

# Injury Risk Communication in a New Light



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**Disclaimer:** The Views expressed are those of the author and do not necessarily reflect the official views of the Uniformed Services University of the Health Sciences or the Department of Defense.

NO lot of Raining  
at all time!



Why?



You Mit <sup>63</sup> thp.



“Most public information and education (PI & E) programs do not lead to a measurable reduction in crashes or injuries.

Too often, PI & E programs have been implemented on the naïve assumption that merely urging people to adopt health-enhancing behaviors will lead them to do so. We now have substantial research and evaluation evidence to indicate that this approach will fail, although it allows program organizers to think they are dealing with the problem...Rather, we should implement only those programs that follow the research evidence.”

*Source: Williams AF, Transportation Research Board, 2007*



# The Public Health Approach to Injury Prevention

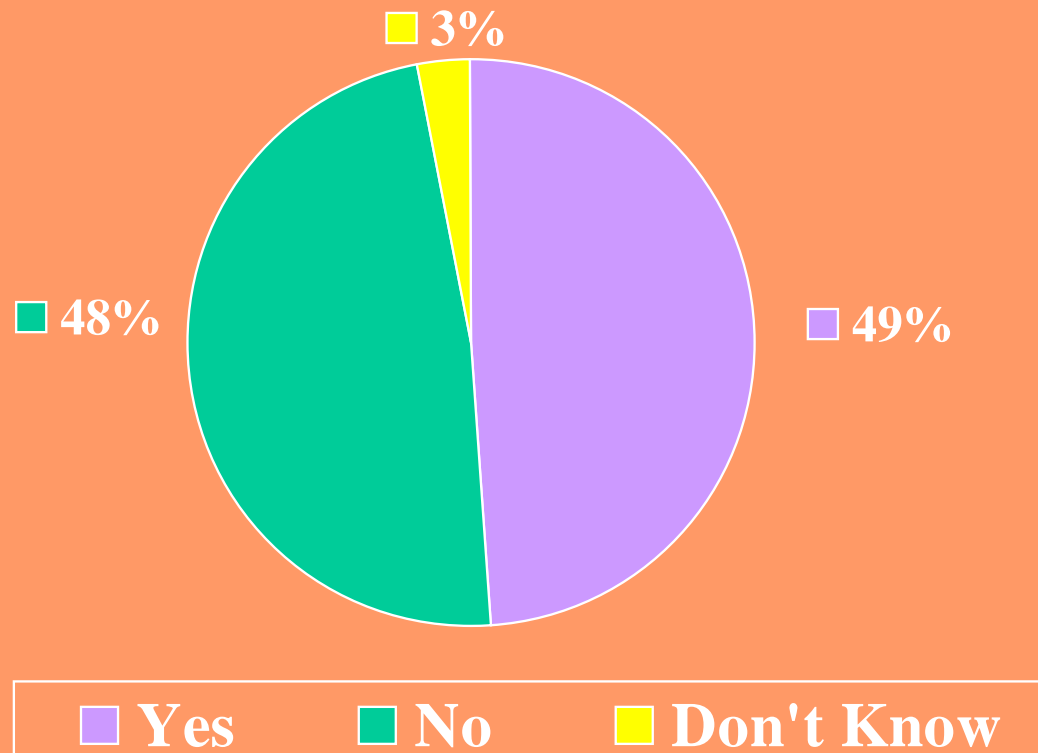
*(Centers for Disease Control and Prevention, 2001)*

- Define the problem
- Identify risk and protective factors
- Develop and test prevention strategies
- Assure widespread adoption

- Communications should be conceptualized as another phase of injury control research, instead of what happens after the scientists have done their work.



# Has increasing the legal drinking age from 18 to 21 saved any lives?



*(Girasek, Gielen & Smith, 2002)*



# Lesson 1:

We need to take responsibility for, and assign resources to, educating the public and policy makers when an effective injury prevention measure is identified.

# Fallacy of the Empty Vessel



## Lesson 2:

Before we try to change people's knowledge, beliefs or attitudes, we need to assess their existing set of cognitions.

CRASHES

aren't

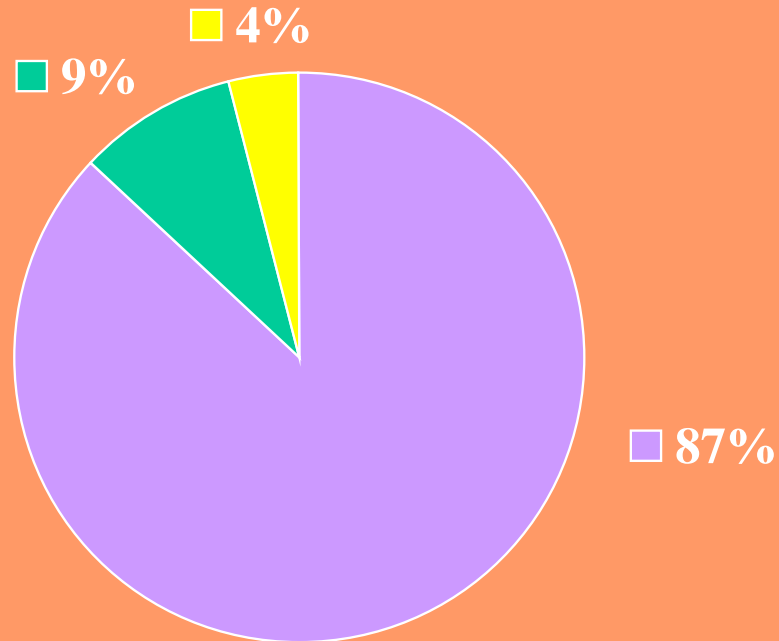
~~Accidents~~

“Messages are often dictated by advertisers’ hypotheses rather than having a focus on empirical research.”

*Source: Silver & Braun, 1999*

# “Most accidents are preventable.”

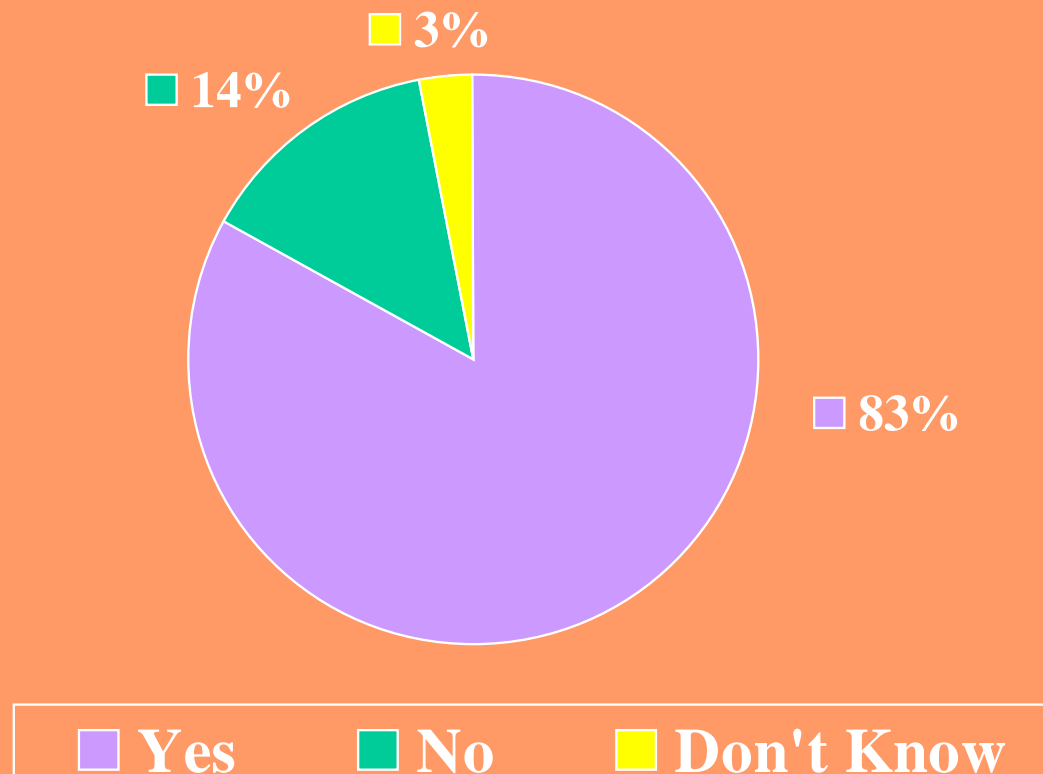
*(Eichelberger et al, 1990)*



- Yes
- Injuries Just Happen
- No response

When you hear the word “accident,” do you usually think that what happened could have been prevented? (n=943)

*(Girasek, 1999)*



## Lesson 3:

We need to pretest our messages  
in advance of final  
production/dissemination.

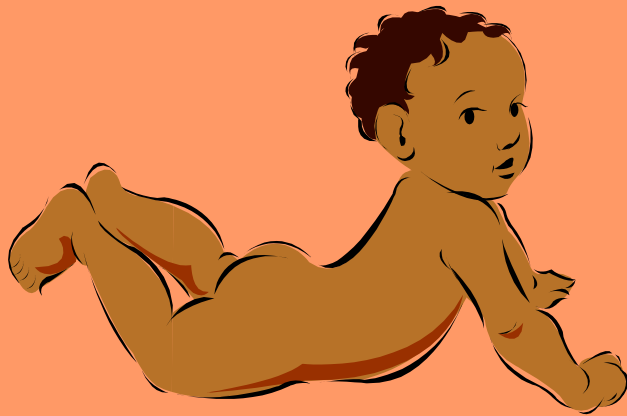


# Pretesting options

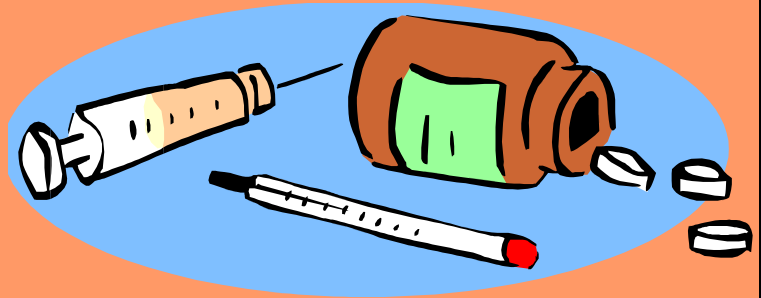
- Focus groups
- Surveys/questionnaires
- Theater testing
- Intercept interviews
- Behavioral observation

# Fatal Unintentional Poisonings in the United States

- The Perception



- The Reality



# Methods

- A sample of 10 focus groups of 4-6 women in 2-hour sessions
- The groups included “fairly equal” numbers of African American, Asian, Latino, and White women
- Participants were drawn from states representative of different geographic areas of the country (i.e., Wisconsin, Texas, and California)
- All participants had experienced intimate partner abuse/violence.
- Each focus group was shown 4 TV ads and 8 print ads from 5 intimate-partner violence campaigns
- Material included drama, lecture and testimonial formats

# Results

- 97% of the women who participated gave least one response that reflected at least one negative emotional effect as a result of the print ads, and 75% had similar reactions to the TV ads.
- There were no significant differences in responses based on geographic region, ethnicity, age, relationship stage, or length of relationship.

The authors reported that negative emotional responses fell into four specific areas:

## shame

- *“Many [study participants] stated that it was those very images that heightened their level of shame and actually served to make them feel even more determined not to reveal the truth surrounding their circumstances to anyone. Some stated that...they felt a heightened sense of denial because they would not want to be connected to these images.”*
- *[study participant reacting to the ads:] “They look victimized. Down-trodden and pathetic. I wouldn’t want to say that’s me even if it was—which it wasn’t. These ads are disgusting and shameful and if you think there’s anyone that is going to feel empowered or better about herself as a result of these, you’re nuts.”*

## Fear

- *“I mean my son sat there and screamed just like that. And I was begging and pleading while their dad was getting louder and louder just like that. I don't like looking at that and hearing it because it brings back that feeling of absolute terror. I don't need to relive the fear over and over again. I wouldn't want to watch that.”*

## anger

- *“I think how dare you represent me in this way....the whole concept is insulting and stereotypical.”*

## hopelessness

- *“For me, this makes it seem like I'm stuck....It really presents a hopeless picture...These ads are just too discouraging...every time I would watch these kind of ads, ...I just wanted to give up and not think about it. Those made me feel like there was nothing I could do....They don't show me how my life could be better.”*

## Lesson 4:

For risk communication to be effective, the target audience must find the message to be personally relevant.

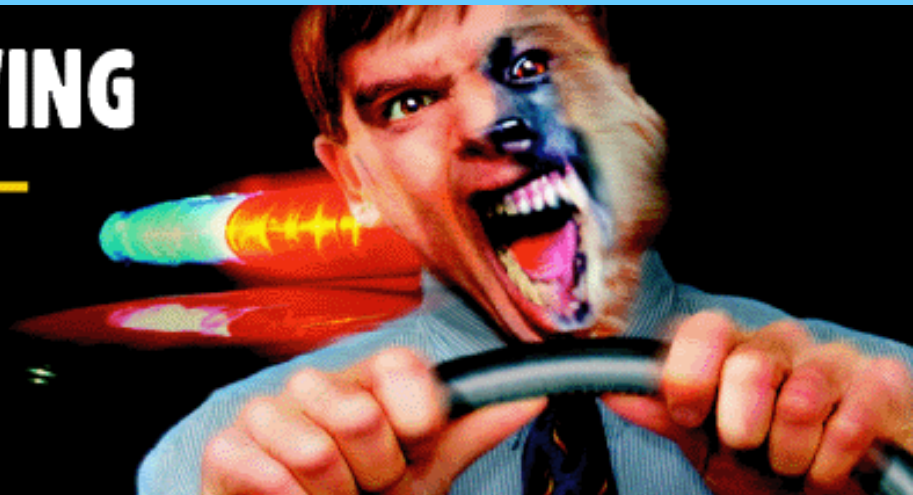
[Original slide showed a safety poster that depicts a man and a dog on a boat. The dog is wearing a lifejacket but the man is not. The text reads “Pick out the dumb animal.”]



**AGGRESSIVE DRIVING**  
**Is Contagious. Catch It—**  
**You're CAUGHT.**

**SMOOTH**  
**OPERATOR**  
*Why Don't we Agree to Drive?*

DISTRICT OF COLUMBIA • MARYLAND • VIRGINIA



# 2004 Evaluation Conclusion

“Most drivers do not seem themselves as driving aggressively during the last 30 days in spite of observations that nearly all drivers report they violated at least one or more traffic violations that define aggressive driving.”

I'm a son. I'm a mother. I'm a sports-fan. I'm a lawyer. I'm a teacher. I'm an artist.  
I'm an athlete. I'm a student. I'm a father. I'm a manager. I'm a salesperson.  
I'm a financial consultant. I'm a writer. I'm a taxi-driver. I'm a politician.  
I'm a nurse. I'm a musician. I'm a carpenter. I'm a computer programmer.  
I'm a care-giver. I'm a bartender. I'm a doctor. I'm a banker. I'm a coach. I'm a  
government worker. I'm a daughter. I'm a friend.

**I'm an  
Aggressive Driver.**

**I'm going  
to stop**



# 2006 Evaluation Results

- Reports for 10 types of aggressive driving behavior showed an improvement
- Reported improvements were significant for “driving in a way that someone might call aggressive,” “driving at least 15 miles over the [55 mph] speed limit,” “cutting in front of another car,” and “running a stop sign.”

## Lesson 5:

Tailoring can make injury prevention campaigns more effective.

# Tailoring

“a process of creating  
individualized communication”

*(McDonald et al, 2005)*





Made just for  
**Don1**

## Welcome to **Safety** in Seconds

This Safety in Seconds Report was created just for you and Don1. It is based on what you told us at the kiosk. Every parent answers differently so each report is special – just like Don1! The report talks about three ways to help keep Don1 safe. You will learn more about car safety seats, poisons, and smoke alarms.

You already know that most injuries to children can be prevented. Luckily, there are many things you can do to keep Don1 from getting hurt. After all, he's counting on you to keep him safe. That's why this Safety in Seconds Report is important. It only takes a few seconds to learn about safety for Don1!

## spotlight on **Safety**

Strong spiritual beliefs help families make decisions about how to protect and cherish their children. Using safety supplies is the best way to protect Don1 and safety supplies will keep him safe even when you can't. It only takes a second for Don1 to get hurt, even if an adult is with him. Children can move fast, and it can be hard to get to them before they get hurt. Injuries can happen quickly and having an adult in the room isn't always enough to prevent injuries.

There are many things you can do to protect Don1. Follow this report to make Don1's world safer.

## HELP is around the corner!

Need help with a child safety issue? The Children's Safety Center (CSC) is just the place for you! The CSC is a special place in the hospital just around the corner. Parents who want to know more about child safety can get help there.

The CSC has safety experts who can answer your questions. You can also call and get help over the phone. Safety products are for sale and cost less than in stores. The CSC has many free services too, like car seat checks and smoke alarms. The CSC is open Monday through Friday. Call the CSC at (410) 614-5587.



**The Children's Safety Center  
at Johns Hopkins Hospital**

The information provided is based on best practice data available at this time. It is not meant to replace information provided by your doctor or manufacturer's instructions.

## Check what you know

**Question:** *What's the leading cause of death from injuries for young children in Baltimore City?*

**Answer:** More young children under the age of 6 in Baltimore City die from house fires than from any other injury.

**Question:** *What's the best way to protect children from injury caused by a house fire?*

**Answer:** The best way to protect children from getting injured during a house fire is to have a working smoke alarm on every level of your home. Smoke alarms beep loudly if there's a fire in your home so your family will have time to get out safely. If this happens, your family should leave your home right away. Don't try to put out the fire yourself! Call 911 from a neighbor's home.

Vivian, mother of an 18-month-old: "I saw a news story the other night that said almost all of the families surveyed reported having a working smoke alarm in their home. But, when checked by experts, half of the alarms were not working at all. It made me curious about my smoke alarms. So I tested all three of them. The batteries didn't work in the one outside my bedroom, so I took care of it right away!"

## SPOTLIGHT ON **Smoke Alarms**

Congratulations, you have smoke alarms on every level and your batteries are fresh! You're doing everything you can do to keep Don1 and the rest of your family safe if there is a fire in your home. Here are some tips to keep in mind about fire safety.

- Check your batteries monthly.
- Make sure your family has and practices a fire escape plan.
- Change your batteries when you change your clocks in the Spring and Fall.

By doing these things, you'll help Don1 stay as safe as possible if there is ever a fire in your home. Keep up the good work!

## Take a second **LOOK**

You're using your smoke alarm perfectly! You have a smoke alarm on every level of your home and you remember to change the battery in all of them twice a year. Using a smoke alarm is not hard to do, but you should feel really good about your actions. Your family and home are safer because of them. Here are a few tips for continuing to protect Don1 from a fire:

- Test each smoke alarm battery once a month to make sure it still works. When you press the button on the smoke alarm, it should beep. If it doesn't beep, replace the battery with a new one.
- Never take the battery out of a smoke alarm if it goes off while you are cooking. Instead, fan smoke away from the smoke alarm until it shuts off, or open a window until the smoke clears.

These simple steps will help keep Don1 and the rest of your family safe inside your home, and may even save their lives.



**Source: Gielen, A. Johns Hopkins Center for  
Injury Research & Policy, Baltimore, MD.**

# Characteristics Associated with More Effective Tailoring of Print Materials

- Intervening on preventive or screening behaviors
- Generated pamphlets, newsletters or magazine
- Utilized more than one intervention contact
- Had shorter periods of follow-up
- Recruited subjects from households not clinics or health centers
- Tailored on  $\geq 4$  theoretical constructs, behavior & demographics
- Used behavioral theories that included attitudes, self-efficacy, stages/processes of change, and (perhaps) social influence

*Source: Noar, Benac & Harris. Psychology Bulletin 133:673-693, 2007*



## Lesson 6:

Fear appeals also appear to increase effectiveness, when they are combined with high efficacy messages.

# Recommendations for Practitioners

*(Adapted from Witte & Allen, 2000)*

- Emphasize the severity and likelihood of the threat.
- Efficacy messages must make target audiences believe they are able to perform recommended response, and understand how it will decrease or eliminate the likelihood of health threat.
- In evaluations, assess danger control responses (e.g., attitude and behavior changes) and fear control responses (e.g. denial, reactance).

## Lesson 7:

We need to measure both the intended and unintended consequences of our communications efforts.

# Increasing preventability beliefs is a good thing, right?

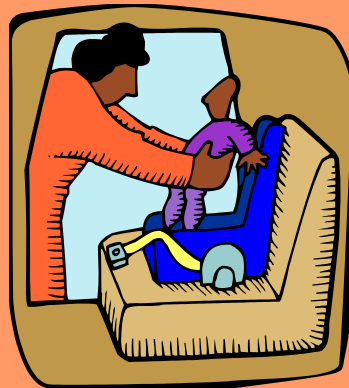
The more preventable people think a hazard is, the more likely they are to harbor an optimistic bias with regard to personal risk. (*Weinstein, 1987*)

- Hazards that are controllable are perceived as less serious by members of the public. As such, they are perceived as being less risky and less deserving of strict regulation.

*(National Research Council, 1989; Slovic, 1987)*

People are less likely to pay for government programs that prevent deaths from which victims could have protected themselves.

*(Mendeloff & Kaplan, 1989; Beggs, 1984).*



## Lesson 8:

Risk communication targeted to individuals at risk is not always the most effective or appropriate avenue of prevention.

[Original presentation showed a mother holding a baby in a home. She is in the process of opening the safety gate that is installed at the bottom of a flight of stairs.]



[Original presentation showed a chaotic, urban street scene here. There is a pedestrian bridge available that would presumably make it safer to cross the street, but many people are not using it.]

# What predicts the use of pedestrian bridges?

- Only 6% of pedestrians used bridge when there were traffic signals under the bridge.
- 63% of pedestrians used the bridge with escalators.
- Pedestrians were more likely to use the bridge if they thought that easy to use and saved time.
- Secondly, pedestrians were more likely to use the bridge if they thought that it was safe.
- Frequent visitors to the central business district were less likely to use the bridge.

## Lesson 9:

Don't ignore the  
communications element of  
regulatory and technical  
interventions.



# Evaluation Results

<b>Intervention Intensity</b>	<b>Cents invested, per resident, on paid advertising</b>	<b>% increase in observed seatbelt use rates</b>
<b>Full Implementation States</b> ( <i>Increased enforcement &amp; Paid advertising</i> )	14	8.6
<b>Other Implementation States</b> ( <i>Increased enforcement &amp; Less paid advertising</i> )	3.5	2.7
<b>Comparison States</b> ( <i>Increased enforcement &amp; No paid advertising</i> )	0	.5

*Source: Solomon, Compton & Preusser, Journal of Safety Research 35:197-201, 2004)*

# Proper Use of Head Restraints

*(Peters, 1999; Peters & Peters, 1999)*

- < 1/5 would have adequate restraint
- 1/3 would have no restraint
- Drivers believed “head rest” was a comfort feature.

[Original presentation showed a seated figure here, with his/her headrest adjusted correctly, and incorrectly. The latter allows for too much neck flexion.]

# Steps to Remember

- Decide what role communications should play in your campaign, and which target audience will yield the largest impact
- Conduct a needs assessment
- Develop messages that are perceived as relevant by the target audience
- Combine fear appeals with attention to self-efficacy and response efficacy
- Pretest your materials and messaging
- Measure both the intended and (possible) unintended effects of your campaign

# Communications Campaign Recommendations

- Allow for at least 3 months of planning.
- Continuous campaigns, that incorporate repetition, are more likely to be effective.
- Target a particular audience, and use the channels that are mostly likely to reach them.
- Identify and address perceived barriers.
- Identify a solution as well as a problem, include and any benefit of carrying out your recommendation.

*Adapted from Swinehart JW. Handbook of Health Behavior Research IV, 1997.*



- Keep the message simple, yet technically accurate.
- Avoid exaggeration or moralizing.
- Consider story-based messaging.
- Pretest draft materials.
- Evaluate ultimate and intermediate objectives.

*Adapted from Swinehart JW. Handbook of Health Behavior Research IV, 1997.*

# Characteristics of unsuccessful traffic safety programs

- Passive messaging communicated by signs, pamphlets, brochures and buttons.
- Slogans that give simple exhortations for people to behavior in certain ways to avoid undesirable outcomes.
- Short-term programs that have low-intensity messages.
- Use of extreme fear techniques...without communication of concrete steps to be taken to avoid danger.

*Adapted from Williams AF, Transportation Research Board, 2007*

# Characteristics of successful traffic safety programs

- Involve careful pretesting of messages, delineation of the target group, and making sure that messages reach the target group.
- Longer term programs that deliver messages in sufficient intensity over time.
- Communicates health knowledge not previously known.
- Combine public information component in conjunction with other ongoing activities, such as law enforcement.
- Education program should be based on behavior change models, using interactive methods.
- Fear messages should be combined with concrete steps people can take to avoid the danger.

*Adapted from Williams AF, Transportation Research Board, 2007*