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Using Logic Models to Develop and Assess Health Education and Promotion Programming

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ACHA Webinar Series
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My Background w/Logic Modeling

- 20 Years Ago – Asst. Prevention Area Coordinator
- Health Promotion Practitioner in Higher Education Settings
- Supervisor/Manager
  - Conceptual
  - Actual
- Grant Writing
- Evaluator
- Trainer
- Consultant
The Not-So-Good Way to Address Campus Problems

• An Unfortunate Event Occurs
• A problem develops/need is seen
  • “We prioritize by crisis”
• Someone declares an edict – fix the problem
• Knee jerk reaction – develop programming
  • “Is it really a problem? Have we gotten any data to determine the magnitude of the situation?”
• Implement programming
  • “Are we really addressing the issue, or attempting to address showing that we’re trying to do something?”
• Oh, we need to evaluate it now?
• Evaluation
• If we’re lucky, evaluation shows program works.
  • “Will our assessments be biased because we developed them as an afterthought?”
How we should create programs and interventions

- A problem develops/need is seen within a specific target population
- Determine ultimate vision and impact
- Determine what action or behavioral outcomes will get target population to ultimate vision
- Determine what learning needs to occur in the target population
- Review literature, best practices and theories
- Develop program interventions that connect to outcomes
- Determine what is needed to carry out interventions
- Evaluation occurs from end to beginning, and then beginning to end
Why we should use logic models:

- Provides a common language
  - What is the problem?
  - What are the desired outcomes?
  - What are the desired outputs and activities?
  - What are the needed inputs?
- Increases intentionality and purpose
- Leads to improved program planning and management
- Provides coherence across complex tasks, diverse environments
- Guides and helps focus work
- Increases understanding about program
- Helps us differentiate between “what we do” and “results” --- outcomes
THE 7 HABITS OF HIGHLY EFFECTIVE PEOPLE

Powerful Lessons in Personal Change

OVER 15 MILLION SOLD

Stephen R. Covey

“A wonderful book that could change your life.”
—Tom Peters, bestselling author of In Search of Excellence
What Do S. Covey, Y. Berra & the Chestershire Cat Have in Common?

• Habit 2: Begin with the End in Mind
  – Stephen Covey

• If you don’t know where you are going, how are you gonna know when you get there?”
  -Yogi Berra

• “Would you tell me, please, which way I ought to go from here?" "That depends a good deal on where you want to get to." "I don't much care where —" "Then it doesn't matter which way you go.”
  -Lewis Carroll
In Essence, a Logic Model Will

- Answer where are you going?
- Answer how will you get there?
- Answer whether you have arrived?
- **Most importantly, it can help you communicate these answers to your Trustees, Senior Level Administration, departmental leaders, collaborators, other staff, faculty, students, & other constituents and partners.**
Accountability

- What gets measured gets done
- If you don’t measure results, you can’t tell success from failure
- If you can’t see success, you can’t reward it
- If you can’t reward success, you’re probably rewarding failure
- If you can’t see success, you can’t learn from it
- If you can’t recognize failure, you can’t correct it.
- If you can demonstrate results, you can win public support.

Re-inventing government, Osborne and Gaebler, 1992
Questions to this Point?
Time to Enter the Cave of Logic Modeling!
A logic model

• is a picture/diagram
• indicate what you believe your program or intervention will accomplish
• Indicates how your will do it, and what you need!
• provides a map for planning AND evaluation
• shows if-then relationships, that when implemented as indicated, should lead to the desired outcomes
Terms Commonly Used When Developing Logic Models

- Outcomes
  - Long-term, intermediate-term, short-term
  - Impact, activity, learning
  - Impact, behavioral, learning
  - Climate/Environment, behavioral, learning

- Outcome Indicators

- Outputs (Process Indicators)
  - Quantity
  - Quality

- Activities

- Inputs
Generic logic model

A graphic depiction of relationships between activities and results
PLANNING: start with the end in mind

Evaluation

EVALUATION: check and verify
Logic Models Help with Assessment & Evaluation

- Helps focus on the important matters
- Helps identify what should be measured, both in terms of outcomes and processes
- Helps match evaluation processes to program
- Helps match program content/curriculum to what is being evaluated and what matters
Questions to this Point?
Looking at What Our Students Do As a Result of Our Program/Intervention
Why measure outcomes

• We want to make sure that we make a difference in our students lives
• We want to improve our campuses, and the programs and services we offer
• To meet standards of accountability and accreditation
• Justify budget allocations and requests
Outcomes – The Actual Results

• How participants have been transformed as a result of the program

• States a CHANGE in knowledge, attitude, behavior, beliefs, policies, etc. that result from the program intervention

• Must be measurable and realistic

• How are students and/or campus different as a result of the work that was done
Long-term or Impact Outcomes

- Changes that occur at the institutional, organizational, environmental and systemic level which create:
  - Improved learning and academic success
  - Improved health
  - Increased capacity
  - Change in climate
- These occur after intermediate and immediate changes are achieved (remember if-then relationships)
Intermediate or Action Outcomes

- Changes that typically occur in:
  - One’s behavior
  - One’s practices
  - One’s decisions
  - Procedures
  - Policies

- These typically occur after immediate changed are achieved, may take several months to several years
Immediate or Learning Outcomes

- Changes in
  - Beliefs
  - Attitudes
  - Values
  - Perceptions
  - Awareness
  - Motivations
  - Knowledge
  - Skills
Writing Outcomes

• Make them Smart
  • Specific
  • Measurable
  • Attainable
  • Realistic
  • Time Oriented
Format for Writing Outcomes

• Describe your target audience
• Indicate program and intervention students will be participating in/exposed to
• Indicate the changes that should occur/learning that should occur
• Indicate the time frame/frequency or accuracy expected
Examples

- Increase in the % of First year students attending Six Pack who will be able to list 4 of the 6 alcohol protective behaviors
- Increase in the % of student completing an Electronic Check-Up to Go will be able to explain their familial risk factors
- Increase in the % of students attending the Expectancy Challenge Alcohol Literacy Curriculum who can differentiate between pharmacological and expectancy effects of alcohol
- Increase in the % of students reporting drinking once a week or less
- Decrease in the average number of negative alcohol-related consequences experienced by incoming freshmen after taking the pre-matriculation on-line alcohol education program.
- Increase in freshmen participating in MyUniversity Alcohol Program who graduate within 5 years
Questions to this Point?
Determining Outcome Indicators

• Important to determine outcome first
• Important to clearly write outcome
• Often how you write your outcome will determine indicator/assessment process you will use
Assessment and evaluation methods used to measure immediate, intermediate and/or long term outcomes.

- Indirect Assessment Methods
  - Standardized Surveys (self-report)
  - Focus groups
  - Interviews
  - Surveys
- Direct Assessment Methods
  - Scoring Rubrics
  - Standardized Testing
  - Observations
  - Reflection – Essays or Verbal
Outcome Indicators

- Impact/Long-term/Climate/Environmental Outcomes
  - Campus Climate
  - Retention
  - Graduation

- Behavioral/Activity Outcomes (Institution vs. Program vs. Target Population)
  - Observation
  - Self-Report
  - Records/Reports

- Learning Outcomes
Connecting outputs to outcomes is a challenge

“I think you should be more explicit here in Step Two.”
Questions to this Point?
Outputs

- The products of a program
- Usually results of our processes that indicate quantity and quality
  - Quantity
    - # of programs
    - # of participants
    - # of brochures distributed
  - Quality
    - Satisfaction survey ratings/results
    - Reduction of wait time
Activities – What We Do

• Actual programs and services provided
  • Providing one-on-ones
  • Delivering a social marketing campaign
  • Information tabling
  • Educational Presentations and Programs
Inputs — What We Invest

• Resources used to support and carry out activities
  • Personnel
  • Budget
  • Facilities and equipment
  • Community/Institutional Assets
    • Collaborative relationships
    • Allies
  • Barriers
    • Local and institutional norms
Outcomes vs. Outputs

Outcomes

• Increase in knowledge, attitudes and skills
• Reduction in negative behaviors
• Increased % of students who

Outputs

• # of participants who attended
• # of sessions delivered
• Reasons for attending
• Demographic breakdowns
• Compared content planned vs. content actually delivered
Questions to this Point?
PLANNING: start with the end in mind

Program Action

Inputs
- What we do
- Conduct workshops, meetings, deliver services
- Develop products, curriculum, resources
- Train provide counseling, assess, facilitate
- Partner work with media

Outputs
- Activities

Participation
- Who we reach
- Participants, clients, agencies, decision-makers, customers

Outcomes - Impact
- Short Term
- Medium Term
- Long Term
- What the short term results are
  - Learning
  - Awareness
  - Knowledge
  - Attitudes
  - Skills
  - Opinions
  - Aspirations
  - Motivations

- What the medium term results are
  - Action
  - Behavior
  - Practice
  - Decision-making
  - Policies
  - Social Action

What the ultimate impact(s) is
- Conditions
- Social
- Economic
- Civic
- Environmental

Assumptions

External Factors

Evaluation

EVALUATION: check and verify
**Example: Financial management program**

**Problem:** Students do not know how to manage money and are unable to meet their financial goals; students are massing great debt.

**Inputs:**
- Staffing
- Time
- Money
- Space
- Materials

**Outputs:**
- Popular Educational Class
- Social Marketing
- SBIRFE
- On-Line Educational Program

**Outcomes:**
- Participants gain knowledge, awareness, how to budget, Dangers of credit cards
- Participants develop budget, become spendthrifts, cut credit cards, eat out less
- Graduate with less debt, less stress, higher GPA’s, graduate on time

**What we invest:**

**What we do:**

**What results:**
## SPF SIG New Mexico Community Logic Model

### Reducing alcohol-related youth traffic fatalities

<table>
<thead>
<tr>
<th>Substance-Related Consequences</th>
<th>Substance Use</th>
<th>Intervening Variables</th>
<th>Strategies (Examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High rate of alcohol-related crash mortality Among 15 to 24 year olds</strong></td>
<td>Underage BINGE DRINKING</td>
<td>Easy RETAIL ACCESS to Alcohol for youth</td>
<td>Enforce underage retail sales laws</td>
</tr>
<tr>
<td>Underage DRINKING AND DRIVING</td>
<td>Easy SOCIAL ACCESS to Alcohol</td>
<td>Low ENFORCEMENT of alcohol laws</td>
<td>Social Event Monitoring and Enforcement</td>
</tr>
<tr>
<td>Young Adult BINGE DRINKING</td>
<td>Low PERCEIVED RISK of alcohol use</td>
<td>Media Advocacy to Increase Community Concern about Underage Drinking</td>
<td></td>
</tr>
<tr>
<td>Young Adult DRINKING AND DRIVING</td>
<td>SOCIAL NORMS accepting and/or encouraging youth drinking</td>
<td>Restrictions on alcohol advertising in youth markets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PROMOTION of alcohol use (advertising, movies, music, etc)</td>
<td>Bans on alcohol price promotions and happy hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low or discount PRICING of alcohol</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Logic Model – UAlbany Sexual Assault Prevention & Response

February 2007

Goal: The University at Albany will be a community that is resistant to sexual assault, including all non-consensual sexual contact.

Assumptions
- High sexual assault prevalence/incidence rates on US campuses and at U Albany
- Opportunity for UAlbany to be a leader in development, enhancement, and implementation of a Comprehensive Sexual Assault Prevention and Intervention Program especially reculturing the campus around prevention and response strategies
- Need to advance capacity building and associated data-driven documentation of progress
- Entire UA community needs to share responsibility for preventing sexual assault
- Students are key partners in these efforts

Resources
- Campus Resources
  - Sexual Assault Task Force
  - University Counseling Center
  - Clinical Services
  - Prevention Programs SAPEP – Men REACH Peer Services - Middle Earth & Project SHAPE
  - University Health Center
  - University Police Dept Administration
  - Office of Student Success
  - Off of Conflict Res & Comm Responsibility
  - Counselor’s Office
  - Off of Undergrad Studies
  - Dept of Residence Life
  - Faculty Experts
  - Dept of Athletics
  - Student Association
  - Student Organizations
  - Fire Quad

- Community Resources
  - NYS Coalition Against Sexual Assault
  - Albany County Crime Victim and Sexual Violence Center
  - Albany Med SAFE (Sexual Assault Forensic Examiner Program)
  - Albany Police Department
  - Albany DA’s Office

- National Resources
  - Alan D. Berkowitz, Ph.D.
  - Amer College Health Assoc
  - Higher Education Center on Alcohol and Other Drug Abuse and Violence Prevention

Activities
- Assessment/Policy
  - Ongoing assessment of magnitude of problem
  - Office of Student Success and SAPEP tracking all reports from first responders
  - UPD tracking police-reported cases
  - Student surveys about knowledge, attitudes, behaviors, and related intent to sexual assault, as well as about perceptions about pressures & barriers to intervening
  - Enhanced coordination of sexual assault prevention efforts through Sexual Assault Task Force or similar group
  - Counseling Center coordination of program evaluation/ outcome assessment
  - Development of integrated and synergistic sexual assault prevention and policy

- Education
  - Peer and professionally facilitated presentations to students addressing sexual assault and related high risk behaviors
  - During orientation
  - In residence halls
  - For student organizations (athletic teams; Greek societies)
  - Encourage faculty to integrate discussions of sexual assault into regular courses
  - Courses on self-defense (e.g. RAD)
  - Public education/social norms campaign posters, public service announcements, student newspaper & radio articles
  - Bystander training & empowerment
  - Information for parents about sexual assault and a crisis response

- Incident Response
  - Training for relevant community members on protocol for responding to sexual assault
  - Campaign to inform community about who first-responders are and how to reach them
  - Creation/maintenance of linkages with community resources
  - New ‘rules’ about shared community responsibility

Outputs
- University-wide shared paradigm for addressing sexual assault
- Annual report produced on incidence of sexual assault, student survey results
- Ongoing oversight group in place and empowered to make needed changes
- Number of sexual assault presentations given & number of students attending in each of the settings listed
- Ratings of program satisfaction
- Student survey scores reflecting:
  - Knowledge about laws & university policies
  - Understanding of sexual assault and consent definitions
  - Behavioral intent re consent and bystander intervention
- Number of students who complete RAD or similar course
- Number of posters disseminated and PSAs broadcast
- Number of articles about sexual assault student newspaper and other campus and community media
- Number of parents informed about sexual assault through in-person forums, letters, & other means of communication
- Number of individuals trained in sexual assault response protocol:
  - Counseling & Health centers staff
  - University Police Department
  - Staff – RA’s
  - faculty & administration
- Number of community partners engaged in campus SA initiatives

Outcomes
- Short Term Outcomes
  - Increase the percentage of students and faculty who consider sexual assault to be a serious issue on campus
  - Reduce the percentage of students who underestimate the prevalence of heavy drinking on campus
  - Increase the number and visibility of trained first responders
  - Increase the number of students who have discussed sexual assault prevention with a parent or other trusted adult
  - Increase reporting by students who experience sexual assault

- Long Term Outcomes
  - Reduce the number of sexual assaults in the UAlbany community
  - Increase the percentage of sexual assault victims that are reported
  - Increase the percentage of sexual assault victims who receive prompt, appropriate care
  - Increase the percentage of sexual assaults that result in investigation and follow-up
  - Close the gap between anonymous survey reports of sexual assault and reports to the University

Impact

- Impact of the program on reducing the prevalence of heavy drinking by students
Questions to this Point?
Common Challenges

- Differentiating what our students outcomes are compared to what we do
- LT Outcomes unconnected with intermediate, intermediate unconnected with immediate outcomes
- Outcomes do not connect with outputs, outputs do not connect with activities
- Activities or outputs that do not flow through to the end
- We get to activities – realize that our favorite activities are not listed – nor do they connect with outputs or activities, and then we add them in, and then develop outcomes, and try to get it to fit.
- We do not connect our models to health behavior change theory
Sources/Resources


