

# Logic Models for Planning and Evaluating State HDSP Programs

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**DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
**CENTERS FOR DISEASE CONTROL AND PREVENTION**  
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# Objectives for today

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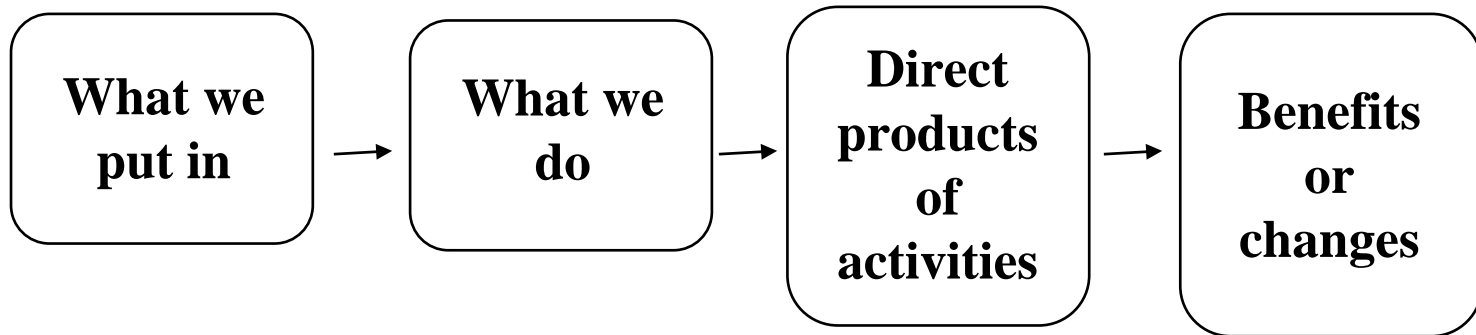
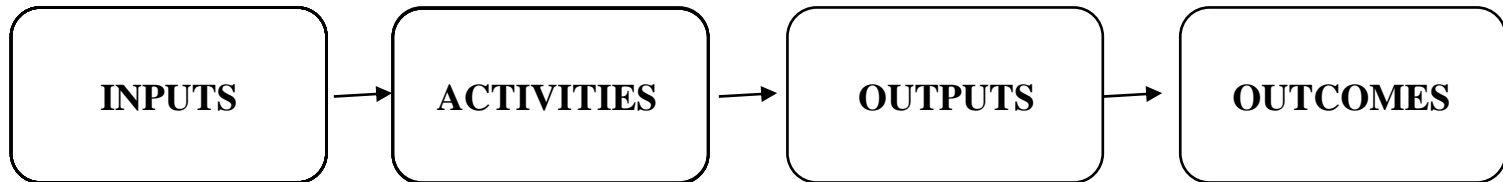
- **Identify the components of a logic model**
- **Develop a logic model for a capacity building activity**
- **Recognize how a logic model can be used for program planning and evaluation purposes.**

# **What is a logic model?**

**Graphic depiction (a visual map) of the relationship between program activities and intended effects**

# Components

## Title/Goal/Objective/Intervention



**CONTEXT AND ASSUMPTIONS**

# Why bother with logic models?

Logic models increase the likelihood that program efforts will be successful because they:

- **Communicate the purpose of the program and expected results.**
- **Describe the actions expected to lead to the desired results.**
- **Become a reference point for everyone involved in the program.**
- **Improve the program staff's expertise in planning, implementation, and evaluation.**
- **Involve stakeholders, enhancing the likelihood of resource commitment.**
- **Incorporate findings from other research and demonstration projects.**
- **Identify potential obstacles to program operation so that staff can address them early on.**

**Why bother with logic  
models?**

**PROCESS  
IS  
PRICELESS**

# Logic model terminology

**Inputs**



The “platform” of resources that are needed for the program’s activities.

- Human, financial, organizational, and relationship resources that a program has available to do the work.
- May include funding, partners, networks, staff/volunteers, equipment, time, supplies, facilities, etc

# Logic model terminology

## Activities



What the program and staff actually do to bring about the desired results. Processes, events, actions that are an intentional part of the program.

- Create products - promotional materials, educational curricula, media ads,
- Provide services - training, advocacy, resources
- Support infrastructure – build relationships, build capacity, planning

# Logic model terminology

## Outputs



The tangible, direct “products” that are produced by the activities. Size or scope of services or products produced or delivered by the program

- Number of train the trainer classes taught, coalition meetings held, electronic medical records materials produced
- Participation rates
- Hours of service

# Logic model terminology

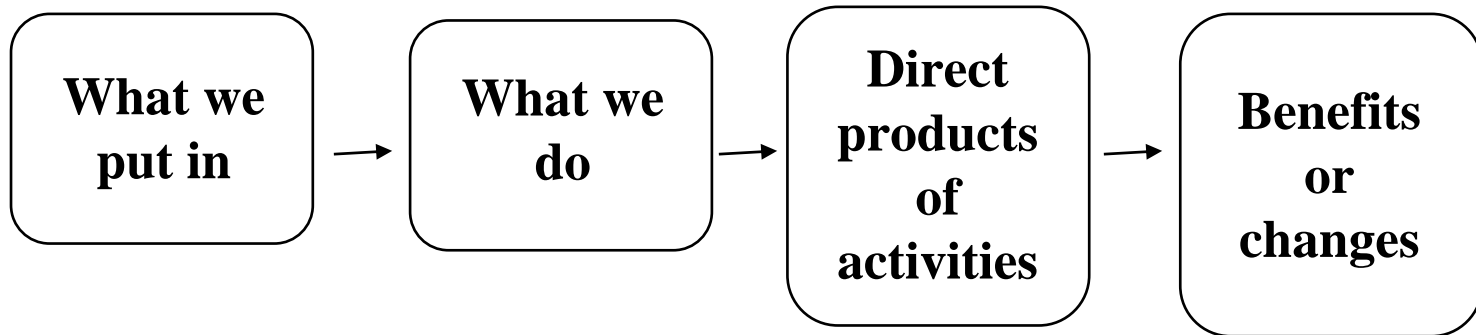
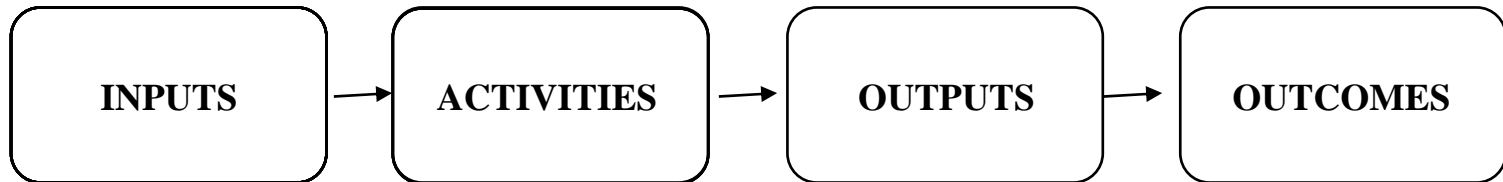
**Outcomes** 

The specific changes that result in someone or something

- Individual changes in attitude, knowledge, skills, health status, environment etc.
- Organizational or system changes – increased capacity, improved population health, changes in policy
- Usually expressed as short term, intermediate, and long term

# Logic Model Components

## Title/Goal/Objective/Intervention



**CONTEXT AND ASSUMPTIONS**

# Steps in developing a logic model

1. Identify/engage stakeholders  
(who are your stakeholders?)
2. Determine scope/what view  
Clarify objectives, purpose, or goal
3. Assess the evidence
4. Identify components:  
inputs, activities, products, outcomes
5. Identify early and later outcomes  
(handout)
6. Draft model by linking components
7. Test drive it
8. Revise as necessary

# How to....

## Draft model by linking components

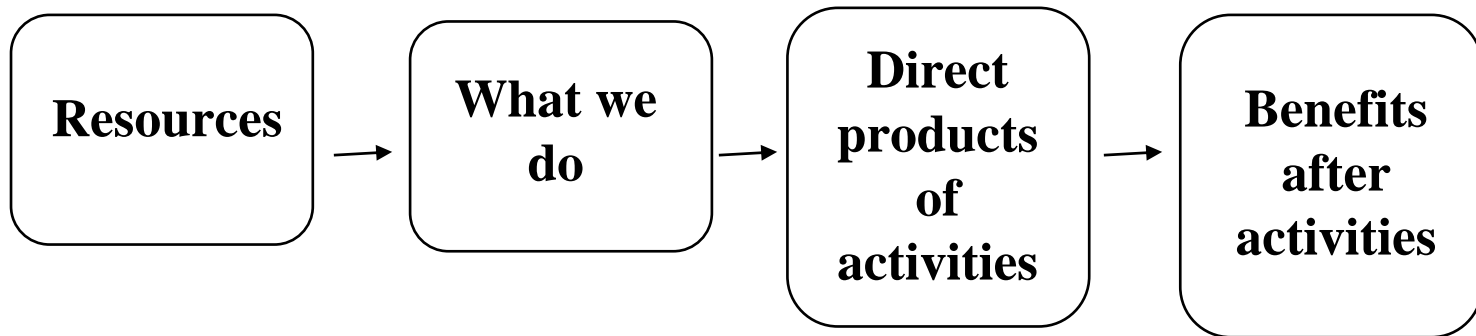
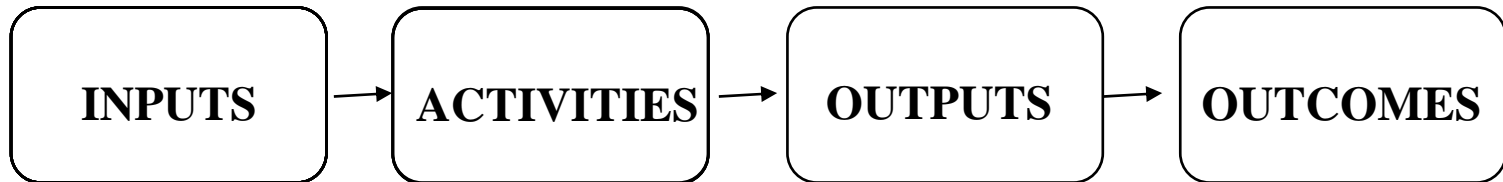
Causality is drawn from theory or evidence and is shown by arrows on the model. Arrows can be used to depict weak vs. strong evidence.

- Starting with outcomes “I want” , ask “how to” in order to generate the activities which produce them, OR
- Starting with activities, ask “if I do, then I will have” in order to generate the outcomes that are expected

# Feedback loop

A path for information or data to be fed back into the program for program improvement.

# Feedback Loop



**CONTEXT AND ASSUMPTIONS**

# Criteria for a good logic model

- One page
- Logical links between activities and outcomes
- Visually engaging
- Audience specific
- Appropriate level of detail
- Useful
- Stakeholders can relate
- Recognizes context in which the program operates

# **A Model from Massachusetts**

# Background

- MA is conducting a comprehensive educational and media campaign
- Need to evaluate efforts at all stages to see if we are meeting project objectives

What are the project objectives?

**Create the Logic Model**

# Key Players

- Program Evaluator
- Other evaluation staff
- Program Director
- Division Director
- Project-specific staff
- Other stakeholders??

# Inputs

- CDC funding and technical assistance
- State funding
- Heart Disease and Stroke Prevention and Control Program (HSPC)
- Paul Coverdell National Acute Stroke Registry
- MA Burden Document
- MA Statewide Partnership and Statewide Plan
- External supporting partners

# Activities

- Convene Stroke Signs & Symptoms Advisory Committee
- Contract with media vendor
- Develop signs & symptoms animation
- Develop educational kit
- Educational kit orientation and distribution
- PSA development and media campaign

# Outputs

- # and type of participants for Advisory Committee
- # of educational kits and materials distributed
- # of people who receive training on S&S
- # of organizations/agencies who systematically adopt the FAST message
- # of states who systematically adopt the FAST message
- “Reach” estimate of media campaign

# Short-term Outcomes

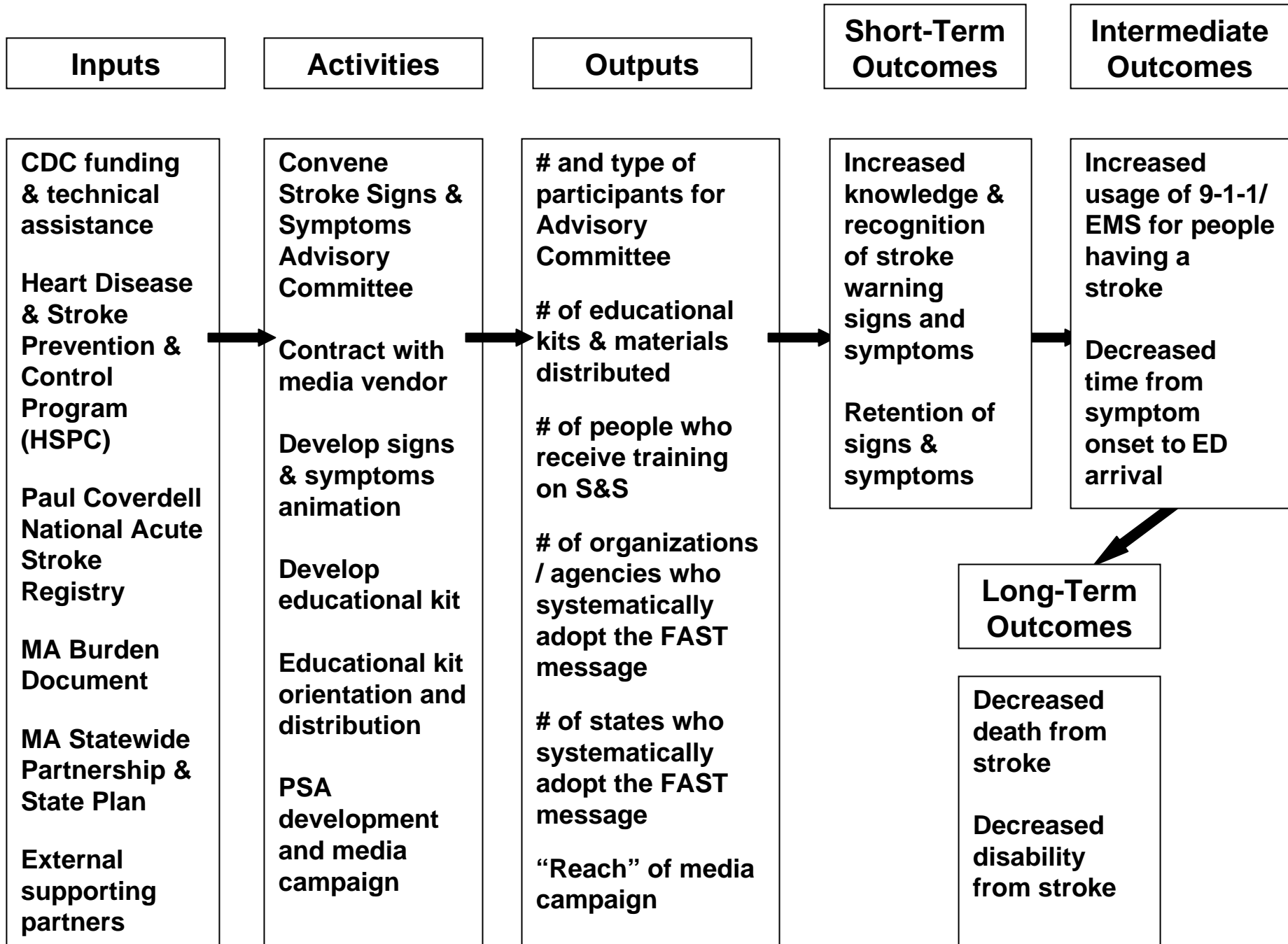
- Increased knowledge and recognition of stroke warning signs and symptoms
- Retention of stroke signs and symptoms

# Intermediate Outcomes

- Increased usage of 9-1-1/EMS for people having a stroke
- Decreased time from symptom onset to ED arrival

# Long-term Outcomes

- Decreased death from stroke
- Decreased disability from stroke



# Using logic models in program planning

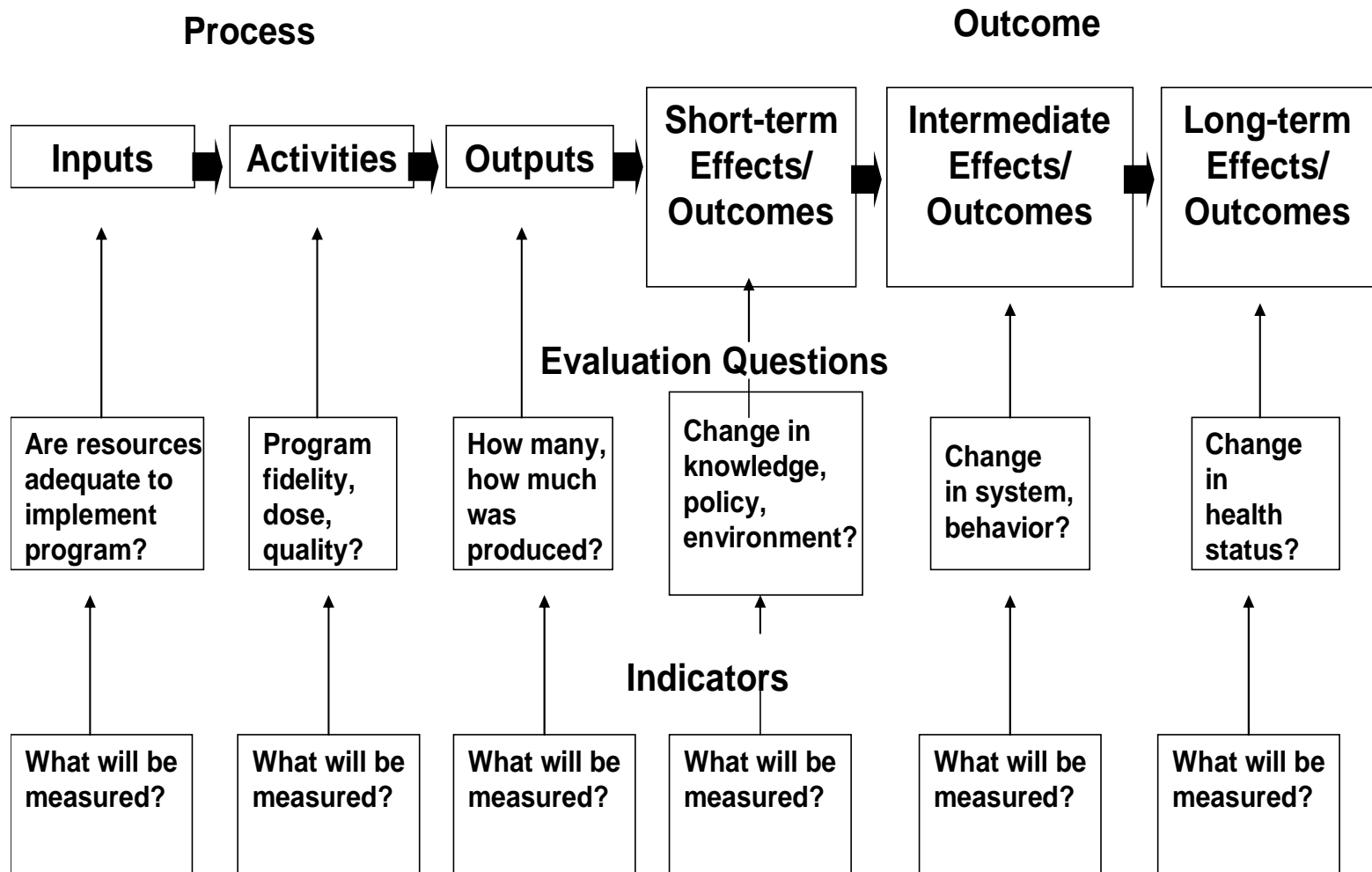
Clarifying the sequence of outcomes and the relationship between activities and specific outcomes helps you:

- Examine/refine the mission and vision, goals and objectives and expectations
- Identify the most important outcomes
- Identify the “critical path”
- Identify weak and strong components of the program and ways to enhance performance
- Identify feedback loops

# Using logic models for evaluation

- Identify evaluation questions
- Identify indicators
- Explain results

# Mapping Evaluation Questions and Indicators to Logic Model



# **Massachusetts' Application to Evaluation**

# **Define the Evaluation Questions**

# Process Evaluation Questions

- Were program activities accomplished?
- Were program activities implemented as planned?
- Should other key stakeholders be involved?

Use results continuously throughout the project to refine/improve the process

## Activities

Convene Stroke Signs & Symptoms Advisory Committee



**Has the committee actively participated with project development?**



**How has the group changed over time as project evolved?**

Contract with media vendor



**Has the contractor completed the scope of service?**



**Has our relationship been successful?**

Develop signs & symptoms animation



**Is the format likeable?**



**Do the messages resonate with the intended audience?**

**Develop educational kit**



**Will educators use the kit?**



**How would educators modify the kit?**

Educational kit orientation and distribution



**To whom is the kit distributed and how?**



**What are the take-home messages from the kit?**

PSA development and media campaign



**Who is receiving the FAST message?**



**Is the media campaign effective in changing knowledge and behavior?**

# **Create Indicators and Determine Data Sources**

## Activities

## Indicators/ Data Source

Convene Stroke Signs & Symptoms Advisory Committee



**Meeting attendance, priority area representation**



**Review of meeting minutes**

Contract with media vendor



**On time deliverables, completed scope of service**



**Review of quarterly reports**

Develop signs & symptoms animation



**Intended audience opinions**



**Results from concept testing, Participant Feedback Form**

**Develop educational kit**



**Intended users opinions**



**Results from concept testing, Educational Kit Tracking Form**

Educational kit orientation and distribution



**Reach of kit and animation, change in knowledge, retention**



**Tracking database, results from pilot study**

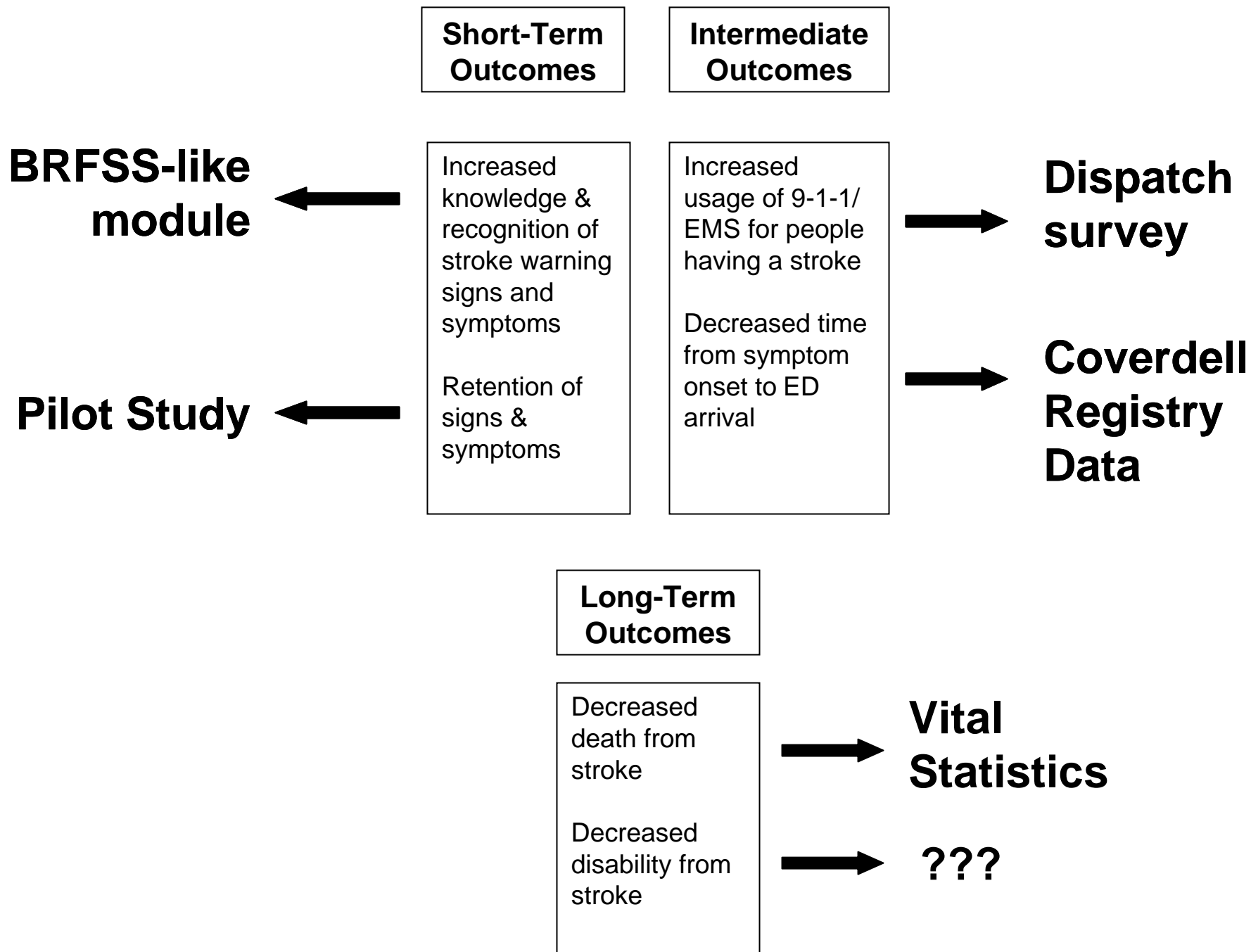
PSA development and media campaign



**Reach estimate from radio, TV, transit venues**



**Signs & Symptoms Supplemental Questionnaire**



# Small Group Exercise

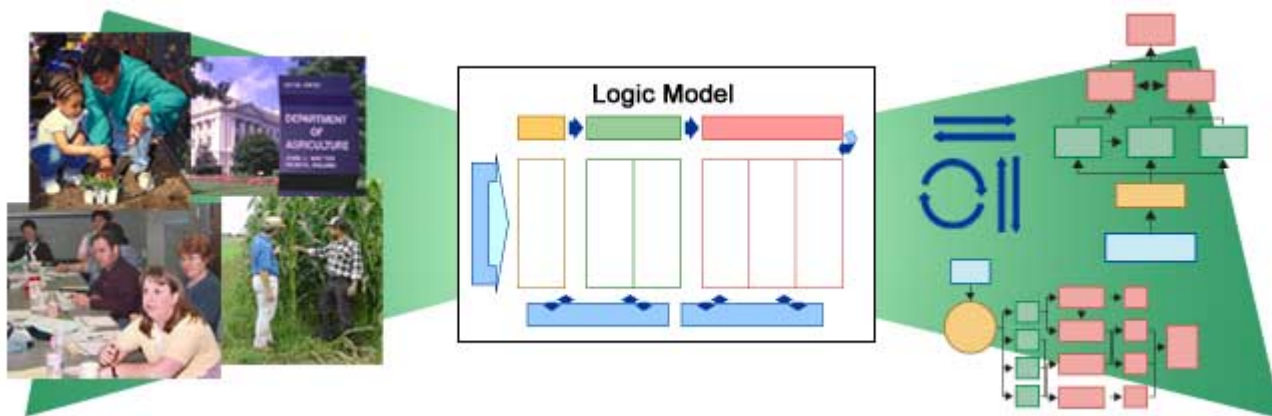
The State HDSP Program is funded by CDC to reduce stroke deaths. We believe that if we educate doctors and nurses about treating high blood pressure and about stroke signs and symptoms, they will work with patients to improve compliance with medication and lifestyle changes and recognize stroke. As part of our comprehensive state plan, we are going to provide training (or train-the-trainer series) on treatment protocols for high blood pressure and stroke signs.

# Small Group Exercise

1. Think about your stakeholders.
2. As a team, review your statements and place them in the correct column on the template (inputs, etc).
3. Discuss if and how the boxes link.
4. What were your barriers or obstacles?
5. How can you use what you have learned at home?

# Helpful resources

- Harvard Family Research Project  
<http://www.gse.harvard.edu/hfrp/>
- Kellogg Foundation Logic Model Development Guide [www.wkkf.org](http://www.wkkf.org)
- University of Wisconsin-Extension  
<http://www1.uwex.edu/ces/lmcourse>



# Reading a logic model

Follow the arrows

Follow the chain of reasoning ...

