



# Family Health Outcomes Project

UCSF Family & Community Medicine



## PROGRAM EVALUATION 1

February 22, 2006  
Fresno, CA

March 1, 2006  
Sacramento

Jointly sponsored by  
California Department of Health Services, Maternal, Child and Adolescent  
Health Branch,  
Perinatal Advisory Council: Leadership, Advocacy, and Consultation (PAC/LAC),  
and Family Health Outcomes Project, UCSF

# PROGRAM EVALUATION 1

## Family Health Outcomes Project Staff

Geraldine Oliva, MD, MPH  
Director

Judith Belfiori, MA, MPH  
Director of Planning and Evaluation

Brianna Gass, MPH  
MCAH Coordinator

Jennifer Rienks, PhD  
Research Associate

Nadia Thind, MPH  
Research Associate

Mary Tran  
Meetings and Trainings Coordinator

# TODAY'S AGENDA

By the end of the training, participants should have the skills needed to increase their capacity to improve program outcomes, effectively allocate resources and to demonstrate the value of public health programs to funders, legislators and other public health stakeholders. At the conclusion of this course, the participant will be able to:

- Articulate current concepts in evidence-based public health for public health evaluation
- Describe when and how to use a logic model and provide practice in the use of a logic model framework for developing and assessing program interventions
- Review and provide practice in developing measurable and realistic objectives

<b>8:30 am</b>	<b>Coffee and Registration</b>
<b>9:00 am</b>	<b>Welcome and Introductions</b> <b>Session 1. Overview</b> <i>Geraldine Oliva, MD, MPH</i>
<b>10:00 am</b>	<b>Session 2. Critical Steps in Preparation for Planning and Evaluation</b> <i>Brianna Gass, MPH</i>
<b>11:00 am</b>	<b>Break</b>
<b>11:15 am</b>	<b>Session 3. Using a Logic Model Framework for Program Planning and Evaluation</b> <i>Judith Belfiori, MA, MPH</i>
<b>12:30 pm</b>	<b>Lunch</b>
<b>1:30 pm</b>	<b>Session 3. Using a Logic Model Framework and Exercise</b> <i>Judith Belfiori, MA, MPH</i>
<b>3:00 pm</b>	<b>Break</b>
<b>3:15 pm</b>	<b>Exercise- Using a Logic Model Framework</b>
<b>3:45 pm</b>	<b>Session 4. Developing Program Objectives</b> <i>Nadia Thind, MPH</i>
<b>4:45 pm</b>	<b>Wrap-Up and Conclusions</b>



## Critical Steps in Preparation for Planning and Evaluation

Brianna Gass, MPH  
Judith Belfiori, MPH, MA  
Family Health Outcomes Project  
Program Evaluation I

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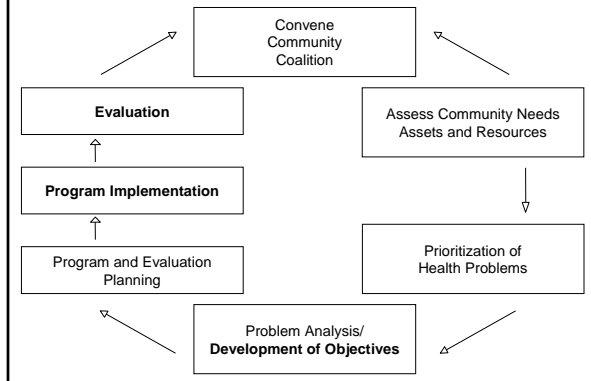
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## Public Health Planning Cycle



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## Before you begin a logic model

- Conduct literature review to identify risk and contributing factors to the problem
- Problem analysis- show risk factors and relationships between them; identify points of intervention
- Assess environment (other programs targeting issue or population, service gaps)
- Assess available and potential resources (personnel, services, funds)

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**Example Priority problem:  
Death and injury among adolescents**

Take a closer look- what is causing death and injury in your community?

- Additional data provides more info (eg. EPIC)
- Consult experts (police, Hospitals/emergency medical services, schools) for insight into problem

This additional information helps determine that a main cause of death and injury is motor vehicle accidents involving teen drivers

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**Motor vehicle crashes involving teen drivers**

Literature review

- Identify causal factors
- Identify factors in environment that prevent (protective factors) or contribute to (systems barriers) incidence of problem
- Identify and evaluate potential methods of intervention

Problem analysis

- Describe relationships between causal factors, show linkages in chain of causation
- Determine possible points of intervention

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**Literature Review**

- Definition
- Types of sources
- Accessing sources electronically
- Evaluating an article or report
- Putting the information together

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## What is a literature review?

A summary of current literature on the causes of a problem and best practices to address it

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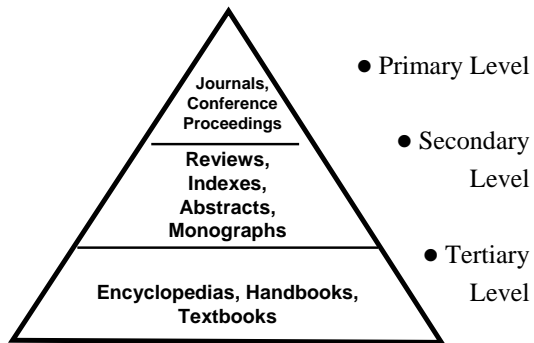
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## How Literature is Structured



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### Tertiary Sources

- Text books provide summary and overview
- Can help identify search terms to use in accessing other sources

### Secondary Sources

Meta-analysis- combining the results of many studies dealing with one topic

- Review articles that describe and summarize other articles. Look for these in journals, review journals, reports, book chapters
- Websites (CDC, NIH, HRSA)

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## Primary Sources

- Published in peer-reviewed journals
- The most current information in a field or subject area
- Discussion section will provide meaning and implications
- Identify new theories, trends, emerging issues and practices
- May highlight differing opinions or results of interventions

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## Accessing research articles

- Medline  
<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi>
- <http://infomine.ucr.edu/>
- Search engines (Yahoo, Google, etc.)
- Local libraries
- Journal articles online
- Government agency reports (CDC, IOM, etc.)
- Foundations/non profit research groups (KFF, CHCF, etc)

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## Reviewing a source

- Who wrote the article? Affiliations?
- Where was it published? By whom?
- Peer reviewed?
- When was it published?
- Does it include its sources of information?
- Who is it intended for? Purpose?

Does this paper meet your needs? What exactly are you looking for?

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## Reviewing a research study

- Study design- population, intervention, outcomes
- Accuracy of data measurements (data sources, variables used)
- Are results presented based on analysis of data and relevant to the research question?
- Replication of study and other conclusions

Based on the above information, can the intervention described be applied to your community?

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## Literature Review: Putting it all together

Goal is to synthesize and evaluate material according to its relevance to problem

- Organize sections that present themes or identify trends, relevant theory
- Identify population studies, what was done, results
- Highlight how article contributes to understanding of problem, what interventions have been proven
- What components of article are useful for practice?
- Note study strengths and limitations

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## Example: Teen drivers

Risk factors associated with accidents:

- Driver inexperience
- Peer passengers in vehicle
- Driving at night
- Poor weather/driving conditions
- Substance impaired driving
- Risk taking (speeding, etc.)

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## Example: Teen drivers

Intervention, protective factors that reduce incidence of accidents:

- Restrictions on driving privileges (imposed by parents and/or policy)
- More supervised driving practice
- Length of time teen has been licensed- Rate of collisions highest during 1<sup>st</sup> month, drops after 6 months, then again after one year

Intervention discussed in current literature is Graduated Driver Licensing (GDL)

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## Problem Analysis

At this point you have:

- Reviewed available data about a problem and identified affected groups in your community, and any trends.
- Consulted experts and/or stakeholders
- Reviewed literature to learn about relevant causes of the problem in your community and begun to look at potential interventions

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## Problem Analysis

- Organizes information (what, who, where, why)
- Identifies causal and protective factors
- Shows interrelationships among factors contributing to a problem
- Assures resources are allocated where they can be expected to have greatest impact
- Helps to determine the most effective points for intervention

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### Problem analysis: A simplified example

The Problem: The #1 cause of Teen Injury/Death is auto accidents

A simple analysis of the problem:

Teen driver exposure to high risk environmental conditions, e.g.

- Time of day
- Bad weather
- High speed roads
- Distractions: Peers

Teen driver behavioral risk, e.g.

- Speeding
- Inexperience
- Drug/alcohol use

Car Crash → Injury / Fatality

Teen driver protective factors: GDL, Conditions for driving (trip, environmental, behavioral); Parental oversight; Law enforcement; Experience

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### Assess local environment

- Existing communities or programs that target this problem area
- Existing community partnerships
- Identify gaps in resources/services in community
- How/where can target population be reached (schools, churches, driver education programs)

Your program can fill a void, enhance existing program, or be a collaborative effort with another agency.

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### Assess agency capacity/resources

- Existing funding and funding opportunities
- Staff/personnel resources, competencies
- Interagency relationships
- External relationships/partnerships
- Current services and programs

Can intervention realistically be carried out by your agency? What else is needed?

Do other resources exist that can be tapped to help meet program goals?

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### Theory of Change

Increase parent awareness of GDL, and oversight of teen driving privileges



Increase compliance among teens  
less driving in risky situations



Fewer accidents involving teen drivers



Lower rates of injury/death

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Next step:  
logic model

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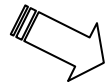
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The Problem: The #1 cause of Teen Injury/Death is auto accidents

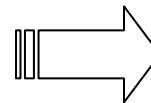
A simple analysis of the problem:

Teen driver exposure to high risk environmental conditions, e.g.

- Time of day
- Bad weather
- High speed roads
- Distractions: Peers



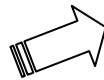
Car Crash



Injury / Fatality

Teen driver behavioral risk, e.g.

- Speeding
- Inexperience
- Drug/alcohol use



Teen driver protective factors: GDL, Conditions for driving (trip, environmental, behavioral); Parental oversight; Law enforcement; Experience



## Using A Logic Model Framework For Program Planning And Evaluation

Judith Belfiori, MA, MPH  
Family Health Outcomes Project (FHOP)  
February 22, 2006, March 1, 2006

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### This Session

- Provide rationale / benefits of using a logic model framework
- Describe a logic model framework and its components
- Present logic model examples
- Practice using the framework

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### Why Use a Logic Model?

- To guide program and evaluation development
- To assess the potential for demonstrating that the intervention will achieve outcomes
- To assist in identifying problems in program design or implementation, so that they may be addressed
- Often required

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## Use For Planning And Implementation

- A *tool* for program development
- Develops a common understanding of the program and its intended outcomes (program funders, implementers, other stakeholders)
- Promotes team building
- Assists focused program management and problem solving

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## Use For Evaluation

- Depicts how the program is designed to work and aids assessment of whether it is logical
- Useful to assess whether the program is operating as designed
- Useful to communicate how a program works
- Assists with identification of important evaluation questions

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## Tool Only As Useful As You Make It!

- A framework that relies on “critically” thinking through logic and relationships to develop your program model—only as good as the user
- Provides a representation—program implementers job to assure it becomes reality
- Depicts your theory of change – It does not replace a detailed implementation plan

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## A Logic Model Framework

- Organizes information into a visual sequence
- Depicts how a program works to achieve its intended outcomes, shows relationships
- May be a flow chart, table, diagram, etc
- Has common elements

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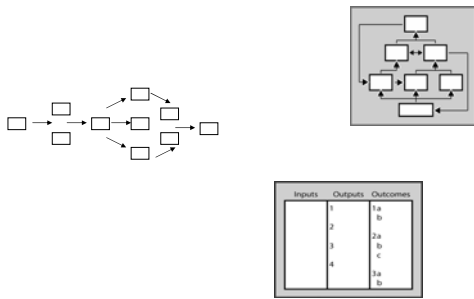
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## A Logic Model Can Look Like



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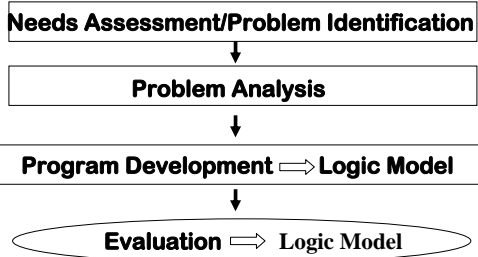
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## When Is a Program Logic Model Useful?



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## Scope Of A Logic Model

- Statewide
- Community (e.g., a coalition of agencies)
- Individual program
- Single intervention

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## Using A Logic Model Framework To Assist Program Planning

1. Articulate the problem
2. Identify broad goals/objectives
3. Determine intervention points using research, best practices, experts, local experience
4. Identify theory of change--intervention strategies and target groups
5. Based on your background work, use the framework, working backwards from the long term outcomes

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## Today, We Will Use The UWEX\* Logic Model Framework

A graphic representation that shows logical relationships between inputs, outputs and outcomes of a program

Elements of the Model:

- > Problem statement
- > Inputs
- > Outputs
- > Outcomes
- > Assumptions
- > Environment



\* Ellen Taylor-Powell, University of Wisconsin - Extension

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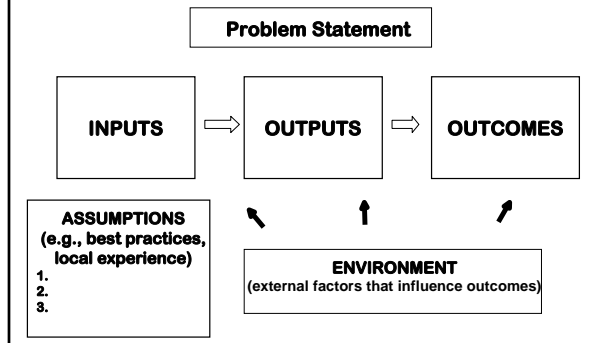
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## The Logic Model Framework



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## The Problem Statement

Crucial! Ask the following:

- What does the program seeks to change?
  - Long Term?
  - Program Life?

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## Initial Problem Statement

(Based on vital statistics, emergency room data, and motor vehicle department statistics),

OUR county has much higher overall rates of teen /mortality/injuries--the greatest % being the result of auto accidents in which teens are drivers

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**Focused Program Problem Statement**

(Based on research of causes/risks and promising interventions, input of experts and review of local program's – gaps and experience),

Teen drivers are driving in high risk situations before gaining the experience necessary to drive safely and parents are not sufficiently involved in monitoring their teens driving in support of GDL

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**Summary problem / strategy statement**

Involve parents to decrease exposure to risky driving situations and to increase the effectiveness of GDL

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**Assumptions**

- Proven theories (research literature/best practices)
- Promising program results
- Experience
- Expected conditions

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## Program Components

INPUTS	OUTPUTS		OUTCOMES		
<b>Resources</b>	<b>Activities</b>	<b>Participation</b>	<b>Short term</b>	<b>Inter-mediate</b>	<b>Long term</b>

What is invested / available

What is done

Who is reached

With what results

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### INPUTS

STAFF (special requirements)  
 MONEY  
 LOCATION  
 VOLUNTEERS  
 PARTNERS  
 EQUIPMENT  
 TECHNOLOGY

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### OUTPUTS

What program does      Who it affects

#### ACTIVITIES

Treatment  
 Classes  
 Counseling  
 Skill development  
 Case management  
 Curriculum design  
 Trainings  
 Conferences

#### PARTICIPATION

Participants  
 Providers  
 Policy makers




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PROGRAM OUTCOMES		
What results for individuals, agencies, communities?		
SHORT <i>Learning</i>	INTERMEDIATE <i>Action</i>	LONG-TERM <i>Conditions</i>
Awareness Knowledge Attitudes Skills Opinions Aspirations Motivation	Behavior Practice Decisions Policies Systems change	Mortality Morbidity Quality of Life Environmental

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PROGRAM OUTCOMES		
What results for individuals, agencies, communities..		
SHORT <i>Learning / Program process</i>	INTERMEDIATE <i>Action</i>	LONG-TERM <i>Conditions</i>
Materials Services Awareness Knowledge Attitudes Skills Opinions Aspirations Motivation	Behavior Practice Decisions Policies Systems change	Mortality Morbidity Quality of Life Environmental

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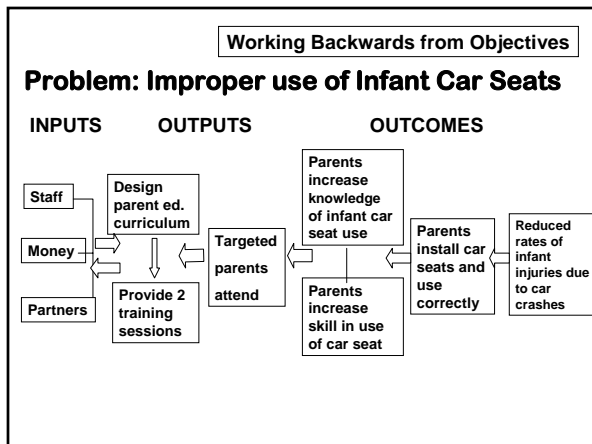
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## Environmental Factors

What, besides program interventions, can account for program results?

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**Example Problem: Teen drivers have high rate of auto accidents resulting in injuries/death**

- 1 in 5 new drivers has a collision in 1st year
- Highest risk in 1st month of driving
- 6 months on--risk drops to twice the risk of adults until 3-4 years later
- Developmental issues (teens overestimate their abilities / misperceive risky situations)
- Inexperience

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## Graduated Drivers License (GDL)

Place restrictions on driving to minimize risky situations while allowing new driver to gain critical experience

Highest risk situations:

- Teen/peer passengers
- Night driving
- High speed driving

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**Factors That Reduce Affect of GDL**

Law not as effective as anticipated:

- Night restrictions start too late
- Limits on passengers still allow for one
- Exceptions made for work/activities
- Lack of DMV involvement
- Low compliance

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**Factors That Increase Affect Of GDL:**

- Conditional advancement
- Education about GDL and its rationale
- Parent involvement
- Type of restrictions: e.g., earlier restrictions on night driving

Today's example:

Program to Increase parent involvement to achieve greater effectiveness of GDL

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**Let's Practice**

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## Using the Logic Model

- Develop the logic model
- **Assess the logic: Do the elements relate to each other and the whole?**
- If yes, determine what will be evaluated

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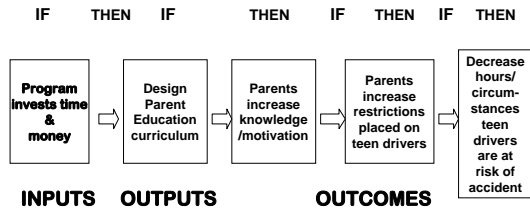
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## Logical Linkages: Example Series Of If ⇒ Then Relationships

**Problem: Inadequate parental restrictions on teen drivers**



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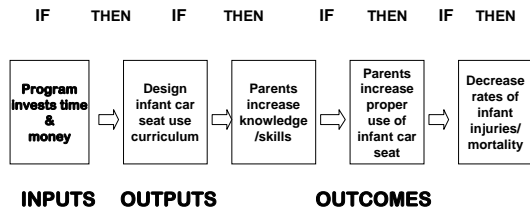
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## Logical Linkages: Example Series Of If ⇒ Then Relationships

**Problem: Improper use of infant car seat**



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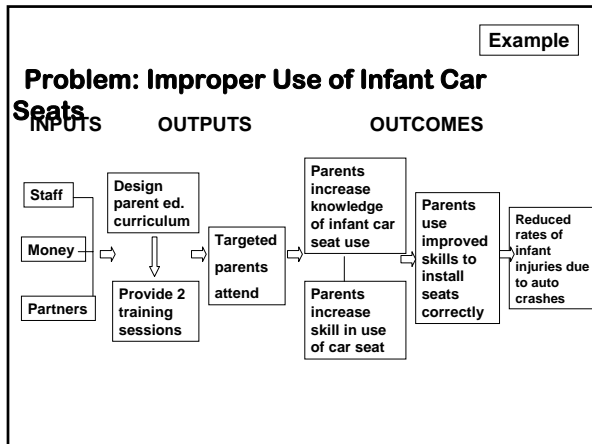
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**Assessing Program Logic:  
Basic Questions**

- How well conceptualized is the program?
  - Is it grounded in research, best or promising practices?
  - Does it address specific causes/risks of the problem?
  - Are the interventions clearly related to the program's outcomes?

➡ **Is the program logic valid?**

- Is the program reasonable, feasible to implement?

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**Using the Logic Model**

- Develop the logic model
- Assess the logic
- **Determine what will be evaluated**

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## Evaluation

Problem: Inputs  $\Rightarrow$  Strategy  $\Rightarrow$  Results

Evidence

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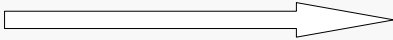
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## PLANNING



INPUTS	OUTPUTS		OUTCOMES		
Resources	Activities	Participation	Short	Inter-mediate	Long term

## EVALUATION



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## Evaluating A Program Using A Logic Model Framework

1. Start with inputs and work toward outcomes
  - Assess problem statement/program relationship
2. Review the program's theories of change / logic model
  - Is the theory valid? Supported by research / local experience?
  - Is the progression from inputs to outcomes logical?
3. If valid, develop objectives and measures and proceed with evaluation design

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## Evaluation Outcome Focus

Consider:

- What does the program seek to change?
- What is the time frame for change?
- How much can be assumed from research?

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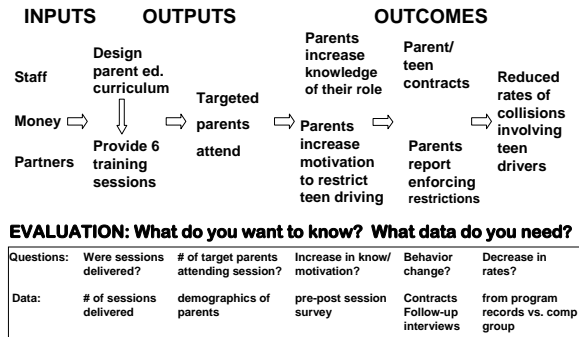
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## Using The Logic Model To Develop The Evaluation




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## Need Objectives / Data Collection Plan (examples)

Objective or Standard	Performance Measure	Data Source	Collection Schedule	Comment
1. By June 2006, increase to 90% the number of parents in the program who show increased knowledge of teen driver risks	% of parents who increase scores on pre - post test	Pre -post test scores	First and Last session of training	
2. ....70% of .... have submitted a parent/teen contract with restrictions on night driving and # of passengers	% of parents w/ contracts on file  % of parents reporting enforcing contract	Contracts on file	A month following classes  3 & 6 months post	

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## Review Of Benefits Of Using A Logic Model Framework

- Helps clarify program rationale and expectations
- Identifies gaps in logic and uncertain assumptions
- Summarizes complex program to communicate with stakeholders/others
- Helps identify appropriate evaluation questions
- Builds understanding and consensus (shared approach)
- Focus is on achieving and demonstrating outcomes

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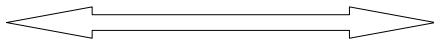
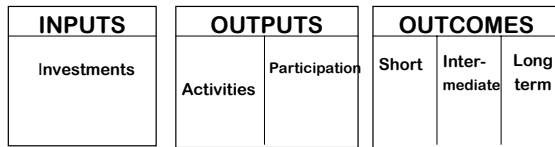
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## Benefit: Can Help To Integrate

### PLANNING AND EVALUATION




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## Logic Model: WORKSHEET

Problem:		Program:			
INPUTS	OUTPUTS		OUTCOMES		
Resources	Activities	Participation	Short	Intermediate	Long-Term
PROGRAM ASSUMPTIONS		ENVIRONMENTAL FACTORS			

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## References

- Taylor-Powell, E., Jones, L., & Henert, E. (2002) *Enhancing Program Performance with Logic Models*. Retrieved September 1, 2005 from the University of Wisconsin-Extension website: <http://www.uwex.edu/ces/pdande/>
- Developing An Effective MCH Planning Process: A Guide for Local MCH Programs, 2<sup>nd</sup> edition, September 2003

FHOP Website and contact information  
<http://www.ucsf.edu/fhop>  
(415) 476-5283

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## Exercise



Your Turn



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## HOW TO USE A LOGIC MODEL: STEP BY STEP

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The logic model is a graphic representation of a program. We define program as an intervention or set of interventions to achieve specific desired results and will use the term program throughout the remainder of this document. The logic model tests the program theory and shows the relationships between program resources (inputs), activities/interventions (outputs), and outcomes. It shows how a program will work to achieve specific outcomes and can be used as a program development tool and/or an evaluation tool.

### ASSUMPTIONS

What are the program assumptions? Fill in the box labeled “Assumptions” with the following type of information. Program assumptions can include documented best practices, program successes documented in the research literature, findings of your needs assessment, and professional/personal expertise. Examples include: best practices research about how information is best delivered to a teen audience and findings from a pilot program showing that increasing access to presumptive eligibility results in early entry into prenatal care.

ASSUMPTIONS

### ENVIRONMENTAL FACTORS

Now fill out the box labeled “Environmental Factors”, and list important environmental factors. Explain how these factors may affect program outcomes. Environmental factors describe what else besides the planned program may affect the outcomes/results the program is designed to achieve. List key factors external to the program and not under its control that could influence your program’s success either positively or negatively. Environmental factors can also be thought of as confounding factors.

ENVIRONMENTAL FACTORS

### INPUTS

List program inputs in the box labeled “Inputs”. These are key resources needed to implement the program. Inputs are essential to the accomplishment of the activities. For example, staff (level/and or experience of staff), funding, technology, allocation of time, equipment necessary to successful implementation. Without these resources or with inadequate resources the objectives or outcomes expected cannot be achieved.

INPUTS

## OUTPUTS

List program outputs. Note that in this model, outputs are divided into “activities” or interventions and “participation”. In Column A, list the program activities/interventions. These are actions - what the program will actually do. For example: provide 20 educational classroom presentations about abstinence, create a brochure that provides information about the importance of early prenatal care in Spanish and English, disseminate the brochure at 20 community based sites and provide case management services to 15 high risk pregnant women. Your process objectives should be reflected here. Process objectives indicate the effort made, for example the number of sessions delivered, number of brochures distributed or number of conferences held.

OUTPUTS	
ACTIVITIES	PARTICIPATION

In Column B list the key participants/recipients. Think of them as the target population or those individuals or groups at which the activity is aimed. For example, for a program to increase entry into early prenatal care, the participants might be Hispanic women in specified low-income neighborhoods (zip code), teens ages 13-18, and women who use drugs. Providers of services to these groups might also be a target audience.

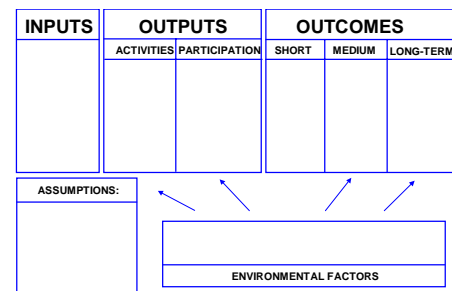
## OUTCOMES

List desired outcomes. Remember outcomes are results. Short-term outcomes (Column A) are generally immediate results, e.g., changes in attitude, knowledge, skills, motivation, awareness. Some people have also used this column to reflect *major* process outcomes, for example: # of persons enrolled in a program or collaborative formed. Intermediate outcomes (Column B) are those that demonstrate actual behavior, practice, policy, or system change. Long-term outcomes (Column C) are generally those that show desired measurable change in the quality of life, morbidity and/or mortality rates. If your outcome objectives are clear, quantifiable, and time and population specific long term outcomes will be easy to fill in.

OUTCOMES		
SHORT	MEDIUM	LONG-TERM
<b>A</b>	<b>B</b>	<b>C</b>

## THE LOGIC MODEL

Once you have completed the individual boxes, fill in the logic model table. Then assess the relationships between the inputs, outputs and outcomes. Are they logical? Given the inputs or resources identified could the activities be accomplished? If the activities were accomplished as planned/designed is it logical that the short term, intermediate and long-term outcomes (results) can be achieved. Why? Go back to the assumptions (what programs, research, needs assessment, theories or experience have you based your assumptions on?)



## Problem Statement: Prevent collisions involving teen drivers through community partnership

INPUTS (Resources)	OUTPUTS		OUTCOMES / IMPACTS		
	Activities	Participation (those affected)	Short	Intermediate	Long-Term
<p>Community concern over motor vehicle accidents involving teen drivers</p> <p>Agreement/coalition to address problem</p> <p>Emergency medical staff partnership with school district and law enforcement</p> <p>In-school drivers education programs</p> <p>School district relationship with private drivers education programs</p> <p>GDL law</p> <p>Research on best practices to address teen driving risks</p>	<p>Collaboration between law enforcement, emergency medical staff, and school district to create and sponsor drivers education curriculum and Family Education Day</p> <p>Outreach to drivers education programs to encourage adoption of curriculum</p> <p>Education to law enforcement agencies regarding GDL policy and stricter enforcement</p> <p>Coalition partners provide outreach to families to enroll teens in drivers ed and participate in Family Education day</p> <p>Incorporate model driving agreements/contracts as guidelines for new teen drivers in curriculum</p> <p>Media campaign to promote family education day</p>	<p>Teenagers learning to drive and recently licensed</p> <p>Parents/families of teen drivers</p> <p>Drivers education instructors in schools and private drivers education programs</p> <p>Law enforcement</p> <p>County officials</p> <p>Media</p>	<p>All school Drivers Education programs implement curriculum</p> <p>Participation of private drivers ed programs in curriculum</p> <p>% of teens enrolled in drivers education</p> <p># of families who participate in family education day.</p> <p>% of teens self-report intent to limit driving behavior.</p> <p>% parents who report intent to have an agreement with new teen driver that outlines driving privileges over time.</p> <p>Increased awareness of GDL and its rationale among teens, families, law enforcement, and general public</p>	<p>% of teens at follow up who report limited driving behaviors/privileges</p> <p>% of parents at follow-up who report using agreement or other methods to restrict and expand teen driving privileges</p> <p>Reduced % of youth receiving citation during 1<sup>st</sup> 6 months of licensure (reduced)</p> <p>Increased use of curriculum among private drivers education programs (compared to 1<sup>st</sup> year of partnership)</p>	<p>Decrease in motor vehicle accidents involving teen drivers</p> <p>Decreased mortality and injury rates due to motor vehicle crashes for 15-19 year olds in community (compared to years prior to partnership)</p>

In the past year, two high profile incidents occurred in East Bumble County with crashes involving teen drivers. One crash killed all three teenage occupants of the vehicle, who were on their way to a friend's house. Another crash resulted in severe injuries to a Willow High basketball star, ending his hopes of receiving a scholarship for college play. He was returning from a late basketball game after dark, having received an exemption from the GDL night driving restriction in order to participate in his basketball obligations. These two incidents received a lot of media attention at the time of their occurrence, raising concern in the community about the safety of teen drivers.

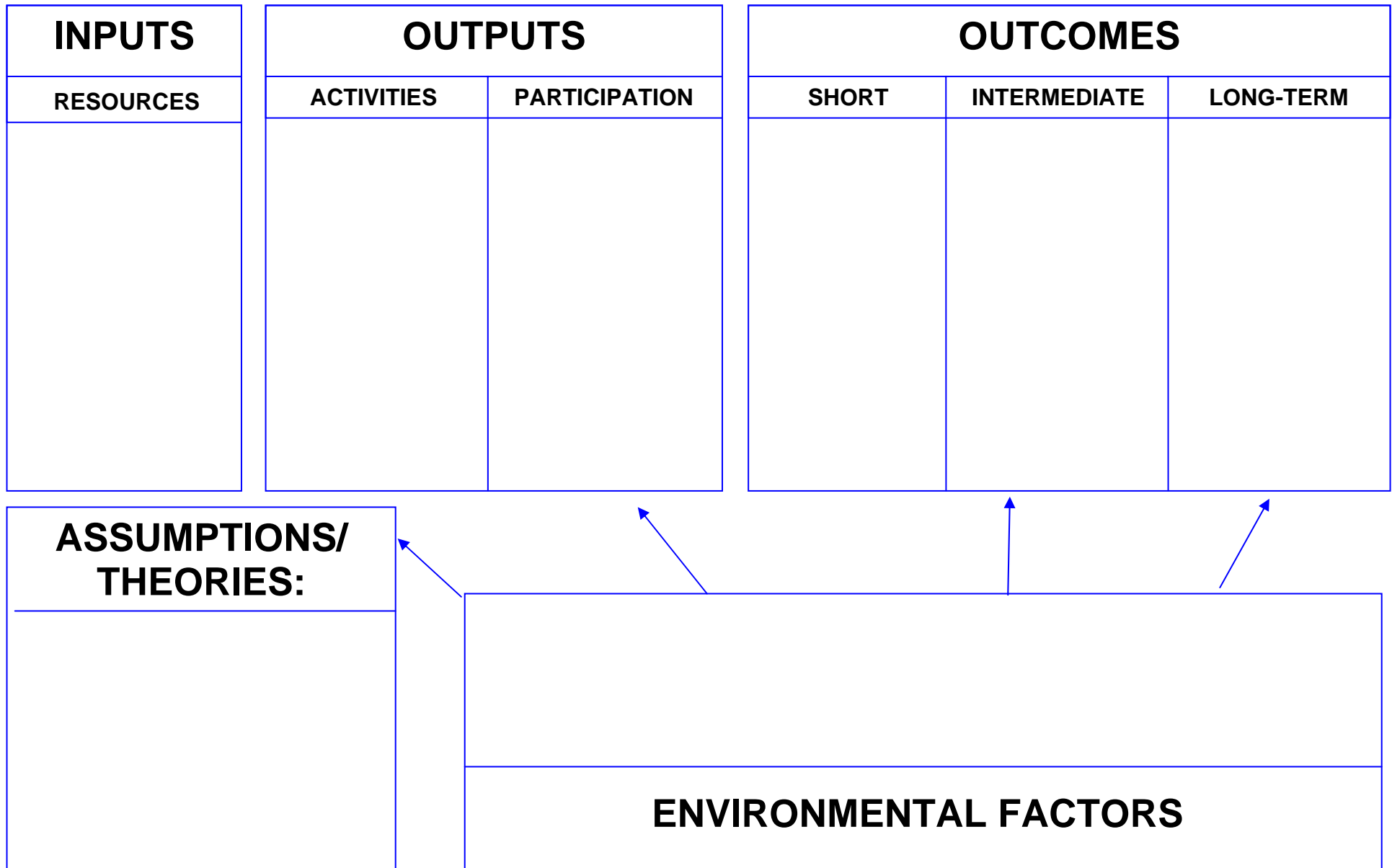
Following these incidents, a coalition formed including emergency medical staff, law enforcement officers, and schools and decided to address the problem. After some research, these groups discovered that drivers education programs outside of those offered through the school district operate under little oversight or standards. While not required to receive a license, drivers education is often counted upon by parents to provide their teens with critical behind the wheel experience and safety instruction. Further research revealed that other jurisdictions throughout the country are attempting to improve teen driver safety by involving parents in driver education, to inform them of the most risky driving situations for teens, and encouraging them to implement driving agreements with their newly licensed teens, outlining privileges and restrictions on driving during the initial 6 months after licensure. These restrictions may include limited night driving and limits on the ability to have teen passengers in the vehicle. The coalition decided this should be a priority for their intervention as well, and is adapting another community's curriculum to meet the unique needs of East Bumble County.

In addition, the coalition decided to raise awareness in the community about teen driver safety, and plans to air a media campaign to inform the community of GDL and the rationale behind its restrictions. They also planned to hold a family education day, to raise awareness of issues surrounding the safety of teen drivers among families, including those who do not yet have children of driving age, and encourage families to discuss and implement their own agreements regarding their teens' driving privileges.

The above logic model is an expression of the coalitions intended efforts to prevent collisions involving teen drivers.



**PROBLEM STATEMENT:** \_\_\_\_\_



# ENVIRONMENTAL FACTORS

# ASSUMPTIONS/THEORIES

# OUTCOMES

**SHORT**

**INTERMEDIATE**

**LONG-TERM**

# OUTPUTS

**ACTIVITIES/INTERVENTIONS**

**PARTICIPATION**

# INPUTS

**Problem Statement:**

<b>INPUTS</b> (Resources)	<b>OUTPUTS</b>		<b>OUTCOMES    IMPACTS</b>		
	Activities	Participation (those affected)	Short	Intermediate	Long-Term
Empty cell for Input	Empty cell for Output: Activities	Empty cell for Output: Participation	Empty cell for Outcome: Short	Empty cell for Outcome: Intermediate	Empty cell for Outcome: Long-Term



# Developing Program Objectives

Nadia Thind, MPH  
Family Health Outcomes Project  
Program Evaluation 1  
February 22, 2006/ March 1, 2006

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Objective or Standard	Performance Measure	Data Source	Collection Schedule	Comment
1. By June 2006, increase to 90% the number of parents in the program who show increased knowledge of teen driver risks	% of parents who increase scores on pre - post test	Pre -post test scores	First and last session of training	
2. ....70% of .... have submitted a parent/teen contract with restrictions on night driving and # of passengers	% of parents w/ contracts on file  % of parents reporting enforcing contract	Contracts on file	A month following classes  3 & 6 months post	

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## Why are Objectives Important?

- Enable the planning group / stakeholders to describe what will change as a result of the intervention(s)
- Guide the program staff in their work
- Keep the planning group/ stakeholders focused
- Essential for conducting a program evaluation

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## What does your program need to accomplish?

- To answer this, determine what is realistic and achievable?
- Clearly defined objectives are critical to program evaluation
  - They identify the targets by which you will measure your program's progress

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## Objectives Should Be S.M.A.R.T.

**Specific-** identify who will receive the intervention, what will be done and where it will happen

**Measurable-** what benefit is expected and how much change is expected

**Achievable-** be sure the objective is attainable

**Realistic-** it can be achieved given the time and resources available

**Time-framed-** identify when or within what period the objective will be achieved

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## Program Objectives

There are two types of program objectives:

**Program Process Objectives**  
and  
**Program Outcome Objectives**

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## Program Process Objectives

- These objectives describe what the program is expected to do (the program activities, who will be affected, what is needed to perform activities e.g., public health nurses)
- They specify actions to be taken and are useful in measuring program implementation

For example:

- Units of service provided
- Number of people served
- Percent of target population participating in the program

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## Developing Process Objectives

Write process objectives by answering the key question, "Who needs to do what, to or with whom, and when is it to be done?"

Example

For a county-wide SIDS prevention media program:

By June 2006, a Community Health Worker, will have face-to-face contact and distribute SIDS prevention materials to at least 1000 postpartum women.

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## Structural Objectives

- A feature of a health care organization or clinician relevant to its capacity to provide health care
- Structure data describes the capability of organizations or professionals rather than care provided to, or results achieved for, specific patients or groups of patients
- For example, nurse/patient ratio is a structure-based measure because it does not describe care given to specific patients or specific groups of patients

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## Program Outcome Objectives

- These objectives show the intended results of program activities.
- They quantify anticipated program effects by specifying "the amount of change expected for a given health problem/condition for a specified population within a given time frame"

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## Program Outcome Objectives

- Measured by:
  - Levels of mortality, morbidity and/or disability, e.g., infant mortality rate, low birthweight rate, number of cases of measles
  - Levels of health conditions, e.g., hypertension
  - Behavioral measures, such as rates of smoking

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## Developing Outcome Objectives

Outcome objectives should answer the key question, "What effect do we hope the project will have?" or "What do we hope will be the results of the project?"

### Example

For a county-wide SIDS prevention media program:

By June 2006, increase to 90% the proportion of mothers in the program who use correct infant sleep positioning

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## Types of Outcome Objectives

- Outcome objectives are often divided into short-term, intermediate, and long-term objectives
  - Short-term objectives: reflect expected initial changes towards long term outcomes
  - Intermediate objectives: desired measurable results that can be expected in a shorter period of time than most health status changes
  - Long-term objectives: focus on the totality of programs or interventions that are aimed at a particular problem for the entire population

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## Checklist for Developing Outcome Objectives

Is the objective:

- Significant (represents an important expected outcome)
- A valid representation of the desired outcome
- Related to the selected intervention point
- Clearly written
- Is the data necessary to measure the objective available

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Component	Outcome objective	Process objective
<b>When</b>	The time (month, fiscal year, calendar year) by or during which the change in health status would be achieved	The time by or during which the intervention should be accomplished
<b>What</b>	The targeted health problem or health behavior to be decreased, increased or maintained	The targeted intervention (health service, health education, counseling) to be accomplished
<b>Whom</b>	The people who will benefit from the change in health status	The people who will benefit from the accomplishment of the intervention
<b>Where</b>	The area in which the target population is located (city, county, state)	The area in which the target population is located
<b>Who</b>	The staff or agency responsible for correcting the health problem	The staff or agency responsible for carrying out the proposed intervention
<b>How much</b>	The quantity of change on a health problem	The amount of intervention to be utilized, performed or accomplished

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## Determining the Number of Objectives

- It is NOT necessary to have an outcome objective for every intervention point activity
- It is IMPORTANT to have objectives for the major significant outcomes expected
- The number of objectives will vary by the scope of the program

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## Writing Objectives

- The elements of the statement of an objective are:
  - The time-frame
  - The quantified target or change expected
  - The persons or entities receiving the intervention
  - The result expected



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## Writing Objectives (Cont.)

- By \_\_\_\_\_, \_\_\_\_\_ of \_\_\_\_\_ will \_\_\_\_\_.

(when) (#, %, or % change) (who) (what result, change, benefit)

### Examples

- By July 30, 2006, provide education about the importance of prenatal care to at least 100 African American pregnant women (PROCESS)
- By July 30, 2006, 90% of babies born to African American mothers receiving program services will be born at greater than 38 weeks gestation (OUTCOME)

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**Practice**

1. Fewer collisions involving teen drivers
2. Increased understanding of the rationale for GDL among teens
3. Fewer moving violations/citations issued to teen drivers
4. Higher percentage of drivers education programs implement curriculum (e.g. Trauma Nurses Talk Tough)

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**References**

- The Centers for Disease Control and Prevention: “Practical Evaluation of Public Health Programs Workbook”
- “Getting to Outcomes 2004, Promoting Accountability Through Methods and Tools, for Planning, Implementation and Evaluation”

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