2 Describe the Program

Another early step in evaluation is to develop a clear and succinct description of your program that will clarify the program's purpose, activities, and capacity to decrease tobacco use and improve health. This description is necessary for two reasons:

- To ensure that the stakeholders share the same level of understanding about the program's components, implementation, and intended effects.
- To foster strategic thinking about the program.

In many cases, the process of negotiating with stakeholders to formulate a concise program description will produce benefits long before data are available to measure program effectiveness.[18]

Once you have appropriate stakeholders at the table, you need to make sure that they all have the same knowledge and information about the program and that they view the program from a shared frame of reference. To do so, you will need to describe the program's components and its possible effects clearly. This program description should include the need for the program, its expected effects, the proposed activities of the program, the resources available to conduct the program, the program's stage of development, the social and political context in which the program will be implemented, and a working logic model. (Logic models are discussed in detail beginning on page 30.)

To create change effectively, you need to have clearly linked goals, objectives, and strategies. By looking at your program in this manner you can determine whether an action or event has the potential to cause the desired effect. Doing so may also enable you to identify gaps or missing links between your program's actions and its desired effects.

The need for the program

The description of the need for your program should explain the health problem addressed by the program. In it, you should answer the following questions:

- What is the health problem and its consequences for the state or community?
- What is the size of the problem overall and in various segments of the population?
- What are the determinants of the health problem?
- Who are the target groups?
- What changes or trends are occurring?

The description of the need for your program should include an analysis of the magnitude of tobacco use and related morbidity and mortality in various segments of the population in your state. Do not overlook the economic burden of tobacco use in your state. Analyses of the estimated costs associated with tobacco-related morbidity and mortality will further clarify the need for your program. Smoking Attributable Morbidity, Mortality, & Economic Costs (SAMMEC) software version 3.0 can be used to calculate deaths, years of potential life lost, direct health care costs, indirect mortality costs, and disability costs associated with cigarette smoking. SAMMEC is designed to calculate the health and economic burden of disease from tobacco use at the national and state levels for adults 35 years or older. (Additional information on SAMMEC is in Appendix A.)

Ideally, you should use state or regional data in combination with national data to justify the need for a comprehensive tobacco-use prevention and control program. It is important to identify tobacco-related health disparities among specific population segments or communities when discussing the need for your program. This is a first step in reaching populations disproportionately impacted by tobacco-related morbidity and mortality.

In accordance with *Healthy People 2010*,[4] disparities include but are not limited to differences that occur by gender, race or ethnicity, education or income, sexual orientation, geography, or disability status. Identifying and eliminating the disparities related to tobacco use and its effects among different population groups is the fourth goal of the CDC's National Tobacco

Control Program (NTCP). This goal is unique in that it is both an independent objective and an overarching priority within the other three NTCP goals. For example, a key goal of a state program may be to decrease exposure to ETS. Upon closer examination, the state may find that a particular subgroup or community has a significantly higher prevalence of ETS exposure than the general population. Once this has been established, the state could address the tobacco-related health disparities of this particular subgroup by ensuring the development and implementation of targeted interventions.

To assist you in identifying disparate populations in your state, CDC is in the process of compiling supporting information for the fourth goal. These materials include a logic model, sample objectives, indicators, and potential data sources. The section to follow provides a starting point for the identification of disparate populations in your state. Additional materials will be disseminated by CDC, as available.

Identifying high-risk and historically underserved populations will help program managers, staff, and stakeholders in focusing interventions when state data specific to the health status of diverse communities are not complete. This process requires a working knowledge of the make-up of your state population.

The State Data Center (SDC) Program is one of the Census Bureau's longest and most successful partnerships. It is a cooperative program between the states and the Census Bureau that was created in 1978 to make data available locally to the public through a network of state agencies, universities, libraries, and regional and local governments. The program's mission is to provide easy and efficient access to U.S. Census Bureau data and information through a wide network of lead, coordinating, and affiliate agencies in each state, the District of Columbia, and the outlying areas of American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and the Virgin Islands.

The SDCs are official sources of demographic, economic, and social statistics produced by the Census Bureau. The SDCs make these data accessible to state, regional, local, and tribal governments and to nongovernmental data users at no charge or on a cost-recovery or reimbursable basis, as appropriate. The SDCs also provide training and technical assistance in accessing and using Census Bureau data for research, administration, planning, and decision making by local governments, the

business community, and other interested data users. Additional information, including contact information for your state, is available at www.census.gov/sdc/www.

Program managers, staff, and stakeholders are also encouraged to consider available national and state data addressing the health status of specific groups. For example, indicators of tobacco-related disparities include, but are not limited to, prevalence, access to effective and appropriate cessation programs, issues of addiction and relapse, morbidity, mortality, current policies (e.g., policies related to exposure to ETS, youth access, health insurance), and tobacco industry marketing (e.g., targeted advertising and promotions). Other indicators are capacity and infrastructure (e.g., availability of researchers or research data; the availability of appropriate and effective programs, community leadership, organizations, and networks). Sources of data for these indicators include, but are not limited to, national and state surveys, regional or community surveys, case studies, expert panels, and stakeholder panels. The identification of disparate populations is a collaborative process and should involve a diverse group of stakeholders.

Goals and objectives

You should also describe the goals and objectives of your program. To be considered successful, what does your program need to accomplish? The answer to this question depends on what is realistic and achievable given your resources and the maturity and comprehensiveness of the program. Clearly defined objectives are critical to program evaluation because they identify the targets by which you will measure your program's progress.

A *goal* expresses the overall mission or purpose of a program. The goals of a program will guide its development. In tobacco prevention and control, the overarching purpose is to reduce tobacco-related morbidity and mortality. As previously noted, comprehensive tobacco control programs seek to reduce disease, disability, and death related to tobacco use by fulfilling the four CDC program goals:

- Preventing the initiation of tobacco use among young people.
- Promoting quitting among young people and adults.

- Eliminating nonsmokers' exposure to environmental tobacco smoke (ETS).
- Identifying and eliminating the disparities related to tobacco use and its effects among different population groups.

Objectives are statements describing the results to be achieved and the manner in which these results will be achieved. In tobacco control, program objectives should be conceptually linked at the national, state, and local levels. In other words, objectives at the local level should not be selected in isolation, but should be logical extensions of national and state objectives.

The specific objectives outlined in *Healthy People 2010*[4] are a starting point for tobacco control efforts. CDC encourages NTCP partners to use the objectives outlined in *Healthy People 2010* as an initial guide for focusing state activities. The complete list and a discussion of *Healthy People 2010* tobacco objectives are available online at www.health.gov/healthypeople.

Good objectives are specific and measurable. Well-written and clearly defined objectives are important because they–

- Set program priorities.
- Aid in monitoring progress toward achieving goals.
- Set targets for accountability.

A well-written and clearly defined objective is SMART: **S**pecific, **M**easurable, **A**chievable and **A**mbitious, **R**elevant, and **T**ime bound.

Specific:	It identifies a specific event or action that will take place.
Measurable:	It quantifies the amount of change to be achieved.
Achievable and **A**mbitious:	It is realistic given available resources and plans for implementation, yet challenging enough to accelerate program efforts.
Relevant:	It is logical and relates to the program's goals.
Time-bound:	It specifies a time by which the objective will be achieved.

Here is an example of a SMART objective:

In state X, increase the percentage of adult nonsmokers who report they have not been exposed to cigarette smoke in the prior 7 days from 40% in 2001 to 50% in 2010.

- The objective is *specific* because it identifies a defined event: adult nonsmokers will not be exposed to cigarette smoke.
- The objective is *measurable* because it specifies a baseline value and the quantity of change the intervention is designed to achieve: from 40% to 50%. It would be worthwhile to note whether there is already a data source for the objective.
- The objective is *achievable* because it is realistic given the 10-year time frame and *ambitious* because achieving the goal would be a significant accomplishment.
- The objective is *relevant* because it relates to the elimination of exposure to ETS.
- The objective is *time-bound* because it provides a specified time by which the objective will be achieved (from 2001 to 2010).

There are two general types of objectives: process and outcome. *Process objectives* describe program activities. They specify actions to be taken and are useful in measuring program implementation. Outcome objectives are 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."[23] Outcome objectives are often divided into short-term, intermediate, and long-term objectives. They generally state "who will achieve how much of which outcome by when." "Who" is typically stated as a population; "how much" as a percentage or target amount; and "by when" as a month, or year(s), or period after the program begins.[24,25,26]

Objectives must logically link to each other. For one long-term outcome objective, there may be several intermediate outcome objectives. Similarly, there may be a number of process objectives for each short-term outcome objective. Below are examples of outcome and process objectives specific to the goal of eliminating exposure to ETS. These examples assume that baseline data collected to identify tobacco-related disparities among population groups indicated that African American

adults and children were disproportionately burdened by tobacco-related morbidity and mortality. Complete sets of example objectives for two goal areas—preventing the initiation of tobacco use among young people and promoting smoking cessation amoung young people and adults—can be found in Appendices B and C.

Program goal

Eliminate exposure to environmental tobacco smoke in state A.

Sample long-term objectives for eliminating exposure to ETS

- Decrease the percentage of adult nonsmoking African Americans exposed to ETS at work from X% in 2002 to Y% in 2007.
- Increase the percentage of African Americans younger than age 18 who, during the previous 7 days, have not been in the same room with someone who was smoking from X% in 2002 to Y% in 2007.

Sample intermediate objectives

- Increase the percentage of African American adults who are employed at work sites with a formal policy that prohibits smoking at the workplace from X% in 2002 to Y% in 2005.
- Increase the percentage of African American homes that have household smoking bans from X% in 2002 to Y% in 2005.
- Increase the percentage of African American adults who report asking someone not to smoke around them in order to avoid exposure to their tobacco smoke from X% in 2002 to Y% in 2005.

Sample short-term objectives

- Increase the percentage of adults who believe that breathing secondhand smoke is harmful to them from X % in 2002 to Y % in 2003.
- Increase the percentage of adults who believe smoking should not be allowed in workplaces from X % in 2002 to Y % in 2003.
- Increase the percentage of adults who believe that breathing secondhand smoke is harmful to children from X % in 2002 to Y % in 2003.

Sample process objectives

- By March 2002, design a media campaign about the health effects of ETS and the importance of smoke-free homes and automobiles, with tailored messages for African American families.
- By April 2002, negotiate placement of at least two billboards on the harmful effects of ETS in each of the eight major African American communities in the state.
- By August 2002, publish at least three antitobacco newspaper articles on ETS in at least two community newspapers in the state.
- By May 2002, develop model voluntary smoke-free policies tailored to work sites with African American employees.
- By July 2002, distribute sample voluntary smoke-free policies to at least 50 % of work sites in communities with African American populations of more than 5,000.

SMART objectives should be rooted in well-planned program activities. Like program objectives, program activities should be linked at the local, state, and national levels to maximize their effect.

Program activities

Program activities describe what the program is actually doing to affect the health problem. For example, possible tobacco control activities to reduce youth smoking rates might include counter-marketing, retailer enforcement, and school-based prevention programs. It is important to describe the different activities, determine how they relate to each other and to the program's goals, and identify the different steps or actions expected to occur. Program activities are often specified in a series of process objectives.

National Tobacco Control Program (NTCP) Matrix

COMPONENTS \ GOALS	Prevent Initiation Among Youth	Promote Quitting Among Young People and Adults	Eliminate Exposure to ETS	Identify and Eliminate Disparities Among Population Groups
Community Interventions				
Counter-Marketing				
Policy/ Legislation				
Surveillance/ Evaluation	X	X	X	X

Figure 2

States often describe their tobacco control efforts using a program framework. A program framework such as the National Tobacco Control Program (NTCP) Matrix (Figure 2) clearly outlines program components

and links them to evidence-based strategies and goals. The NTCP Matrix can apply to planning and implementing state and local activities. Regardless of which goal you are focusing on, *surveillance and evaluation* is a necessary component.

States may choose to organize their programs according to funding categories for budget-planning purposes. CDC's *Best Practices for Comprehensive Tobacco Control Programs* describes nine components of comprehensive tobacco control programs.[2] You may want to consider these when describing your program:

- Community programs to reduce tobacco use.
- Chronic disease programs to reduce the burden of tobacco-related diseases.
- School programs to prevent or delay the onset of smoking during the school year.
- Enforcement of tobacco control policies to enhance their efficacy.
- Statewide programs to increase the capacity of local programs and expand their reach.
- Counter-marketing efforts to counter pro-tobacco influences and increase pro-health messages and influences.
- Cessation programs to assist youth and adult smokers to quit.
- Surveillance and evaluation activities to monitor and document implementation and achievement for stakeholders.
- Administration and management to facilitate collaboration and coordination among public health program managers, policymakers, and other state agencies.

In many instances, program components highlighted in the NTCP Matrix and *Best Practices* overlap. It is worthwhile to consider both approaches prior to describing program activities.

Program resources

Resources necessary to conduct a tobacco control program include money, staff, time, materials, and equipment. Program evaluation activities often include accountability for resources to funding agencies and stakeholders. Therefore, you should clearly identify the resources you need to administer the program.

Stage of development

Stage of development describes the maturity of a program. The stage of your program's development will influence the type of evaluation you want to do and the outcomes you will measure. The CDC evaluation framework recognizes at least three stages of program development: planning, implementation, and effects.

Program context

Program context refers to the environment in which a program exists. Because external factors can influence your tobacco control program, you should be aware of and understand them. Factors that can influence program context include politics, funding, interagency support, competing organizations, competing interests, social and environmental conditions, and history of leadership (of the program, agency, and past collaborations). In tobacco prevention and control, program context includes the influences of the tobacco industry, such as the price of tobacco products, taxes, advertising and promotions, political contributions, and the state of the tobacco economy. Also included are tobacco-related lawsuits, the level of enforcement of tobacco-related laws, and even the amount of publicity surrounding violations or penalties.

Logic models

Logic models link program inputs (i.e., resources) and activities to program outcomes (Figure 3). Logic models are tools that can be used to 1) identify the short-term, intermediate, and long-term outcomes for your program; 2) link those outcomes to each other and to program activities; 3) select indicators to measure, depending on the stage of your program's development; and 4) explain to decision makers why it may take time before you are able to demonstrate long-term outcomes associated with your program.

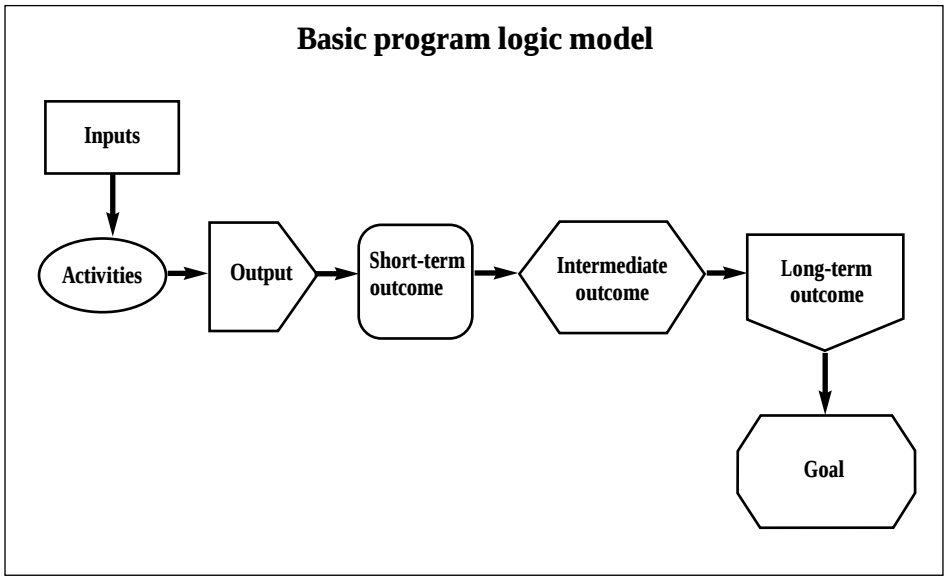

Figure 3

Inputs are the various resources that go into a program. Inputs for a tobacco control program include—

- Direct and in-kind funding.
- Staffing.
- Partner organizations.
- Equipment.
- Materials.

Activities are the actual events that take place as part of the program. The following are examples of the activities of a tobacco control program targeting a Latino population:

- Develop a media plan to educate and inform the selected Latino population about the dangers of ETS.
- Assess the cultural appropriateness of the media campaign.
- Fund and establish 15 local and 17 regional coalitions to work on ETS issues.
- Conduct a media campaign targeting the Latino population.
- Develop coalitions that work with schools and day care centers to educate children and young people about the hazardous health effects of ETS exposure.
- Develop coalitions to encourage restaurant owners to adopt smoke-free policies.

Outputs are the direct products of program activities. The following are some examples:

- A written plan for media campaigns tailored to specific populations.
- The number of smokers enrolled in cessation courses.
- The number of ETS posters placed in stores and buses.
- The number of young people signed up to join advocacy groups.

Outcomes are the intended effects of the program.

Short-term outcomes are the immediate effects of a program and often focus on the knowledge, attitudes, and skills gained by a target audience. The following are some examples:

- Increased public exposure to information about the dangers of ETS and the purpose of smoking bans.

Other names for a logic model

- Theory of change.
- Model of change.
- Theoretical underpinning.
- Causal chain.
- Weight-of-evidence model.
- Roadmap.
- Conceptual map.
- Blueprint.
- Rationale.
- Program theory.
- Program hypothesis.

- Increased knowledge among school and day care center personnel about the health effects of ETS exposure on children and young people.
- A more positive attitude toward smoke-free policies among business owners.
- Increased understanding by parents about the effects of ETS in the home.

Intermediate outcomes include behavior change, normative change, and changes in policies. The following are some examples:

- Adoption of clean indoor air policies.
- Institution of voluntary bans on smoking in schools and day care centers, restaurants, and work places.
- An increase in the percentage of adults (with children in the home) who implement household smoking restrictions.

Long-term outcomes take years to achieve. The following are some examples:

- Decreases in the prevalence of tobacco use.
- Reduced exposure to ETS.
- Decreased tobacco-related morbidity and mortality among targeted populations.
- Reduced overall tobacco-related morbidity and mortality.

Logic model components

- ***Inputs:*** Resources that go into the program.
- ***Activities:*** Actual events or actions that take place.
- ***Outputs:*** Direct products of program activities, often measured in terms of the amount of work accomplished (e.g., the number of clients served or sessions held).
- ***Outcomes:*** Impact of the program; the sequence of effects triggered by the program, often expressed in terms of short-term, intermediate, and long-term outcomes.
- ***Goal:*** Overall mission or purpose of the program.

How to link the program components

When drafting a logic model, first determine your goal, then assess program inputs (resources) and decide on activities. Once you have selected your program's activities, ask "If we do this, then what will happen?" For example,

- If we develop a Request For Applications (RFA) to fund coalitions to address a targeted population's exposure to ETS, then we can establish coalitions.
- If we establish the coalitions, then they will implement a tobacco prevention program to address targeted populations' exposure to ETS.
- If the coalitions implement ETS prevention counter-marketing programs that target specific populations, then these populations will be exposed to messages explaining the health hazards of ETS.

- If targeted populations are exposed to information about the health hazards of ETS, then at least some of that population will believe ETS is harmful to themselves and to children.
- If targeted populations believe ETS is harmful, then they may be motivated to change their smoking behaviors.
- If targeted populations are motivated to change their smoking behaviors, then they may change their smoking behaviors and support bans on smoking.
- If targeted populations change their smoking behaviors and support bans on smoking, then they will be exposed to less ETS.
- If targeted populations are exposed to less ETS, then they will have less morbidity and mortality attributable to tobacco use.

After you have decided on the various components of your logic model, arrange them in a logical order, starting at the left-hand side and moving to the right (Figure 3). Examine the model carefully. Does each step logically relate to the other? Are there missing steps that disrupt the logic of the model? Once the model is implemented, can you use it to assess whether your program is doing what it needs to do to implement change? It is important to remember that logic models change over time with improvements to the program, shifting resources, and innovations in the science of tobacco-use prevention and control.

Logic models can be broad or specific. They can be linked to one another to express how programs connect at the national, state, and local levels. In addition, you could prepare a set of logic models to represent diverse aspects of the program: an overall state program, multi-strategy efforts to address one of the four goal areas, or a specific program strategy within a goal area such as a media campaign to promote smoke-free homes. Figures 4 and 5 are two examples of logic models representing different levels of detail. The logic model in Figure 4 is general and depicts the logic underlying the NTCP. Figure 5 is specific to eliminating exposure to ETS. Logic models for the other goal areas are in Appendices B and C.

In summary, drafting logic models can be challenging but worthwhile. Logic models can help you determine whether your program activities logically lead to the desired outcome. A visual description of the program helps ensure that all the stakeholders

understand the program's purpose, the resources it will need, the activities it will conduct, and its capacity to effect change. Logic models are useful starting places for forming questions to be answered through the evaluation. Finally, collaborating with stakeholders to create logic models is an effective way to engage them in the evaluation and to generate support for your program.

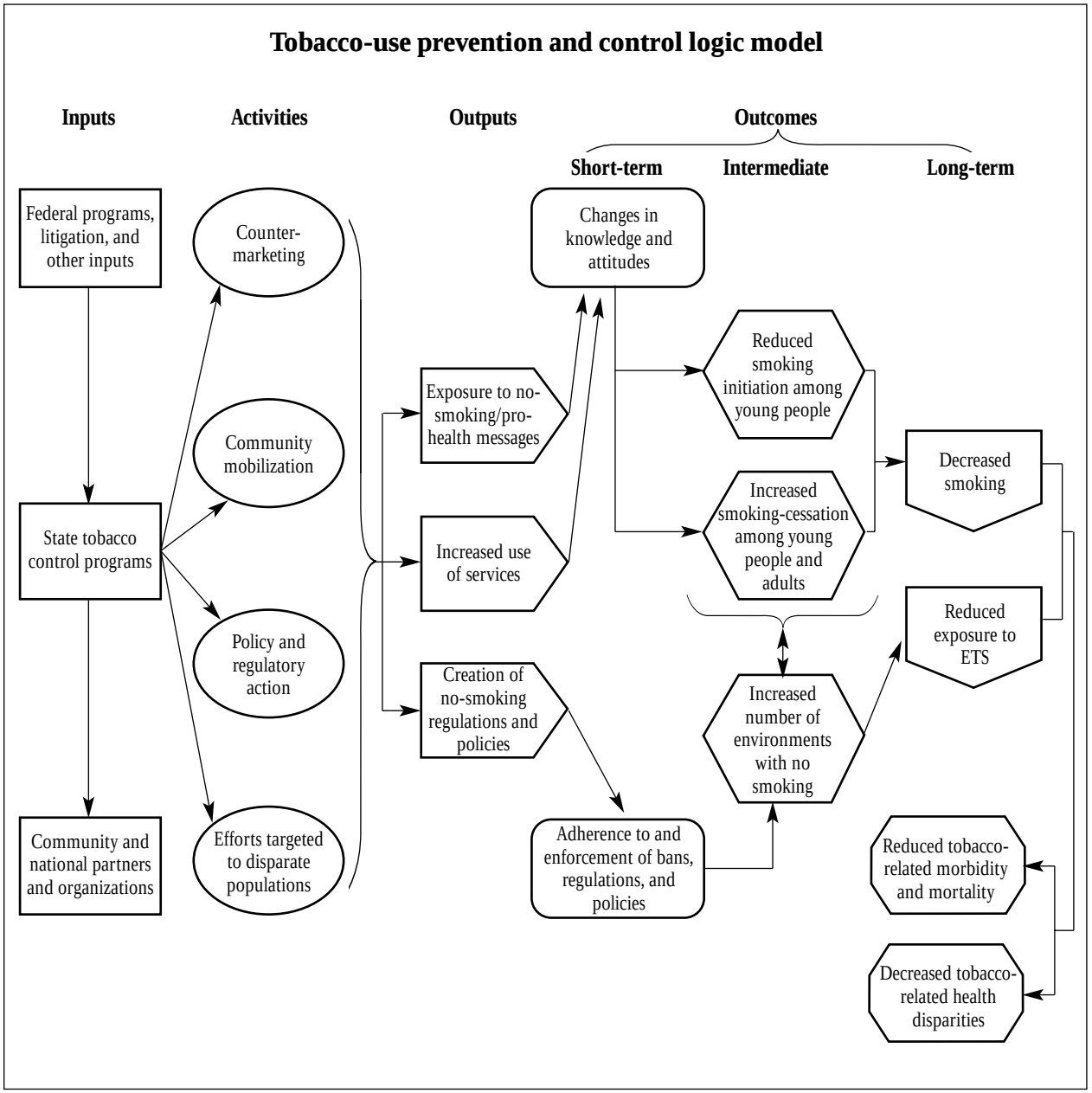

Figure 4

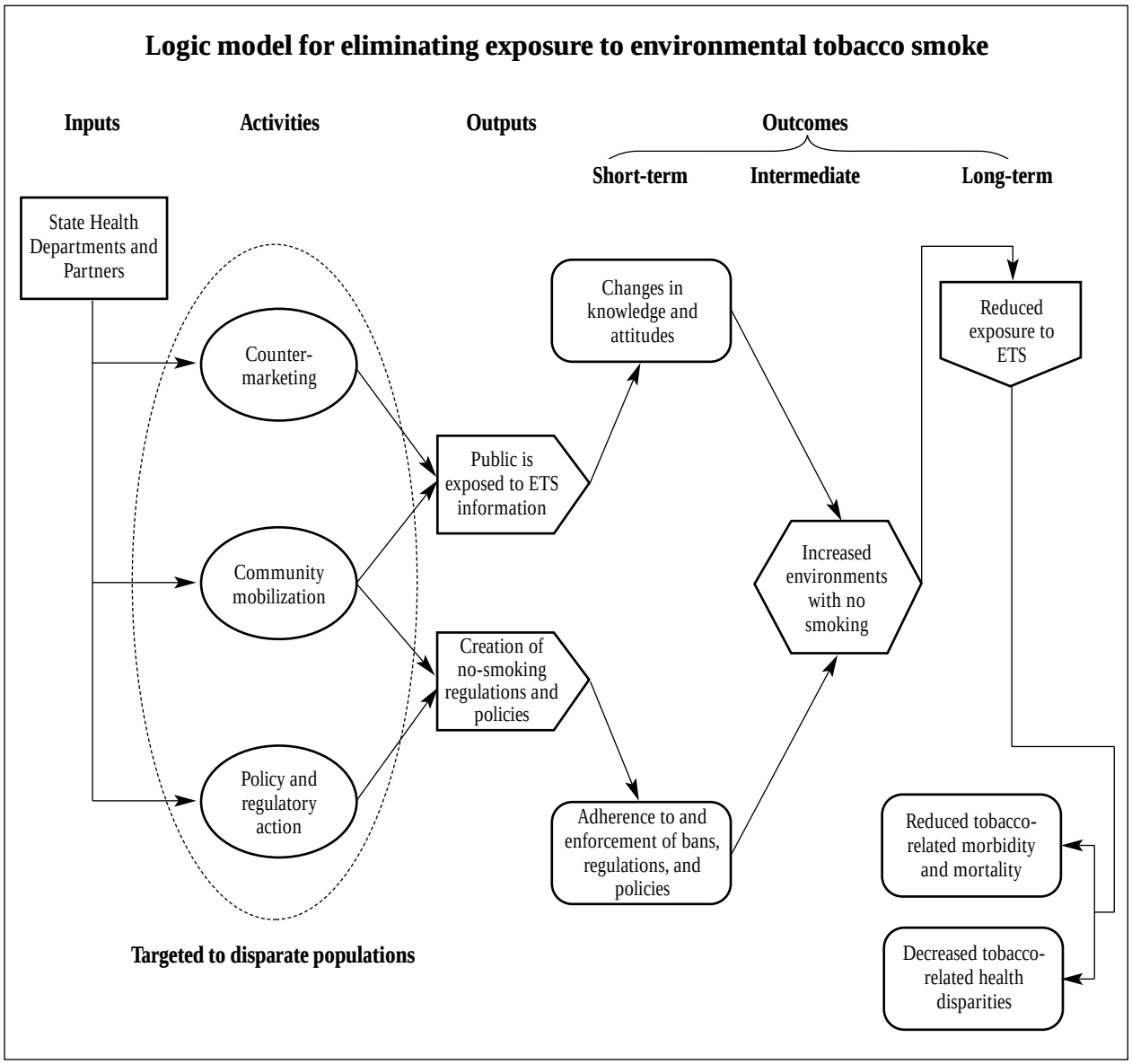

Figure 5

✔ Checklist for describing the program

- Document the need for the program.
- Document program resources.
- Note the program's stage of development.
- Explain the program context.
- List and describe program activities.
- State program goals and objectives.
- Prepare a logic model.

Resources

1. CDC Evaluation Working Group
   www.cdc.gov/eval
2. U.S. Census Bureau State Data Center Program
   www.census.gov/sdc/www
3. *Healthy People 2010*
   www.health.gov/healthypeople