

# **Creating and implementing programs that really work**

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# Objectives

- Describe the need for injury prevention programs to address both behaviors and environments
- Give examples of successful and comprehensive injury prevention programs that address both
- Identify underlying theories and principles that are useful for planning comprehensive programs
- Gain skills in applying health behavior theory and principles to injury prevention program planning

# How would you label these two columns?

- Airbags
- Shatter resistant windshields
- Child resistant medicine caps

- Seat belts
- Defensive driving
- Supervision of children

# Why focus on passive protection?

- Protects whole populations
- Avoids having to rely on human behavior
- Avoids “blaming the victim”

# Why focus on behavior change ?

- Engineering solutions have limits, may not be readily available or acceptable
- Passive protection often requires behavior change
- Legislative strategies often require behavior change



*There seems to be a curious and unproductive debate in certain public health circles. Some advocate bioengineering approaches, others argue for education approaches. The debate is pernicious because it rests on a false premise -- that we must choose between these strategies, as though they are mutually exclusive. Consider an analogy..... should we choose to fluoridate water .....or should we teach families to brush and floss their teeth. Obviously the answer is both.*

# To promote safer behaviors .....

- Recognize that behavior occurs within contexts or environments that make it easier or more difficult to act safely
- Comprehensive programs address individuals AND their environments, making the safer behaviors the easier behaviors



## What you need to know

- where you're going
- whose behavior has to change to get there



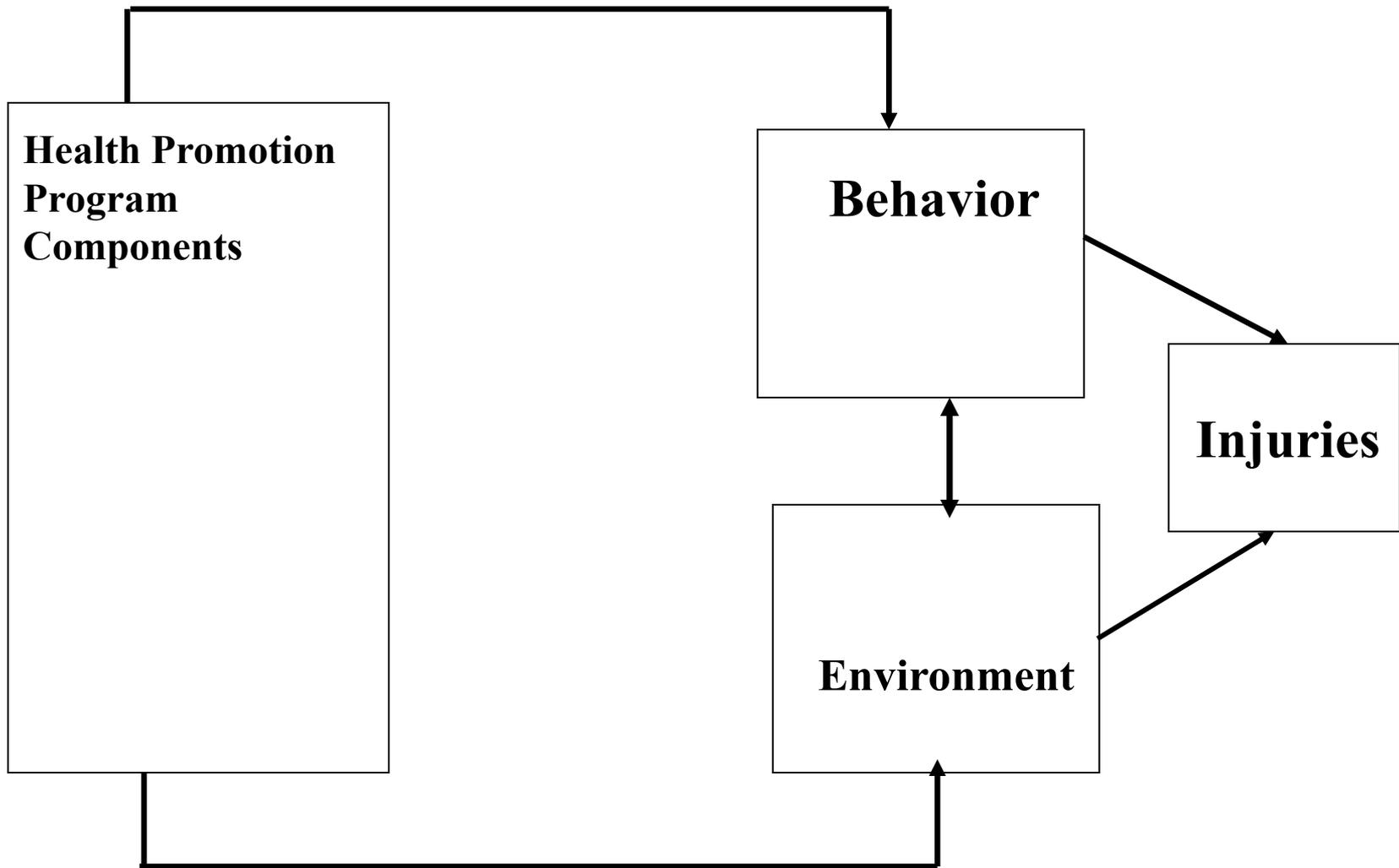
*If you don't know where you are going, any road will get you there – Lewis Carroll*

*If you don't know where you are going, you may end up somewhere else – Yogi Bera*



# Examples of common injury problems that require behavior change

- Why don't more people have working smoke alarms?
- How can we get people to stop talking on their cell phones while they're driving?

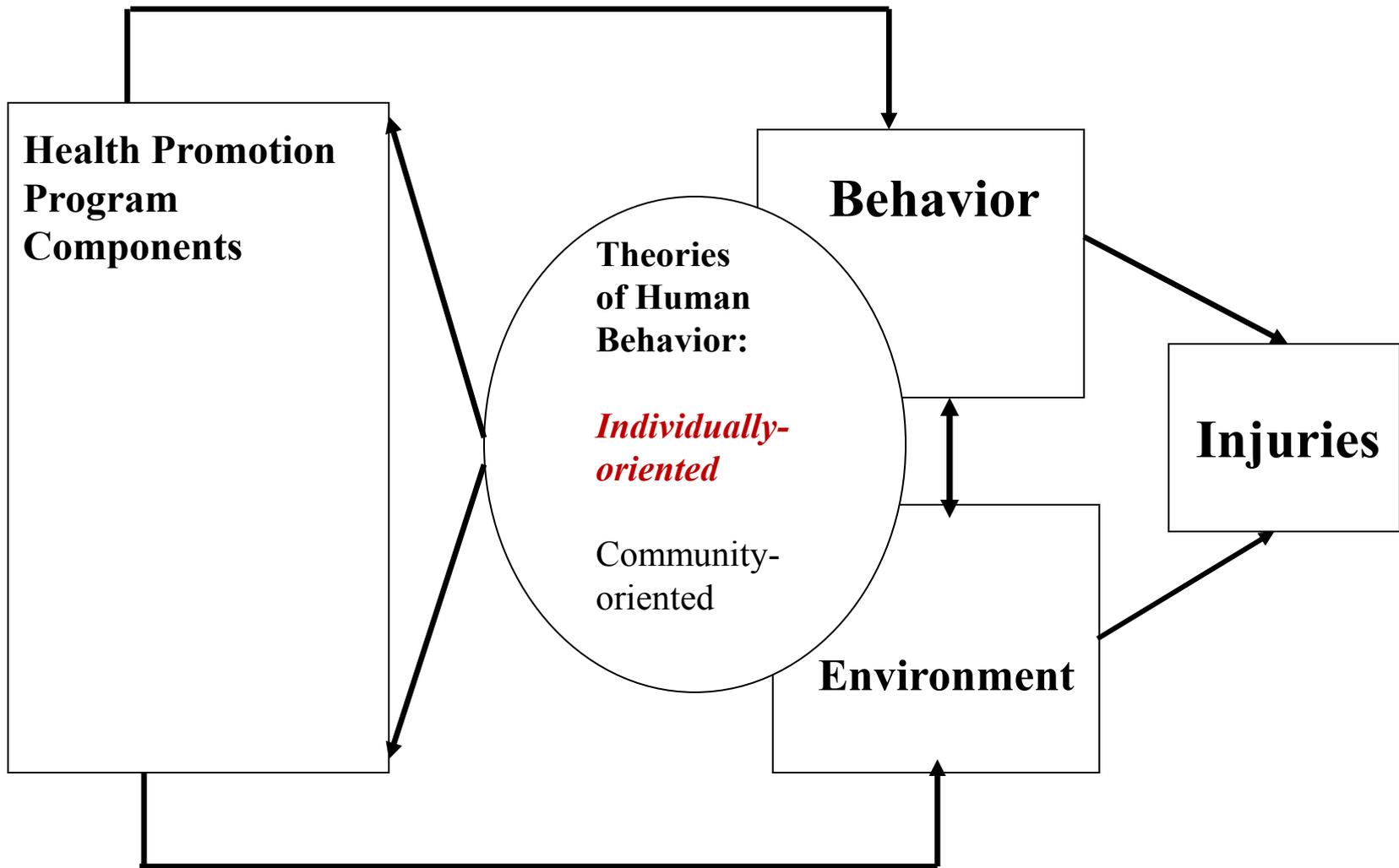


**Figure 2. Health Promotion Framework for Injury Prevention**  
Adapted from Green and Kreuter, 1999



## What else you need to know

- what are the barriers and facilitators to behavior change for your specific audience
- what strategies can address the most important and changeable barriers and facilitators



**Figure 2. Health Promotion Framework for Injury Prevention**  
Adapted from Green and Kreuter, 1999

# Why don't more people have working smoke alarms?

- National survey of 943 U.S. adults found
  - On average, respondents thought 62% of all fire/burn fatalities were preventable (Girasek, 2001)
  - On average, respondents rated smoke alarms 90% effective for reducing these deaths (Girasek and Gielen, 2003)

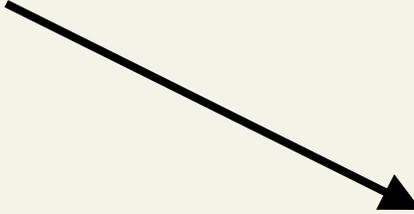
# Does the Health Belief Model help us understand smoke alarm behavior?

- Susceptibility: 34% thought it is likely there would be a fire in their neighborhood but only 5% thought there would be one in their own home
- Severity: 92% thought fires were a serious problem and 62% thought someone could die if there were a fire in their home
- Benefits: 98% thought smoke alarms save lives and they were the best way to keep their family safe
- Barriers: 42% thought it was hard to remember to change the batteries
- Self Efficacy: > 95% were confident that they could keep their smoke alarms working and keep the batteries in them

*What are the implications for intervention and messaging?*

# Top Five Behavioral Theories 1991 NIH Theorists' Workshop

- Health Belief Model
- Social Cognitive Theory
- Theory of Reasoned Action
- Theory of Self-regulation/Self-control
- Theory of Subjective Culture and Interpersonal Relations



**8 common factors**

# For an individual to perform a behavior

1. **Strong positive intention**
2. **No overwhelming environmental barriers**
3. **Necessary skills**
4. **Believe pros outweigh cons**
5. **Perceive normative pressure**
6. **Consistent with self-image and values**
7. **Emotional reaction more + than –**
8. **Believe self capable (self efficacy)**

# Activity 1

Think of an injury-related behavior you have (or someone you know has) tried to adopt/change.....

Which of these 8 factors do you think apply to the decision to adopt/change the behavior?

How do these factors apply?



# So, now that you know the “theoretical factors”, what next?

- Three principles for interventions targeting individual behavior change



**WARNING:**

**Not Intended for  
Children under 3 years**



**WARNING:**

**CHOKING HAZARD - Small parts  
Not for children under 3 years.**

# Literacy: the ability to read, write and understand written material

- 21% adults (>40 million) read at or below 5<sup>th</sup> grade
- Additional 25% read at or below 8<sup>th</sup> grade
- Average reading level of car seat instructions is at the 10<sup>th</sup> grade
- 80% parent education materials in pediatric practices were at 10<sup>th</sup> grade reading level

# No Time for Safety?



Think First.

# Cultural competence

- Culture: pattern of values, beliefs, customs, symbols shared by a group
- Cultural sensitivity: incorporate cultural factors into the design, delivery, and evaluation of programs and materials
- Challenge for prevention campaigns that may contribute to the production of stigma for people who already possess the attributes targeted for prevention

# Stand up and remain standing if you ....

- wore your seat belt the last time you were in a car
- changed your smoke alarm batteries within 6 months
- have a carbon monoxide alarm in your home
- never j-walk
- never speed when driving

***So, what's the principle here?***



# Individually Focused Program Example

- Preventing Traumatic Brain Injury



# Think First Preventing Traumatic Brain Injury

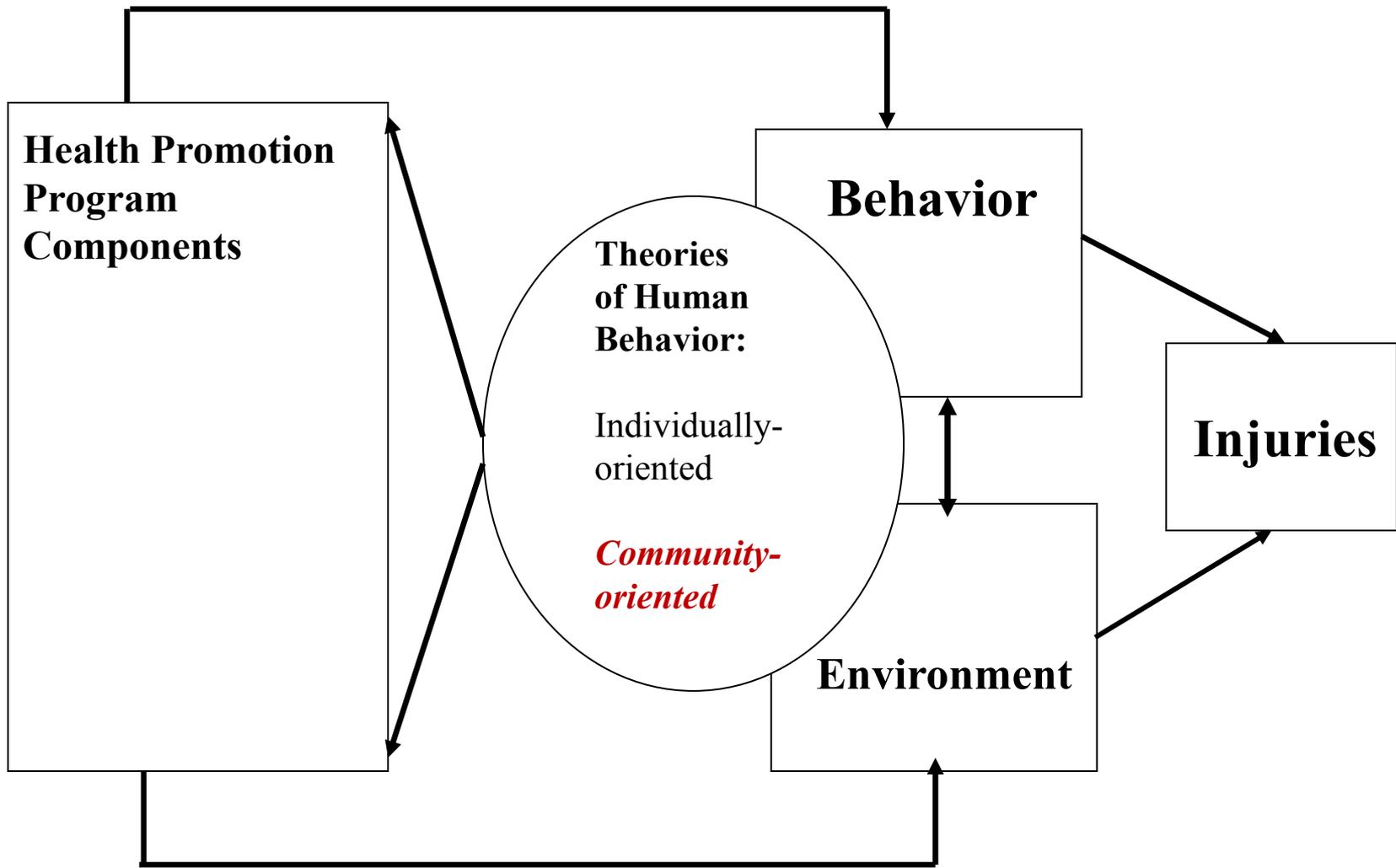
- 1-hour school assembly
- Middle and high school students
- Film, lecture, survivor, Q & A
- Safety behaviors: seat belts, motorcycle helmets, bike helmets, avoiding alcohol and drugs while driving and playing sports, and checking for water depth when swimming or diving.

# Evaluation

- 3 middle schools, 3 high schools
- Questionnaires administered before, 2 weeks and 3 months after assembly
- Middle school students' knowledge increased
- No effect on attitudes or consistent effect on behaviors

## Activity 2

- Review the Think First example of an individually focused program.....
- Given what you've just heard about individually focused behavior change theories and principles, why do you think this program did not change teens' behavior?
- How could you use the theories and principles to improve the program?



**Figure 2. Health Promotion Framework for Injury Prevention**  
 Adapted from Green and Kreuter, 1999

# How can we get people to stop talking on their cell phones while they're driving?

- What does theory tell us about using law to change safety behaviors?
  - Deterrence: Certain, swift, severe punishment
  - Social norms: Injunctive and descriptive

## What about public opinion?

- *"Talking on your phone while you're driving? What do you do if you get lost? You have to be responsible for yourself, and I'm tired of the government trying to tell me how to act [so as] not to pay a fine. I don't think there will be many occasions where I defy the law, but it's possible that I will. Using a hands-free device is not an option because it hurts my ear."*
- *"You should leave some of the liberties and freedoms alone when it comes to passing legislation. I'm not a lawbreaker, so I would follow it."*
- *"You can't legislate everything people do behind the wheel. Protect our freedoms. Stop the nanny state."* Del. Michael D. Smigiel Sr.

<http://www.baltimoresun.com/news/maryland/bal-md.cellphone10apr10,0,3686494,full.story>

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- AAA MidAtlantic Op Ed: *“The 2010 Maryland General Assembly Session was an incredible disappointment to many of us in the traffic safety community. While there were significant opportunities for legislators to make our roads safer, these were mainly wasted opportunities.”*
  - Comment: *“What exactly is the traffic safety community?”*

<http://www.baltimoresun.com/news/opinion/readersrespond/bs-ed-0423-aaageneralassembly-20100423,0,2767211.story>

# What principles from community mobilizing theories might help us address these barriers?

- **Participation:** Behavior change will be greatest when those whose behavior or circumstances are to be changed are directly involved in intervention planning and decision making
- **Relevance:** “start where the people are” and engage community members as equals
- **Empowerment:** community ownership and participatory, problem-solving processes



# Two Community Focused Examples...

- Injury Free Coalition for Kids
- Alcohol and Trauma Program



# Harlem Hospital Injury Prevention Program

- 1984 surveillance system established and demonstrated child and adolescent injury problems
- 1988 coalition formed to develop education programs, safe play areas, and supervised activities
- Window guards legislation; playground improvements; Safety City; bicycle safety and free helmets; art, dance, gardening programs; conflict training

# Harlem Hospital Injury Prevention Program

From 1983-1995, hospital admissions.....



55% total injury

46% pedestrian injury

50% playground injury

46% violent injury

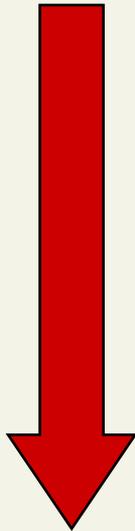
# Alcohol and Trauma Program

- Multi-faceted, community program to reduce alcohol related motor vehicle crashes and assault injuries
- Implemented in 3 matched communities in California and South Carolina
- Conducted from 1992 - 1996

# Alcohol and Trauma Program Interventions

- **Community mobilization** -- coalitions, task forces, media attention
- **Risk of drinking and driving** -- police enforcement
- **Access to alcohol** -- special event restrictions, licensing and location regulations
- **Responsible beverage service** -- on-site training and police stings
- **Underage drinking** -- off-site training and police enforcement

# Alcohol and Trauma Program Evaluation



- 6% Quantity of alcohol consumed
- 51% Driving over the legal limit
- 10% Nighttime injury crashes
- 6% Alcohol related crashes
- 43% Alcohol related assault injuries seen in ED's



# Activity 3

- What are some common themes in the two community level examples that you think contributed to their success?
- How could you use these strategies and approaches to address an injury problem in your own work?

# Goals for Behavior Change in Injury Prevention

- Public acts safely and uses safety devices in their daily lives
- Public supports and advocates for effective behavioral, engineering, and legislative injury control measures
- Decision makers support effective behavioral, engineering, and legislative injury control measures