



MSKTC
SCI • TBI • BURN

Model Systems
Knowledge Translation
Center

Getting to Outcomes: A Knowledge Translation Webinar for Model Systems Grantees

September 28, 2012 at 2–3 pm EST
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Objectives

This webinar will help MS grantees:

- ▶ Understand how to move from inputs and outputs to outcomes in measuring outcomes
- ▶ Identify interventions and measures
- ▶ Identify types of measurement tools
- ▶ Understand how to plan for evaluating outcomes

Agenda

- ▶ KT Definition
- ▶ Measures: Knowledge, Attitudes, and Behaviors (KABs)
- ▶ Inputs, Outputs and Outcomes
- ▶ Interventions for Changing KABs
- ▶ Tools to Measure Outcomes
- ▶ Plan for Evaluating an Intervention & Examples
- ▶ Discussion

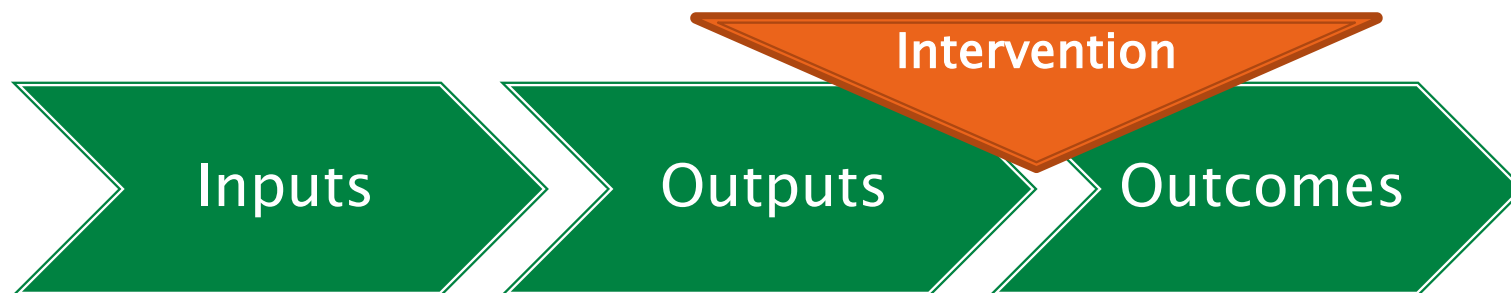
Knowledge Translation

“Knowledge translation is a process of ensuring that new knowledge and products gained through research and development will ultimately be used to improve the lives of individuals with disabilities and further their participation in society.

“Knowledge translation is built upon and sustained by ongoing interactions, partnerships, and collaborations among various stakeholders, including researchers, practitioners, policy-makers, persons with disabilities, and others, in the production and use of such knowledge and product.”

—National Institute on
Disability and
Rehabilitation Research

From Inputs to Outcomes



Research Results (journal publication)	# of times cited	Replicated research, new treatment developed based on research
Consumer Factsheets	# of downloads, review information on blog	Change in patient understanding of topic, behavior
Clinical Practice Guidelines	# of hospitals distributing info, # of downloads	Change in clinical practice
Policy Briefs	Media interviews, legislative hearing	Policy change in health care coverage

Getting to Outcomes

- ▶ How do we know that the research of Model Systems is having an effect on our primary audiences?
- ▶ By measuring changes in:
 - Knowledge
 - Attitudes
 - Behaviors

Measures: Knowledge, Attitudes, Behaviors (KABs)

- ▶ **Knowledge** – what the person knows
- ▶ **Attitudes** – what the person thinks about it
- ▶ **Behaviors** – what the person does

Knowledge and Attitudes affect Behavior – changing behavior may require changing the person's understanding of the issue and attitude about it

Interventions



Intervention

- ▶ The intervention is the process used to create a change in KABs
 - Example: video in which a person models safe transfer techniques for wheelchair users
 - Example: motivational interviewing by clinicians for burn injury patients with body image concerns
 - Example: developing practice-based systems to make it easier to implement the innovation

Not passive dissemination of materials

Intervention Methods

Multiple methods & active implementation increase the likelihood of changes in KABs. For example:

- Case management
- Group discussion
- Lectures
- Peer counseling
- Public service announcements
- Role-playing or modeling
- Video presentations
- Motivational interviewing

Tools to Measure Outcomes

- ▶ **Use existing/standardized tools**, make sure its been validated on yours or a similar population
 - Surveys related to clinical practice guidelines, focus group questions, 1:1 interview questions
 - Example: PROMIS – sets of validated tools to be used in patient settings at patient outcomes
- ▶ **Develop your own tool and validate it**
- ▶ **Create informal, non-validated tools** (will not meet rigorous standards)

Individualized – create measure based on kind of change the patient wants to see; negotiate behavior changes with each person

Evaluation Plan – Outcomes

- ▶ Planning your Evaluation
 - Goal
 - Intervention
 - Measures
 - Measurement Tools
 - Timeframe & Resources

Example: Promoting Healthy School Environments

- ▶ School Children's Health Act of 2006 (NC)
- ▶ Protect children from:
 - Pesticides
 - Arsenic
 - Mercury
 - Mold & mildew
 - Diesel exhaust
- ▶ Knowledge Translation: law → policy implementation

Example: Promoting Healthy School Environments (continued)

▶ **Goals:**

- Engage school nurses in promoting healthy schools
- Fully implement the School Children's Health Act

▶ **Intervention:**

- Web-based educational intervention
 - Theory-based
 - Health Belief Model
 - Roger's Diffusion of Innovation Theory
 - Ecological Model
- Tool kit
- Technical assistance

Example: Promoting Healthy School Environments (continued)

- ▶ **Data collection instruments & processes**
 - Needs assessment surveys
 - In-depth interviews
 - Pre-intervention surveys
 - Post-intervention surveys
 - Collection of school policies
- ▶ **Resources:**
 - Principal investigator & content expert
 - Database expert & web-developer
 - Highly skilled instructional designers
 - Research assistants
 - Biostatistician & qualitative research scientist

Example: Promoting Healthy School Environments (continued)

- ▶ Evaluation: guided by Logic Model
- ▶ Inputs
 - Law: School Children's Health Act
 - Intervention & health behavior theories
- ▶ Outputs
 - Nurse participation
 - Barriers & facilitators identified
 - Roles for nurses identified

Example: Promoting Healthy School Environments (continued)

► Outcomes

- Changes in awareness
- Changes in knowledge
- Changes in beliefs
- Changes in behavioral intentions
- Behaviors: nurses promote healthy policies & practice
- Decreased exposure to toxins
- Educational: school performance, absenteeism & presenteeism
- Short-term health: skin conditions, headaches, respiratory conditions, neurological disorders, ADHD
- Long-term & pre-natal outcomes: cancer, birth defects & autism (teachers), Alzheimer's disease, Parkinson's disease, etc.

Example: Promoting Healthy School Environments (continued)

- ▶ Sample Measure:
- ▶ Awareness:
 - Survey question: I was aware of the School Children's Health Act before hearing about this project:
 - Yes
 - No
 - Not sure

Example: Promoting Healthy School Environments (continued)

▶ Sample Measure:

◦ Knowledge:

- Survey question: The use of glyphosate (AKA Round Up) is considered to be a least toxic approach within an Integrated Pest Management approach.
- Yes
- No
- Not sure

Example: Promoting Healthy School Environments (continued)

- ▶ Sample Measures:
 - Behavioral Intention:
 - Pre-test and Post-test Surveys: I plan to work with my school's officials to reduce school bus idling at our school.
 - Yes
 - No
 - Not sure

Discussion

- ▶ Questions?

References

- ▶ AHRQ Evaluation Toolkit Version 3 –
http://healthit.ahrq.gov/portal/server.pt/community/health_it_tools_and_resources/919/health_it_evaluation_toolkit/27872
- ▶ Returning to School after TBI –
<http://www.gillettechildrens.org/fileUpload%5CReturning%20to%20School%20After%20a%20Traumatic%20Brain%20Injury.pdf>
- ▶ Literacy and knowledge, attitudes, and behavior about colorectal cancer screening.–
<http://www.ncbi.nlm.nih.gov/pubmed/16278201>
- ▶ Knowledge and attitude on screening mammography among low-literate, low-income women –
<http://www.ncbi.nlm.nih.gov/pubmed/8909311>

References (continued)

- ▶ Colorectal Cancer Screening Knowledge, Attitudes, and Beliefs Among Veterans: Does Literacy Make a Difference? –
<http://jco.ascopubs.org/content/22/13/2617.full>
- ▶ The Contribution of Health Literacy to Disparities in Self-Rated Health Status and Preventive Health Behaviors in Older Adults –
<http://www.annfammed.org/content/7/3/204.full.pdf>
- ▶ Motivational interviewing –
<http://www.motivationalinterview.org/>
- ▶ Knowledge Translation: Introduction to Models, Strategies, and Measures –
<http://www.ncddr.org/kt/products/ktintro/ktintro.pdf>

Additional Resources

- ▶ National Cancer Institute Implementation Science
<http://cancercontrol.cancer.gov/is/index.html>
- ▶ VA Quality Enhancement Research Initiative (QUERI)
<http://www.queri.research.va.gov/>
- ▶ VA Center for Implementation Practice & Research Support (CIPRS)
<http://www.queri.research.va.gov/ciprs/default.cfm>
- ▶ D&I in Health E-newsletter by Wynne Norton
subscribe: wynne.norton@gmail.com
- ▶ Knowledge Translation Canada
<http://ktclearinghouse.ca/ktcanada>

Additional Resources (continued)

- ▶ About Systematic Dissemination Program Evaluation – <http://effectivehealthcare.ahrq.gov/index.cfm/who-is-involved-in-the-effective-health-care-program1/about-systematic-dissemination-program-evaluation/>
- ▶ What is Translational Research? <http://ccts.uth.tmc.edu/what-is-translational-research>
- ▶ What is Knowledge Translation? <http://www.msktc.org/Knowledge-Translation>
- ▶ PROMIS – (<http://www.nihpromis.org/>)

NIDRR Funded Centers on Knowledge Translation

- ▶ Center on Knowledge Translation for Technology Transfer (KT4TT) at <http://kt4tt.buffalo.edu/>
- ▶ Center for International Rehabilitation Research Information & Exchange (CIRRIE) at <http://cirrie.buffalo.edu/>
- ▶ SEDL Center on Knowledge Translation for Employment Research (KTER) at <http://www.kter.org/>
- ▶ Model Systems Knowledge Translation Center (MSKTC) at <http://www.msktc.org>