention Framework (SPF) regions. This approach entails a process of prework, learning and action periods to effect change.

- The prework phase includes identifying focus topics and participants, defining objectives, and an assessment process using an adaptation of the clinical microsystem framework\textsuperscript{13,14} (the 5 Ps) to understand the target organization or collection of stakeholders. It will also entail an enrollment process, garnering commitment to engage in the work of the LC. The prework process will occur during the initial weeks of the LC, beginning in December 2009 through the meeting of the learning teams in March 2010. Learning teams will have


\textsuperscript{13}The microsystem is the immediate system in which services are provided, and includes the internal team — how members work with each other and their clients. [ Nelson, EC, Batalden, PB, Huber TP, Mohr, JJ, Godfrey, MM, Headrick, LA, et al. (2002). Microsystems in health care Part 1: Learning from high-performing frontline clinical units. \textit{Joint Commission Journal on Quality Improvement, 28}, 472-493.]. The microsystem concept was based on a business model developed by Brian Quinn, and adapted to the healthcare arena by a group of researchers at Dartmouth Medical School. The team has been researching and improving microsystems for more than 10 years in the United States and Northern Europe. Nelson et al. (2002) define a microsystem as “…a small group of people who work together on a regular basis to provide [services] to discrete subpopulations of [clients]. It has functional and business aims, linked processes and a shared information environment, and it produces performance outcomes. Microsystems evolve over time and are often embedded in larger organizations … As [complex adaptive systems] they must do the primary work associated with core aims, meet the needs of internal staff, and maintain themselves over time” (p. 472). [Nelson, EC, Batalden, PB, Huber TP, Mohr, JJ, Godfrey, MM, Headrick, LA, et al. (2002). Microsystems in health care Part 1: Learning from high-performing frontline clinical units. \textit{Joint Commission Journal on Quality Improvement, 28}, 472-493.] See also: Nelson, EC, Batalden, PB, and Godfrey, MM (2007). \textit{Quality by design: A clinical microsystem approach}. Jossey-Bass: San Francisco.

the opportunity to benefit from the experiences of similar organizations, or organizations implementing similar practices.15

The learning and action phases occur over the remaining seven months of the grant period. Learning teams will convene every other month to engage in shared processes of reflection and learning.

- **Learning sessions** are designed to foster adaptation to the evolving NH prevention system by combing two interactive components: the *What* and the *How*. The *What* entails education and learning about a specific EBI (content, fidelity measures, etc.); the *How* entails education and learning about how to successfully implement EBIs through quality design and process improvement. This component will include education about change strategies and supportive tools. Teams will develop measurable and achievable targets and strategies for change with the support of peer learning teams and the CFEX staff.

- **Action periods** occur during the intervals between learning sessions, and provide opportunities to apply knowledge gained during learning sessions. During action periods learning teams will study, test, and implement the latest knowledge and evidence available with various skills and techniques, and measure the impact of these changes through Plan-Do-Study-Act (PDSA) cycles. PDSA cycles provide a means to test ideas and techniques quickly enabling teams to capture successes and challenges to share during the learning sessions to enhance learning for the entire group. Onsite technical assistance will be provided by CFEX staff during action periods.

This combination of content and methodology will foster development of cognitive knowledge (“know what”) and skills development (“know-how”) as well as systems understanding (“know why”) related to substance abuse prevention. The LC model will facilitate the development of communities of practice in substance abuse prevention that will support transitions in culture and

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efficiencies of economy. Members of learning teams will gain knowledge about systems change, and learn how to apply that knowledge within the context of the microsystem in which they work.

Participants

Participants will form learning teams of 2-3 representatives from each SPF region to focus on a selected evidence based intervention (EBI). Participants should include stakeholders who have an understanding of the breadth of relevant operations and have the ability/authority to make decisions about process change (participants may include referral sources, beneficiaries of service, contract managers, community prevention coordinators, service or intervention implementers, oversight board members, linking service or intervention personnel, etc.). The inclusion of multiple participants from each SPF region promotes organizational commitment to the process and enhances capacity building. Learning team members are expected to participate in all Learning Sessions and to engage in the Action Periods between learning sessions. Benefits of participation include the availability of resources, peer support, professional development and the opportunity to shape the prevention system in New Hampshire as it evolves. (Please see Attachment A for a proposed timeline).

Participation in the first phase of the LC focusing on community mobilization will be open to any organization involved in community-level coalition building and community mobilizing for prevention (including SPF-supported local coalitions, network level coalitions if sub-network capacity is still in progress, and Drug Free Community coalitions). Participants in the second phase will include representatives from a team of providers or practitioners involved in delivery of the selected EBI.

Learning Collaborative Structure and Processes

The structure of the LC includes the resources and stable arrangements in which processes occur. Structure may be described in terms of focus, resources, and frameworks. Examples of structural elements include:

- Mission/Purpose
- Work rules
- Formal leadership
- Financial resources

LC processes refer to the specific ways members work and interact together, and include:

- Communication
- Decision-making

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Sharing information
Learning
Activities
Feedback

Focus
Based on the identified needs of the prevention community in NH the LC will unfold in two phases:

1) The first phase will begin in March 2010 and will focus on community mobilization. The core elements of current evidence-based community approaches including Communities Mobilizing for Change on Alcohol, the Community Trials Intervention, Communities That Care, and/or other evidence-based environmental approaches will drive the curriculum for the LC as participants in the collaborative share strengths, weaknesses, opportunities and threats (SWOT) of the approaches and their core activities.

2) The second phase will focus on a sub-category of direct service intervention and will be established once the RFP selection process is complete and funding decisions have been made.

Expected Outcomes
Expected outcomes of the LC include the following:

1. The development of learning teams with increased knowledge of evidence-based interventions and capacity for systems thinking and improvement leading to the subsequent spread of better or best prevention practices.
2. The development of new knowledge (practice and quality improvement).
3. The development of learning organizations at micro-, meso-, macro system levels.
4. The development and/or expansion of social capital and a community of practice among prevention providers and practitioners.

Communities of Practice (CoPs) are…

“…groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.”

CoPs embody the characteristics that are associated with social capital (e.g., social interaction, knowledge-sharing, knowledge-creation, and identity-building), an essential element of an

effective network. Social capital impacts performance to the degree that it facilitates knowledge sharing and the coordination of work. The potential power of CoPs lies within the process where knowledge is not only shared between members, but is generated through their interaction.

Through the practice of EBIs, the creation of new knowledge, and the development of social capital the CFEX LC will establish a foundation for systems change and the generation of a culture of learning within the New Hampshire’s substance abuse prevention system. The LC will provide a venue for interaction among participants from various levels of the prevention system, fostering shared accountability for improvement and the shaping of an effective prevention system in NH that continues to evolve and adapt to meet the needs of its constituents.


### Appendix A: NH Center for Excellence Learning Collaborative Timeline

<table>
<thead>
<tr>
<th>DEC—FEB</th>
<th>MARCH</th>
<th>APRIL</th>
<th>MAY</th>
<th>JUNE</th>
<th>JULY</th>
<th>AUGUST</th>
<th>SEPTEMBER</th>
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<tbody>
<tr>
<td>Pre-work</td>
<td>Learning Session</td>
<td>Action Period</td>
<td>Learning Session</td>
<td>Action Period</td>
<td>Learning Session</td>
<td>Action Period</td>
<td>Learning Session</td>
</tr>
</tbody>
</table>

**Select EBI:**
- Community Mobilization
- Enroll in LC
- Select potential participants
- Identify 5 Ps of microsystem & Begin data collection

**Technical Assistance Benchmarking visits**
- Formalize participants
- Analyze patterns
- Identify themes
- Target processes for Improvement
- Identify Strategies

**Technical Assistance Benchmarking visits**
- Start small tests of change
- Measure
- Analyze
- P-D-S-A Cycle*

**Technical Assistance Benchmarking visits**
- EBI specific content Improvement Techniques
- Sharing
- Reflection
- Inquiry

**Technical Assistance Benchmarking visits**
- Continue small tests of change
- Measure
- Analyze
- P-D-S-A Cycle*

**Technical Assistance Benchmarking visits**
- EBI specific content Improvement Techniques
- Sharing
- Reflection
- Inquiry

**Technical Assistance Benchmarking visits**
- Continue small tests of change
- Measure
- Analyze
- P-D-S-A Cycle*

**Technical Assistance Benchmarking visits**
- EBI specific content Improvement Techniques
- Sharing
- Reflection
- Inquiry

**Who Participates:**
- All Learning Teams
- Select learning teams as determined by Aim Statement
- Select learning teams as determined by Aim Statement
- Select learning teams as determined by Aim Statement
- Select learning teams as determined by Aim Statement
- Select learning teams as determined by Aim Statement

**Who Participates:**
- All Learning Teams
- Select learning teams as determined by Aim Statement
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**Who Participates:**
- All Learning Teams
- Select learning teams as determined by Aim Statement
- Select learning teams as determined by Aim Statement
- Select learning teams as determined by Aim Statement
- Select learning teams as determined by Aim Statement
- Select learning teams as determined by Aim Statement

Topic selection, defining objectives, understanding of one's own organization, teambuilding preparation of collaborative involvement

Focus on learning, assuring measurable and achievable targets, equipping with data and change packages, building quality indicators, conducting small tests of change

Learning and planning for sustainability and spread of knowledge

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*PDSA Cycle = Plan, Do, Study, Act.*

The NH Center for Excellence is an initiative of the NH Department of Health and Human Services’ Bureau of Drug and Alcohol Services and is funded in part by the U.S. Substance Abuse and Mental Health Services Administration (SAMHSA); the NH Governor’s Commission on Alcohol and Other Drug Prevention, Intervention and Treatment; and the New Hampshire Charitable Foundation.