Health Service
EASTERN ILLINOIS UNIVERSITY

Using Logic Models to Develop and Assess Prevention Programming

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NASPA MH/AODV Conference
January 30, 2014

Who Are We

- Who are you and what institution do you represent?
- My prior experiences with logic modeling include:
- Today, I am hoping to take away from this training?
- I am excited to be here because…
- The aspect about logic modeling that I am most apprehensive about is:_____

Why have you chosen your current job/career/profession in higher education?

We Have a Problem

- Dr. Indiana Jones, President of UR University calls in a crisis.
- The goonies are no longer good enough, and as one of your social organizations are wreaking havoc in Mr. Roger's neighborhood.
- He was gonna call the Ghostbusters, but they are unavailable because they're throwing parties for children
- The goonies' parties are just out of control
- CHiPs and the Emergency 51 crew have responded to several alcohol related emergencies at the House.
- Dr. Green from the nearby E.R. is livid, and "tired of treating intoxicated drunk students"
- You mission, being that you will accept it (you have no choice) is to "fix it", especially before a student dies, and UR gets negative national media attention.

GROUP ACTIVITY
How do you go about resolving the problem?

How we often create programs and interventions

- A problem develops/need is seen
  - "We prioritize by crisis"
- 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?"
- If we're lucky, evaluation shows program works.
  - "Will our assessments be biased because we developed them as an afterthought?"

What problems/challenges do we have with this model?

_____

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How we should create programs and interventions

- A problem develops/need is seen
- Determine ultimate vision and impact
- Determine what actions/behaviors will get target population to ultimate vision
- Determine what data exists to show what actions/behaviors are actually occuring
- Determine what learning needs to occur in the target population
- Review literature, best practices and theories for evidence based, evidence informed, & best practice interventions.
- Develop program interventions that connect to outcomes
- Determine what is needed to carry out program interventions
- Evaluation occurs from end to beginning, and then beginning to end

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Benefits and Advantages to this Process?

_____

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Our Changing World

What factors are driving a need to infuse assessment/evaluation into our program planning

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Factors leading to increased assessment in higher education

- Accountability Emphasis
  - Commission of the Secretary of Education , "student learning outcomes needs top be central in the process of accountability." (US. Dept of Ed, 2006)
- Focus on Student Learning
  - An American Imperative: Higher Expectations for Higher Education (Wingspread Group on Higher Education, 1993)
  - The Student Learning Imperative (ACPA, 1996)
  - Liberal Education and America's Promise: Excellence for Everyone as a Nation Goes to College (LEAP) program (Association of American Colleges and Universities, 2002, 2004, 2005, 2008)
  - Learning Reconsidered (Keeling, 2004)

Factors leading to increased assessment in higher education

- Retention
- Political Pressure
  - Higher Education Re-Authorization Act Testimonies in 2002 & 2006
  - No Child Left Behind Legislation
  - Costs of attending higher education scrutinized
  - Concern regarding public accountability/stewardship
- Accreditation
  - Regional accreditors are stressing that institutions provide solid, empirical data on what students are learning both in and outside of the classroom

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"If you don't know where you are going, how are you gonna know when you get there?"

-Yogi Berra

- *Where are you going?*
- *How will you get there?*
- *What will tell you that you've arrived?*
- ***Most importantly, how will your Trustees, Senior Level Administration, students, & other constituents know when you get there?***

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

Assessment does not Exist for the Sake of Assessment

- Assessment should be an organic part of on-going processes and activities
- Assessment is taking what many of us already do, and making it formalized and systematic

Ultimately, the purpose of assessment is to REFLECT on the end outcomes (Bresciani, 2006)

- What are we doing and why?
- What are we supposed to be accomplishing?
- What do I want my students to be able to do and or know as a result of this health promotion program?
- Are we being successful in accomplishing what we say we will accomplish?
- How do we honestly know?
- How is this information then used to improve or celebrate successes?
- Do our improvements lead to greater success?

Outcome-Based Assessment & Your Alcohol Program

- What decision did you make about your alcohol program within the last year?
- What decisions are you considering to make?
- What data or evidence did you use in making your decision?
- What was it that you were trying to alter or change about your program?
- What were the results

The Difference Between What We Do and What Our Target Populations Do

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GROUP ACTIVITY/DISCUSSION

YOU ARE PLANNING TO IMPLEMENT AN ALCOHOL PROGRAM AND ARE ASKED TO ASSESS IT –

WHAT DATA DO YOU COLLECT?

Traditional Performance Indicators Vs. Outcome Indicators

- Performance Indicators (Typically what we do)
  - Metric & Process Indicators
    - Number of Participants/Heads
    - Demographic data of participants
    - Number of Sessions We Delivered
    - Number of Sessions attended
    - Content delivered vs. Content Planned
    - Satisfaction with program
    - Staffing to participant ratio
    - Cost of program

Traditional Performance Indicators Vs. Outcome Indicators

- Outcome Indicators
  - Knowledge
  - Attitudes
  - Behaviors
  - Perceptions
  - Skills

Outcomes Vs. Process Indicators (Keeling 2009)

Student Learning Outcomes	Performance/Process Indicators
Originate from institutional, divisional, departmental/unit mission statement and purpose	Originate from the description and type of work/program/activities provided
Measure transformation students experience – learning that was acquired	Measure performance of a task that is completed
Achievement = Effectiveness in learning; students are different	Achievement = Productivity, Satisfaction or Accomplishment – Did we do what we said we were going to do
Requires criteria to define effectiveness	Requires criteria to define performance

Outcomes Vs. Process Indicators (Keeling 2009)

Student Learning Outcomes	Performance/Process Indicators
Ind & collective feedback to shape dept./unit programs and divisional activities and priorities	Individual feedback to shape dept/unit systems
Assessment: How effective were we in creating change in our students	Assessment: How well did we perform our tasks
Are students learning something	Are students happy and satisfied with our programs and services

9/29/2015

Both Outcomes and Process Indicators Need to Be Assessed?

- Riding the Amtrak to New Orleans for a Conference?
- What factors will determine if I take the train again or fly to NOLA?
- Which factors are outcome driven?
- Which factors are process driven

What is a Logic Model

A logic model

- is a picture indicating what your program or intervention will accomplish, and how your will do it!
- shows if-then relationships, that when implemented as indicated, should lead to the desired outcomes
- provides a map for planning AND evaluation

What is a logic model?

- Graphic way to organize information and display thinking
- A visual approach to the implicit maps we carry in our minds about how the world does or should work
- A tool that conveys a scheme, program, or project in a brief, visual format.
- A tool to describe planned action and its expected results.

Page 3
The Logic Model Guidebook, 2nd Edition
Knowleton & Phillips

What is logic modeling

- A technique which encourages iterative development of an idea, program or project.
- A process which creates a safe space to debate, generate ideas, support deliberations, and encourages thinking about the relationships between elements.
- A reflection on a consistent thread connecting design, planning, execution and evaluation.
- Iterative, intentional process aimed at improving thinking, best done through a facilitated process with key stake and shareholders

Why we should use logic models:

- Provides a common language
- Enhances communication between practitioners, administrators, participants, & stakeholders
- Increases participation and learning among participants
- Helps us manage the project, carrying our activities in a timely fashion
- Helps us differentiate between "what we do" and "results" --- **outcomes**
- Helps us determine what questions need to be addressed
- Increases understanding about program
- Guides and helps focus work
- Leads to improved planning and management
- Increases intentionality and purpose
- Provides coherence across complex tasks, diverse environments
- Helps us document the project and how it works
- Allows us to examine individual or groupings of projects
- Leads to improved design, program planning, program implementation, and evaluation

Limitations of Logic Models/Modeling

- No guarantee of logic, despite being called logic
- Logic does not equal plausibility, feasibility or success
- May not account for unintended consequences or side effects
- All logic models are incomplete, and should be considered drafts

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

Logic Models and Effectiveness

- Logic Models really help you answer 3 questions regarding effectiveness
1. Are you doing the right work?
2. Can you make better decisions?
3. Are you getting superior results?

Page 12
The Logic Model Guidebook, 2nd Edition
Knowleton & Phillips

Stephen R. Covey Advice

Habit 2:
Begin with the End in Mind

Types of Logic Models

- Theory of Change
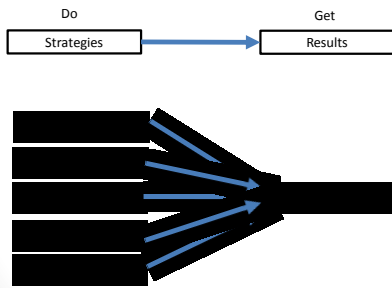- Program Logic Models

Model Similarities and Differences

Feature	Theory of Change	Program Logic Model
Representation	General and Broad	Specific and Detailed
View	Conceptual	Operational
Time Frame	No Time Designated	Time Bound and Specific
# of Elements	Few (action + outcome)	Many
Primary Display	Graphics	Text + Graphics
Elements	Strategies (do) & Results (get)	Impact, Outcomes, Outputs, Activities & Resources
Focus	General	Targets, specified results
	Plausibility	Feasibility

Adapted from Page 5
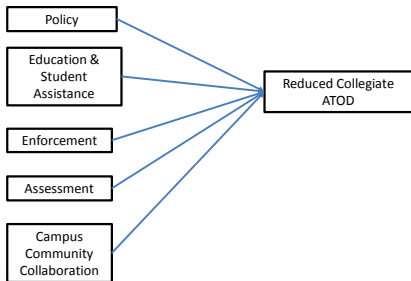The Logic Model Guidebook, 2nd Edition
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Theory of Change Logic Models

- Usually developed prior to a Program Change Logic Model
- Funneling process – big ideas to smaller ideas
- Assumptions in TOCLM have foundational basis for choices in programmatic aspects and success when developing PCLM's
- TOCLM based on proof = replication of something that has worked somewhere else
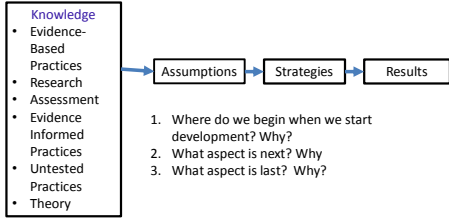- TOCLM based on hypotheses = promising, worth trying, innoavative, but not necessarily founded.

Theory of Change Elements

Do
Strategies

Get
Results

Alcohol Prevention Theory of Change

Policy

Education & Student Assistance

Enforcement

Assessment

Campus Community Collaboration

Reduced Collegiate ATOD

Creating a Theory of Change Model

Knowledge
• Evidence-Based Practices
• Research
• Assessment
• Evidence Informed Practices
• Untested Practices
• Theory

Assumptions → Strategies → Results

1. Where do we begin when we start development? Why?
2. What aspect is next? Why
3. What aspect is last? Why?

TOCLM and Plausibility

- Key focus – is it plausible
- What evidence, research, and experience leads you to believe that these strategies will achieve intended results?
- What works under what conditions?
- Are the strategies in alignment with or connected to anticipated/planned results

Success in Theory of Change Models

"The best theory of change model deliberately pursues alignment among research, theory, practice, and experience."

Page 3
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	Practice and Experience		
		Low	High
Research and Theory	Low	Least Likely to Succeed	
	High		Most Likely to Succeed

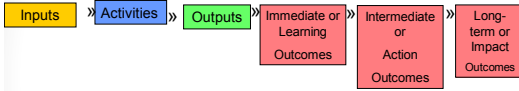## Guidelines for Reviewing a Theory of Change Model

1. Are the results specified with shared meaning among all stakeholders?
2. Did we uncover our assumptions and examine research, practice, and theory as the grounding for our choices and strategies?
3. Did we "toggle" between strategies and results to ensure plausibility given our resources and limitations?
4. Have we reviewed similar programs to learn what strategies worked under what conditions to secure results?
5. Does the model clearly show the relationship of strategies to results?

Program Change Logic Models for Program Planning

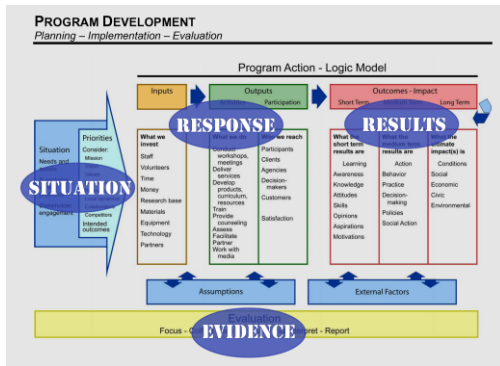## Terms Commonly Used When Developing Program Logic Models

- Outcomes
  - Long-term, intermediate-term, short-term
  - Impact, activity, learning
- Outcome Indicators
- Outputs (Process Indicators)
  - Quantity
  - Quality
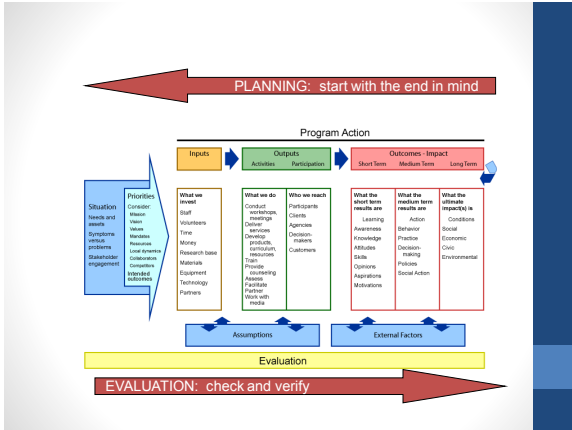- Activities
- Inputs

Generic Program Logic Model Elements

| Inputs | » | Activities | » | Outputs | » | Immediate or Learning Outcomes | » | Intermediate or Action Outcomes | » | Long-term or Impact Outcomes |

A graphic depiction of relationships between activities and results

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Program Logic Model and Reporting

PROGRAM DEVELOPMENT
Planning – Implementation – Evaluation

Program Action - Logic Model

| Inputs | Outputs | | Outcomes - Impact | | |
| | | Participation | Short Term | | Long Term |

SITUATION — Situation, Needs and engagement, Priorities, Consider: Mission, Competitors, Intended outcomes

RESPONSE

What we invest: Staff, Volunteers, Time, Money, Research base, Materials, Equipment, Technology, Partners

What we do: Conduct workshops, meetings, Deliver services, Develop products, curriculum, resources, Train, Provide counseling, Assess, Facilitate, Partner, Work with media

Who we reach: Participants, Clients, Agencies, Decision-makers, Customers, Satisfaction

RESULTS

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

EVIDENCE — Evaluation: Focus - Collect - Analyze - Interpret - Report

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Why measure outcomes

- We want to make sure that we make a difference in our students lives
- We want to improve our campuses
- We want to improve the programs and services we offer
- To meet standards of accountability
- Justify budget allocations and requests
- To meet standards of accreditation

PLANNING: start with the end in mind

Program Action

Inputs	Outputs		Outcomes - Impact		
	Activities	Participation	Short Term	Medium Term	Long Term

EVALUATION: check and verify

Looking at What Our Students Do As a Result of Our Program/Intervention

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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
  - Changes in social situations
  - Economic changes
  - Environmental changes
  - Changes in actual social norms
- These occur after intermediate and immediate changes are achieved

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

Determining What We Do & Who We Reach

Connecting outputs to outcomes is a challenge
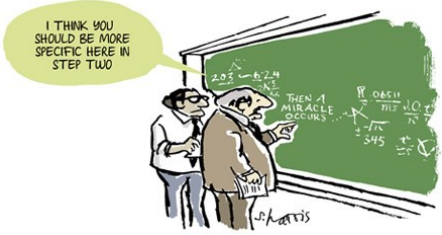
"I think you should be more explicit here in Step Two."

Activities – What We Do

- Subparts of a strategy utilized in a TOCLM
- Actual programs and services provided
  - Providing one-on-ones
  - Delivering a social marketing campaign
  - Information tabling
  - Educational Presentations and Programs

Make your Activities FIT

- Frequency of occurrence
- Intensity or strength of the given effort
- Targeted at a specified market or audience
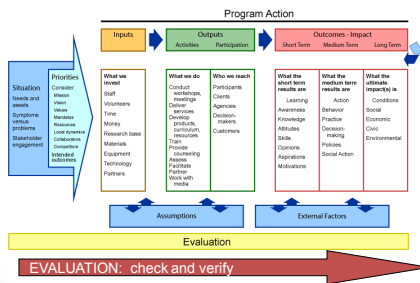
Inputs – What We Invest

- Resources used to support and carry out activities
  - Personnel
  - Budget
  - Facilities and equipment
  - Community/Institutional Assets
    - Collaborative relationships
    - Allies
  - Barriers
    - Local and institutional norms

Prioritization of What is the Ideal vs. What is the Realistic

- What resources are actually available
- What staffing is actually available
- How does model actually fit with mission
- How does model fit with institutional/departmental priorities, goals
- Does model fit with desired outcomes of administration/funder

Outputs - Participation

- Who We Target/Reach
- The "consumers" 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

Outcomes vs. Outputs

Outcomes	Outputs
• Increase in knowledge,attitudes and skills	• # of participants who attended
• Reduction in negative behaviors	• # of sessions delivered
• Increased % of students who	• Reasons for attending
	• Demographic breakdowns
	• Compared content planned vs. content actually delivered
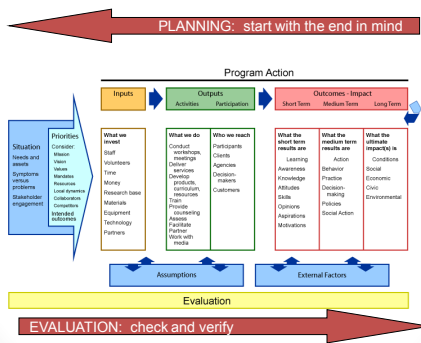
Action Steps for a Program Logic Model

1. Identify the ultimate impact/environmental/climate changes you want to create
2. Identify the medium/intermediate outcomes (behavioral) that would lead to the ultimate impact/environment/climate changes
3. Identify the short term/learning outcomes that would lead to the medium/intermediate outcomes you desire
4. Identify the activities and interventions needed to generate the learning outcomes.
5. Identify the resources/inputs that link directly to and will supply the programs and interventions
6. Identify outputs/process metrics that will indicate accomplishment/implementation of activities and interventions.

Program Logic Models for Evaluation
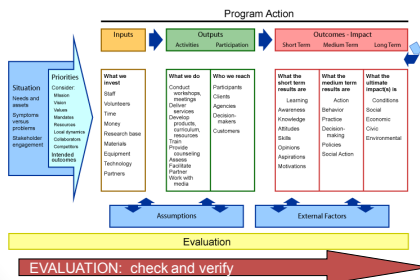
Writing Outcomes

- 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.

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
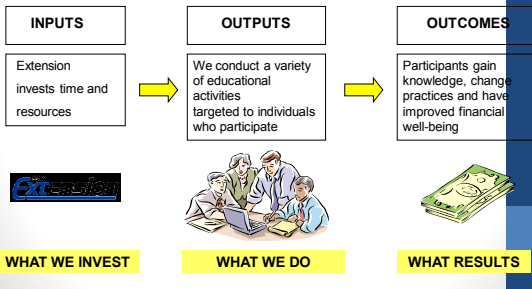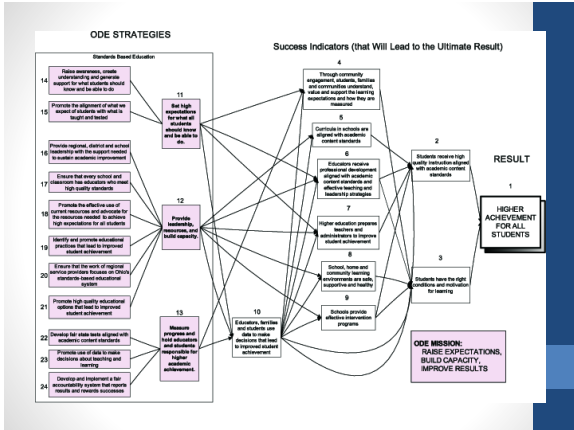
Outcome Indicators

- 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

EXAMPLE LOGIC MODELS

**Example: Financial management program**

Situation: Individuals with limited knowledge and skills in basic financial management are unable to meet their financial goals and manage money to meet their needs.

INPUTS	OUTPUTS	OUTCOMES
Extension invests time and resources	We conduct a variety of educational activities targeted to individuals who participate	Participants gain knowledge, change practices and have improved financial well-being

WHAT WE INVEST   **WHAT WE DO**   **WHAT RESULTS**

SPF SIG New Mexico Community Logic Model
Reducing alcohol-related youth traffic fatalities

Alcohol Literacy Challenge™
Logic Model
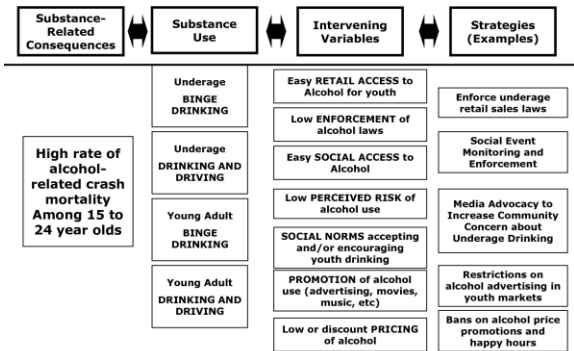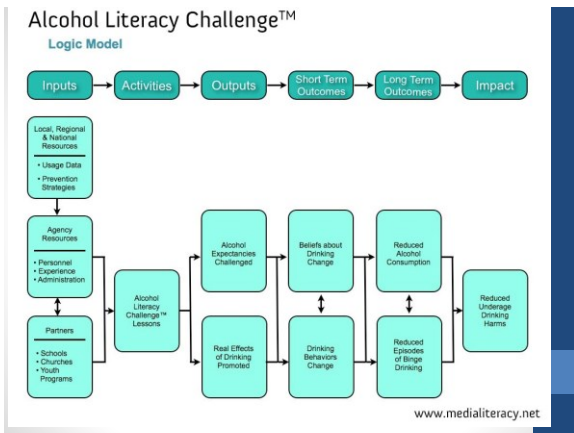
Logic Model – UAlbany Sexual Assault Prevention & Response
February 2007
Goal: The University at Albany will be a community that is resistant to sexual assault, including all non-consensual sexual contact.

ATTACHMENT B
Perinatal Oral Health Logic Model
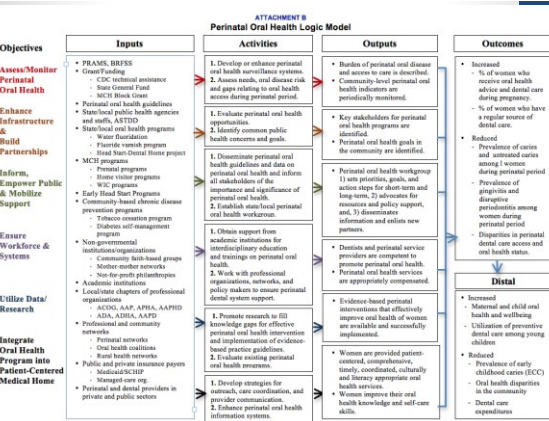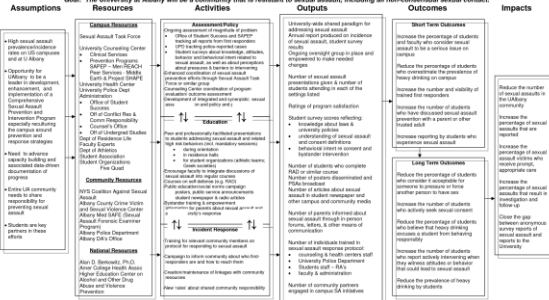
Lets Practice & Build a Logic Model

Contact Information

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