



South Southwest (HHS Region 6)

**PTTC**

Prevention Technology Transfer Center Network  
Funded by Substance Abuse and Mental Health Services Administration



# How to Develop an Effective Program Logic Model

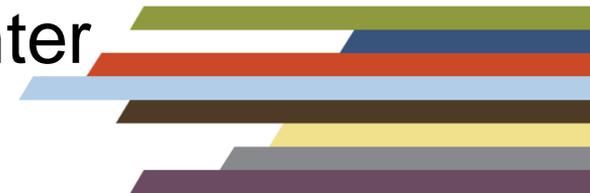
Kyle Barrington, Ph.D. & Nicole Schoenborn, M. A.

May 4, 2021

South Southwest Prevention

Technology Transfer Center

**SAMHSA**  
Substance Abuse and Mental Health  
Services Administration



# Disclaimer

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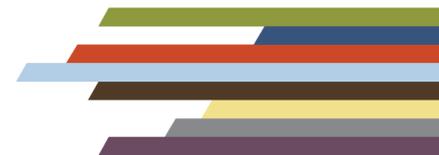
This work is supported by awards 6UR1TI080205-02M002, SM081726 and 1H79SP081006-01 from the Department of Health and Human Services, Substance Abuse and Mental Health Services Administration.



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# Three-Part Series

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Part 1 Overview  
Webinar on  
Logic Models

Part 2 Learning Lab

Part 3 Intensive  
Technical  
Assistance

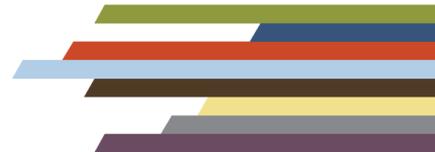
For more information:

<https://pttcnetwork.org/centers/south-southwest-pttc/how-develop-effective-program-logic-model-series>

# Our Learning Objectives

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- Identify logic model benefits.
- Define key components of logic models.
- Describe how logic models inform program evaluation.



# Presenters

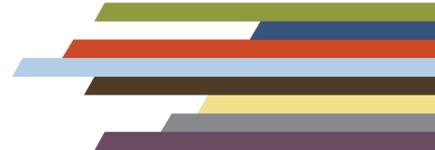
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**Kyle Barrington**



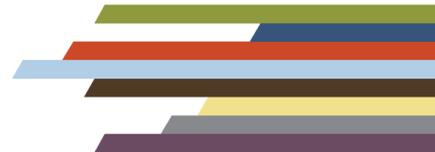
**Nicole Schoenborn**



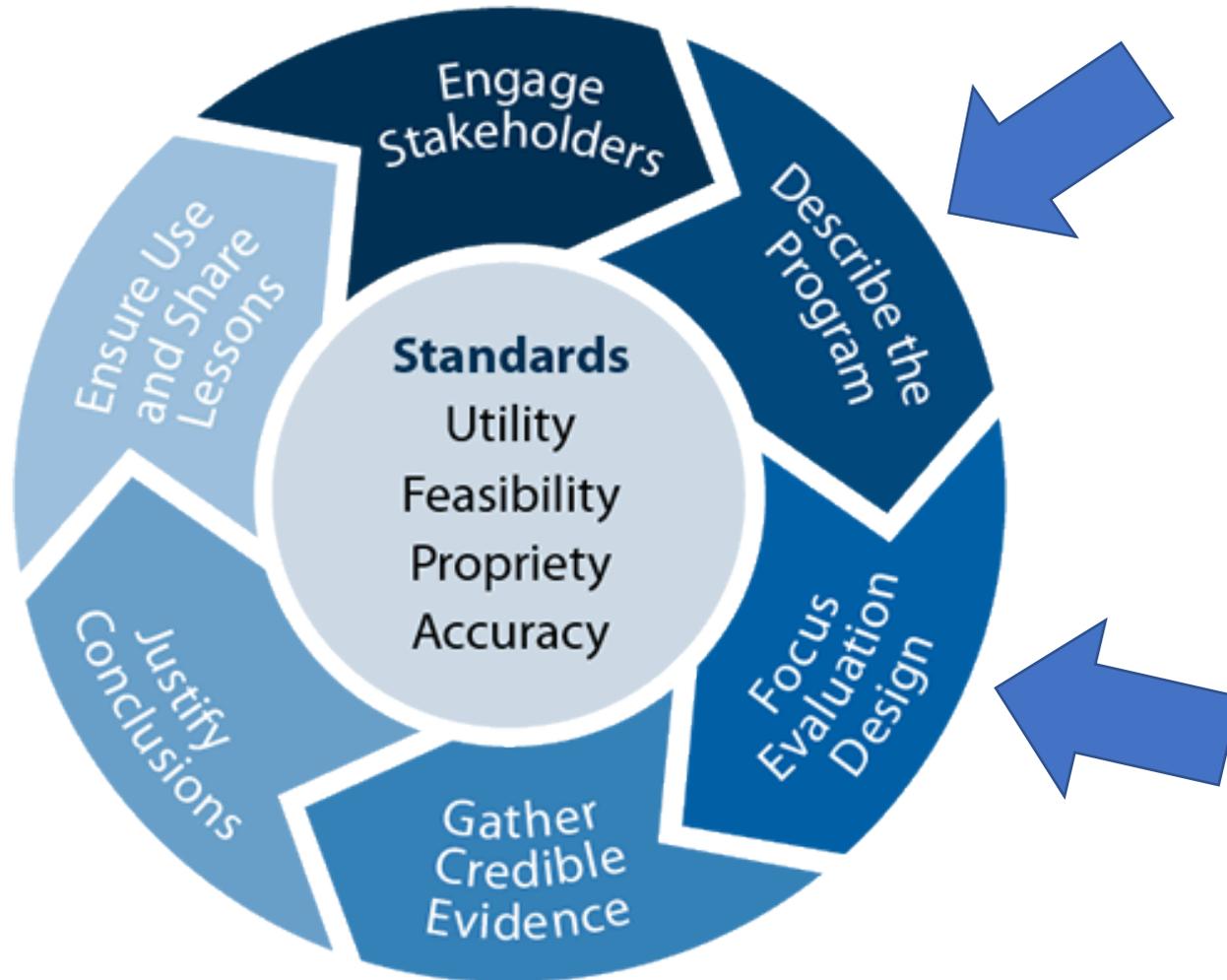
# Agenda

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- Introduction of Presenters
- Evaluation Framework
- Benefits of a Logic Model
- Components and Steps of a Logic Model
- Questions and Answers
- Evaluation



# Evaluation Framework



<sup>1</sup> Adapted from Centers for Disease Control and Prevention. (1999, September 17). Framework for Program Evaluation in Public Health. *Morbidity and Mortality Weekly Report*, 48(RR-11). Retrieved from <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr4811a1.htm#:~:text=%20%20%20Steps%20in%20Evaluatio,n%20Practice%20.Accuracy%2F16-D%20Accuracy%2F16-E%20...%20%202%20more%20rows%20>

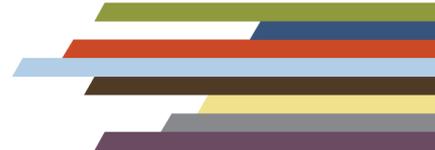
# Blueprint for Success

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Goals  
+ Objectives  
+ Activities

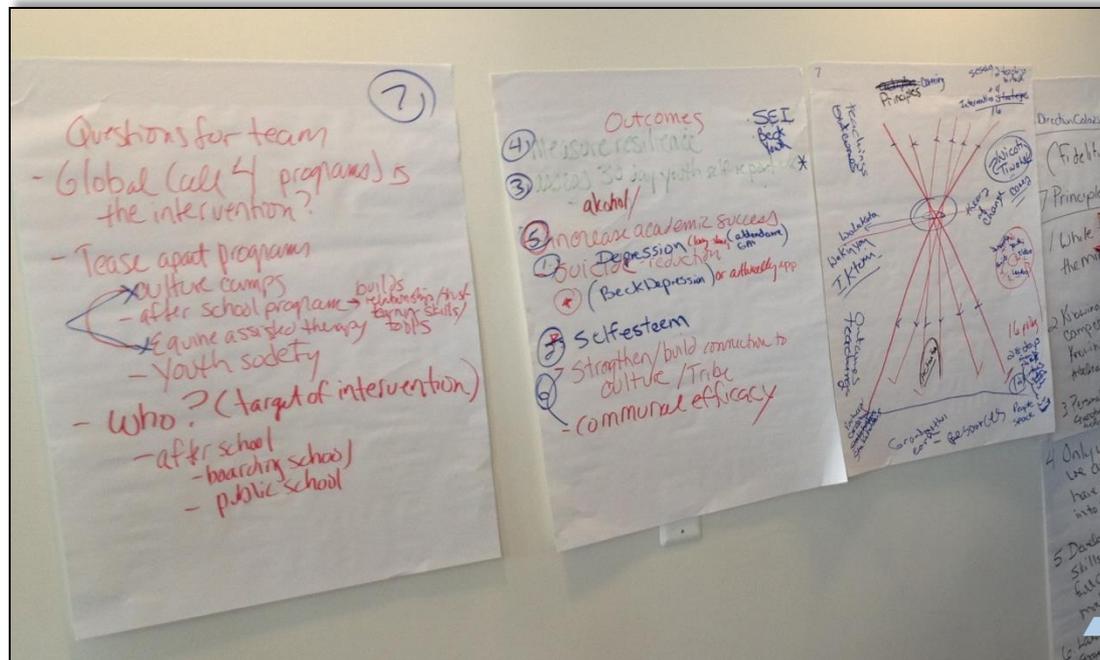
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Outcomes



# Chat Time!

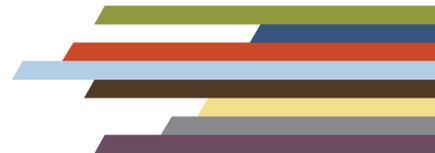
What are some benefits to having a logic model?



# Benefits of a Logic Model

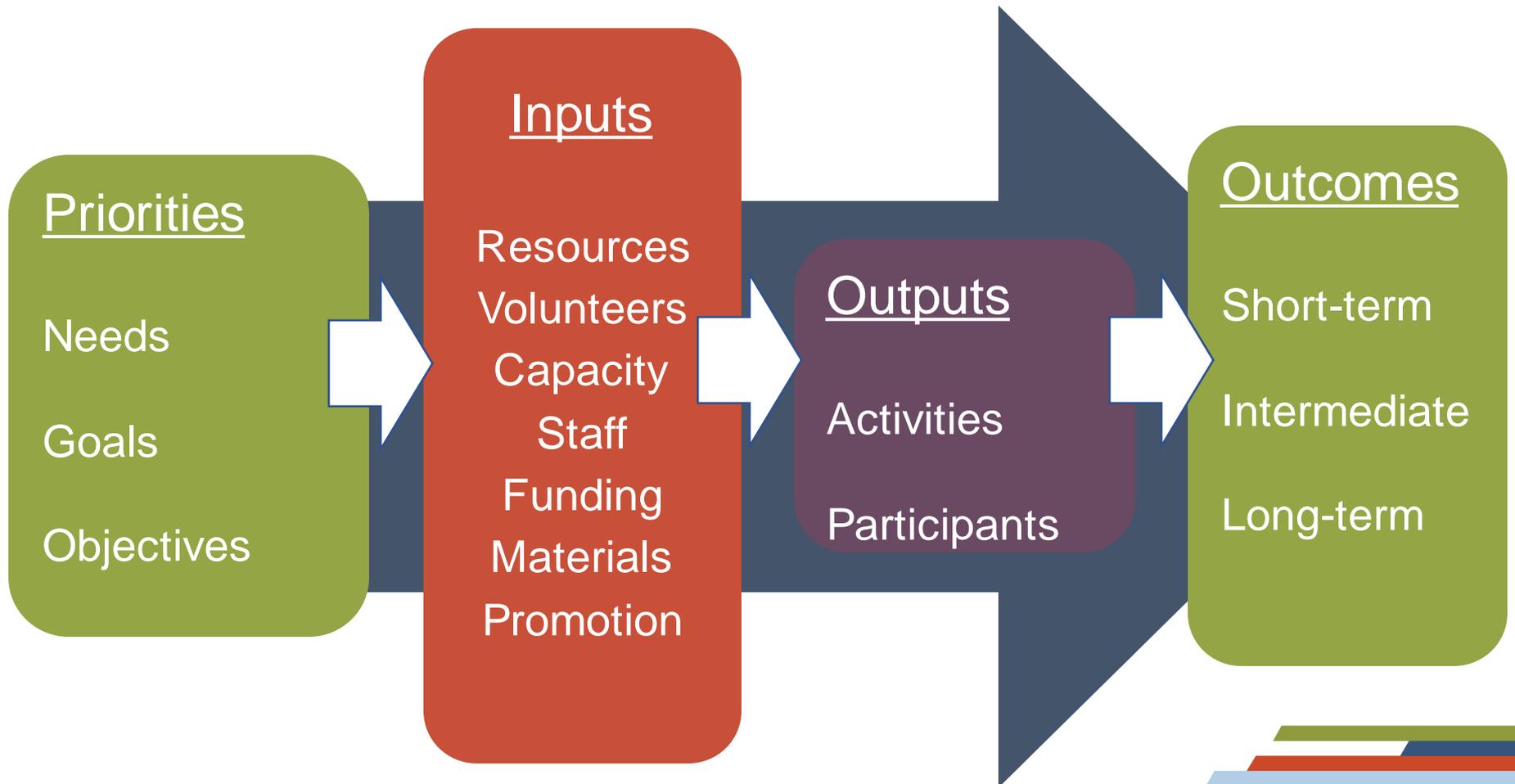
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- Develops understanding
- Helps expose assumptions
- Helps monitor progress
- Helps restrain over-promising
- Facilitates project reporting
- Promotes communication
- Serves as an evaluation framework



# Logic Model Key Components

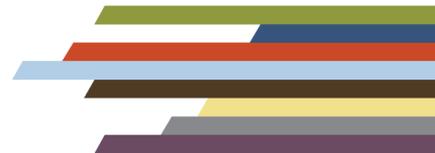
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# Step 1: Describing Need

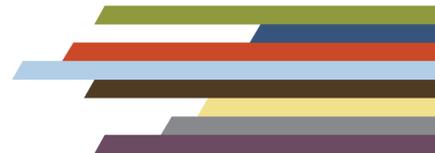
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- What is the problem?
- How do you know it's a problem?
- What are the **consequences** of the problem?
- What **factors contribute** to the problem?
- What **gaps exist in addressing** the problem?



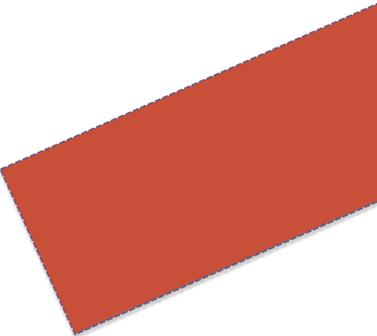
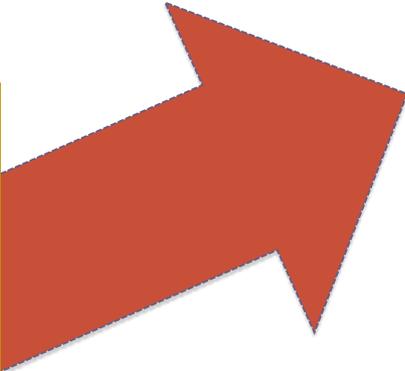
# Identifying Risk and Protection

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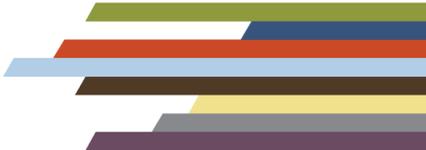
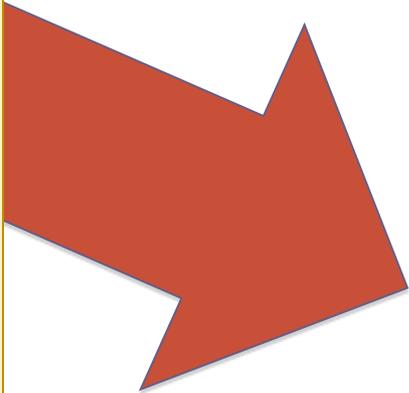
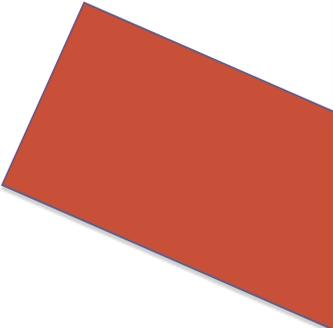
# Risk Factors

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A characteristic at the biological, psychological, family, community, or cultural level that precedes and is associated with a higher likelihood of problem outcomes

# Protective Factors



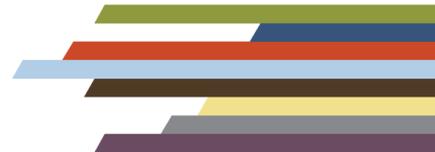
A characteristic at the biological, psychological, family, or community (including peers and culture) level that is associated with a lower likelihood of problem outcomes or that reduces the negative impact of a risk factor on problem outcomes.

# Example: SOS Prevention Program Need Statements

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- Suicide among adolescents aged 15-19 was the third leading cause of death for this age group in the U.S.
- Key risk factors include suicidal thoughts, depression, no awareness of signs of suicide. Protective factors are help seeking behaviors and schools that support help seeking.
- Several diverse programs have been implemented at the high school level, but few have been rigorously evaluated.
- Furthermore, many of these programs are complex, long-term and difficult to implement in school settings.

<sup>4</sup> Aseltine, R. H. & DeMartino, R. (2004). An outcome evaluation of the SOS suicide prevention program. *American Journal of Public Health, 94*(3), 446-451; and Aseltine, R. H. (2002). An evaluation of a school-based suicide prevention program. *Adolescent & Family Health, 3*(2), 81-88.



# Step 2: Defining Goals

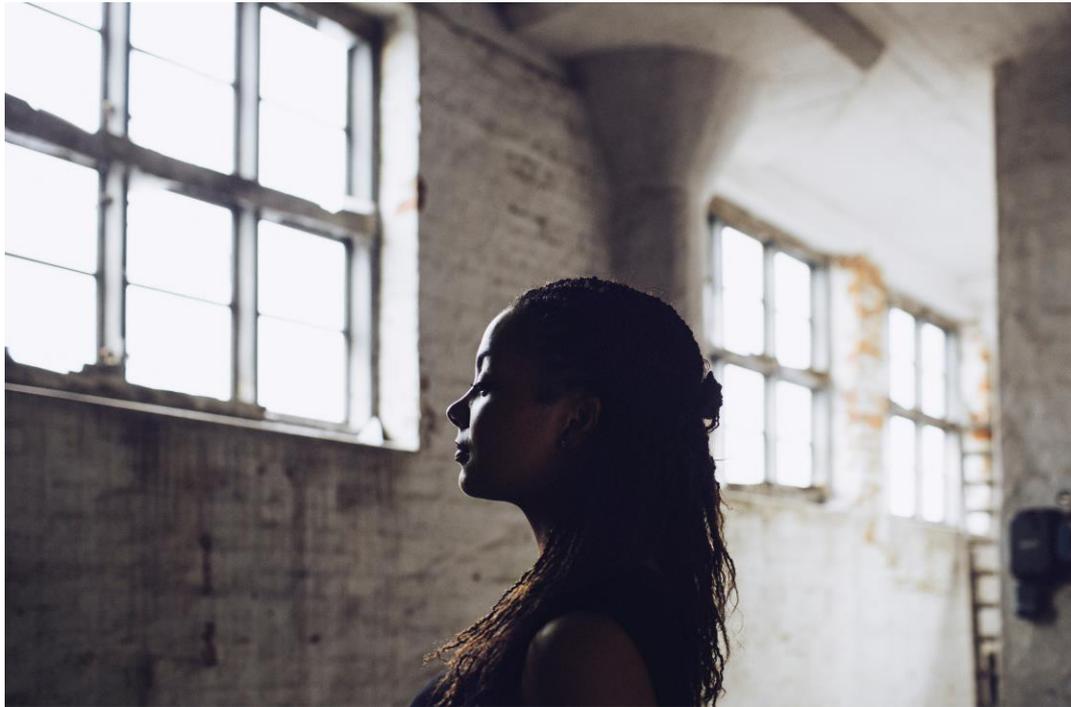
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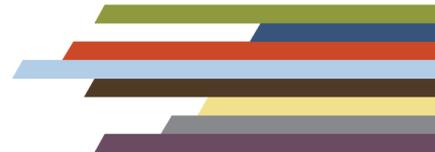
# Example: SOS Goal Statement

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To reduce suicidal behavior among high school students (grades 9-12) in three school districts.



<sup>4</sup> Aseltine, R. H. & DeMartino, R. (2004). An outcome evaluation of the SOS suicide prevention program. *American Journal of Public Health, 94*(3), 446-451; and Aseltine, R. H.. (2002). An evaluation of a school-based suicide prevention program. *Adolescent & Family Health, 3*(2), 81-88.



# Step 3: Specifying Objectives

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**What specific changes do you anticipate will result from participation in your program?**

Objectives should be SMART:

Specific (what will change)

Measurable (by how much/directional)

Achievable (will be feasible and useful)

Realistic (the resources are available)

Time-bound (by when)

# *Example:* SOS Short-term Objectives

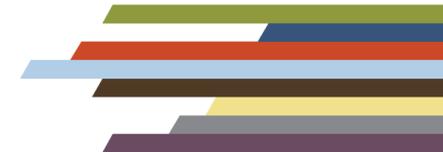
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- To increase the percentage from baseline of students in grades 9-12 who report improvements in knowledge *and* beliefs about depression and suicide.
- To increase the percentage from baseline of students in grades 9-12 who report feeling able to seek assistance for depression.

# Example: SOS Long-term Objectives

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- To increase the percentage, from baseline, of students who report seeking help for depression or suicide.
- To reduce the percentage from baseline of students who report a suicide attempt or suicide ideation during the past 3 months.



# Step 4. Identifying Inputs

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Inputs are those preparations or resources required to implement your program.

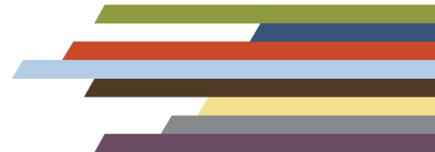


# *Example: SOS Inputs*

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- Develop teaching materials (video and discussion guide) that demonstrate and promote help-seeking behaviors related to depression and suicidal behavior
- Identify and adapt self-screening tool that helps students assess and evaluate the depressive symptoms and suicidal thoughts they might be experiencing
- Train clinical staff to implement the program
- Obtain parental permission for student participation

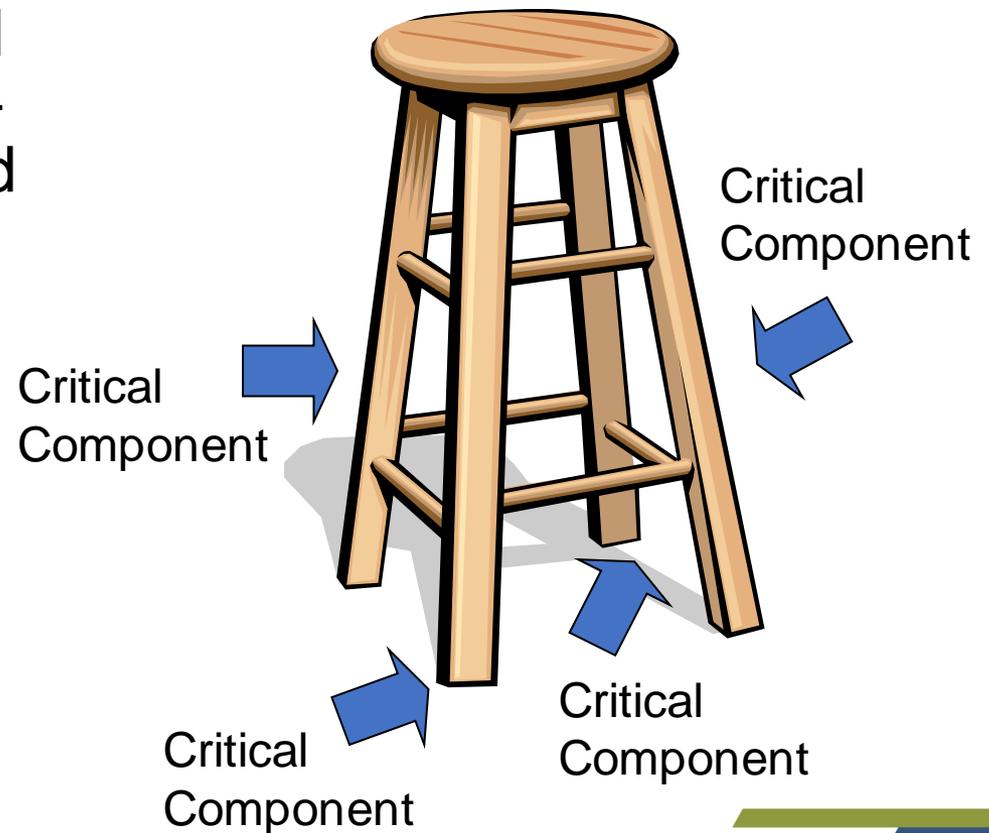
<sup>4</sup> Aseltine, R. H. & DeMartino, R. (2004). An outcome evaluation of the SOS suicide prevention program. *American Journal of Public Health, 94*(3), 446-451; and Aseltine, R. H.. (2002). An evaluation of a school-based suicide prevention program. *Adolescent & Family Health, 3*(2), 81-88.



# Step 5. Outlining Activities

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- Detail activities—critical program components—that must be maintained without alteration to ensure program effectiveness.
- Detail the target audience for these activities.

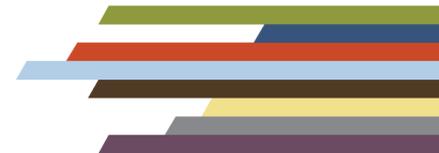


# *Example: SOS Activities*

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- Show video to students and parents.
- Conduct discussion with students [and parents] about issues surrounding depression and suicide.
- Discuss and model help-seeking strategies.
- Distribute and collect student self-administered screening forms.
- Follow-up on screening results and further assess students who screen positive for depression/suicide.
- Contact parents to make treatment referrals for students, as necessary.

<sup>4</sup> Aseltine, R. H. & DeMartino, R. (2004). An outcome evaluation of the SOS suicide prevention program. *American Journal of Public Health, 94*(3), 446-451; and Aseltine, R. H.. (2002). An evaluation of a school-based suicide prevention program. *Adolescent & Family Health, 3*(2), 81-88.



# A Word About Theory

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Evaluations that are guided by theory:

- Concentrate attention and resources on key programmatic aspects.
- Facilitate understanding of how practices or strategies bring about change.
- Make assumptions explicit.
- Influence both policy and popular opinion.



# Example: SOS Theories of Change



**Changing  
Social Norms**



**Modeling Pro-social  
Behavior**



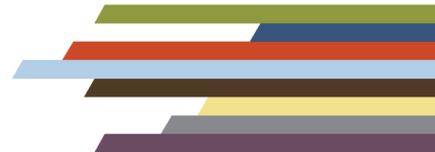
**Tapping Social  
Networks**

<sup>4</sup> Aseltine, R. H. & DeMartino, R. (2004). An outcome evaluation of the SOS suicide prevention program. *American Journal of Public Health*, 94(3), 446-451; and Aseltine, R. H.. (2002). An evaluation of a school-based suicide prevention program. *Adolescent & Family Health*, 3(2), 81-88.

# Step 6. Identify Participants

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- Participants are those people and organizations who participate in the activities implemented.
- Participants are those who deliver services and receive services.
- Participants are important sources of information about service delivery.



# Example: SOS Participants<sup>4</sup>

Who?	Does what?	With/to whom?
School teachers, clinical staff	Show video	Students and parents
School teachers, clinical staff	Conduct discussion	Students and parents
School teachers, clinical staff	Discuss and model help seeking	Students
School clinical staff	Distribute and collect self-administered assessment forms	Students
School clinical staff	Follow-up on assessment results	Students and parents
School clinical staff	Make treatment referrals	Students, parents, and community mental health providers

# Step 7. Anticipate Outcomes

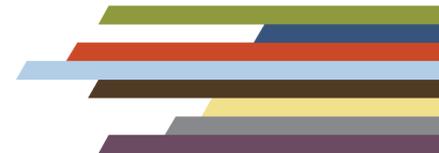
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Long-Term



Intermediate

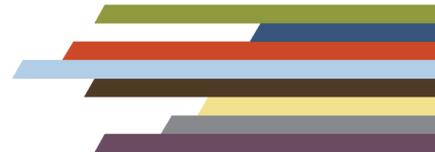
Short-Term



# *Example:* SOS Participants

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- In the short-term: Improved student and parent recognition of signs of depression and suicide (knowledge change)
- In the intermediate-term: Increased student help-seeking behaviors (behavior change)
- In the long-term: No youth suicide attempts or suicide (behavior change)



# Pulling It Together

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## Priorities

Needs: Prevent and reduce adolescent suicide and suicide attempts.

Goal: Reduce suicide attempts.

### Objectives:

- 1) Improve recognition of signs of suicide.
- 2) Increase help-seeking.
- 3) Reduce suicidal thoughts.



## Inputs

- 1) Develop teaching materials
- 2) Identify and adapt screening tool
- 3) Train clinical staff
- 4) Obtain parent permission



## Outputs

### Activities:

- 1) Teach how to recognize signs of depression and suicide
- 2) Model help-seeking behavior
- 3) Assess for depression
- 4) Follow-up and referral based on assessment

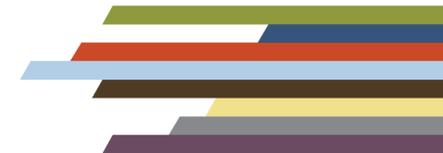
### Participants:

- 1) Students and parents participate in education components
- 2) Students complete assessment forms
- 3) School staff refer at-risk students to follow-



## Outcomes

- 1) Improved recognition of signs of depression and suicide
- 2) Increases in help seeking behavior
- 3) Reductions in suicidal thoughts
- 4) Reduction in suicide attempts





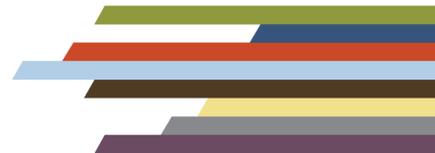
Let's Chat! Questions from You!

# Outputs and Process Measures

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## **How will you know your activities happened as planned?**

Process measures, or indicators, provide the evidence you need to determine the extent to which program staff are implementing program activities as they were meant to be implemented (i.e., with fidelity).



# Example: SOS Process Measures

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<b>What activity?</b>	<b>How measured?</b>
<p>Show video to students and parents</p> <p>Discuss video with students and parents</p> <p>Distribute and collect self-administered screening tools to students and parents</p>	<p>School Summary Form Questions:</p> <ol style="list-style-type: none"><li>1. Which students/parents saw video/participated in discussion/completed screening forms? (a) Entire student body? (b) Only certain classes or grades?</li><li>2. Percent of student body/parents seeing video/participating in the discussion/completing assessment forms?</li></ol>

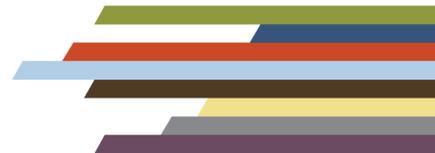
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# Outcomes and Outcome Measures

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## **How will you measure program-produced changes?**

Outcome measures, or indicators, provide the evidence you need to determine whether or not your program is reaching its specified objectives and goals.



# Example: SOS Short-term Outcome Measures

<b>What outcome?</b>	<b>How measured?</b>
Increase student knowledge and attitudes about suicide and depression and how they are related	Student self-report on 10 true/false items that reflect central themes of program  Student self-report on 8-item summary scale that assessed attitudes toward suicidal people and suicidal behaviors
Increase youth and parent help-seeking beliefs	Student and parent self-report of beliefs about their capabilities to identify symptoms of suicide and depression and to seek treatment in the future

# Example: SOS Intermediate and Long-term Outcome Measures

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<b>What outcome?</b>	<b>How measured?</b>
Increase teen help-seeking behavior	Student self-report on 3 items about their seeking help for depression or suicide
Decrease suicidal ideation	Student self-report of thoughts about suicide
Decrease suicidal attempts	Student self-report about suicide attempts

# Pulling It Together

## Priorities

Needs: Prevent and reduce adolescent suicide and suicide attempts.

Goal: Reduce suicide attempts.

### Objectives:

- 1) Improve recognition of signs of suicide.
- 2) Increase help-seeking.
- 3) Reduce suicidal thoughts.

## Inputs

- 1) Develop teaching materials
- 2) Identify and adapt screening tool
- 3) Train clinical staff
- 4) Obtain parent permission

## Outputs

### Activities:

- 1) Teach how to recognize signs of depression and suicide
- 2) Model help-seeking behavior
- 3) Assess for depression
- 4) Follow-up and referral based on assessment

### Participants:

- 1) Students and parents participate in education components
- 2) Students complete assessment forms
- 3) School staff refer at-risk students to follow-

## Outcomes

- 1) Improved recognition of signs of depression and suicide
- 2) Increases in help seeking behavior
- 3) Reductions in suicidal thoughts
- 4) Reduction in suicide attempts



Wrapping up



# Questions?

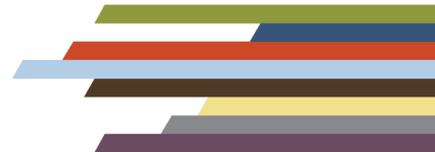
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# Resources on Logic Modeling

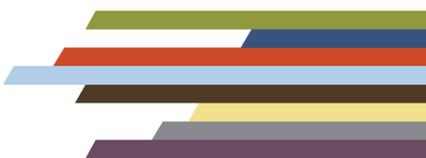
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- University of Wisconsin Extension:  
<https://fyi.extension.wisc.edu/programdevelopment/logic-models/>
- Kellogg Foundation Logic Model Guide:  
<https://www.wkkf.org/resource-directory/resources/2004/01/logic-model-development-guide>
- The Community Toolbox  
[http://ctb.ku.edu/en/tablecontents/sub\\_section\\_main\\_1877.aspx](http://ctb.ku.edu/en/tablecontents/sub_section_main_1877.aspx)



# References

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- <sup>1</sup> Centers for Disease Control and Prevention. (1999, September 17). Framework for Program Evaluation in Public Health. *Morbidity and Mortality Weekly Report*, 48(RR-11). Retrieved from <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr4811a1.htm#:~:text=%20%20%20Steps%20in%20Evaluation%20Practice%20Accuracy%2F16-D%20Accuracy%2F16-E%20...%20%202%20more%20rows%20>
  - <sup>2</sup> Work Group for Community Health and Development. (2013). *Community tool box*. Retrieved from <http://ctb.ku.edu/en/table-of-contents/overview/models-for-community-health-and-development/logic-model-development/main>
  - <sup>3</sup> O'Connell, M.E. , Boat, T., & Wagner, K. E. (2009). *Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities*. Washington, DC: The National Academies Press.
  - <sup>4</sup> Aseltine, R. H. & DeMartino, R. (2004). An outcome evaluation of the SOS suicide prevention program. *American Journal of Public Health*, 94(3), 446-451; and Aseltine, R. H. (2002). An evaluation of a school-based suicide prevention program. *Adolescent & Family Health*, 3(2), 81-88.
  - <sup>5</sup> Centers for Disease Control & Prevention. (2012, November 2). *Develop SMART objectives*. Retrieved from [http://www.cdc.gov/phcommunities/resourcekit/evaluate/smart\\_objectives.html](http://www.cdc.gov/phcommunities/resourcekit/evaluate/smart_objectives.html)
  - <sup>6</sup> Weiss, C. H. (1995). Nothing as practical as good theory: Exploring theory-based evaluation for comprehensive community initiatives for children and families. *New Approaches to Evaluating Community Initiatives: Concepts, Methods, and Contexts*. 65-92. Aspen Institute for Humanistic Studies.
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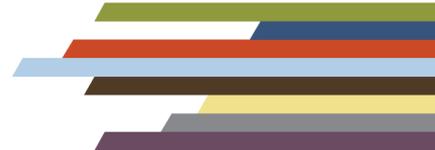
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Ask us! Access TA from the PTTC



# Feedback

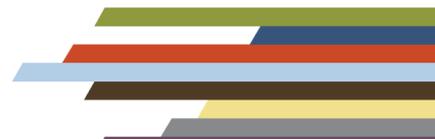
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<https://ttc-gpra.org/P?s=205280>

Your feedback is important to us!



# Thank You

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For questions:

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