SYSTEMS APPROACH

National peer learning team
AGENDA

• Development of National Peer Learning Teams (NPLT)
• Why learn and use systems thinking?
• What is systems thinking and a systems approach?
  • Systems Mapping
  • Finding Leverage
  • Collaborative Inquiry/Learning Approach
• The NPLT System Map and Structure
LEARNING OBJECTIVES

By the end of this session participants, will be able to…

• Understand how the NPLT conceives of systems approaches
• Understand the basic concepts of collaborative inquiry
• Know what the Systems Approach NPLT is doing and how to get involved
DISCLAIMER

• This is a lot to take in in one hour
• This is a continual learning process—by design.
• Your confusion is a sign!
OVERVIEW OF NPLT/RNCO PROJECT

- Regional Network: RNCO
  - The Southeastern and Southwestern Injury Prevention Network
  - Networking
  - Relationship building
  - Skill building around topics of interest to our region

- NPLT
  - National—all states—not regional.
  - Topic is specified: systems approach, Child Maltreatment (CO), TBI (WA), Intimate Partner Violence (MD), Motor Vehicle (MA)
  - While we do have a structure and concepts to offer and frame this work, we are taking a learning approach: we are not the only holders of the information, but are seeking folks to engage and develop this new approach in partnership with us.
THE PUBLIC HEALTH MODEL

1. Define the Problem
2. Identify Risk and Protective Factors
3. Develop and Test Prevention Strategies
4. Assure Widespread Adoption
THE PUBLIC HEALTH MODEL

Define the Problem

Identify Risk and Protective Factors

Develop and Test Prevention Strategies

Assure Widespread Adoption
SYSTEMS THINKING

• Expand the Field of Vision
  • Time, Space

• Focus on the Physics
  • Feedback loops, Connections

• Make as Simple as Possible
  • Occam’s Razor

• Build a Shared Picture
  • Everyone “sees” the same thing

• Learning vs. Knowing
  • Continuous feedback, Getting “less and less wrong”
VIDEO: THE VALUE OF SYSTEMS THINKING

DISCUSSION OF VIDEO CONCEPTS

• Write down some observations about how this could apply for you, questions you have, etc. (2 min)
• Come together with 2 or 3 other people share observations or questions you have. (3 min)
• As a group identify:
  • 2 things that were interesting and clear/how this could be useful for your work
  • 2 things that were unclear or that you have questions about
  • (5 min)
The Value of Systems Thinking

Figure 2: Developed by Barry Richmond

- Complex model
- Simple model
- Simple stock / flow map
- Conversational use of skills
- Mother of all models

Value Derived
KEY CONCEPT: FINDING LEVERAGE

- [https://vimeo.com/113447134](https://vimeo.com/113447134) 6:28

- Leverage: find dramatic change using minimum effort and resources while avoiding negative consequences.
Safe
At Risk
Addicted
TBI
Suicide
Neglected
# Technical Problems vs Adaptive Challenges

**Technical**
- Easy to identify
- Often lend themselves to quick, easy solutions
- Can be solved by an authority or expert
- Requires change in just one or a few places
- Either/Or thinking
- Solutions can often be implemented quickly (by edict)
- Example – take lisinopril for your blood pressure

**Adaptive**
- Difficult to identify (easy to deny)
- Requires changes in values, beliefs, roles, and approaches to work
- People who have the problem do the work of solving it
- Requires change in numerous places often crossing organizational boundaries
- Both/And thinking
- Solutions require new discoveries, new skills and can take a long time to implement
- Example - lifestyle change to exercise, eat right and be stress-free
TECHNICAL CHALLENGES
ADAPTIVE CHALLENGES
Single – Loop Learning
The most common style of learning is just problem solving – improving the system as it exists.

Assumptions
Why We Do What We Do

Strategies and Techniques
What We Do

Results
What We Get

Double – Loop Learning
More than just fixing the problem, this style of learning questions the underlying assumptions, values and beliefs behind what we do.
MENTAL MODELS AND COLLABORATION

• Challenges of collaboration
• Interpersonal considerations
The Ladder of Inference

- Action
- Beliefs
- Conclusions
- Assumptions
- Select Data

Pool of Available Data

Reflexive Loop: Our beliefs affect what data we select next time.
COLLABORATIVE LEARNING

• Considering multiple perspectives
• Engaging in ‘ongoing disciplined inquiry’ (learning from experience)
• Uncovering and challenging assumptions
COLLABORATIVE LEARNING: CONSIDERING MULTIPLE PERSPECTIVES
Practice

Concrete experience

Have an experience

Testing implications of concepts in new situations

Try out what you have learned

Formation of abstract concepts and generalizations

Learn from the experience

Observations and reflections

Reflect on the experience

Metacognition

(Kolb, 1984, p.21)
Single – Loop Learning
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CONVERSATIONAL CAPACITY

1. **Share** your position clearly and succinctly

2. **Explain** the thinking behind it (data, interpretations, experiences)

3. **Test** your views (ask others what you are missing, their views)

4. **Inquire** into the views of others (actively explore their thinking)

OUR SYSTEMS MAP
• Assumption: Systems thinking will help us improve our outcomes. The goal is to develop good (effective) practices that use adaptive learning / Systems THINKING

• Here’s a stock that can be filled with Effective Practices

• Think of this stock as a bathtub that accumulates (fills up) with Effective Practices

• The flow pipe of developing effective practices is like a faucet that fills it up
• These stocks represent those who have joined the learning community (*Total Active*)
  • Those who are *Active*, plus
  • Those who are *Active & Skilled*
• Each group contributes to developing...and has their own level of effectiveness at developing
• Those who are are more effective at creating / developing effective practices
• There is a much broader group of Practitioners the ST NPLT hopes will be built
• This group will also contribute to developing effective practices
• The dashed lines indicate that it will take awhile before the group will contribute – i.e. there’s a time delay
As practices are developed this will also be a training ground for those active in the Core Learning Community – making them become more skilled
• More people may become interested in joining the core learning community
• The more *Total Active*, the more will become interested and join!
• IVP Practitioners Competent with active learning practices come from those who are engaged, but not yet competent.
• The **Total Practitioners using active learning practices** will lead to more **becoming aware**
Eventually, Total Practitioners with Effective Practices will (should) lead to RESULTS from using active learning practices!
• Results are important to keep people engaged!

• If **RESULTS from using active learning practices** takes too long to be seen by those engaged, practitioners and core learning team members might leave
• Here’s the full map!
NPLT STRUCTURE

- Core Learning Team (Now)
  - Monthly
  - Experience will help inform the practice-based groups
- Advisory Group (In Process/by end of year)
  - Quarterly
  - Open to anyone interested

- Practice-based groups (2018-19)
  - Highway safety focus
  - Informed by CLC experience
  - Learning approach/Inquiry groups
  - Conversational Capacity
  - Systems mapping
Whether we are experts on complexity theory or not (and most of us are not), we know in our bones that delivering high-quality services in such a complex environment will not be achieved merely by following a standard operating procedure, inserting the results of a randomised controlled trial or adopting the seven habits of highly successful people. We have tried to improve aspects of the healthcare system, only to experience surprises—often disappointing ones.

In a complex universe, intervention A does not predictably lead to outcome B. Stuff happens. Things get in the way. Something we could not have predicted pops up—and gives an initiative a boost. A key person leaves the organisation—and a crucial project grinds to a halt. A new government is voted in—and fiscal incentives are soon re-jigged in a way that renders a carefully-crafted strategic plan obsolete. -Braithwaite, et al Complexity Science in Healthcare
NEXT STEPS

• Safe States Systems Thinking Self Study [http://www.safestates.org/general/custom.asp?SystemsThinking]
• Join advisory group
• Join listserv
• Sign up for inquiry groups
• Jennifer.woody@dhhs.nc.gov