

## Utah Evidence Based Workgroup Logic Model Guide

**Logic Model Purpose:** The logic model provides a visual representation of the program, and helps articulate the internal logic of a program (what the program hopes to achieve and how it will achieve it). As you develop your logic model, the goal should be to explain how your intervention's key activities and strategies will result in the outcomes you have specified. There should be enough information in the "Theory of Change" column for the reader to see the connection between the activities and strategies and the proposed outcomes. The Evidence Based Workgroup (EBW) will use your submitted logic model to better understand how your intervention is supposed to work, and why you have chosen the outcome constructs and measures you have included in your evaluation of the intervention.

This guide walks through the parts of the EBW logic model and provides several examples of completed logic models for reference.

- A. Problem Behavior(s):** Please specify the problem behavior(s) the intervention is meant to prevent. Typically, these will be substance use behaviors or consequences of substance use, but may also include mental health outcomes, suicidal ideation, etc.
- Examples of problem behaviors: Underage drinking, high risk or binge drinking, marijuana use, methamphetamine use, misuse of and abuse of prescription narcotics, depressive symptoms, suicidal ideation.
  - Examples of consequences of problem behaviors: Prescription narcotic related morbidity and mortality, alcohol related motor vehicle crashes, fetal alcohol syndrome.
- B. Goals.** The risk and protective factors (causal factors) targeted by the intervention. Most interventions do not target problem behaviors directly; instead they target intervening variables. Therefore, this column should represent the direct targets of the intervention.
- This column should specify the causal factors, contributing factors, or risk and protective factors that the intervention targets that lead to the problem behavior(s) listed above the logic model.
  - The EBW recommends using the [risk and protective factor model](#) of adolescent program behaviors developed by Dr. Hawkins and Dr. Catalano. In addition, suicide prevention programs may also use the risk and protective factor models developed by the [Suicide Prevention Resource Center](#), the [Centers for Disease Control and Prevention](#) (CDC), and the [Utah Suicide Prevention State Plan](#). Other research based models may be accepted as appropriate to the intervention's activities with enough evidence.
  - Examples of intervening variables are: Family conflict, parental attitudes favorable towards anti-social behaviors, perceived risk of drug use, family attachment, opportunities for prosocial involvement, rewards for prosocial involvement, social isolation, access to lethal means, etc.
- C. Target Group** Please specify the appropriate target population for your intervention in this column.
- Be specific about the target population in this column. Indicate what age groups or other demographic attributes are appropriate for the intervention.
  - Indicate whether the focus population is universal, selective, or indicated. If the program targets a selective or indicated population, more details about the target population should be provided.
  - If appropriate, indicate how individuals were identified or recruited for the intervention. For example, were they referred by courts or teachers? Was attendance voluntary or mandatory? (Some interventions, such as media campaigns, will not require a recruitment or identification strategy.)
  - How many individuals were reached by the intervention? Use reference frames that are appropriate for the intervention. For example, indicate how many individuals were reached per year, or how many were reached per class, etc.

- D. Activities/Strategies.** In this column, you should highlight the program activities and strategies that are key in changing the risk/protective factor outcomes identified in the *Goals* column.
- When describing your intervention's activities, try to answer the questions: "what are the intervention's key components or lessons," and "when and how much did we do?" You do not need to include detailed descriptions of everything your intervention does, but be sure to highlight the key activities and strategies that you feel are responsible for producing the outcomes identified in the *Goals* column.
  - Strategies can be thought of as more general intervention actions that are implemented in order to impact the short-term outcomes such as information dissemination, education, community-based process, environmental, etc. Activities can be thought of as more refined actions associated with each strategy. For example, a social media campaign, creating posters, facts sheets, and brochures are activities related to information dissemination. Classroom instruction/curriculum, workshops, or lunch-and-learns are activities associated with education. Advocacy for establishing regulations, rules, or ordinances are activities associated with environmental strategies. Establishing a coalition and working with lay health workers are activities associated with community-based processes.
  - When listing activities/strategies, be as specific as possible, and comprehensive enough to give the reader a good understanding of what each listed strategy/activity entails. Do not just give a program name. The reader may not be familiar with the program.
  - For example, if it is an educational program, indicate what the key curriculum messages and lessons of the intervention are. The reader should be able to envision the knowledge or skills gains that are expected from each key curriculum topic.
  - Dose is a measure of the duration (number of sessions and hours, etc.), and/or how many program components are to be delivered to the target group when the program is implemented with fidelity. For example, if appropriate, indicate how many classes the program is designed to include, as well as, how often, and how long they should be. Or indicate how many billboards, TV commercials, and radio spots were presented. IF implementing compliance checks, indicate who did them, where they were done, how often they were done, what were the consequences for success or failure, etc. Provide as much detail as necessary about the activities/strategies to allow the reader to understand what constitutes implementation fidelity from the program developer's perspective.
- E. Theory of Change.** This column is where the connection between the intervention's activities and strategies and the expected outcomes should be articulated. The objective is to clearly describe how the program's activities in column three will result in changes to the outcomes in column one. We recommend you accomplish this by providing a series of "if-then" statements that link intervention activities/strategies to the risk and protective factor (causal factor) goals. Each of the key activities/strategies specified should be linked to at least one of the goals identified, and there should not be any goals in column one that are missing a theory of change that connects them to at least one key activity/strategy.
- How will the activities/strategies lead to the expected goals/outcomes,
  - This column is the essence of the logic model. It explains why particular activities and strategies have been chosen to address the goals.
  - Try to avoid big leaps of logic. An uninformed reader should be able to easily understand why X will lead to Y.
  - Be sure that each of the risk and protective factors you indicated in the *Goals* column has been linked to at least one of the activities/strategies specified in column three. There should not be any risk/protective factor goals that lack a connection in the theory of change (not every activity has to link to every goal, you only need to make sure that each goal is connected to relevant activities).
  - Be sure that each activity/strategy specified in column three is connected to at least one risk/protective factor goal. If you have an activity/strategy that is not connected to one of your goals, it is probably not a key activity and can be removed.

- F. Short-term Outcomes.** In regards to timing, short-term outcomes are outcomes that should be expected by the time the intervention is completed. In most cases, the goals in column one should be included as short-term outcomes. In some cases, decreases in the problem behavior(s) specified above the logic model may also be expected by the end of the program, but for prevention programs, this scenario is more likely to be the exception than the rule.
- Short-term outcomes are the outcomes expected immediately at the completion of the intervention. These outcomes are likely to be articulated in the “if-then” statements provided in the theory of change.
  - Data measures included in your evaluation will likely focus on short-term outcomes primarily since these can be expected at program completion. For example, if there is a pre/post test in the evaluation, the questions or scales on the pre/post test should have measured the short-term outcomes identified in your logic model. There will likely be other short-term outcomes in addition to the goals in column one, that are outcomes that occur as a result of participation in the program prior to changes in the risk/protective factors. For example, if your program is expected to reduce the favorable attitudes toward drugs risk factor scale, one of the activities to accomplish this might be teaching about the harmfulness of substance use. Increases in knowledge about the harmfulness of substance use would be a logical short-term outcome to measure in your evaluation which precedes a change in favorable attitudes toward drugs.
- G. Long-Term Outcomes.** Long-term outcomes are the things you ultimately hope your intervention will change. They are often outcomes that would not realistically be expected immediately after completion of the intervention because prevention programs typically try to prevent behaviors that have not occurred yet. What changes would the program ultimately like to create?
- Long-term outcomes will almost always include the problem behavior(s) identified above the logic model. They may also include outcomes that occur after the risk/protective factor goals are accomplished, but prior to the problem behavior(s) changing.
  - Long-term outcomes are usually not included in the evaluation measures except in situations where the ultimate goal of the program can be expected to occur by the time the intervention is completed.

## Evidence-Based Workgroup intervention Logic Model: Example

**Intervention Name:** Character Education

**Problem Behavior(s) Targeted:** Substance Use/Misuse

GOALS	TARGET GROUP	ACTIVITIES/ STRATEGIES	THEORY of CHANGE	SHORT-TERM OUTCOMES	LONG-TERM OUTCOMES
<p><i>Please specify the causal factors (e.g., risk/protective factors) targeted by the intervention</i></p>	<p><i>Please specify the target population for this intervention</i></p>	<p><i>Please specify the major <u>activities and strategies</u> that the intervention employs to create change in participants or the community. For interventions with a recommended dosage (e.g., # of sessions, hours, etc.) please provide that info first</i></p>	<p><i>Please use IF-THEN logic to explain how the activities and strategies in the previous column will lead to the desired outcomes. A logical connection between the activities and the goals should be clear based on the information provided in this column</i></p>	<p><i>Based on the Theory of Change, what outcomes (changes in participants/community) should be expected immediately at the completion of the intervention</i></p>	<p><i>What ultimate outcomes does the intervention hope to deliver that logically connect to the short-term outcomes in the previous column</i></p>
<p>Favorable attitudes toward problem behavior</p> <p>Interaction with antisocial peers</p> <p>Early initiation of drug use</p>	<p>The target group is 6<sup>th</sup> grade students at “XYZ” Middle School (universal population).</p> <p>The program will be integrated into a health classroom.</p>	<p>Trained facilitators will implement the education program for 10 1-hour sessions per course.</p> <p>The program’s curriculum focuses on:</p> <ul style="list-style-type: none"> <li>● <b>Character education</b> and development of positive prosocial behaviors and a commitment to stay drug free</li> <li>● <b>Social norms</b> for positive peer interactions and healthy behavior choices</li> <li>● <b>Peer bonding</b> to prosocial peers through group activities</li> <li>● <b>Peer refusal skills</b> for antisocial behavior and substance use</li> </ul> <p>Program content is provided in highly interactive group activities and games, group discussions and one on one time between facilitator and students.</p>	<p><u>If</u> students receive the <b>Character Education</b> curriculum content, <u>then</u> they will be more likely to develop healthy beliefs and standards for their personal behaviors, including an understanding that substance use is dangerous and could be detrimental to their future. They will also be more likely to have favorable attitudes about the importance of seeking out prosocial peers who share their healthy beliefs and standards, as well as make a commitment to stay drug free.</p> <p><u>If</u> students develop these healthy beliefs and standards, <u>then</u> they will be less likely to have favorable attitudes toward antisocial behaviors and substance use.</p> <p><u>If</u> students feel it is important to seek out prosocial peers who share healthy beliefs, <u>then</u> they will be less likely to interact with antisocial peers.</p> <p><u>If</u> students complete the character education component, <u>then</u> they will be more likely to make a commitment to stay drug free.</p> <p><u>If</u> students receive the <b>Social Norms</b> content, <u>then</u> they will have more accurate beliefs about youth substance use, and understand that most youth do NOT use substances.</p> <p><u>If</u> students have more accurate perceptions that most youth do not use, <u>then</u> they will have less favorable attitudes toward substance use.</p> <p><u>If</u> students participate in the program, <u>then</u> they will engage in fun and interactive ways with other students who are participating, they will also get</p>	<p>Students will have more favorable attitudes towards healthy beliefs and standards for themselves and others, including:</p> <ul style="list-style-type: none"> <li>● Support for attitudes about choosing peers who share healthy beliefs and standards</li> <li>● <i>Less favorable attitudes toward antisocial behavior and substance use</i></li> <li>● <i>Greater perceived risk of harm of drug use</i></li> <li>● More likely to make a personal commitment to stay drug free</li> </ul> <p>Students will report more accurate perceptions about peer/youth substance use.</p> <p>Students will have knowledge and skills for effective peer refusal, and greater confidence to resist peer pressure.</p> <p>Students will form friendships with other program participants, and greater intentions to choose friends who have healthy beliefs and standards</p> <ul style="list-style-type: none"> <li>● decreased interaction with antisocial peers</li> </ul>	<p>Students will be less likely to have friends who engage in antisocial behaviors and substance use in middle and high school.</p> <p>Students will delay experimentation with and/or use of substances in middle and high school</p> <ul style="list-style-type: none"> <li>● <i>decreased early initiation of drug use</i></li> </ul> <p>Students will be less likely to engage in antisocial behavior in middle and high school.</p>

to know their peers better while also reinforcing prosocial and healthy beliefs and standards.

If students have these opportunities to engage in fun/interactive ways and reinforce prosocial beliefs, then they will be more likely to **bond with peers** who share their healthy beliefs.

If students **bond with peers** who have healthy beliefs, then they will be less likely to interact with antisocial peers.

If students receive the **Peer Refusal Skills** content, then they will learn effective skills for turning friends down when pressured to engage in antisocial behavior.

If students learn **peer refusal skills**, then they will be more likely to resist peer pressure in these situations.

If students resist peer pressure, then they will be less likely to have early initiation of drug use.

## Evidence-Based Workgroup intervention Logic Model

**Intervention Name:** Positive Mental Health Program

**Problem Behavior(s) Targeted:** Suicidal ideation/attempts

GOALS	TARGET GROUP	ACTIVITIES/ STRATEGIES	THEORY of CHANGE	SHORT-TERM OUTCOMES	LONG-TERM OUTCOMES
<p><i>Please specify the causal factors (e.g., risk/protective factors) targeted by the intervention</i></p>	<p><i>Please specify the target population for this intervention</i></p>	<p><i>Please specify the major <u>activities and strategies</u> that the intervention employs to create change in participants or the community. For interventions with a recommended dosage (e.g., # of sessions, hours, etc.) please provide that info first</i></p>	<p><i>Please use IF-THEN logic to explain how the activities and strategies in the previous column will lead to the desired outcomes. A logical connection between the activities and the goals should be clear based on the information provided in this column</i></p>	<p><i>Based on the Theory of Change, what outcomes (changes in participants/community) should be expected immediately at the completion of the intervention</i></p>	<p><i>What ultimate outcomes does the intervention hope to deliver that logically connect to the short-term outcomes in the previous column</i></p>
<p>Coping and problem solving skills</p> <p>Access to care</p> <p>Connectedness</p>	<p>6th graders in XX School District (Universal implementation)</p>	<p>Trained facilitators will implement the education program for 10 30-minute sessions per school year.</p> <p>The program's curriculum focuses on:</p> <ul style="list-style-type: none"> <li>● <b>Healthy coping strategies for stress and common life changes</b>, such as moving, changing schools, friendships, family dynamics, and deaths.</li> <li>● <b>Identifying warning signs for depression, anxiety, and suicide</b>, and how to talk to a trusted adult.</li> <li>● <b>Peer bonding</b> to build a positive support system.</li> </ul> <p>Program content is provided in highly interactive group activities and group discussions.</p>	<p><u>If</u> 6th grade students receive the education curriculum on healthy coping skills, <u>then</u> they will learn to identify strategies to manage interpersonal conflict, manage stress, and regulate emotions.</p> <p><u>If</u> 6th grade students learn to identify strategies to manage interpersonal conflict, manage stress, and regulate emotions, <u>then</u> they will have the <b>coping and problem solving skills</b> to manage common life changes.</p> <p><u>If</u> 6th grade students learn <b>coping and problem solving skills</b>, <u>then</u> they will be less likely to contemplate suicide as a potential solution to common life changes.</p> <p><u>If</u> 6th grade students receive the education curriculum on suicide prevention, <u>then</u> they will be more likely to recognize warning signs for depression, anxiety, and suicide in their peers.</p> <p><u>If</u> 6th grade students learn to recognize warning signs for depression, anxiety, and suicide in their peers, <u>then</u> they will be more likely to identify when others may be struggling and refer them to a trusted adult.</p> <p><u>If</u> 6th graders understand when and how to talk to a trusted adult, <u>then</u> students are more likely to receive <b>access to mental health services</b>.</p> <p><u>If</u> students participate in the program, <u>then</u> they will engage in fun and interactive activities with other students who are participating.</p>	<p>Increase in knowledge and utilization of life skills in 6th grade students:</p> <ul style="list-style-type: none"> <li>● Emotional regulation</li> <li>● Conflict resolution</li> <li>● Stress management</li> <li>● Critical thinking</li> <li>● Coping and problem solving skills</li> <li>● Resiliency</li> </ul> <p>Increase in number of mental health referrals</p> <p>Increase in prosocial involvement and connection to peers in 6th grade classrooms</p>	<p>Decrease in percentage of middle school and high school students reporting suicidal ideation and attempts</p>

If students engage in fun and interactive activities with other students, then they will be more likely to **increase positive connections** with peers.

If students **increase positive connections** with peers, then they will be less likely to experience social isolation, which can cause suicidal ideation.

## Evidence-Based Workgroup intervention Logic Model: Example

**Intervention Name:** Parent Education Program

**Problem Behavior(s) Targeted:** Underage Drinking

GOALS	TARGET GROUP	ACTIVITIES/ STRATEGIES	THEORY of CHANGE	SHORT-TERM OUTCOMES	LONG-TERM OUTCOMES
<p><i>Please specify the causal factors (e.g., risk/protective factors) targeted by the intervention</i></p>	<p><i>Please specify the target population for this intervention</i></p>	<p><i>Please specify the major <u>activities and strategies</u> that the intervention employs to create change in participants or the community. For interventions with a recommended dosage (e.g., # of sessions, hours, etc.) please provide that info first</i></p>	<p><i>Please use IF-THEN logic to explain how the activities and strategies in the previous column will lead to the desired outcomes. A logical connection between the activities and the goals should be clear based on the information provided in this column</i></p>	<p><i>Based on the Theory of Change, what outcomes (changes in participants/community) should be expected immediately at the completion of the intervention</i></p>	<p><i>What ultimate outcomes does the intervention hope to deliver that logically connect to the short-term outcomes in the previous column</i></p>
<p>Family conflict</p> <p>Poor family management</p> <p>Family bonding</p> <p>Early initiation of drug use</p>	<p>This universal program targeted parents with children in 4th-7th grade in Davis County who were seeking to improve family management and parenting skills.</p> <p>We reached 200 parents with this program last year.</p>	<p>This 5-session parenting program was taught once a week for an hour and a half for 5 weeks by trained facilitators in elementary schools in Davis County.</p> <p>This education strategy focused on strengthening family bonds, setting clear expectations for children, teaching children to resist peer pressure, and teaching anger management skills.</p> <p>The program is highly interactive and utilized video for skills modeling, role-play, guided practice, small and large group discussion, and home practice activities.</p>	<p><u>If</u> parents attend the parenting program, <u>then</u> they will be taught how to set clear expectations</p> <p><u>If</u> parents attend the parenting program, <u>then</u> they will practice setting clear expectations</p> <p><u>If</u> parents are taught and practice how to set clear expectations, <u>then</u> they will be more likely to effectively communicate clear rules with their children</p> <p><u>If</u> clear rules are communicated effectively, <u>then</u> children will be more likely to understand what is expected of them</p> <p><u>If</u> children understand what is expected of them, <u>then</u> there will be less family conflict</p> <p><u>If</u> parents attend the parenting program, <u>then</u> they will be taught how to teach their children how to resist peer pressure.</p> <p><u>If</u> parents attend the parenting program, <u>then</u> they will receive home practice activities to practice with their children resisting peer pressure.</p> <p><u>If</u> parents are taught and practice with their children resisting peer pressure, <u>then</u> their children will learn how to resist peer pressure.</p> <p><u>If</u> their children learn how to resist peer pressure, <u>then</u> they will be more likely to resist peer pressure.</p>	<p>Parents will have increase in effective parenting skills including:</p> <ul style="list-style-type: none"> <li>● Setting clear expectations</li> <li>● Teaching peer pressure resistance</li> <li>● Anger management</li> <li>● Expressing positive feelings/ increased positive interactions</li> </ul> <p>Reduction in poor family management</p> <p>Reduction in family conflict</p> <p>Increased family bonding</p> <p>Children will have the skills to resist peer pressure.</p>	<p>Reduction in early initiation of drug use</p> <p>Reduction in underage drinking</p>

If the children resist peer pressure, then they will be less likely to have early initiation of drug use.

If parents attend the parenting program, then they will be taught how and why expressing positive feelings and love to children and managing anger is important

If parents attend the parenting program, then they will practice how to express positive feelings and manage anger.

If parents learn the importance of expressing positive feelings and practice how to, then they will be more likely to positively interact with their children

If they interact positively with their children, then their children will be more likely to feel loved

If children feel loved, then family bonding will increase

## Evidence-Based Workgroup intervention Logic Model: TEMPLATE

Intervention Name:

Problem Behavior(s) Targeted:

GOALS	TARGET GROUP	ACTIVITIES/ STRATEGIES	THEORY of CHANGE	SHORT-TERM OUTCOMES	LONG-TERM OUTCOMES
<p><i>Please specify the causal factors (e.g., risk/protective factors) targeted by the intervention</i></p>	<p><i>Please specify the target population for this intervention</i></p>	<p><i>Please specify the major <u>activities and strategies</u> that the intervention employs to create change in participants or the community. For interventions with a recommended dosage (e.g., # of sessions, hours, etc.) please provide that info first</i></p>	<p><i>Please use IF-THEN logic to explain how the activities and strategies in the previous column will lead to the desired outcomes. A logical connection between the activities and the goals should be clear based on the information provided in this column</i></p>	<p><i>Based on the Theory of Change, what outcomes (changes in participants/community) should be expected immediately at the completion of the intervention</i></p>	<p><i>What ultimate outcomes does the intervention hope to deliver that logically connect to the short-term outcomes in the previous column</i></p>