

Formative Evaluation: An Essential Tool for MCH Programs

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Today's agenda

Why are many programs unsuccessful?

How can formative evaluation improve a program's chance of success?

How can formation evaluation be integrated into the program development process?

– Case study: Booster seats



Got Outcomes?

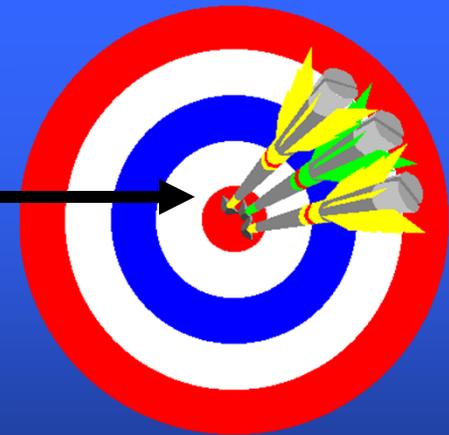
Did the program work?
Were the program objectives achieved?



Desired outcomes = efforts paid off

Program prevented childhood
deaths and injuries

Program
Effort



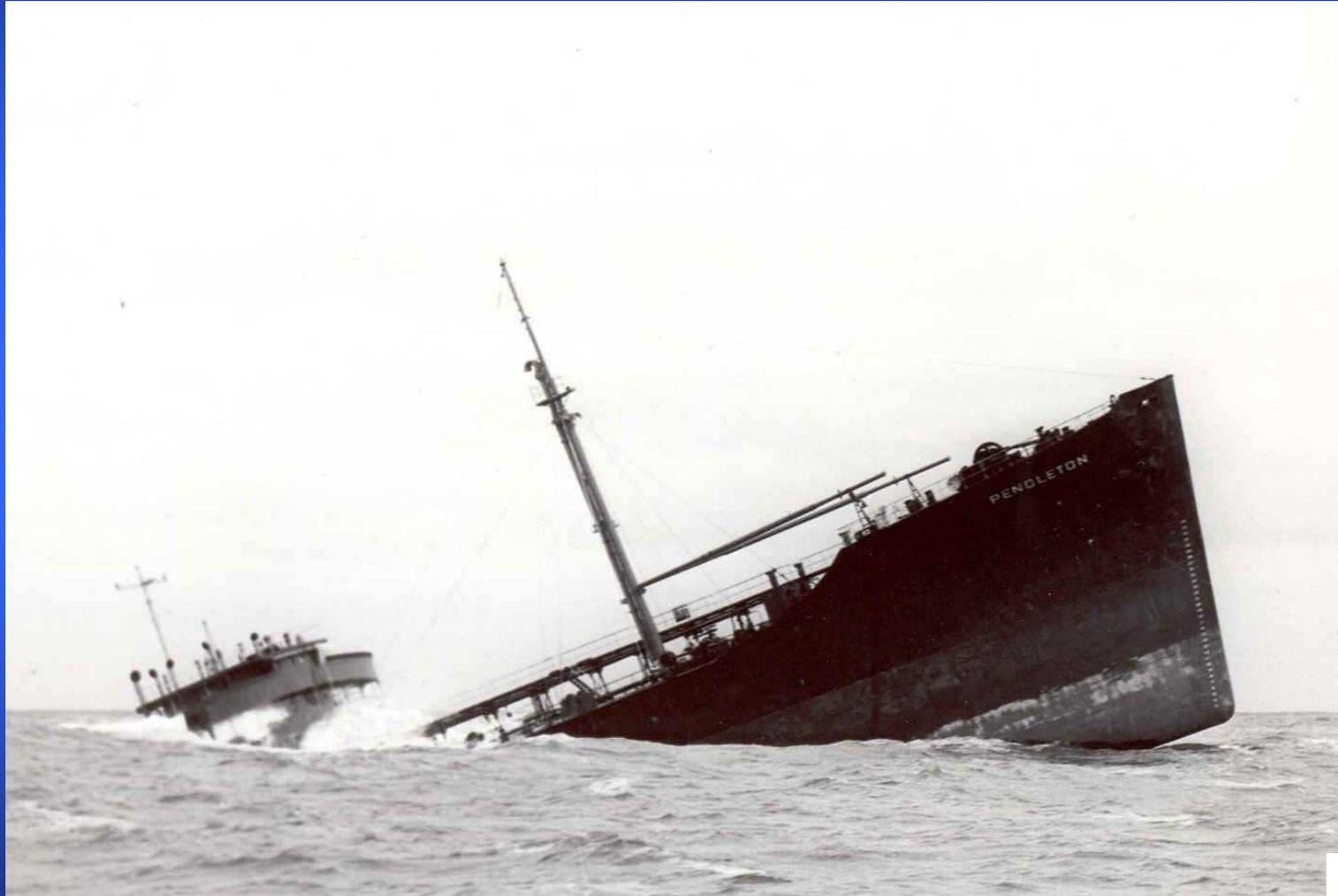
Yet, programs struggle to achieve desired outcomes

*Half of evaluated public health programs
may have no discernable effect
(Guide to Community Preventive Services, 2000)*

Program
Effort



Why do programs fail?



Poorly designed, ill-conceived programs fail

US Public Housing
“Projects”



Some characteristics of poorly designed programs

- Based on faulty logic
 - Selected strategy or activities cannot make intended changes
- Fail to connect with the target population (s)
 - Do not reach them
 - Do not resonate with them
 - Not understood by them
- Fail to be well implemented
 - Settings inappropriate
 - Incompatibility between program and delivery setting
 - Unrealistic (untested) expectations



Why poorly designed programs experience low chance of success

Goal: Child abuse prevention

Target: At risk families – young, single mothers

Program: Parenting class for first time mothers of infants

- Weekly group sessions at hospital
- Didactic presentations by older nurse

Objective

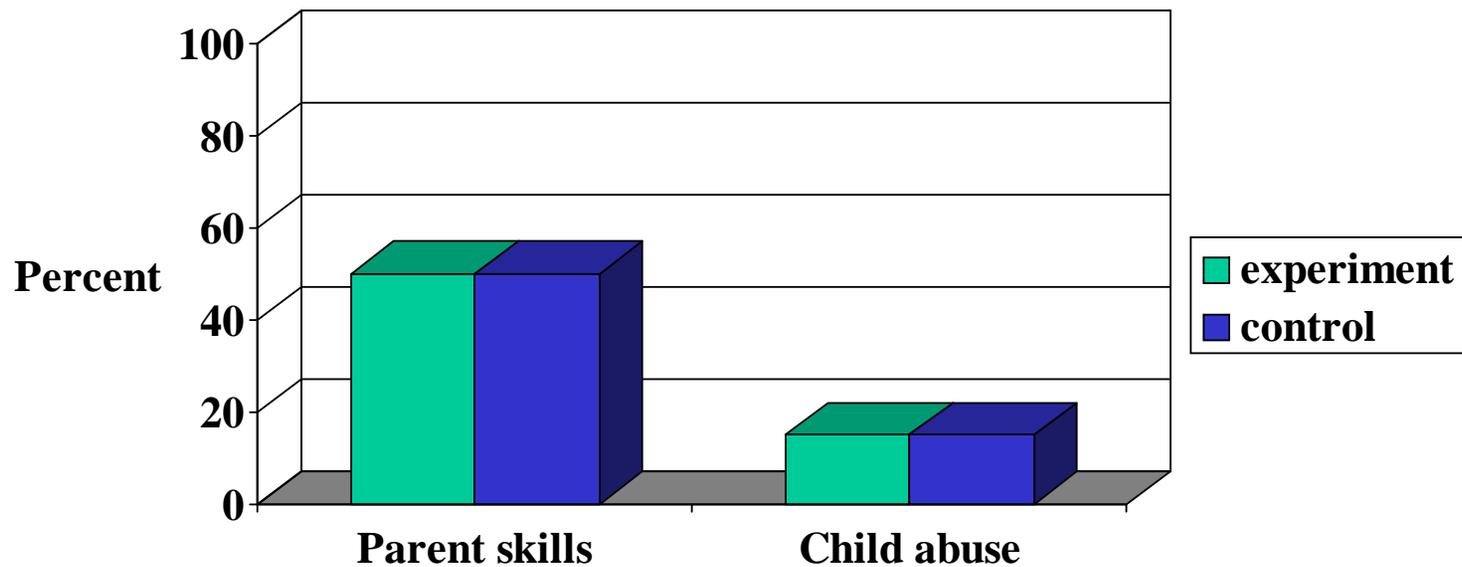
Improve parenting skills



Did the program succeed?



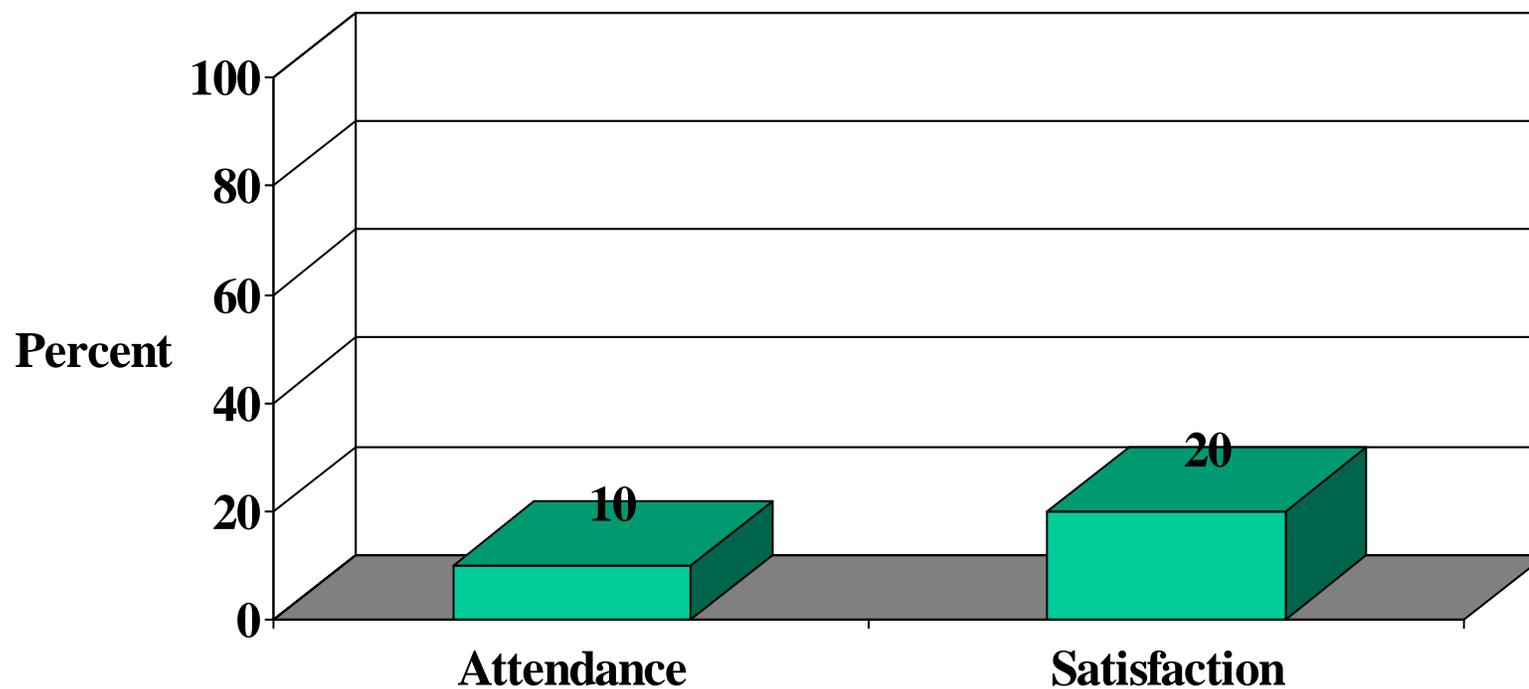
One Year Follow-up Comparison



Why was the program unsuccessful?



Participant attendance & satisfaction



Why did participants stop coming?



- Hospital setting unwelcoming and inconvenient
- Group format awkward
- Workshops too didactic
- Teacher (nurse) too condescending and authoritative
- Not personalized: not enough time for “me”; few appropriate examples to “my situation”



Futility... there's nothing more frustrating



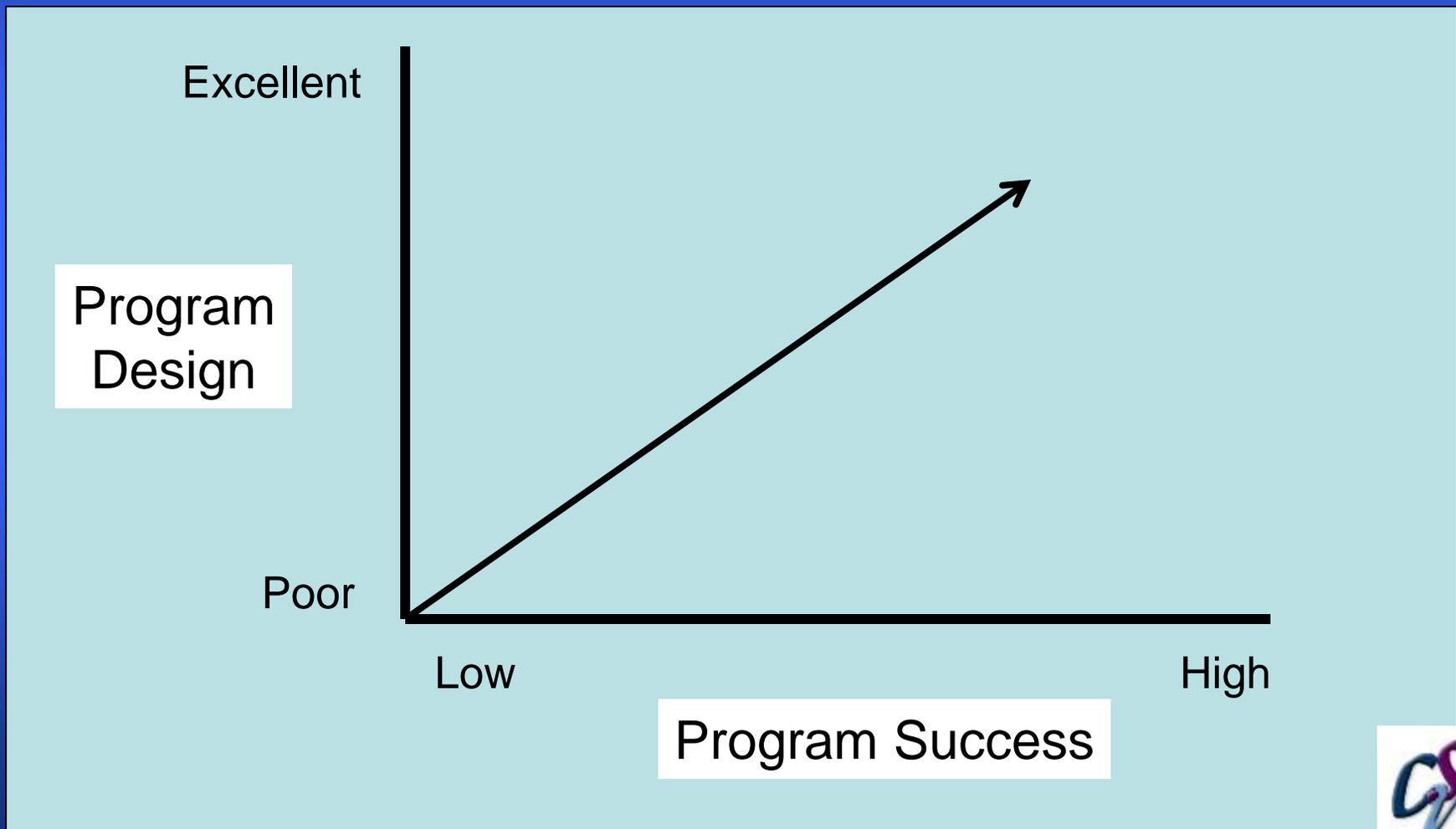
“Sisyphus,” by Titan (1549)

“The gods condemned Sisyphus to endlessly roll a rock up a hill, whence it would return each time to its starting place. They thought with some reasons.... there was no punishment more severe than eternally futile labor...”



Avoid Futility!

Well-designed programs increase chances of success



Planning Challenge

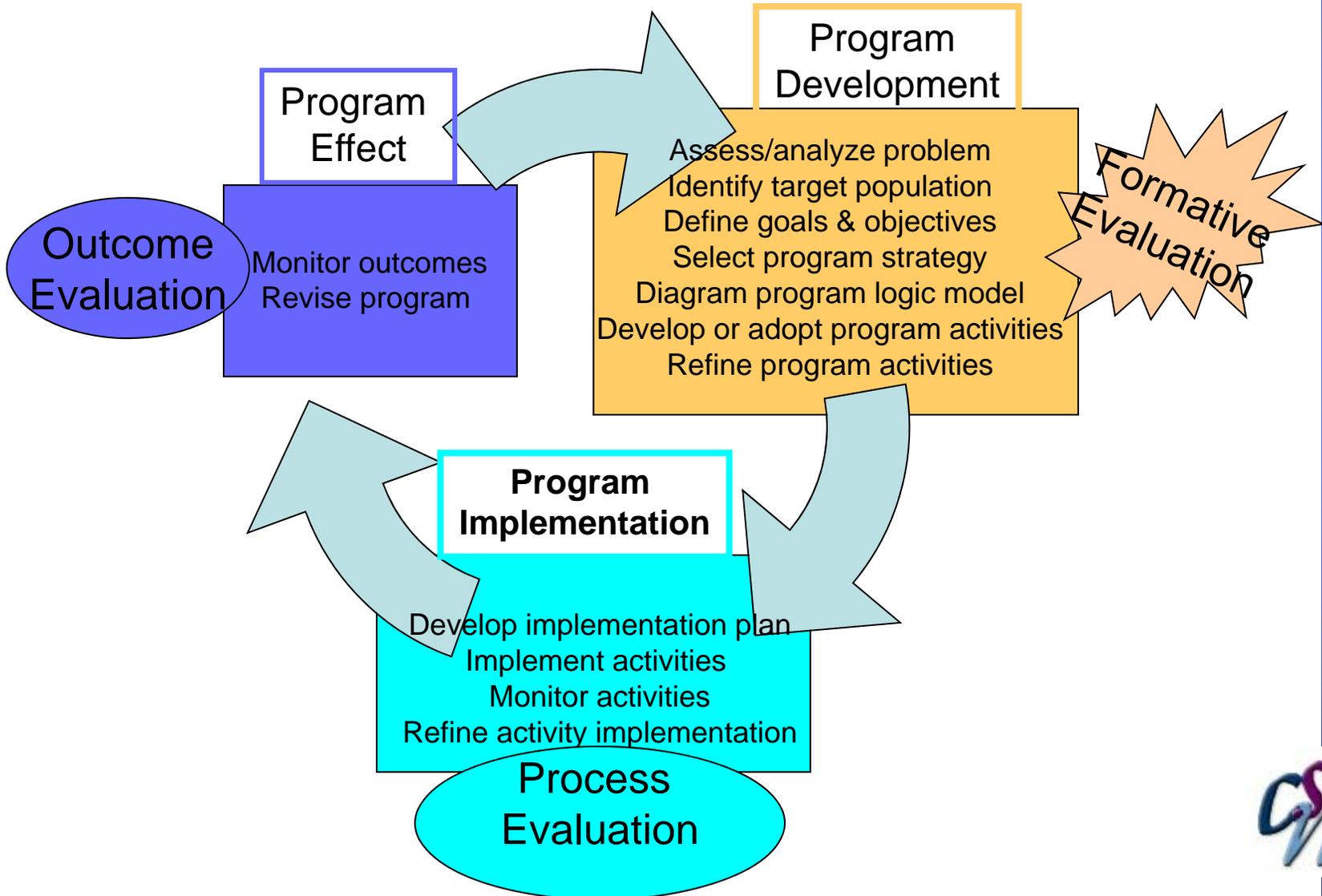
How can well-designed programs be created before implementation to increase chances of success?



Integrate formative evaluation into the program development phase



Program lifecycle



Evaluation purposes

Program
Development
Phase

Formative Evaluation

Assists in creating well-designed programs

Program
Implementation
Phase

Process Evaluation

Assists in implementing well-executed
programs

Program
Effect
Phase

Outcome Evaluation

Assists in determining whether program
worked



Formative evaluation

Questions it answers

- What is the best way to influence the target population?
- How can activities be reached, understood or accepted by target population?
- How can activities be easily and efficiently implemented in delivery setting?

Why it's useful

- Helps develop ideas for program activities
- Refines program activities (pre-test) prior to implementation
- Pilot-test “new” activities prior to full-scale implementation
- Tailors “existing” programs to new target population



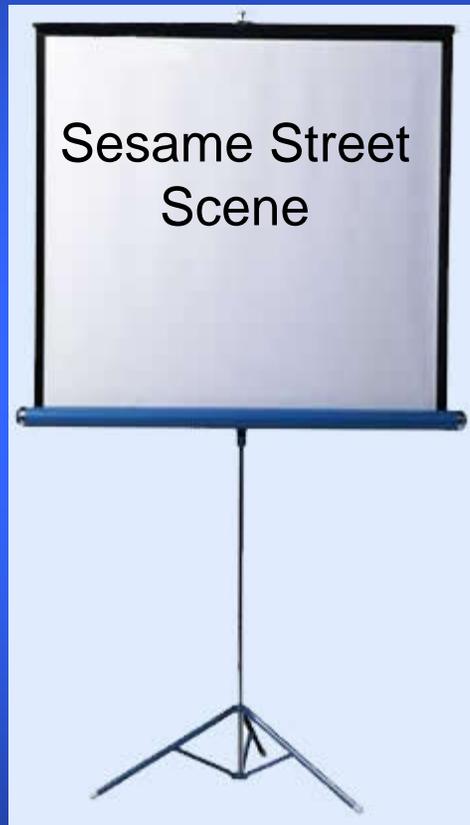
Formative Evaluation



Why has Sesame Street improved children's academic performance?



The “Detractor”



Formative evaluation as “upstream” primary prevention strategy



How is it that we can find time to do it over, but
not the time to do it right initially?

-Proverb



Case Study



Application of formative evaluation into the program development stage

Child Passenger Safety:
Booster Seat Promotion Program



Booster seats background

- NHTSA recommends booster seats for children 8 years and younger or 4'9" tall
- Boosters reduce injury risk by 59% for 4-7 year olds (Durbin, et al., 2003)
- 98% infants restrained, yet only 73% of 4-7 year olds restrained (NHTSA, 2005)
- 72% of CPS seats misused that could increase risk of injury during a crash (NHTSA, 2006)
- Booster distribution and education effective for increasing use and proper use (CDC, 2001; Ehiri, et al., 2005)
- Several distribution options: free giveaways, loans, vouchers



Program context

- A state MCH department received a three year grant to implement a booster seat promotion program
- MCH staff member assigned to coordinate program
 - Convene planning committee comprised of traffic safety stakeholders
 - Charged with developing program



Goals, objectives, and target population



Program goal

- Reduce rate of MVC deaths and injuries among 4 to 8 year olds

Target population

- Low income families with children 4 to 8

Program Objectives

- Increase booster seat use among 4 to 8 year olds
- Increase correct booster seat use for 4 to 8 year olds



Program strategy



MCH department will fund and provide technical assistance to community health clinics to deliver the program to low income families

- Booster seat distribution to improve access
- Parent education to increase knowledge on important of use and proper use

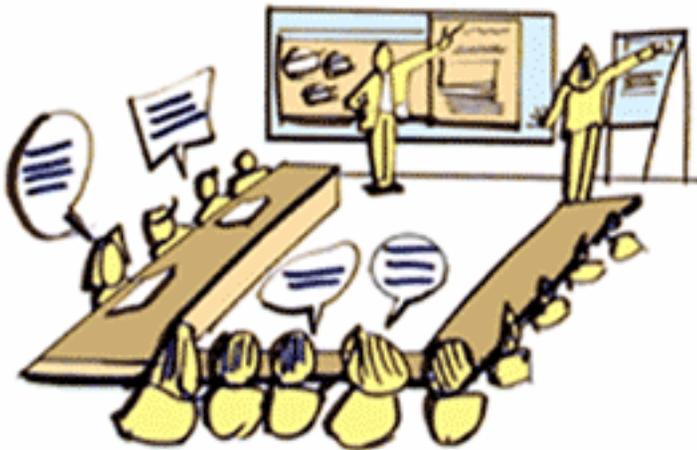


The Planning Committee Challenge:

How can booster seat distribution and parent education activities be developed to increase likelihood that clinics will implement them and target population families will actually use them?



Formative evaluation can “bridge the gap” between program developers, the delivery context, and target population

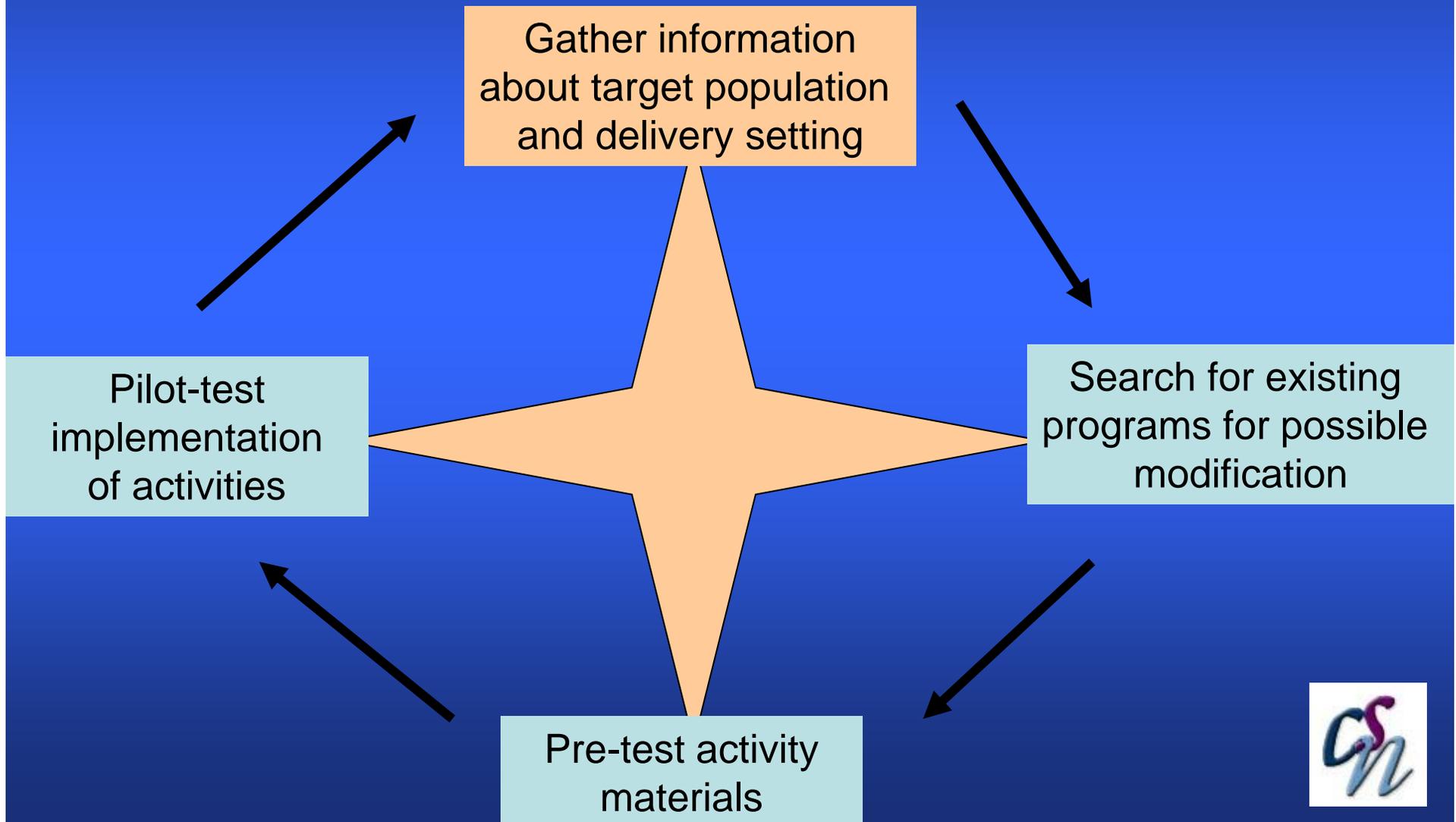


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OK, NOW LET'S BE CAREFUL OUT THERE.

Useful formative evaluation tasks when developing activities



Gather information

Purpose

Target population



Determine what booster seat distribution and parent education activities would mostly likely reach, resonate with, and be understood by the target population

Delivery setting



Determine best ways to distribute booster seats and educate parents within the context of community health clinics

Identify partners who can collaborate with program implementation

**Would Nike develop a new shoe
without conducting market research
on the intended user?**



Nike Air
Foamposite



Formative Questions

Target population



- What are the demographic characteristics of low income families that use community health clinics?
- What is their awareness about recommendations for and importance of using booster seats?
- What are the barriers for not using booster seats?
- What are their preferred languages and literacy levels?
- What is the preferred method to receive boosters and education about how to use them?



Formative Questions

Delivery setting



- What is the community health clinic capacity for implementing program?
 - Time, resources, interest
- What is the preferred education method?
 - Who should do it? What is the knowledge/interest of providers?
 - When and for how long?
- What is the preferred distribution method?
- Who can partner with implementing the program?
 - Booster manufacturers & retailers
 - Certified CPS trainer



Data sources to answer formative questions

Target population

- Demographic data
- One-on-one interviews
- Focus groups

Delivery setting

- Interviews with CHC staff
- Observations of CHC waiting room and visits
- Review of CHC scheduling records



OK, NOW LET'S BE CAREFUL OUT THERE.



Example formative findings

Target population



Barriers to use

- Unaware of importance/recommendations
- “Booster is like infant seat” – difficult to install & adjust, hard to move in and out, cumbersome
- Too restraining for child – will not want to use it
- Cost (mostly likely won't pay over \$15)

Preferred distribution/education

- Free give-a-way at clinic
- One-on-one training with nurse on how to use
- If voucher used, variation in preferred retailers and may be reluctant to redeem without additional incentive

Gather information

Example findings: Delivery setting

Barriers to implement

- No space, time, or interest (liability) in distributing boosters at clinic
- Providers overwhelmed with current tasks; extremely limited time for education
- Limited provider knowledge on correct use

Preferred distribution/education

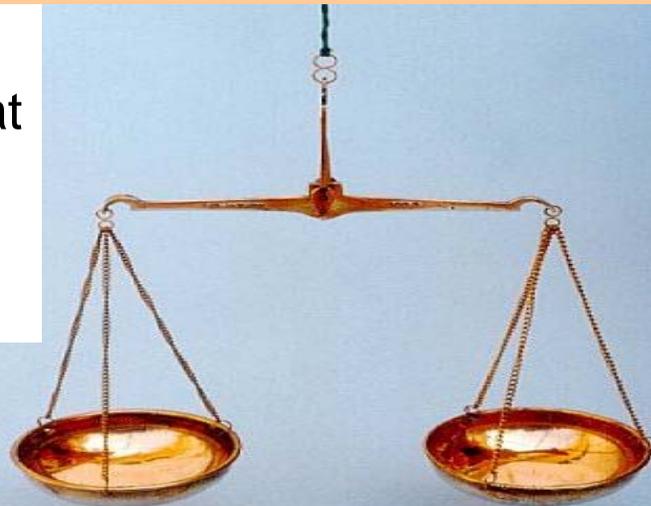
- Vouchers
- Written materials



Formative challenge

Using formative data to develop programs that meet both target population and delivery setting

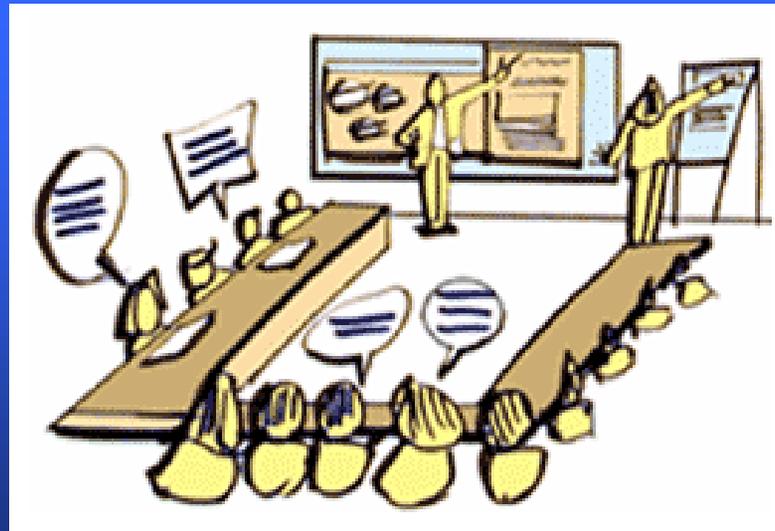
Target population prefers free giveaways at clinic and one-on-one instruction by nurse



Clinics lack capacity to house or distribute boosters on sites or dedicate much time to instruction



Formative evaluation data can be used to brainstorm possible program activities



“Possible” activities based on formative evaluation

Booster distribution

Use voucher system

- Written as Rx and given by nurse
- \$15 max
- Work with retailers to offer \$5 “gift” for child when redeemed

Work with several retailers

- Secure at least two retailers in close proximity frequented by target population

Pick up options

- Offer anytime with “gift”
- Co-sponsor with Safe Kids monthly family fun fairs with food, children games, and certified CPS trainers



“Possible” activities based on formative evaluation

Parent education

Pre visit: Waiting room

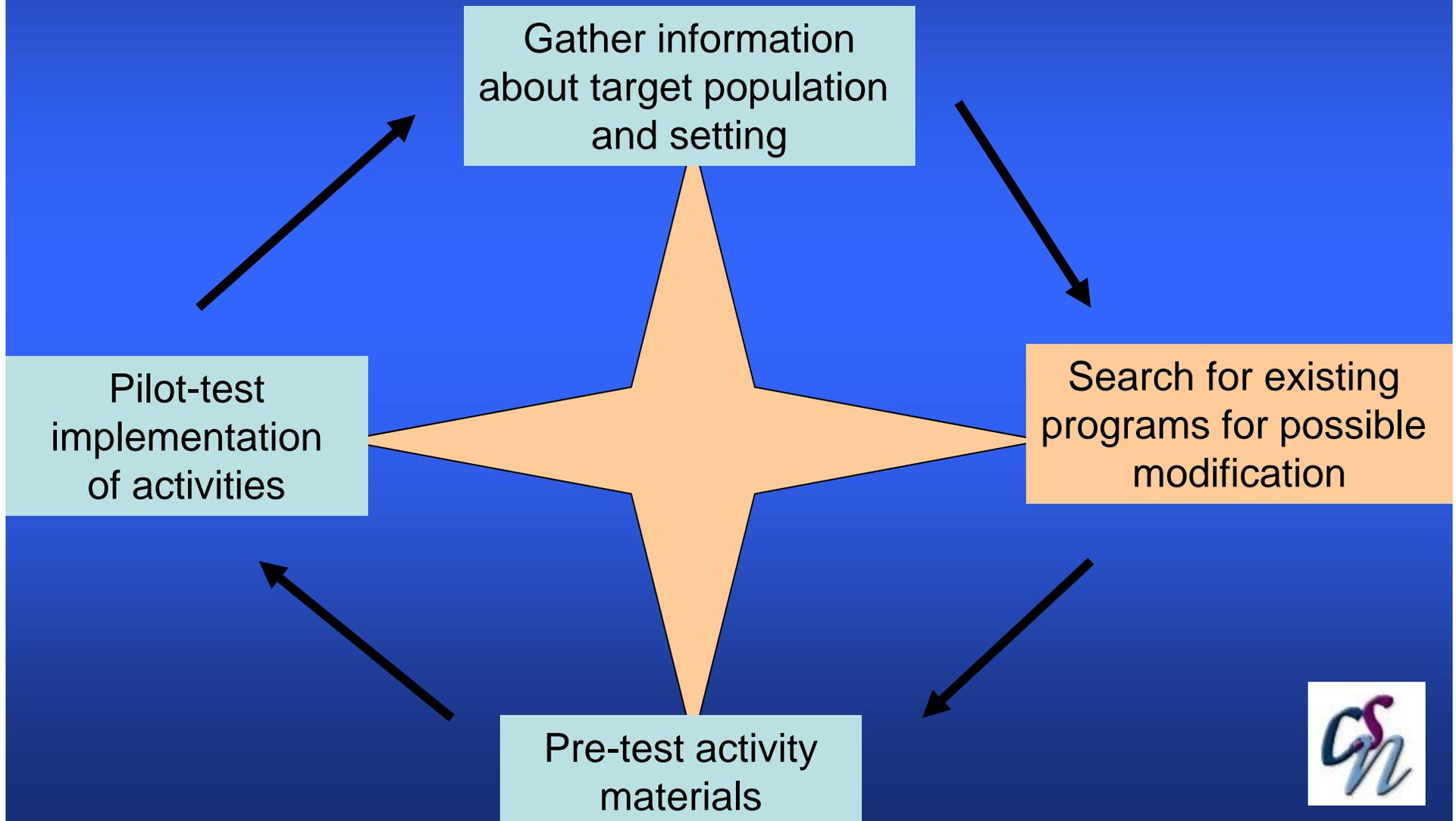
- Create booster seat display
- Receptionist distributes flyer promoting importance, booster display, and asking nurse about program

Nurse visit

- Educational brochure for parents with voucher that demonstrates usability, portability, and correct use through mostly graphics, pictures
- Coloring book and crayons for children that models “cool kids use boosters”
- Script 30 second “pitch” by nurse



Formative evaluation tasks when developing activities



Search for existing programs

Don't reinvent the wheel!



Identify whether any existing materials can be modified or your program use

Search Internet
Call colleagues
Contact professional associations
Contact Children's Safety Network



Booster seat programs

Google search

Drive Smart Colorado Springs

<http://www.drivesmartcoloradosprings.com/BoosterSeatGrant.aspx>

Buckle Up Boston! Child Passenger Safety Program

<http://archive.naccho.org/ModelPractices/Result.asp?PracticeID=129>

<http://www.bphc.org/programs/initiative.asp?i=247&p=212&b=2&d=>

Delaware: Give Your Child A Boost—Booster Seats for Booster Shots

<http://www.nhtsa.dot.gov/people/outreach/safedige/fall2000/fal00-7.html>

New York: "Gimmee a Boost!" A Multi-Faceted Community and School Intervention to Increase Booster Seat Use in Rural Communities

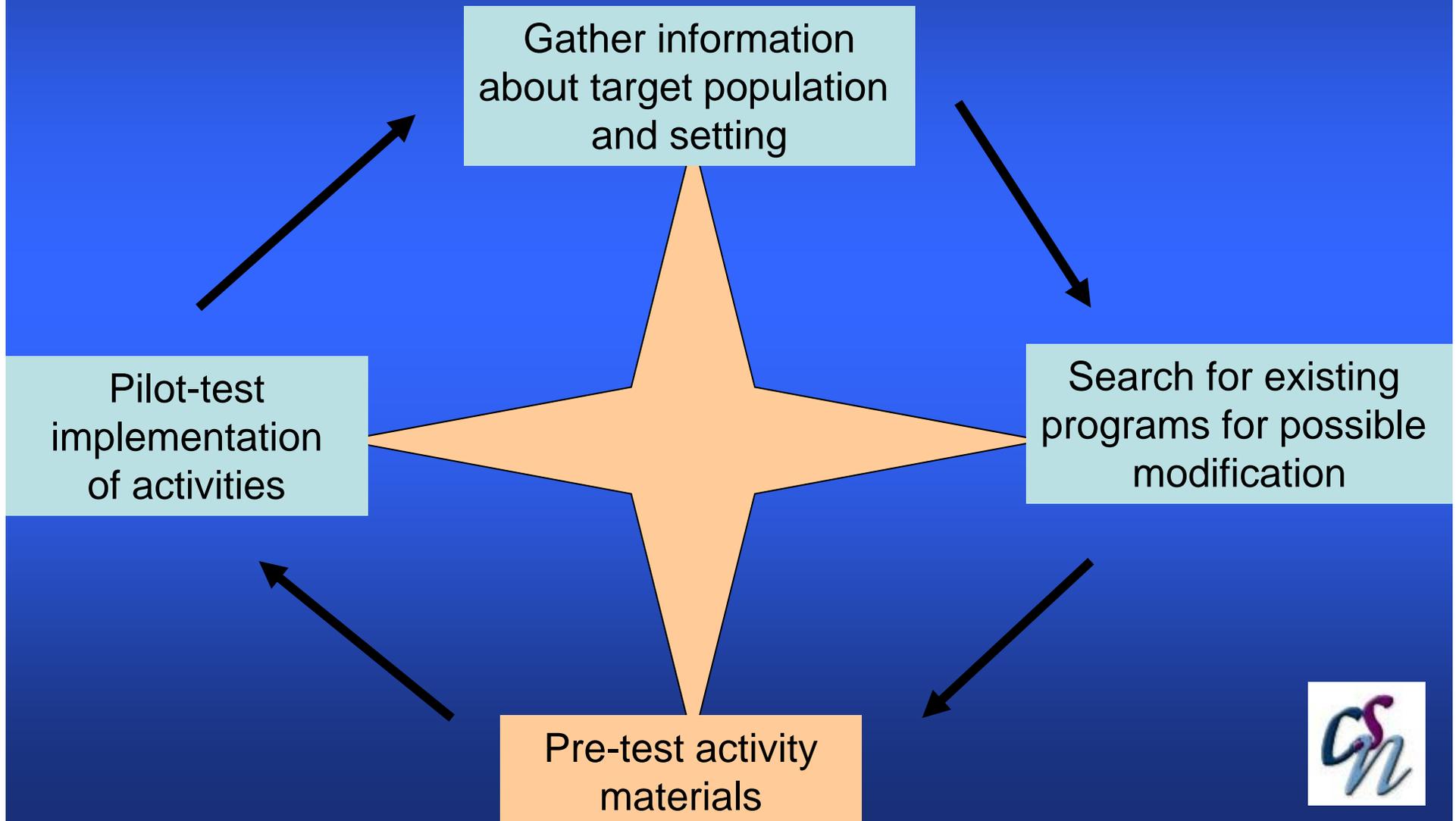
http://www.nhtsa.dot.gov/people/outreach/safedige/Volume-1-2005/OP05_Gimmee%20a%20Boost_NYS.htm

Washington: Booster Seat Program

<http://www.nhtsa.dot.gov/people/outreach/safedige/summer2000/sum00-10.html>



Formative evaluation tasks when developing activities



Pre-test activity materials

Purpose

- Assess how materials resonate with target population and others
- Revise materials before final production

Materials to pre-test

- Waiting room promotional flyer
- Voucher
- Educational handout
- Coloring book



Would Philip Morris execute a new marketing campaign without testing slogans and ads with intended users?

Pre-test activity materials

Questions and data sources

Area	Key Questions	Data source
Target population – low income families	Culturally appropriate? Language appropriate? Reading level? Appeal? Visuals? Cue to action?	Focus group and interviews
Child passenger safety & educational design experts	Content? Format/layout?	Expert panel review



Pre-test activity materials

Example findings

Waiting room promotional flyer

- Lack of guidance on how parents should ask nurse about boosters, if not mentioned

Coloring book

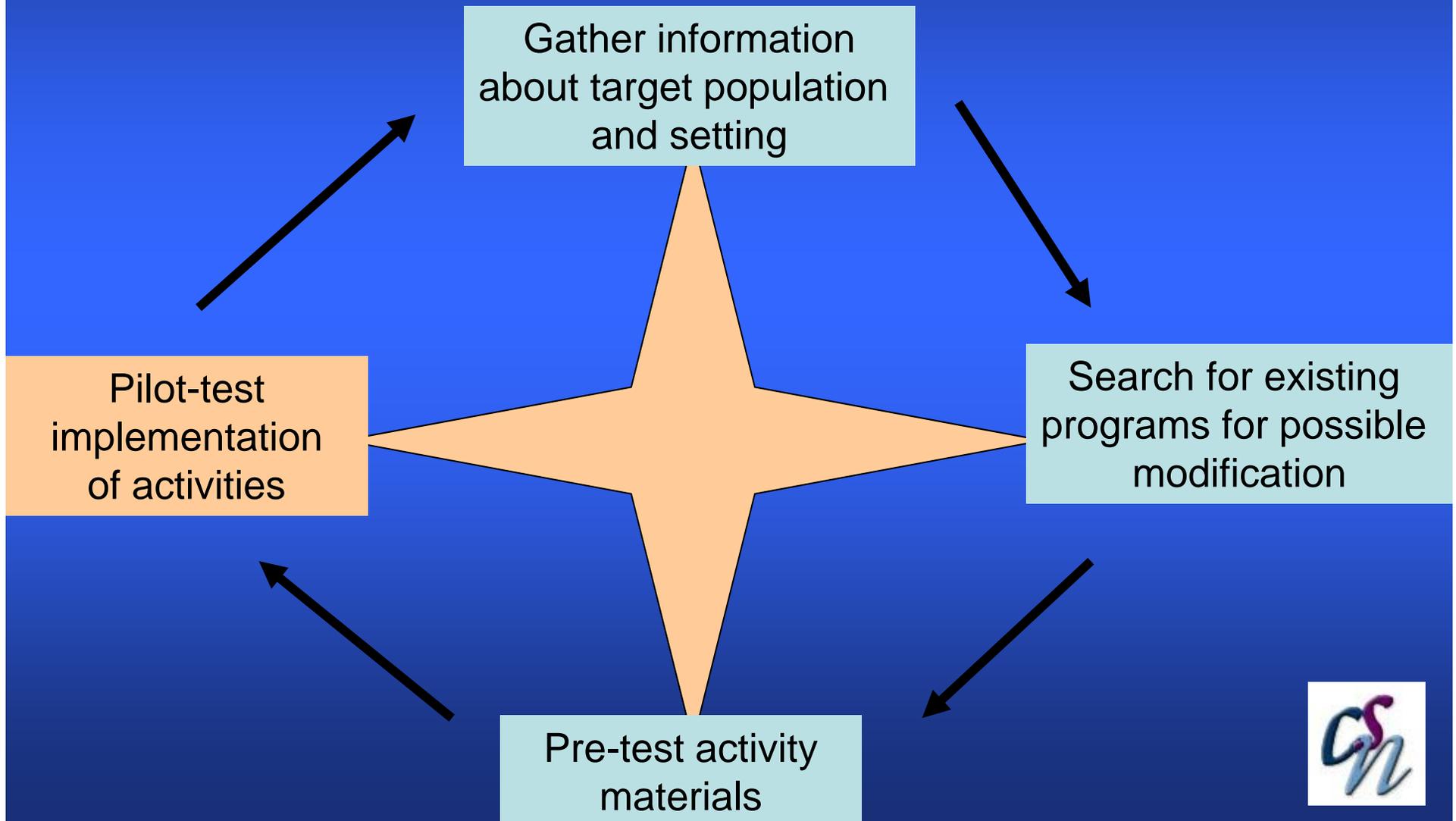
- Portrayed cool character (Barney the Purple Dinosaur) did not resonate with children 4-7. Made fun of him.
- Girls prefer princess theme, while boys Power Rangers

Educational handout

- Low appeal; not personalized, too few pictures/visuals
- Too high reading level
- Spanish version – several words in appropriate
- Not enough detail on how to redeem voucher



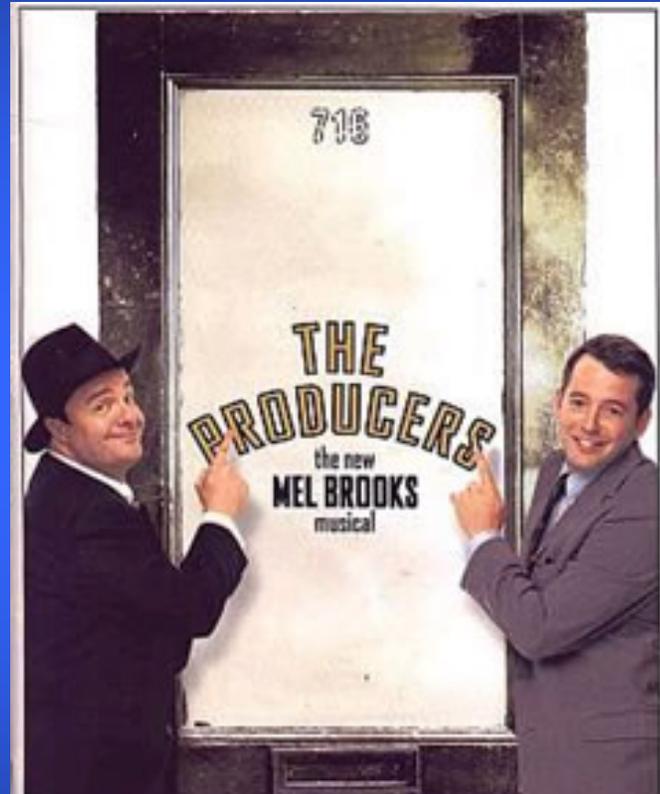
Formative evaluation tasks when developing activities



Pilot-test program

Purpose

Implement distribution and education activities on a small scale to identify problems prior to full-scale implementation



Would Nathan Lane or Matthew Broderick perform *The Producers* on stage without numerous dress rehearsals?

Pilot test program

Example methods

- Select one CHC for pilot-test
- Implement distribution & material procedures over a limited time period
- Collect data on small sample of target population (n=20) and CHC nurses
- Analyze findings



Pilot test program

Formative evaluation questions

Target population

- Did families receive promotional flyers while checking in?
- Did they view the booster seat display?
- Did they read voucher educational materials?
- Did children use coloring books?
- Did they redeem vouchers?
- Did they install seats?
- What were barriers were experienced?

Health Clinic

- Did receptionists give out promotional flyer?
- Was the booster seat display maintained?
- Did nurses give out educational materials and 30 second script?
- What were the barriers?



Pilot test program

Example findings

- Receptionists did not routinely distribute promotional flyer during check in
 - too busy
 - multiple staff
- Nurses distributed written materials, but did not routinely give 30 second pitch
- Families re-deemed few booster seats
 - Lost vouchers – unclear how to replace
 - When attempted to redeem, one retailer did not have booster seats in stock and was unfriendly



Pilot test program

Possible changes

Receptionists

- Hold lunch time workshop about program, importance of flyers, and brainstorm how to integrate flyer into check in procedure

Nurses

- Create a “pocket guide” with 30 second script
- Host lunch time workshop where nurses who use script model how to perform it for others

Families

- Establish hot line number in conjunction with Safe Kids to call for replacement vouchers or questions about program
- Hold meeting with retailer management to identify problems and change retailer if necessary



Formative evaluation: a tool for helping teams brainstorm & test program ideas

Gather information about target population and setting



Pilot-test implementation of activities



Search for existing programs for possible modification



Pre-test activity materials



Why don't we use formative evaluation?

Too little time

Too few resources

No or limited in-house expertise



How can we overcome these barriers?

- Build into timeline or budget
- Advocate for resources
- Hire staff with expertise in planning and evaluation
- Collaborate with college
 - class project
 - internship
- Partner with others
- Solicit input from national & state technical assistance groups



**“The biggest mistake is doing
nothing because you can
only do so little.”**

Anonymous



Evaluation Resources

General Evaluation “How To” Handbooks

Hatry, H; Houten, TV; Plantz, MC; and Taylor, M. (1996) *Measuring program outcomes: A practical approach*. Alexandria, VA: United Way of America.

KU Work Group on Health Promotion and Community Development. The Community ToolBox, Part J. Evaluating the Initiative. Lawrence, Kansas: University of Kansas, Group on Health Promotion and Community Development.

http://ctb.lsi.ukans.edu/tools/EN/part_1010.htm

Thompson NJ; McClintock HO. (2000) *Demonstrating Your Program’s Worth: A Primer on Evaluation for Programs to Prevent Unintentional Injury*. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control.

<http://www.cdc.gov/ncipc/pub-res/demonstr.htm>

W.K. Kellogg Foundation (1998) *The W.K. Foundation Evaluation Handbook*. Battle Creek, MI: WK Kellogg Foundation.

<http://www.wkkf.org/documents/WKKF/EvaluationHandbook/EvalHandbook.pdf>



Evaluation resources

Formative evaluation

Thompson, NJ; McClintock H) (1998) *Demonstrating Your Program's Worth: A Primer on Evaluation for Programs to Prevent Unintentional Injury*. Atlanta, GA: National Center for Injury Prevention and Control. Pg. 21-27. <http://www.cdc.gov/ncipc/pub-res/demonstr.htm>

Dehar, MA, et al., (1993) Formative and process evaluation of health promotion and disease prevention programs. *Evaluation Review*, 17:204-220.

Chen, HT (2005) *Practical Program Evaluation*. Thousand Oaks, CA: Sage Publications. Chapter Five: How Evaluators Assist Stakeholders in Developing Program Plans (pp. 93-128).



Evaluation Resources

Program Logic Models

FRIENDS Evaluation (electronic). Toolkit contains the Logic Model Builder, which was developed in partnership with the National Clearinghouse on Child Abuse and Neglect Information.

<http://www.friendsnrc.org/outcome/toolkit>

United Way of America (1996) *Measuring Program Outcomes: A Practical Approach*. Alexandria, VA: United Way of America.

W.K. Kellogg Foundation (2003) *Logic Model Development Guide*. Battle Creek, MI.

