

Setting the Stage for Injury and Violence Prevention in



Andrea Gielen & Carolyn Cumpsty Fowler

“One of the most impressive achievements over the past two decades has been a ‘political’ one —through communication, advocacy, and constituency building, a national ‘community of interest’ in promoting safety and preventing injury has emerged.”

Reducing the Burden of Injury: Advancing Prevention and Treatment Richard J. Bonnie, Carolyn E. Fulco, Catharyn T. Liverman, Editors; Committee on Injury Prevention and Control, Institute of Medicine, 1999

A multi-faceted community!

Injury Prevention		Injury Treatment	
Pre-event	Event	Acute Care	Rehabilitation
Preventing injury causing events	Preventing injury or minimizing severity of injury	Minimizing severity of outcome	Restoring optimum functioning

Reducing the Burden of Injury: Advancing Prevention and Treatment Richard J. Bonnie, Carolyn E. Fulco, Catharyn T. Liverman, Editors; Committee on Injury Prevention and Control, Institute of Medicine, 1999

What we will cover

Burden of Injury and Successes in Prevention

Problem Definition and Strategic Thinking

PRECEDE-PROCEED Planning Model

Phased Environmental Influences Matrix

APPLICATION SESSIONS

Burden and Successes in Injury Prevention



The extent and severity of injury...

- are largely determined by the amount of energy that is concentrated outside the band of human tolerance, *but*
- both exposure to energy and the consequences of exposure are influenced by a variety of factors – *many of which are mutable !*

Why are we interested in measuring the burden of injury ?

- Communicating the magnitude of the problem
- Prioritizing our efforts at prevention and treatment
- Projecting and evaluating the impact of alternative programs and policies



5 Million Deaths



**More than malaria,
TB, and HIV
combined**

Change in the Rank Order of Global Disease Burden* (10 leading causes)

1990

- 1 Lower respiratory infections
- 2 Diarrhoeal diseases
- 3 Conditions - perinatal period
- 4 Unipolar major depression
- 5 Ischemic heart disease
- 6 Cerebrovascular disease
- 7 Tuberculosis
- 8 Measles
- 9 Road traffic accidents
- 10 Congenital anomalies

2020

- 1 Ischemic heart disease
- 2 Unipolar major depression
- 3 Road traffic accidents
- 4 Cerebrovascular disease
- 5 COPD
- 6 Lower respiratory infections
- 7 Tuberculosis
- 8 War
- 9 Diarrhea disease
- 10 HIV

* Disease burden measured in Disability Adjusted Life Years (DALYs)

10 Leading Causes of Death by Age Group, United States – 2008

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Congenital Anomalies 5,638	Unintentional Injury 1,469	Unintentional Injury 835	Unintentional Injury 1,024	Unintentional Injury 14,089	Unintentional Injury 14,588	Unintentional Injury 16,065	Malignant Neoplasms 50,403	Malignant Neoplasms 104,091	Heart Disease 495,730	Heart Disease 616,828
2	Short Gestation 4,754	Congenital Anomalies 521	Malignant Neoplasms 457	Malignant Neoplasms 433	Homicide 5,275	Suicide 5,300	Malignant Neoplasms 12,699	Heart Disease 37,892	Heart Disease 66,711	Malignant Neoplasms 391,729	Malignant Neoplasms 565,469
3	SIDS 2,353	Homicide 421	Congenital Anomalies 170	Suicide 215	Suicide 4,238	Homicide 4,610	Heart Disease 11,336	Unintentional Injury 20,354	Chronic Low. Respiratory Disease 14,042	Chronic Low. Respiratory Disease 121,223	Chronic Low. Respiratory Disease 141,090
4	Maternal Pregnancy Comp. 1,765	Malignant Neoplasms 394	Homicide 113	Homicide 207	Malignant Neoplasms 1,663	Malignant Neoplasms 3,521	Suicide 6,703	Suicide 8,267	Unintentional Injury 12,782	Cerebrovascular 114,508	Cerebrovascular 134,148
5	Unintentional Injury 1,315	Heart Disease 186	Heart Disease 97	Congenital Anomalies 161	Heart Disease 1,065	Heart Disease 3,254	Homicide 2,906	Liver Disease 8,220	Diabetes Mellitus 11,370	Alzheimer's Disease 81,573	Unintentional Injury 121,902
6	Placenta Cord Membranes 1,080	Influenza & Pneumonia 142	Benign Neoplasms 59	Heart Disease 132	Congenital Anomalies 467	HIV 975	HIV 2,838	Cerebrovascular 6,112	Cerebrovascular 10,459	Diabetes Mellitus 50,883	Alzheimer's Disease 82,435
7	Bacterial Sepsis 700	Septicemia 93	Chronic Low. Respiratory Disease 55	Chronic Low. Respiratory Disease 64	Influenza & Pneumonia 206	Diabetes Mellitus 574	Liver Disease 2,562	Diabetes Mellitus 5,622	Liver Disease 8,526	Influenza & Pneumonia 48,382	Diabetes Mellitus 70,553
8	Respiratory Distress 630	Cerebrovascular 63	Cerebrovascular 41	Cerebrovascular 56	Diabetes Mellitus 204	Cerebrovascular 539	Cerebrovascular 2,035	Chronic Low. Respiratory Disease 4,392	Suicide 5,465	Nephritis 39,921	Influenza & Pneumonia 56,284
9	Circulatory System Disease 594	Chronic Low. Respiratory Disease 54	Influenza & Pneumonia 40	Influenza & Pneumonia 49	Cerebrovascular 189	Liver Disease 423	Diabetes Mellitus 1,854	HIV 3,730	Nephritis 4,803	Unintentional Injury 39,359	Nephritis 48,237
10	Neonatal Hemorrhage 556	Perinatal Period 51	Septicemia 25	Septicemia 36	Complicated Pregnancy 169	Congenital Anomalies 379	Septicemia 892	Viral Hepatitis 2,732	Septicemia 4,552	Septicemia 27,028	Suicide 36,035



Centers for Disease Control and Prevention
National Center for Injury Prevention and Control

Source: National Vital Statistics System, National Center for Health Statistics, CDC.
Produced by: Office of Statistics and Programming, National Center for Injury Prevention and Control, CDC.

CR227502

Injury categorized according to...

- **Mechanism**
- **Intent**
- **Nature and Severity**
- **Place of Occurrence**

***Mechanism* refers to...**

***external* agent or particular activities that precipitate the injury:**

- **Motor vehicle crash**
- **Firearm injury**
- **Fall**
- **Poisoning**
- **Fire and Burns**
- **Drowning**
- **Stab or cutting/piercing wound**

Uses International Classification of Disease (ICD)
www.cdc.gov/nchs/about/otheract/ice/matrix10.htm

***Intent* refers to ...**

the actor's purpose and awareness of the risk of injury:

- **Unintentional (“accidents”)**
- **Intentional**
 - **Interpersonal: assaults & homicides**
 - **Self-directed: suicides**
 - **Collective: armed conflicts, war**

Uses International Classification of Disease (ICD)
www.cdc.gov/nchs/about/otheract/ice/matrix10.htm

***Nature and Severity* refers to....**

- **Information about the *body region* (head, chest...), *the type of injury* (laceration, fracture...) and the *extent of injury* (open fx, major laceration...)**
- **Anatomic Measures (e.g., AIS)**
- **Physiologic Measures (e.g., GCS)**

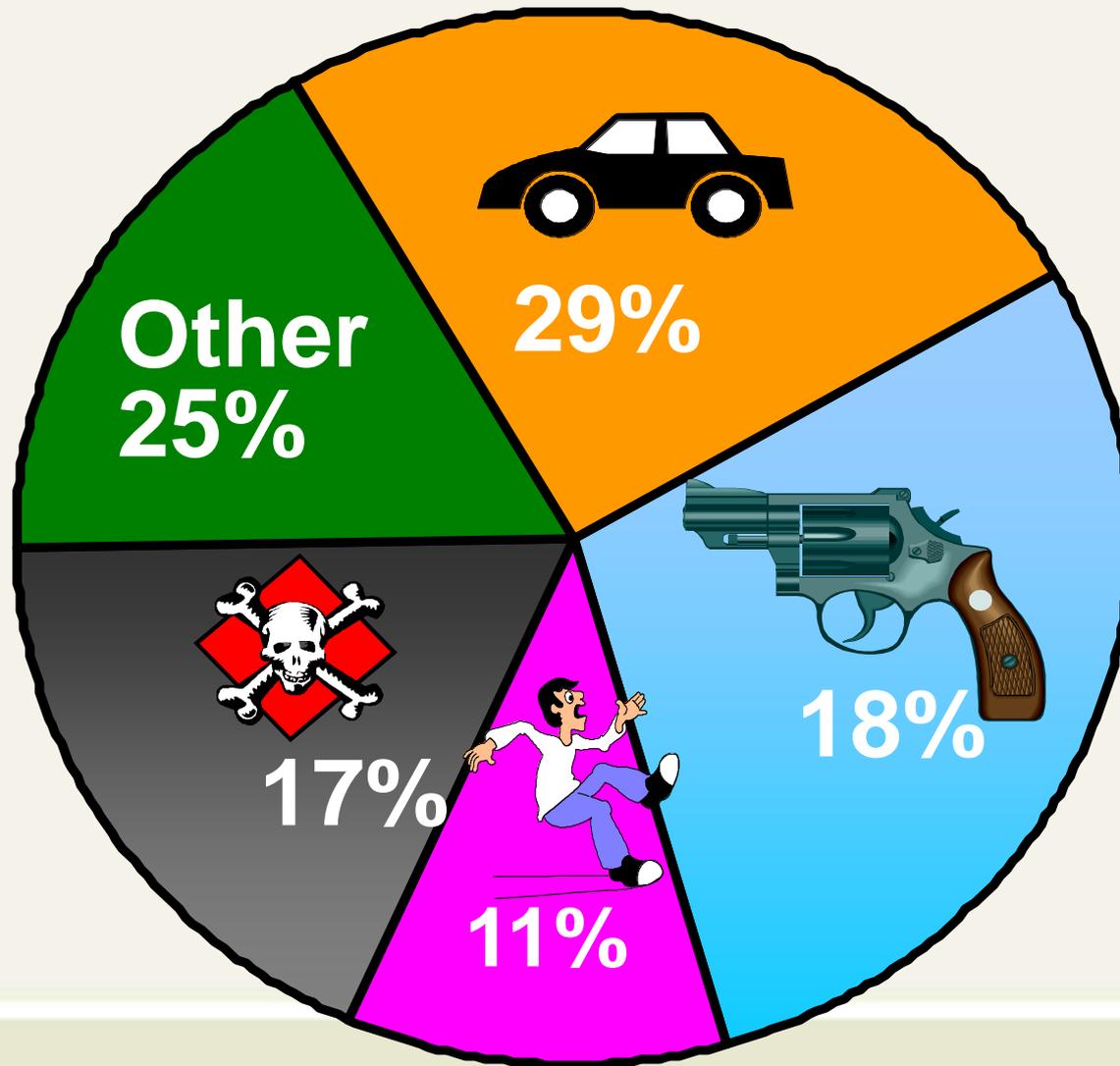
Uses International Classification of Disease (ICD)
www.cdc.gov/nchs/about/otheract/ice/matrix10.htm

Place of Injury refers to ...

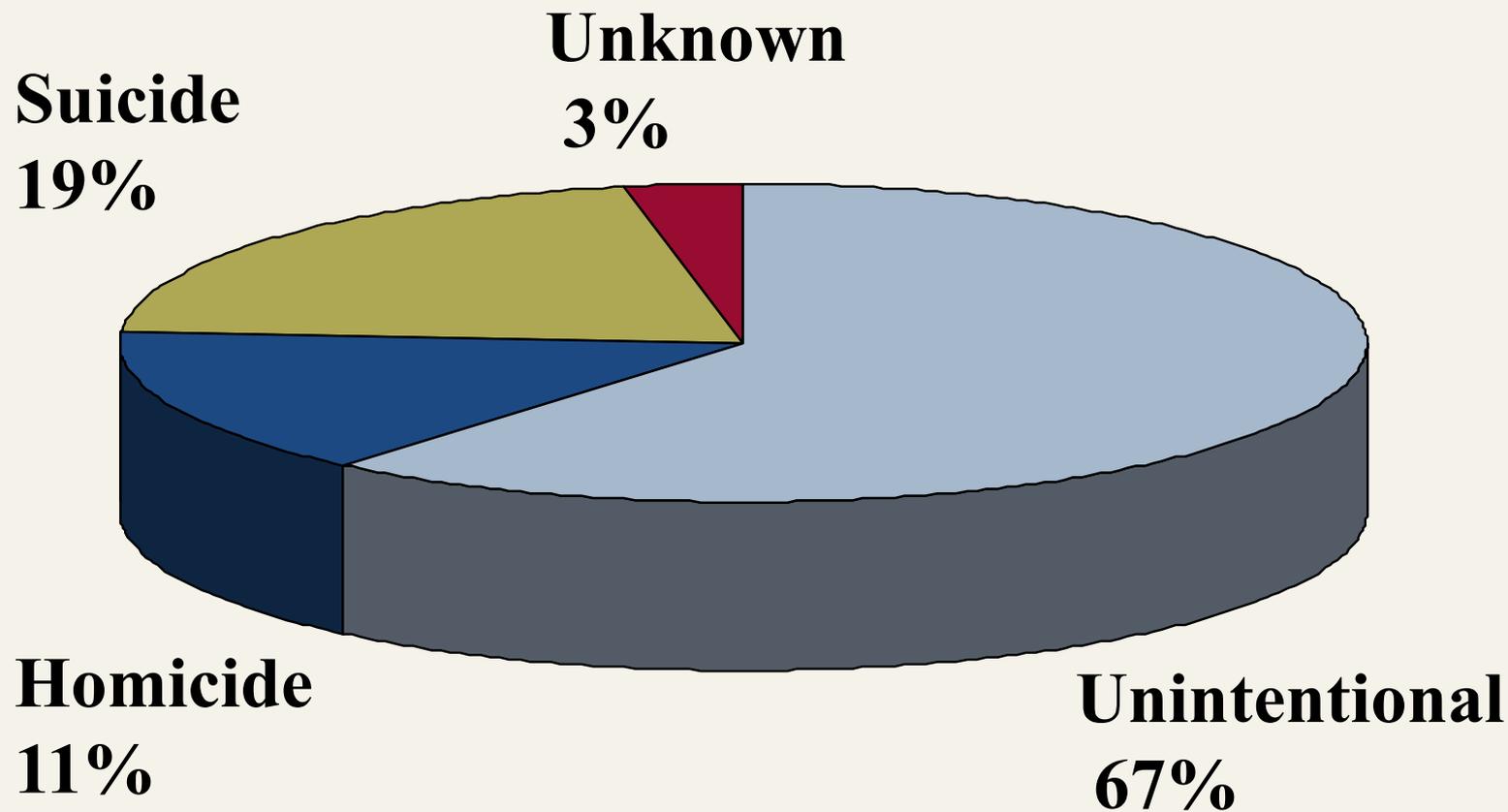
where the injury took place regardless of its mechanism or intent

- On the road
- In the home
- At work
- At school
- At play

Distribution of Injury Deaths



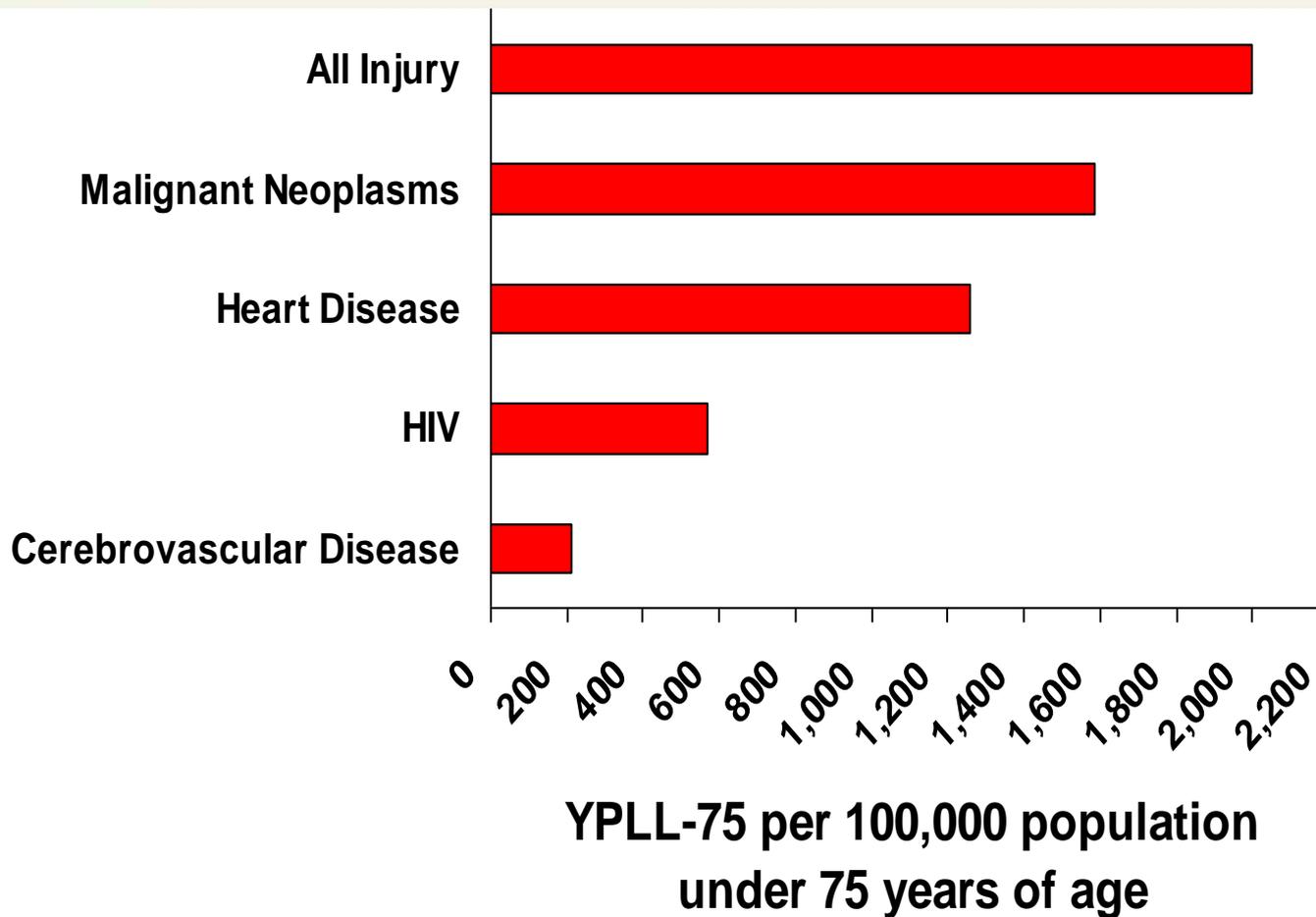
Distribution of Injury Deaths



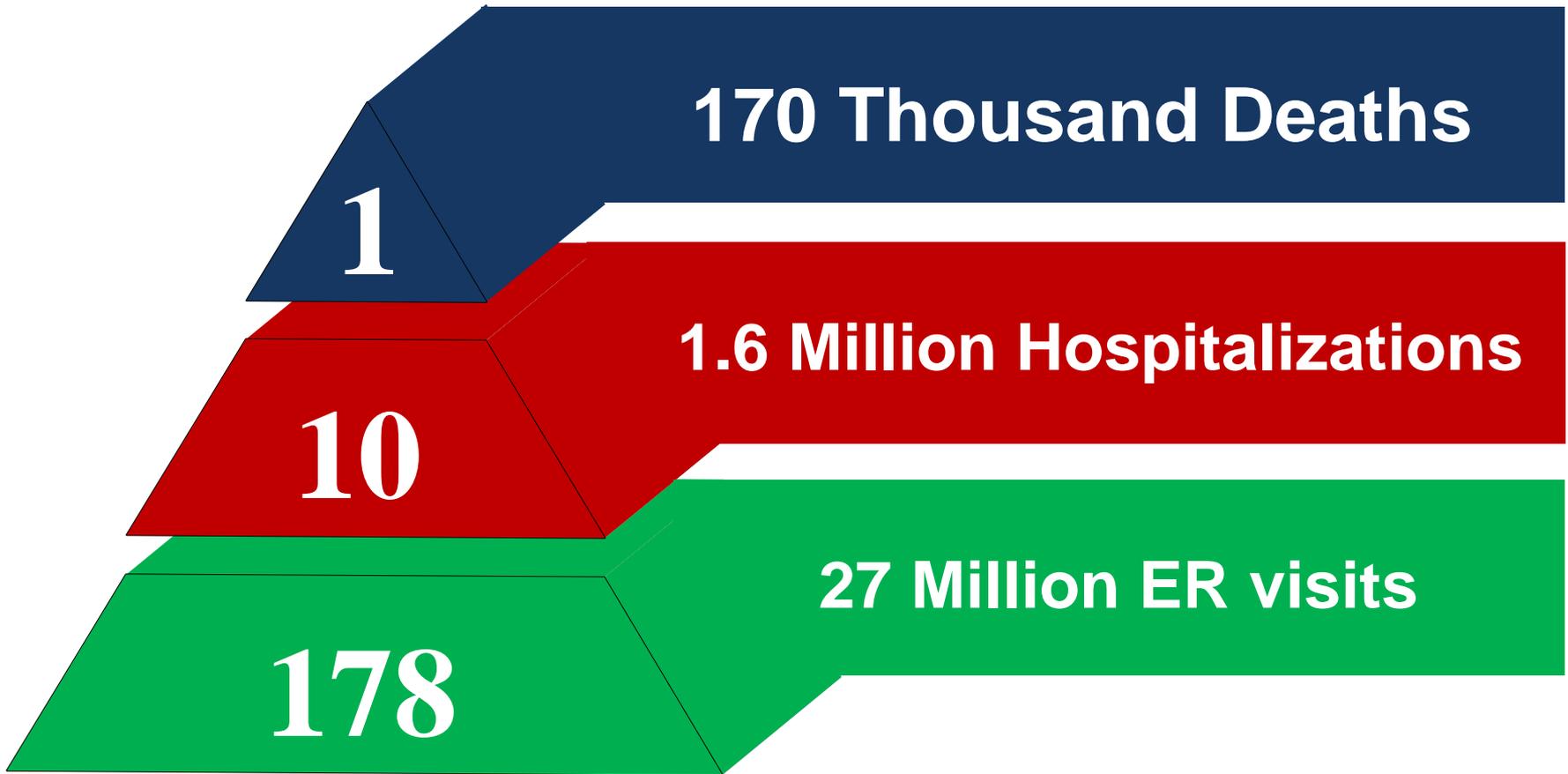
Years of Potential Life Lost Before Age 75 (YPLL-75)

If a person dies of a MVC at age 45 but is expected to live to age 75, then one can conclude that the MVC was associated with a loss of 30 potential life years

Years of Potential Life Lost Before Age 75 (YPLL-75) by Cause of Death, United States



Deaths are only the tip of the injury iceberg . . .



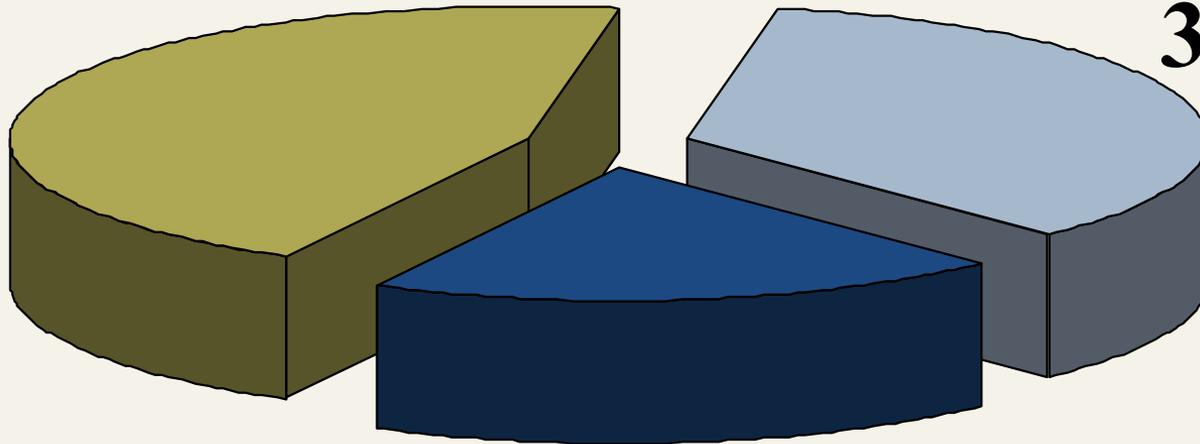
Lifetime Cost of Injury: \$406 Billion

Productivity losses due to disability

45%

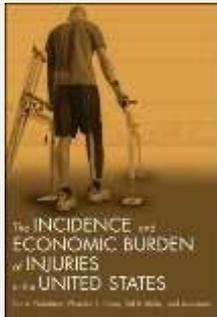
Productivity losses due to death

35%



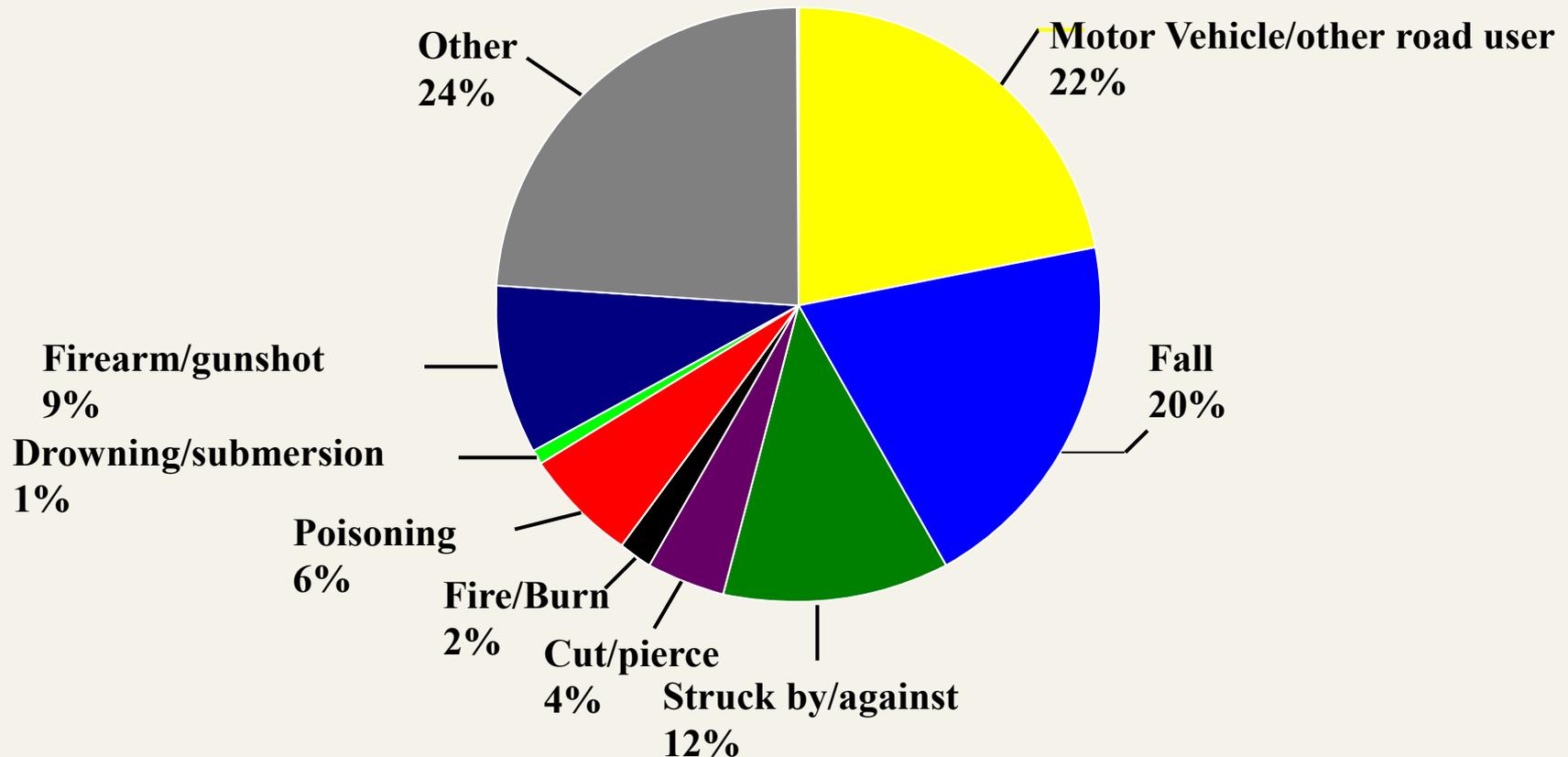
Medical and related costs

20%



Finkelstein et al, 2006

Annual Lifetime cost -- \$406 Billion -- by Cause



Total costs in 2000
Finkelstein, et al, 2006

Distribution of Trauma Deaths

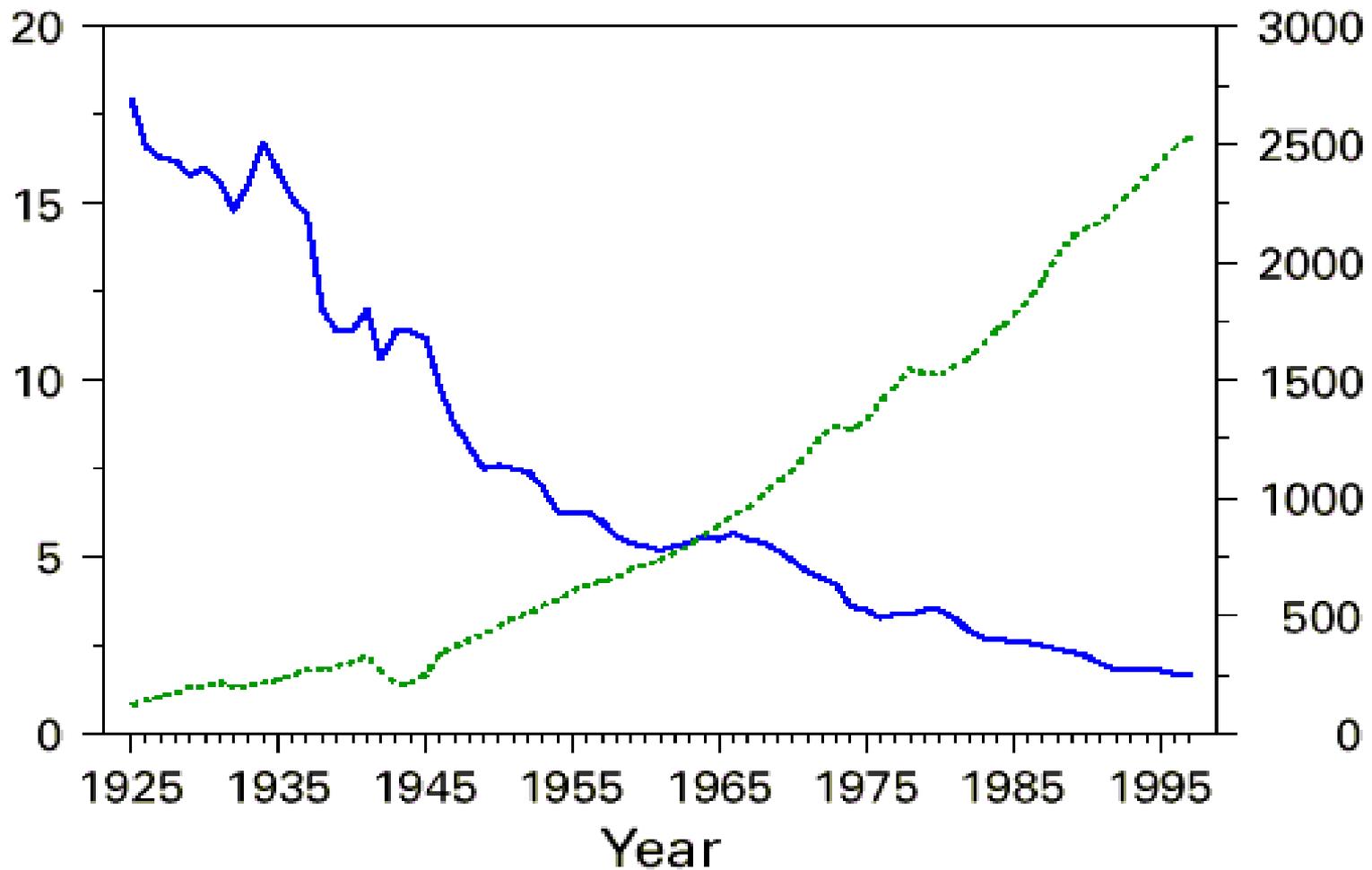
- 50% occur at the scene or in transport
- 30% occur within the first few hours
- 20% occur later within days or weeks

***Multiple options for
Intervention but primary
prevention is key!***

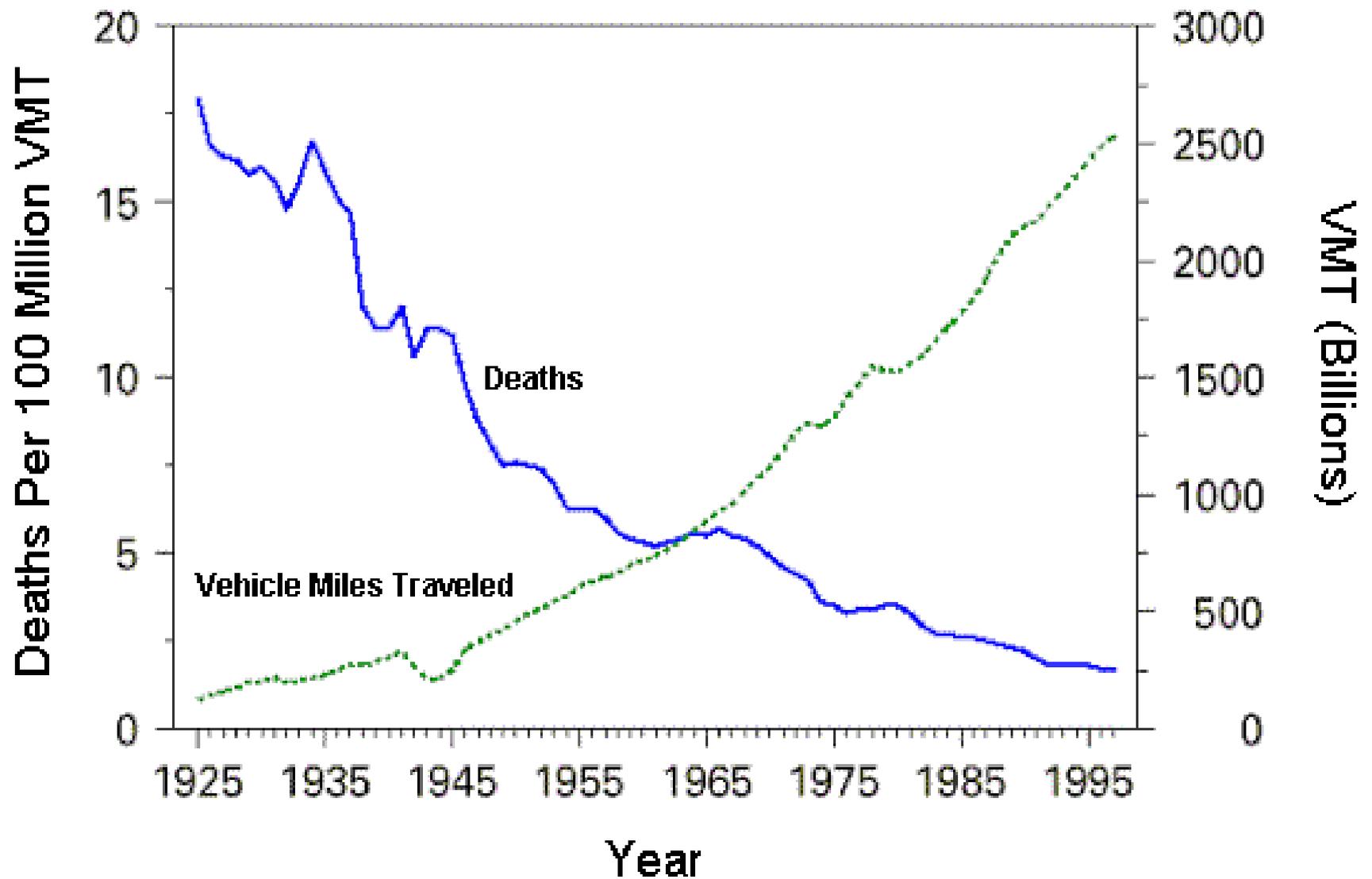
10 Great Public Health Achievements



What is this public health achievement?



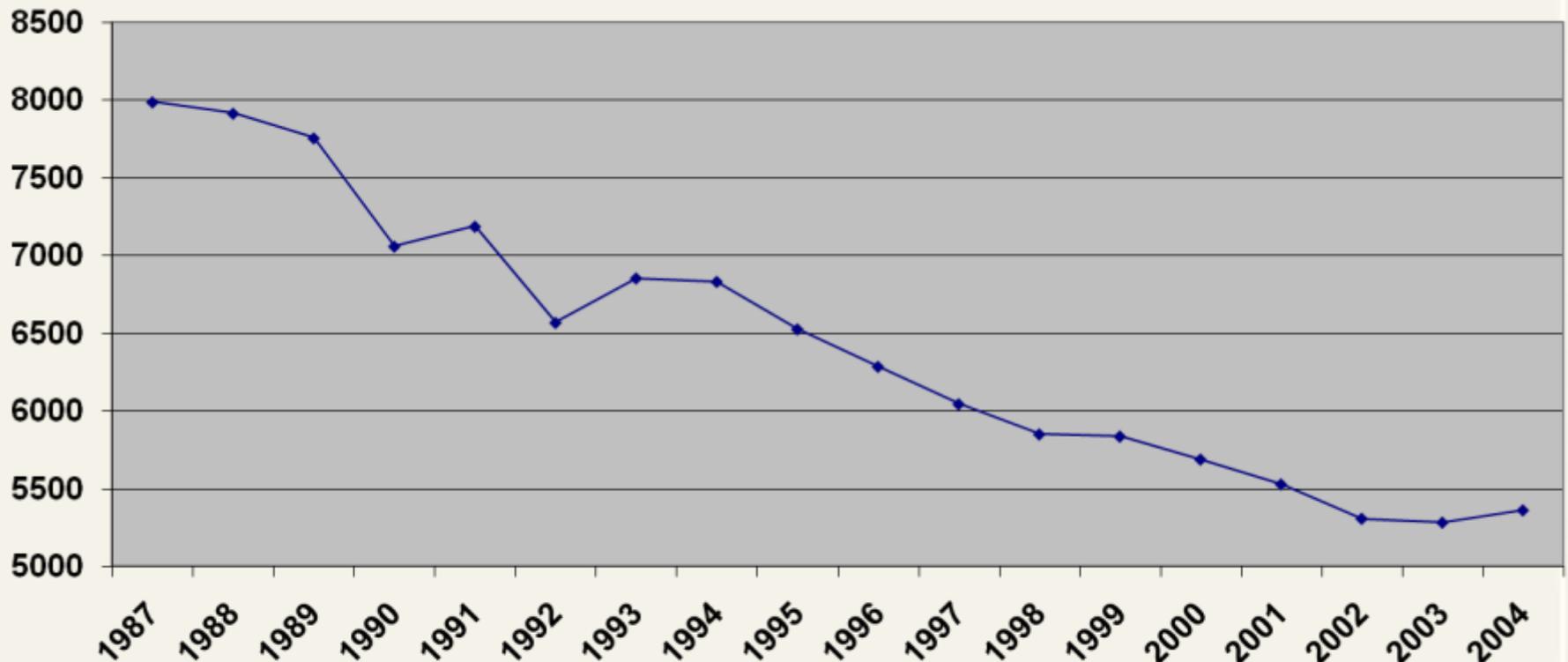
Motor-vehicle-related deaths per 100 million vehicle miles traveled (VMT) and annual VMT by year — United States, 1925–1997



What accounts for the successes in MV crash deaths?

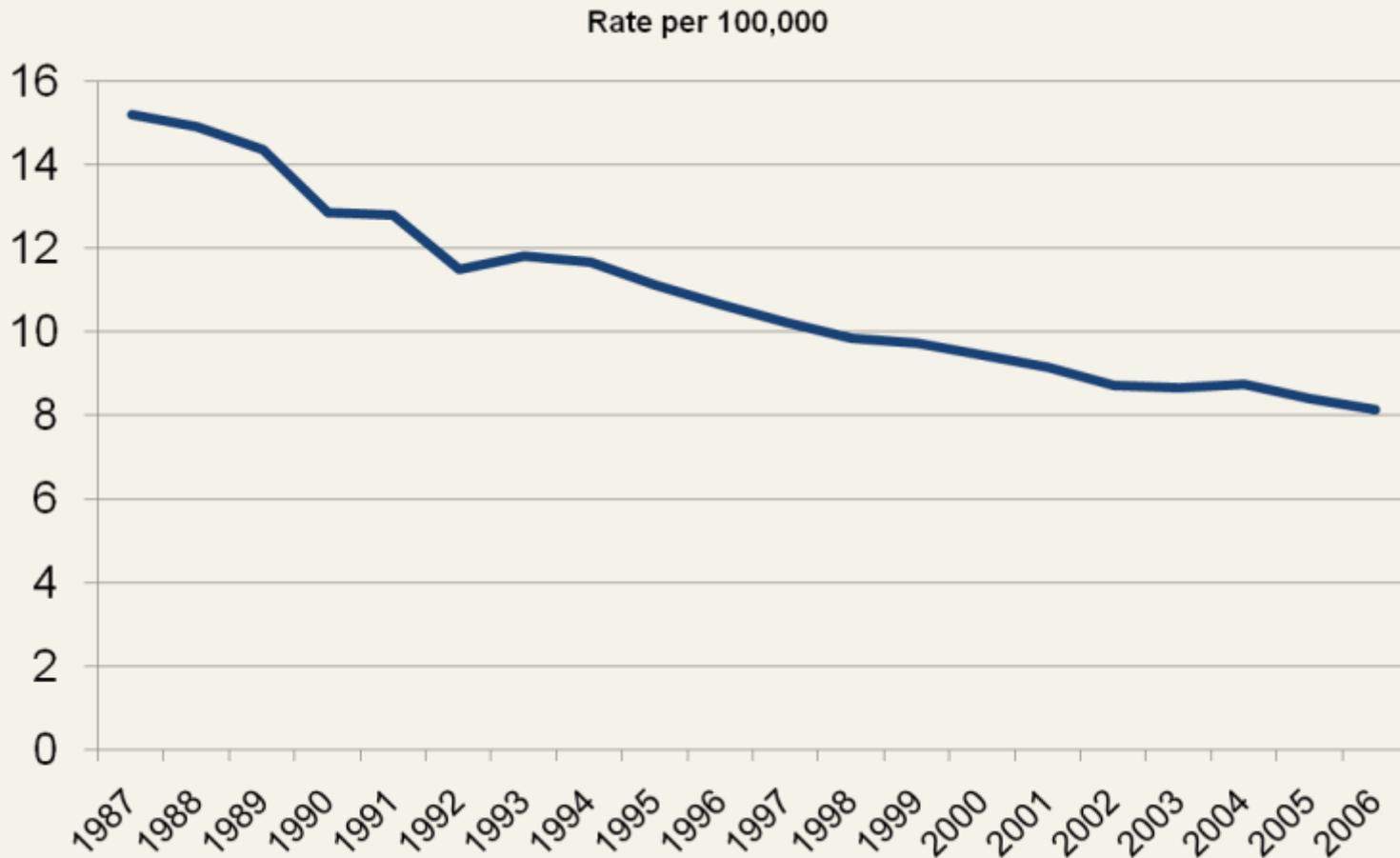
- Interstate highways
- Roadway designs
- MV safety standards
- Seat belt use
- Car seat use
- Drinking and driving

1987 – 2004 Unintentional Injury Deaths, Ages 0-14, United States



Source: National Center for Health Statistics. Centers for Disease Control and Prevention. National Vital Statistics System. WISQARS Injury Mortality Reports, 1987 to 2004. Hyattsville (MD): National Center for Health Statistics, 2007. Published in Safe Kids Worldwide (SKW). Childhood Injury Trends Fact Sheet. Washington (DC): SKW, 2007.

1987 – 2004 Unintentional Injury Death Rates, Ages 0-14, United States



<http://www.cdc.gov/injury/wisqars/index.html>

1987 – 2004 Unintentional Injury Deaths, Ages 0 to 14, United States

Type of Incident	Percent Change
Motor vehicle crash	↓32%
Drowning	↓44%
Pedestrian injury	↓55%
Fire and/or burn injury	↓58%
Falls	↓28%
Poisoning	↓14%
Firearm	↓74%
Suffocation	↑28%

Source: National Center for Health Statistics. Centers for Disease Control and Prevention. National Vital Statistics System. WISQARS Injury Mortality Reports, 1987 to 2004. Hyattsville (MD): National Center for Health Statistics, 2007. Published in Safe Kids Worldwide (SKW). Childhood Injury Trends Fact Sheet. Washington (DC): SKW, 2007.

What strategies lead to success?

- **Education**
- **Enforcement**
- **Engineering**
- Economic incentives
- Emergency Medical Services
- Evaluation

*Choice of solution depends on problem definition
and strategic thinking* →

Problem Definition and Strategic Thinking

Identifying an Injury Problem is Important



..but it is only useful for prevention if this initiates systematic, critical thinking and informed responses.

What is Prevention?

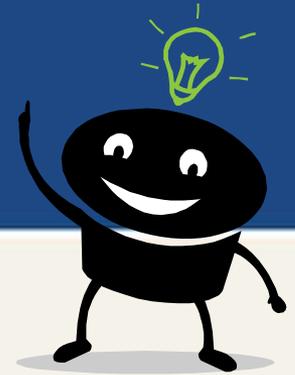


What is Prevention?



- ACTIVELY making something unhealthy or harmful NOT happen
 - Can you think of an example ?
- ACTIVELY making something healthy or protective happen
 - Can you think of an example?

If we want to:



- ACTIVELY make something unhealthy or harmful NOT happen
 - What must we understand?
- ACTIVELY make something healthy or protective happen
 - What must we understand?

We must learn to approach injury and violence in a critical, systematic way



The Problem is Seldom “Obvious” - 1



What is **the** problem?

Problem Definition



Is one of the most difficult, most frustrating, and most important things you will do when addressing an injury problem.

Today's small group discussion topic

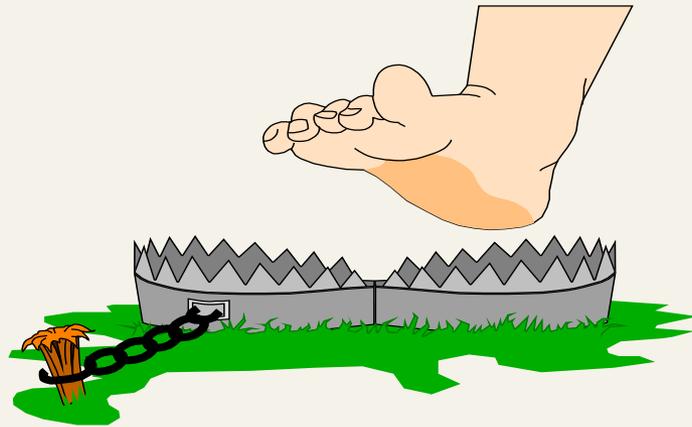


Prescription Drug Overdose

“Goal: reduce Prescription Drug Overdose in Ohio”

- What group?
 - Age group, people prescribed drugs, off-prescription users, habitual users, inexperienced recreational users, prescribing physicians/clinicians, other?
- What general locale?
 - All Ohio, regionally, your jurisdiction?
- What environments?
 - Schools, clinical settings, communities with higher death rates, illegal distribution “hubs”, other?
- What circumstances?
 - Intentional or unintentional overdose, medical use - monitored, medical use – unmonitored, illegal/criminal use, recreational use in social settings (e.g., parties, clubs)?
- What severity?
 - Fatal, hospital admissions, ED visits?
- What consequences?
 - Disability, cost, enforcement time, criminal, civil, etc?

“Fools Rush In ...”



If we do not start our planning with a clear and focused problem definition, the intervention program **will** get into trouble.

The Problem is Seldom “Obvious” - 2



- How did this event happen?
- What do we know?
- What have we assumed?
- What must be done to “fix” it?
- How can we accomplish this?



Key Injury Prevention Skill

Learn how to ask the right questions

+

persevere until you get and listen to answers

Yes, but “what should we ask?”

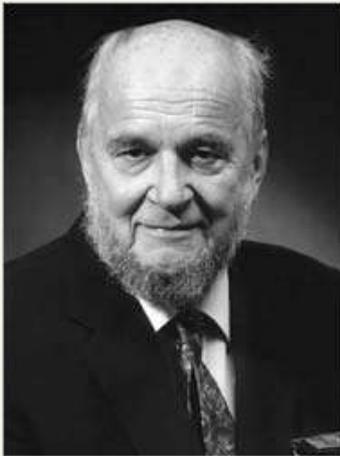
- What do we want to know?
- What are the right questions?
- How can we guide our thinking?

Yes, but “What should we ask?”

- What do we want to know?
- What are the right questions?
- How can we guide our thinking?
- **We need reference points**
 - **Where should we begin?**



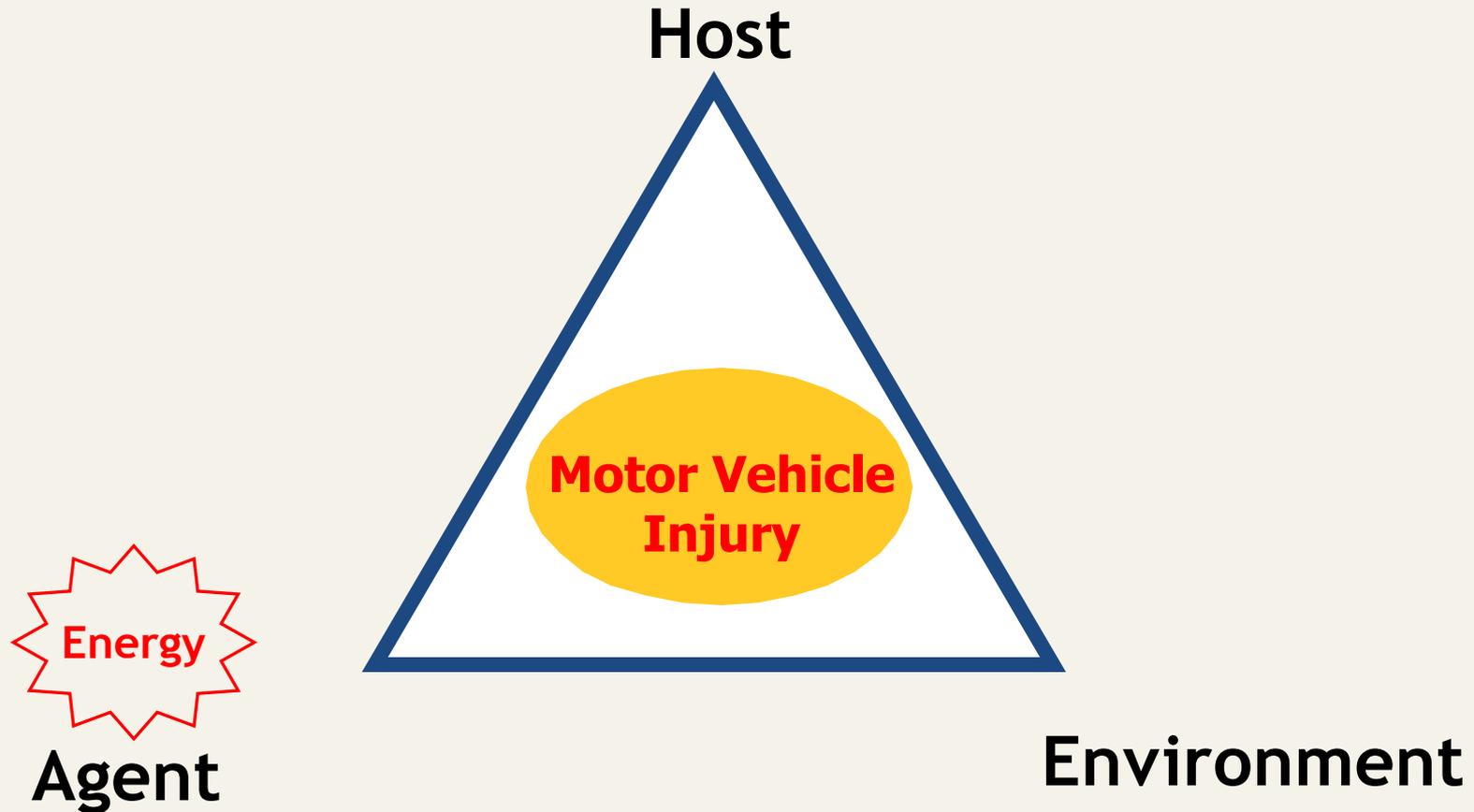
Injury is a problem of populations



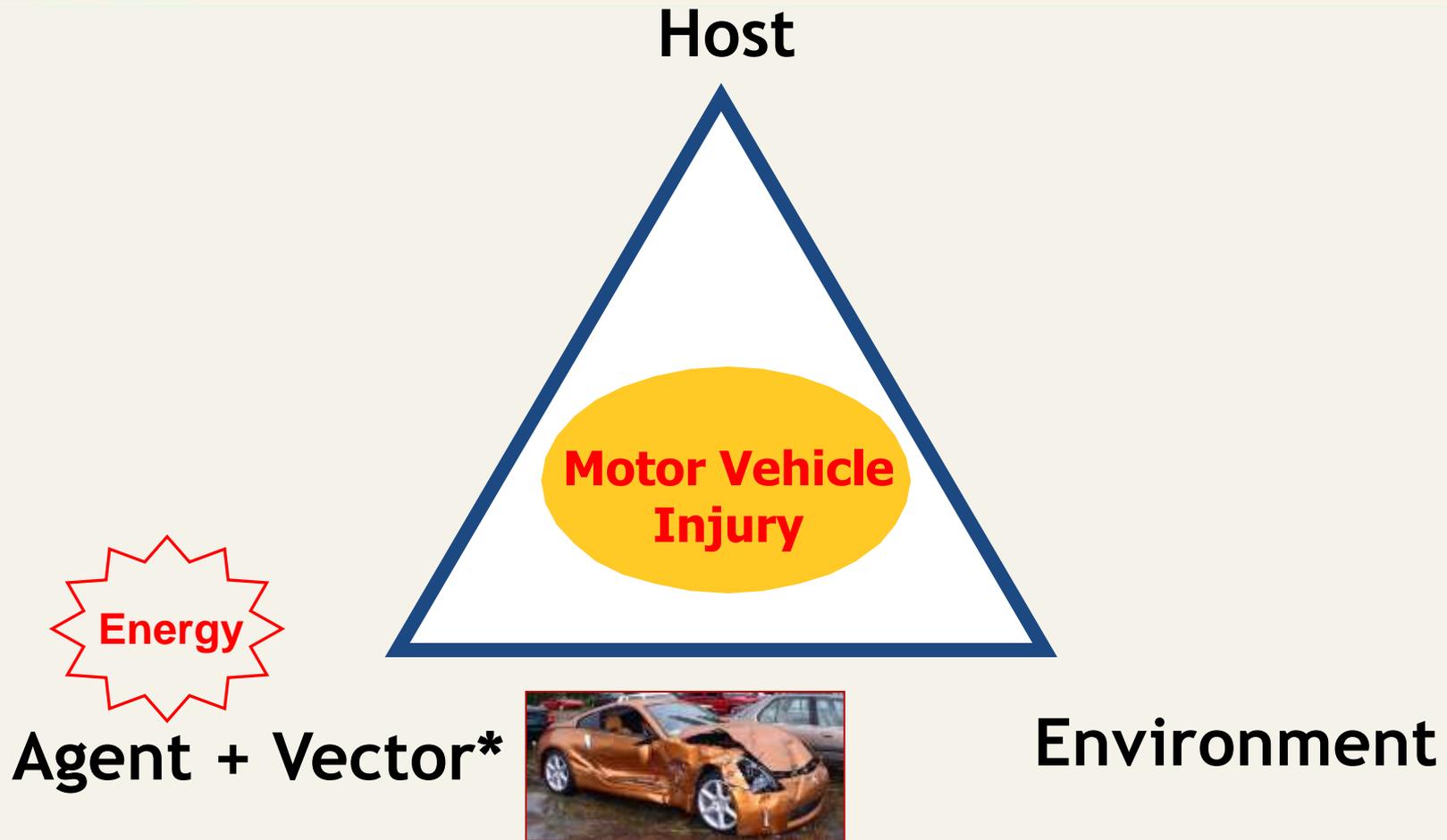
Dr. George W. Albee
1921-2006

“No mass disorder afflicting mankind was ever brought under control or eliminated by attempts at treating the individual”

The Epidemiologic Triangle (basic)

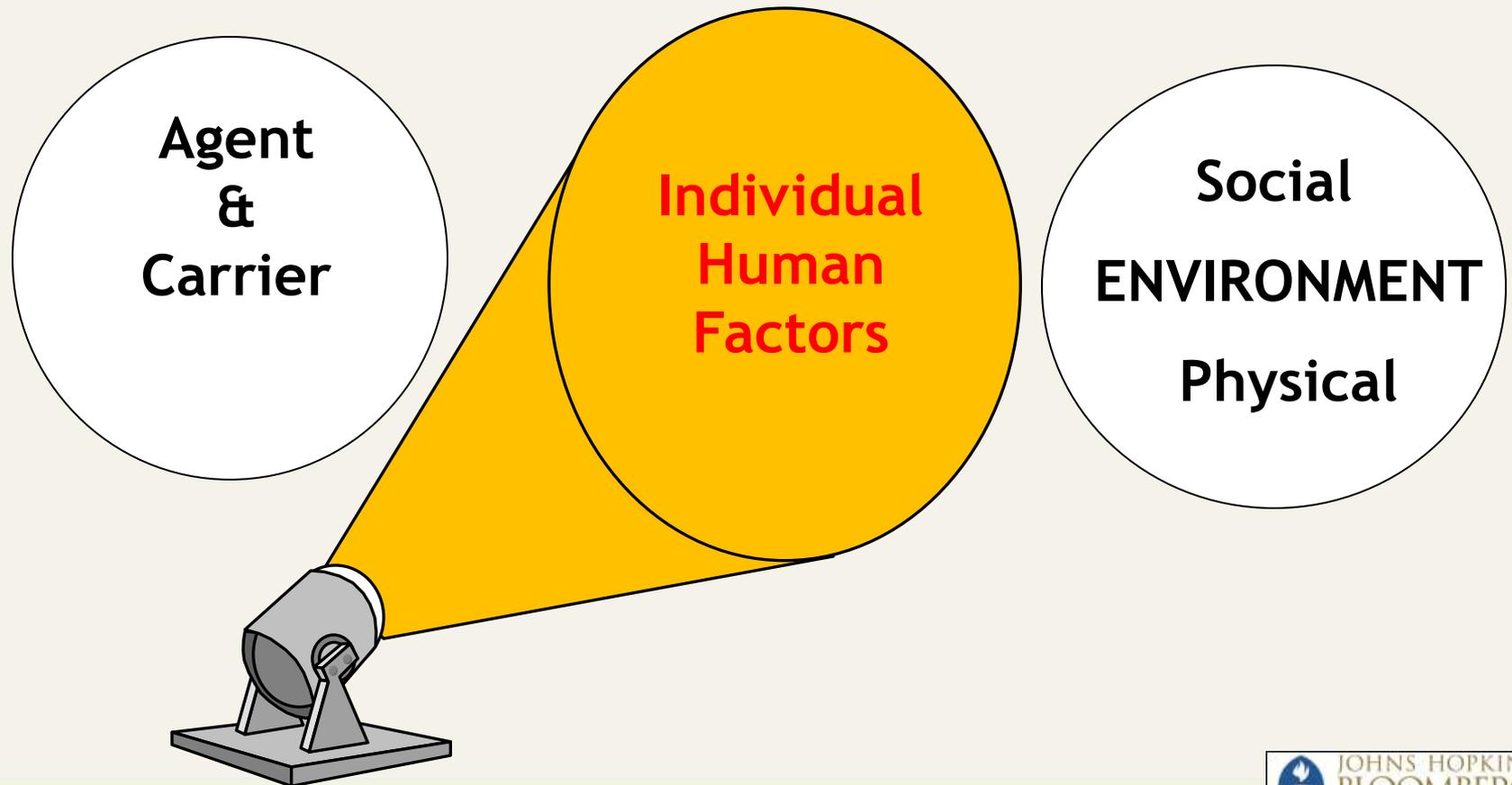


The Epidemiologic Triangle + Vector*



* In the injury literature, this may also be referred to as the “vehicle” or “carrier”

What We See is Determined by WHERE and HOW We Look



How do we overcome this bias?



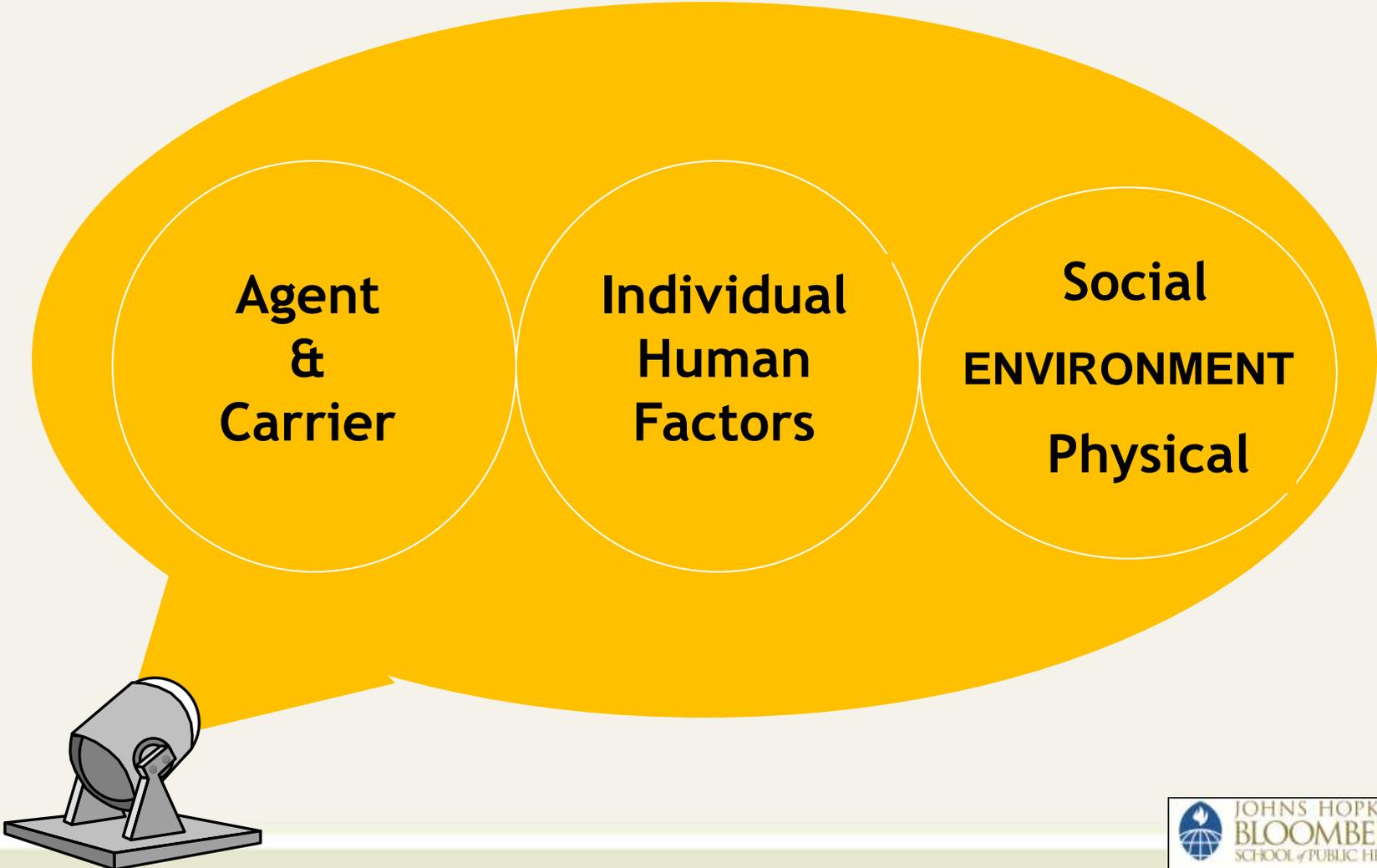
Our Guide: William (Bill) Haddon, Jr., MD



Dr. Bill Haddon, 1926-1985

- First “Highway Safety Chief”
 - National Highway Traffic Safety Administration
- Headed Insurance Institute for Highway Safety
- Developed a Framework for Understanding Key Determinants of Injury:
The “Haddon Matrix” (1972)

Bill Haddon was determined to expand our field of vision



**Agent
&
Carrier**

**Individual
Human
Factors**

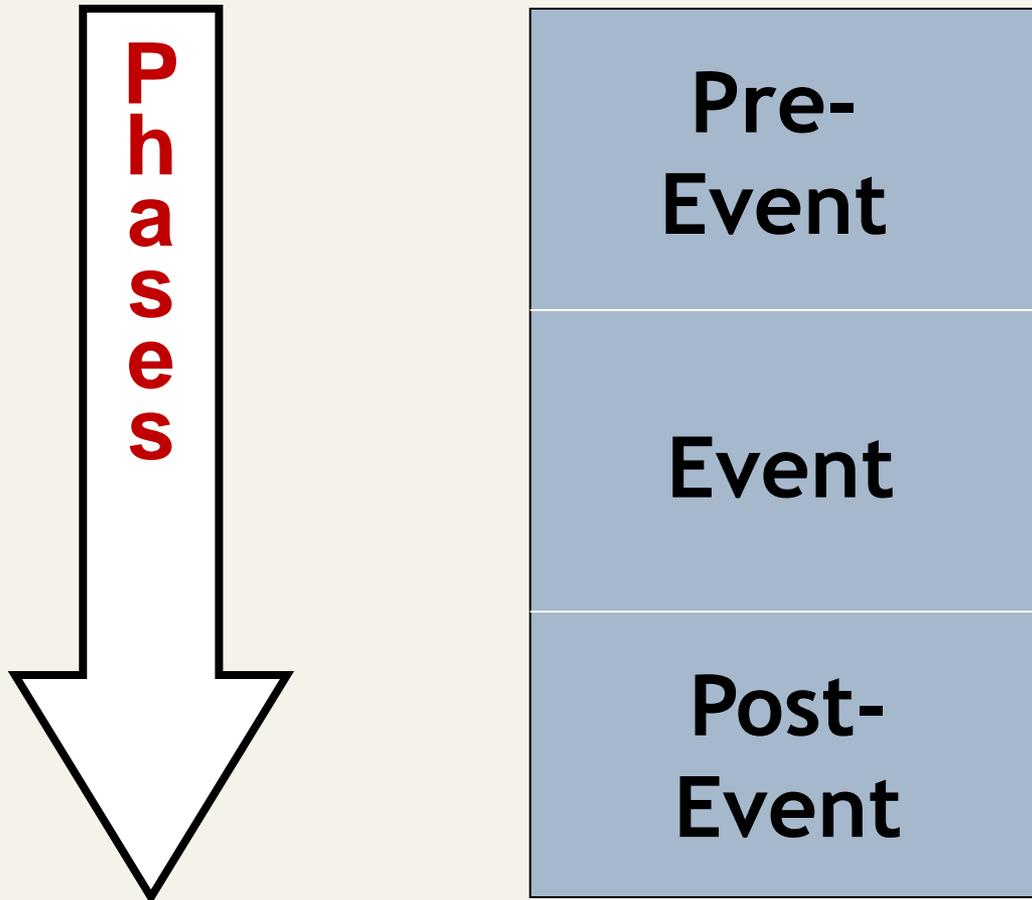
**Social
ENVIRONMENT
Physical**

The Haddon Phase-Factor Matrix



HUMAN (Individual)	AGENT & Carrier	ENVIRONMENT Physical Social	
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The Haddon Phase-Factor Matrix



Phases of Injury Prevention



- **Pre-Event**
Reducing the number of events with the potential to cause injury.



- **Event**
Reducing the number & primary severity of injuries that occur.



- **Post-Event**
Preventing secondary insults; improving the final outcome.

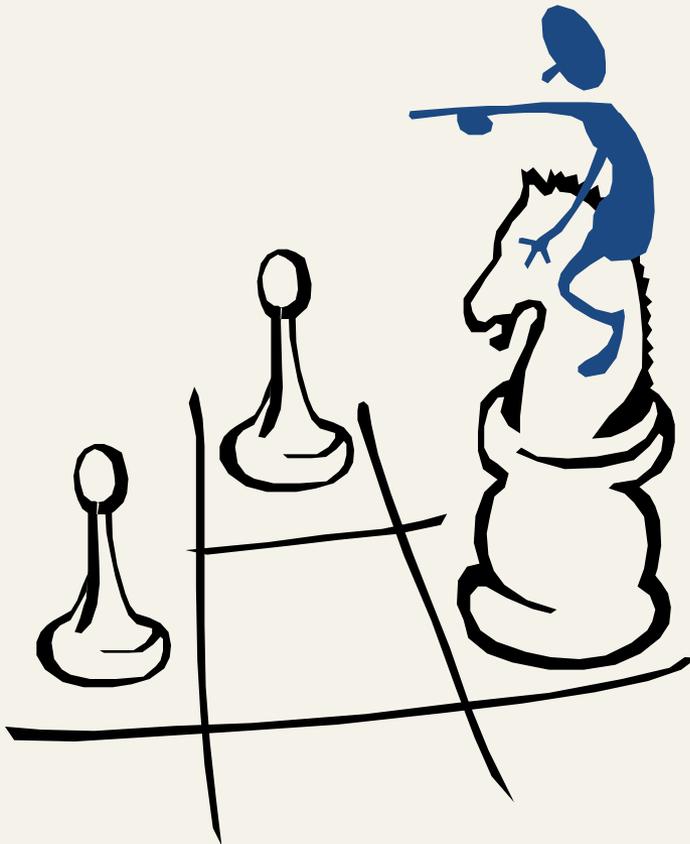
	Human	Agent & Carrier	Environment	
			Physical	Social
Pre-Event	Will an event - with the potential to cause injury - occur?			
Event	Will an injury occur? What will the primary severity be?			
Post-Event	What will the outcome be?			

<p>Child Pedestrian Injury simplified</p>	<p>Human (Individual)</p>	<p>Agent & Carrier</p>	<p>Environment</p>	
<p>Pre-Event</p>	<p>“Age”, Size, Behavior, Experience, Supervision, Alcohol, Fatigue</p>	<p>Speed, Size, Braking & Maneuvering ability</p>	<p>Visibility, Congestion, Road Design, Surface</p>	<p>Traffic control, child care regs. & facilities, driver training and licensure</p>
<p>Event</p>	<p>Size, clothing, any protective gear</p>	<p>Force, direction, & number of impacts</p>	<p>Impact surface(s), fixed objects, other vehicles</p>	<p>Road and environmental design policies; maintenance</p>
<p>Post-Event</p>	<p>Pre-existing conditions, EMS care & rehabilitation</p>	<p>Additional vehicle impacts; entrapment; fire</p>	<p>Urban/rural; proximity to medical care; weather, etc.</p>	<p>Provision of care; financial, legal & social resources</p>

<p>Child Pedestrian Injury simplified</p>	<p>Human (Individual)</p>	<p>Agent & Carrier</p>	<p>Environment</p>	
			<p>Physical</p>	<p>Social</p>
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Haddon Matrix: next steps

Not all associated factors are Causal or Key



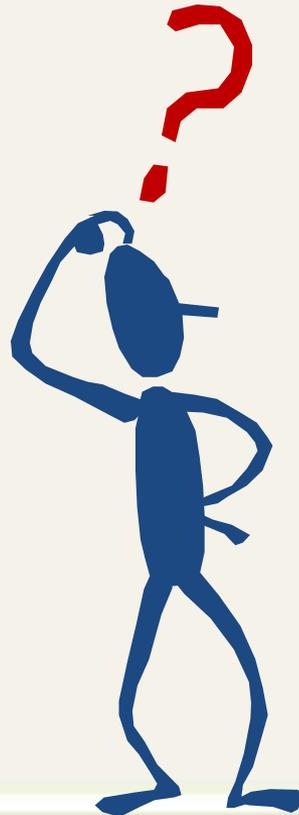
- Which factors are controllable?
 - The child pedestrian's age-related developmental limitations are not
- Will changing these change the outcome?

Identifying an issue that must be changed is seldom enough to help us fully understand how to make that change

Factor 1 - ?

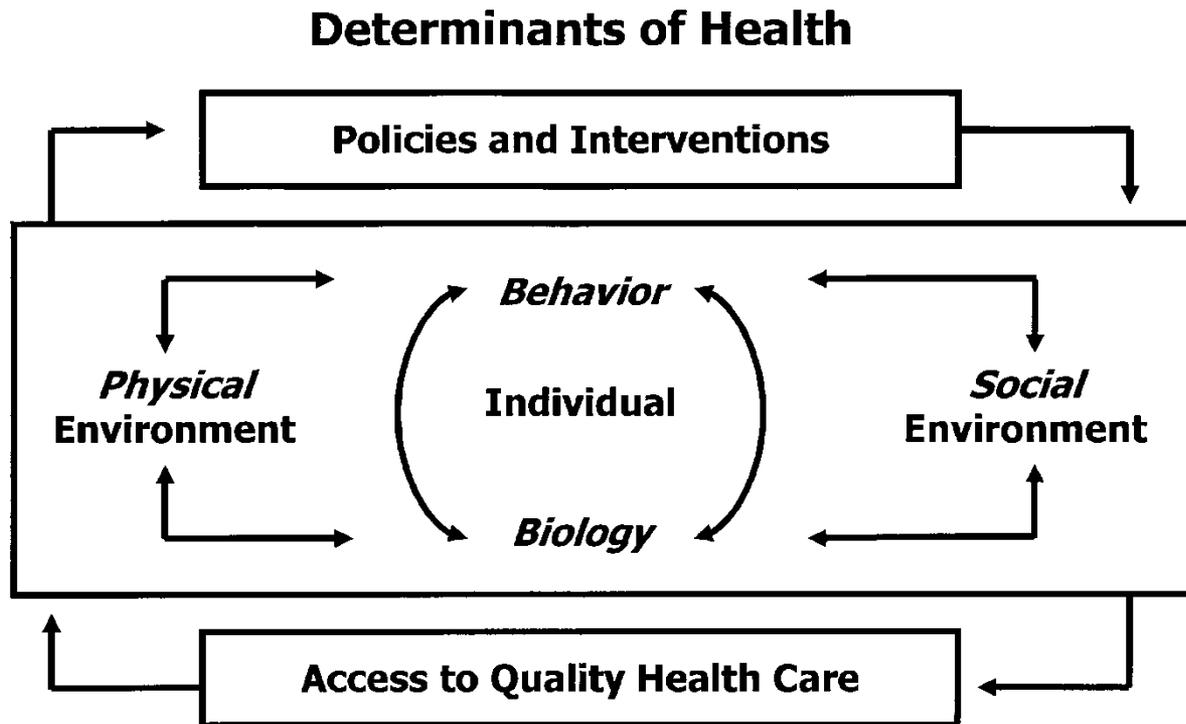
Factor 3 - ?

Factor 2 - ?



Issue to be changed

Before we “treat” this problem we must make a more thorough diagnosis



Source: U.S. Department of Health and Human Services, Health People 2010

PRECEDE – PROCEED Planning Framework

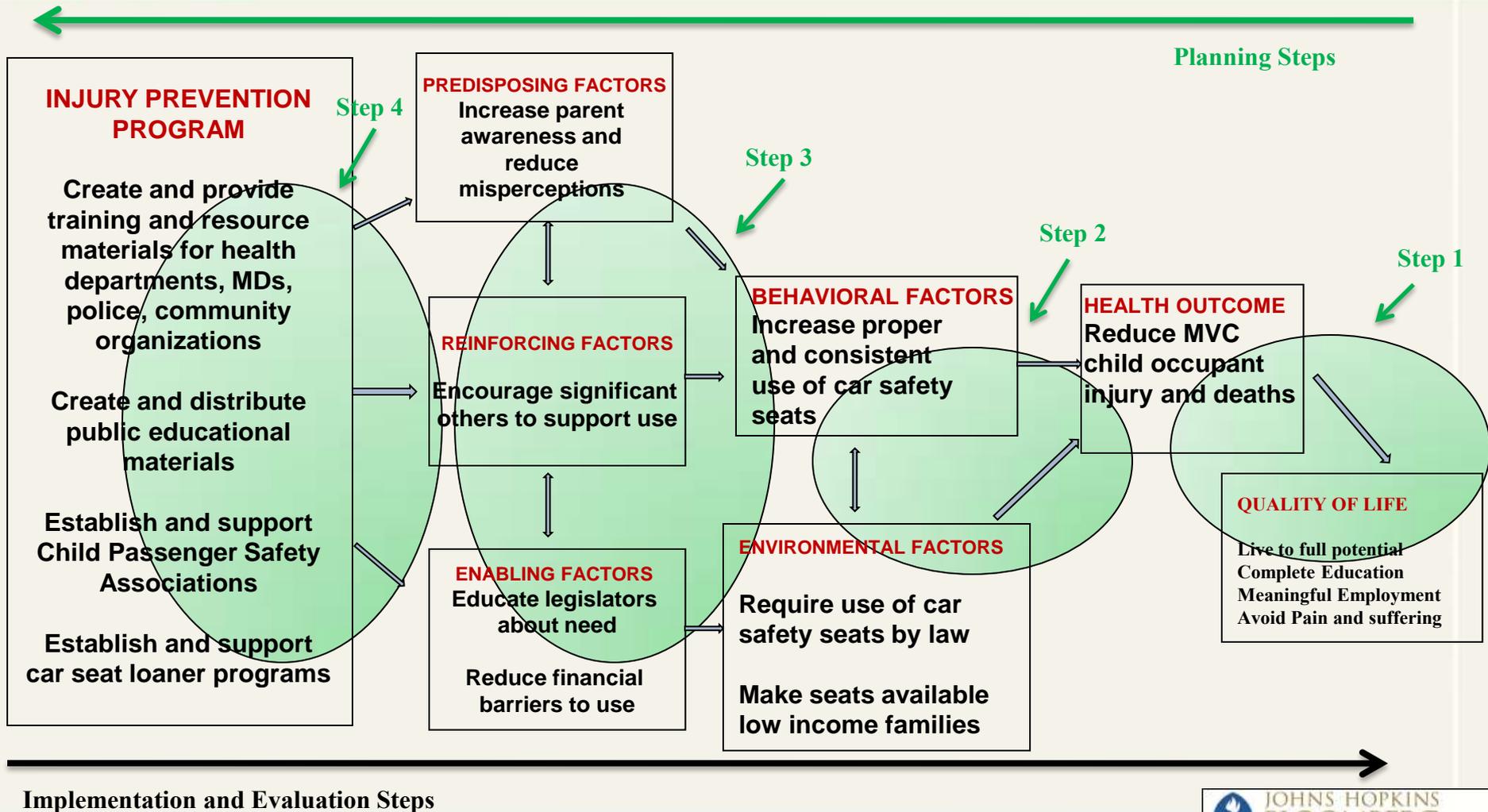
Part 1

Maryland Kids In Safety Seats -- KISS Program



**A project of the Maryland Department of Health and Mental Hygiene
funded by the Maryland Department of Transportation, 1980 - present**

PRECEDE/PROCEED FRAMEWORK APPLIED TO MARYLAND'S CHILD PASSENGER SAFETY PROGRAM



Source: L.W. Green and M. Kreuter



*Johns Hopkins
SAFE Home Project*

*A collaboration with the JH
Department of Pediatrics and the
Center for Injury Research and
Policy*

*Funded by the Maternal and
Child Health Bureau, HRSA and
private donations*



Burden of Childhood Injury in Baltimore City

***Injuries...represent
a critical public
health problem in
Baltimore...***

Dr. Joshua M. Sharfstein
Commissioner of Health

Unintentional injury is the leading
cause of death for ages 1-14

38% due to fires

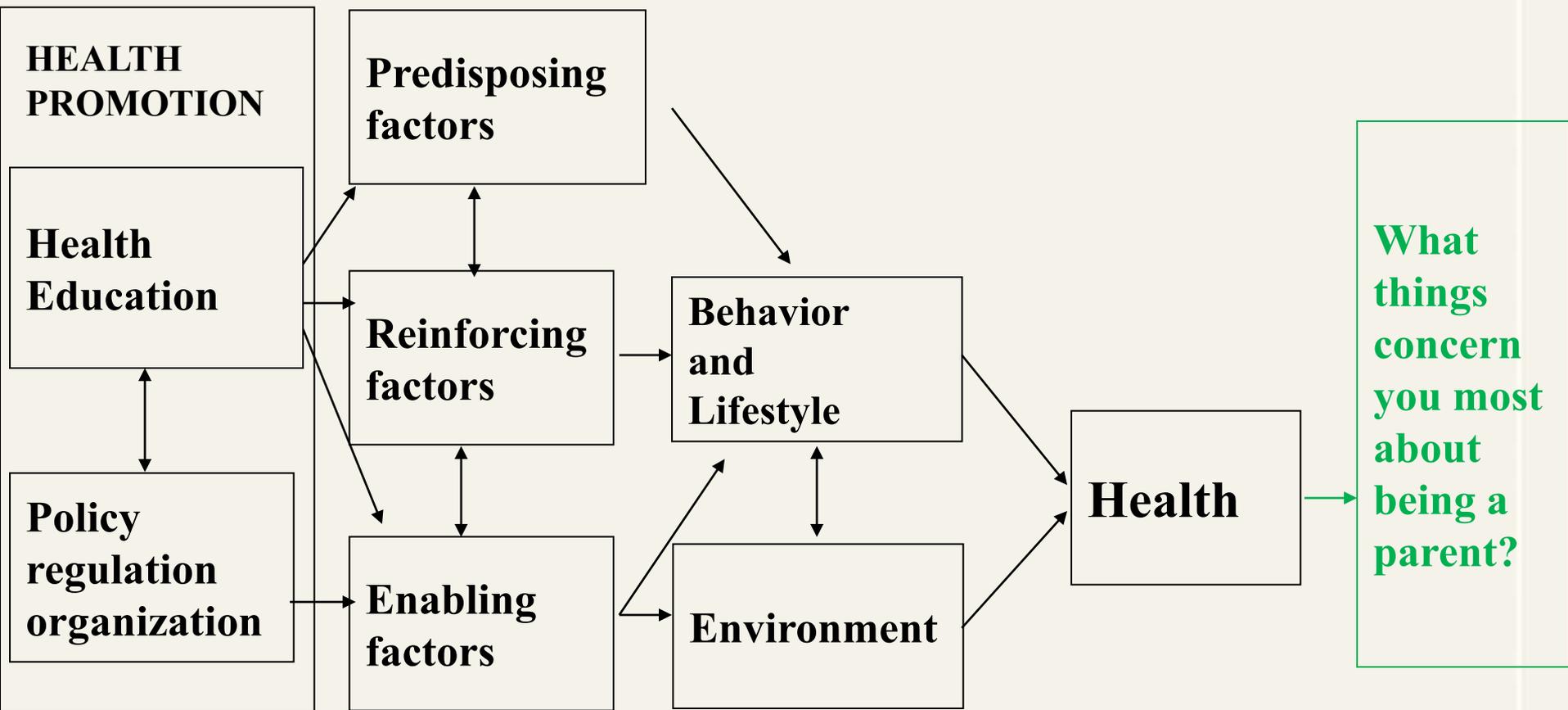
37% due to motor vehicles

Baltimore children ages 1-17 are *four
times* as likely to die from residential
fires as children nationwide

Children younger than 5 in Medicaid
managed care experience injury at
rates nearly *twice* the national
average

Step 1: Social Assessment

- WHY:
 - Gain insight into community values and perceived needs
 - Understand why health problem may/may not be important to community
 - Engage community as active partners
- HOW:
 - Individual: e.g., surveys
 - Community: e.g., asset mapping
 - Group: e.g., focus groups



Step 2: Epidemiological and behavioral assessment

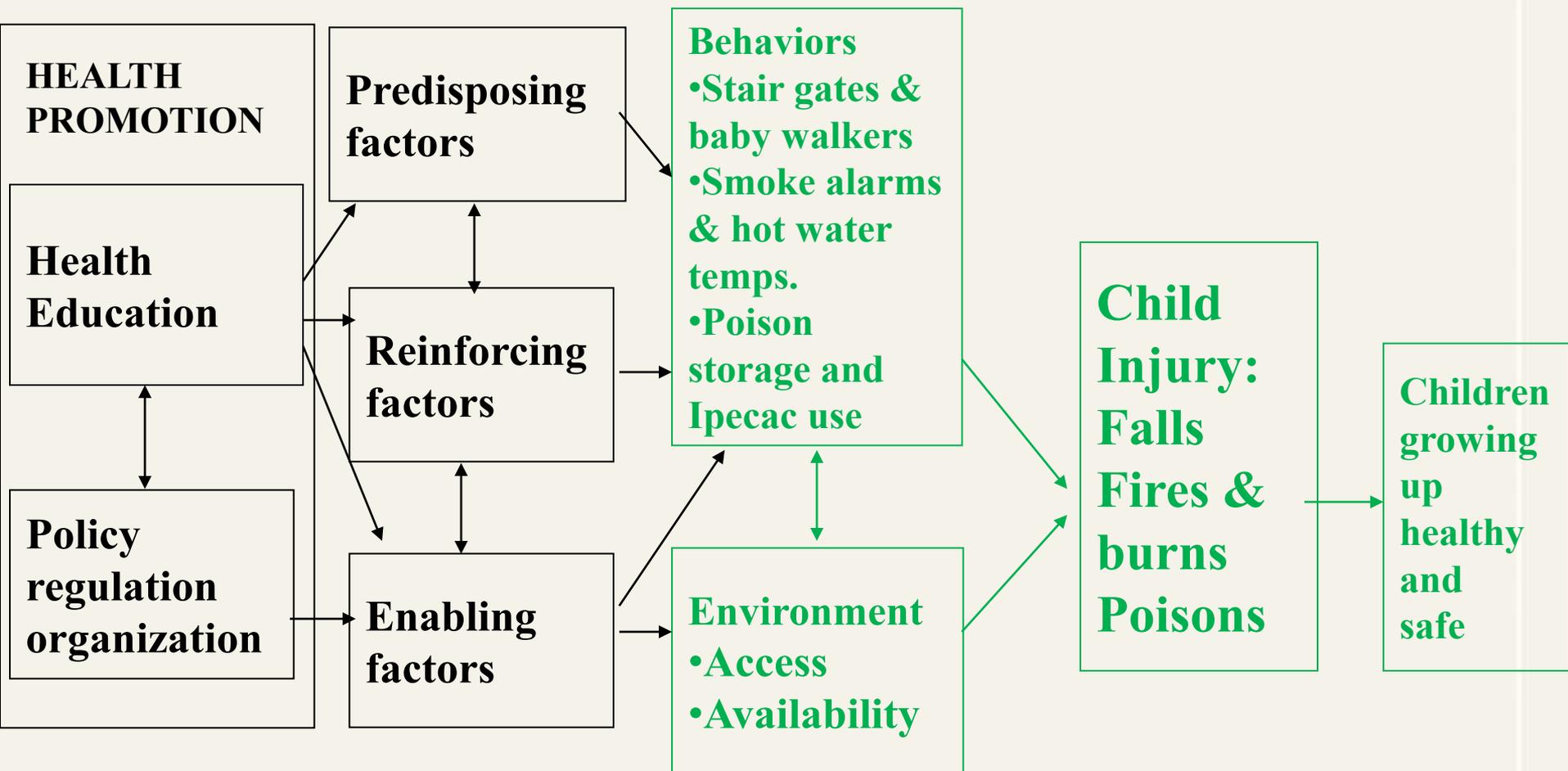
- WHY:
 - Determine which health problems poses the greatest threat to health and quality of life
 - Identify most important and most changeable behavioral and environmental risk factors for chosen health problem
- HOW:
 - Define who has problem: e.g., age group, gender, ethnicity, geographical area
 - Identify indicators: e.g., morbidity, mortality, YPLL
 - Sources of data: CDC, NIH, Healthy People, State Health Dept, Surveys, Literature
 - Examine various types of risk factors →

Risk Factors to Consider

- Genetic or biologic
 - Gender
 - Age
 - Pre-existing health conditions
- Behavioral factors
 - Behaviors or lifestyles of the individuals at risk that contribute to the occurrence and severity of the health problem
- Social, physical, health care
 - External to the individual
 - Beyond personal control
 - Not amenable to education

SAFE Home Data Sources

- Literature:
 - Injury rates
 - Populations at risk
- Professional organizations:
 - Professional endorsement
 - Professional standards
 - Current practices
- Injury data: PED saw > 6000 injury cases annually



Phased Environmental Influences (PEI) Matrix

Question:

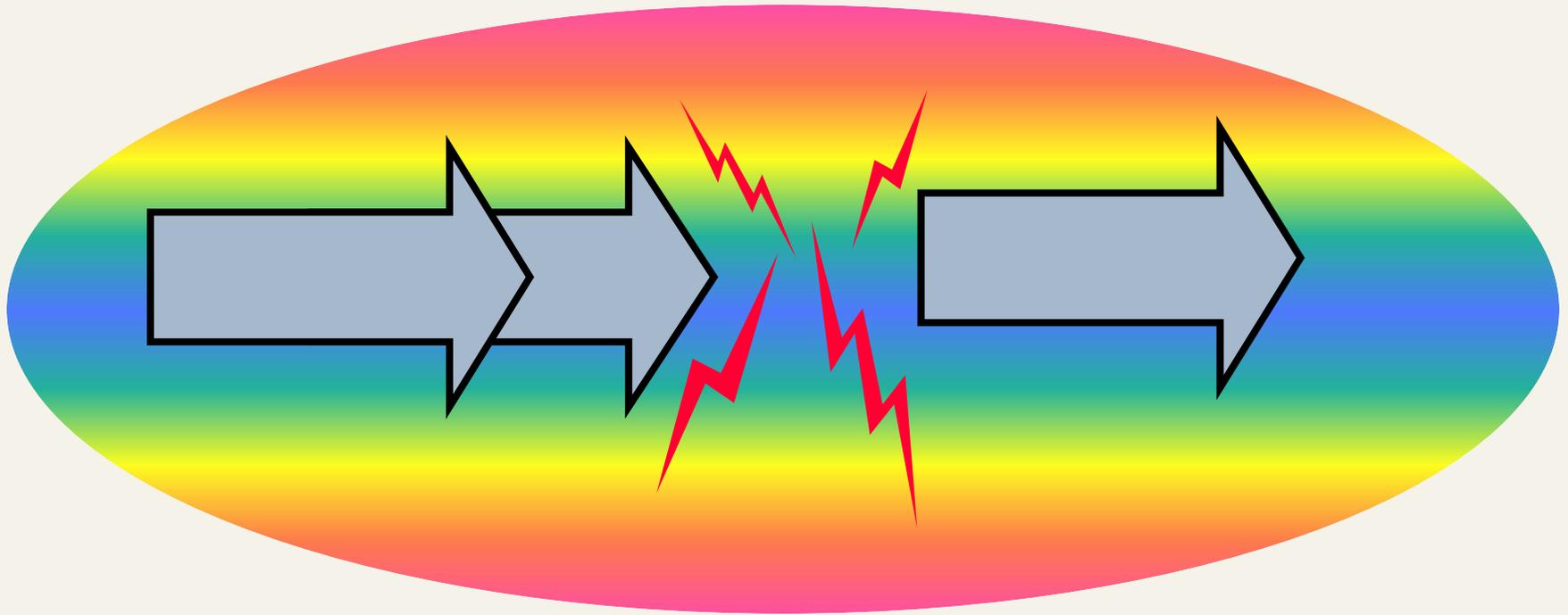
If injury problems are so complex, how do we learn to ask the right questions?



Answer:

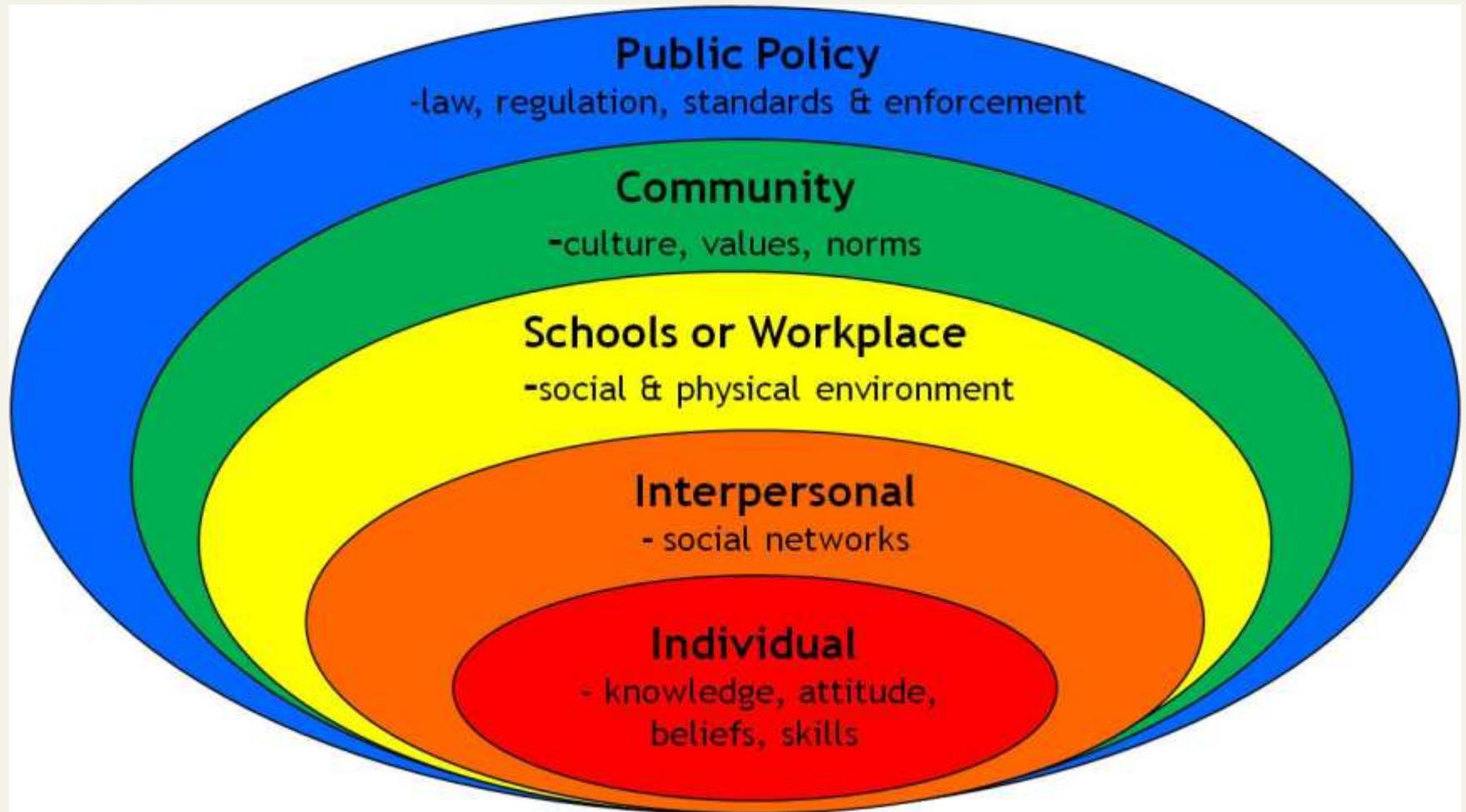
Challenge yourselves to look beyond the obvious.

Injury problems occur in a context. Prevention programs succeed ONLY if they address these factors



Best-practices intervention planning requires that we understand the causal chain AND the factors that support or inhibit it.

Social-Ecological Influences



Understanding Environmental Context

- The Haddon Matrix does not help us understand complex injury issues (e.g., alcohol or prescription-drug-related injury; lack of willingness to screen for IPV, etc). We need to take another step.
- The *Phased Environmental Influences Matrix** helps us understand the environmental contexts in which this problem developed and how it may be changed.

* This is a working title; it may be changed when published.

Phased Environmental Influences Matrix ©

State Issue Being Analyzed Here:		Environmental Contextual Factors						
		Physical & Built Environment	Identified Levels of Social Environmental Influences* Defined by user; may range from individual-level to multi-national					
			Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Historic Phase Factors								
Current Phase Factors								
Future Phase Factors								

Phased Environmental Influences Matrix ©

State Issue Being Analyzed Here:		Environmental Contextual Factors						
		Physical & Built Environment	Identified Levels of Social Environmental Influences* Defined by user; may range from individual-level to multi-national					
			Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Historic Phase Factors		<p>How did we get to the current situation? What is the history of this problem? Is there a history of previous attempts to address this or similar problems? Don't assume there's no historical baggage!</p>						
Current Phase Factors		<p>What are the factors influencing the status quo? Which are modifiable? Don't assume there's consensus about the need to change. Who benefits from preserving the status quo?</p>						
Future Phase Factors		<p>What are the factors influencing sustainability of this intervention/policy? What can we do in the current phase to anticipate and plan for opposing forces and challenges to the intervention/policy?</p>						

Phased Environmental Influences Matrix ©

State Issue Being Analyzed Here: 		Environmental Contextual Factors						
		Physical & Built Environment	Identified Levels of Social Environmental Influences* Defined by user; may range from individual-level to multi-national					
			Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Historic Phase Factors								
Current Phase Factors								
Future Phase Factors								

Before you



think about **your** problem

What is the issue **your group** is analyzing today?

Phased Environmental Influences Matrix ©

State Issue Being Analyzed Here: 		Environmental Contextual Factors						
		Physical & Built Environment	Identified Levels of Social Environmental Influences* Defined by user; may range from individual-level to multi-national					
			Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		These are specific to your setting. You choose these						
Historic Phase Factors								
Current Phase Factors								
Future Phase Factors								

Phased Environmental Influences Matrix ©

State Issue Being Analyzed Here: 		Environmental Contextual Factors						
		Physical & Built Environment	Identified Levels of Social Environmental Influences* Defined by user; may range from individual-level to multi-national					
			Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		Let's think of possible levels of influence						
Historic Phase Factors								
Current Phase Factors								
Future Phase Factors								

Phased Environmental Influences Matrix ©

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			Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		Examine each level of influence						
Historic Phase Factors	2							
Current Phase Factors	1							
Future Phase Factors	3							

Phased Environmental Influences Matrix ©

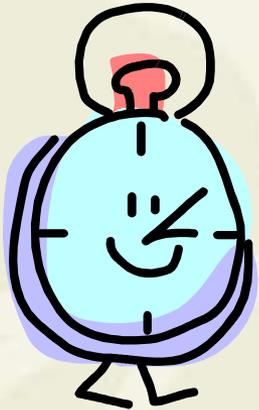
State Issue Being Analyzed Here:	Environmental Contextual Factors					
	Physical & Built Environment	Identified Levels of Social Environmental Influences* Defined by user; may range from individual-level to multi-national				
		Level 1	Level 2	Level 3	Level 4	Level 5

Historic Phase Factors	<p>During the first application session, you will analyze a prescription drug overdose-related problem using the <i>Phased Environmental Influences Matrix</i>.</p> <p>You will choose the levels of social influence you need to consider.</p>					
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Current Phase Factors	<p>Remember, you don't have to know details. It is very helpful to realize what you don't know; this guides your questioning.</p> <p>Hint: Don't try to work box by box. Brainstorm in your group and then decide where your suggested factors belong.</p>					
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Future Phase Factors	<p>Based on your conclusions from this exercise, you should be able to fill in Step 1 of your PRECEDE/PROCEED Framework</p>					
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APPLICATION SESSION 1



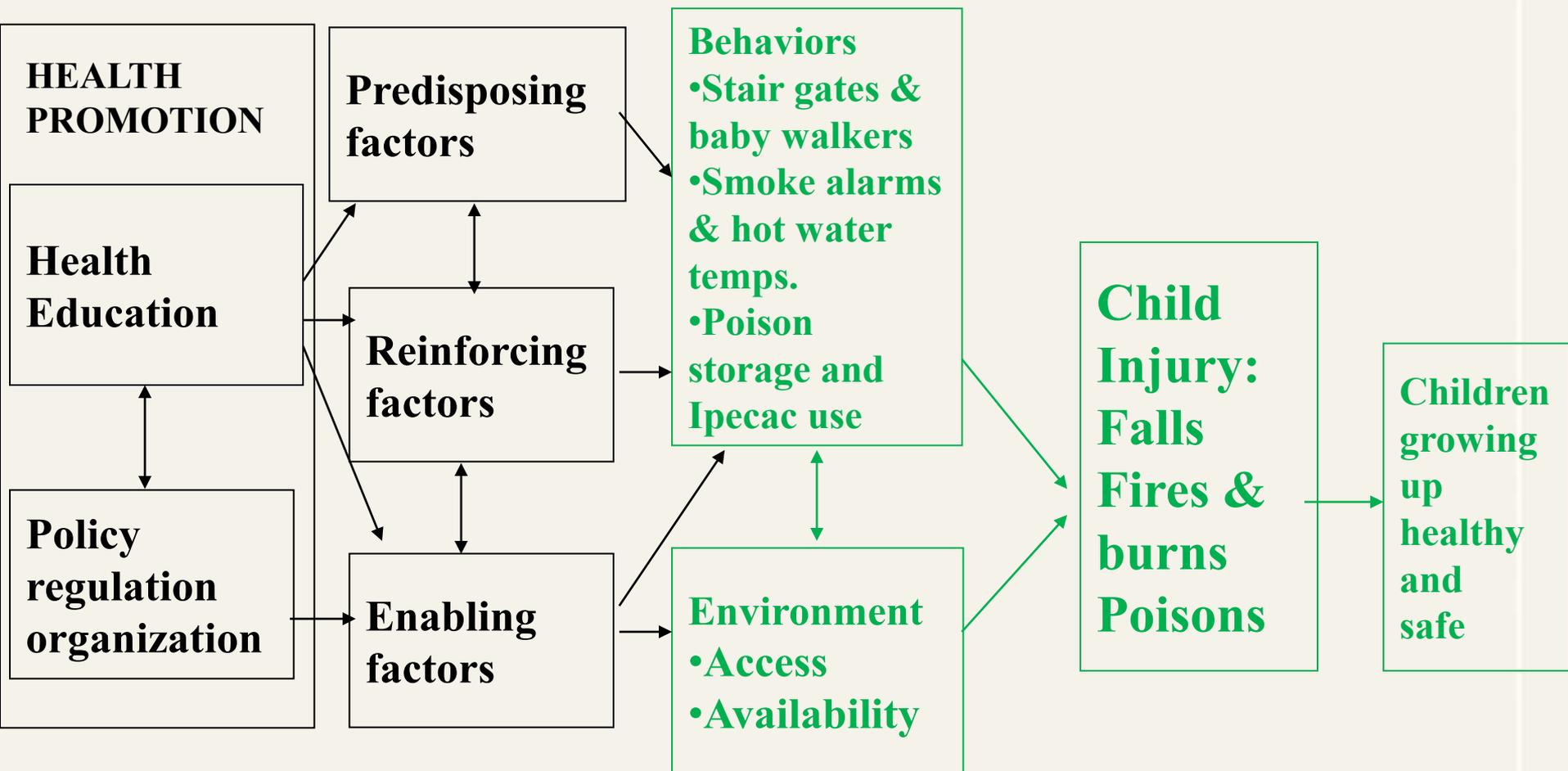
But first, it's time for a break

PRECEDE – PROCEED Planning Framework

Part 2

Two of the greatest virtues in life are patience and wisdom





Step 3: Educational and Ecological Assessment

- WHY:
 - To identify those factors that must be changed to initiate and sustain the process of behavioral and environmental change
- NOTE: Collective causation
 - These factors collectively influence the behavior; they are not mutually exclusive and they frequently interact

Predisposing Factors

- Definition
 - Antecedents that provide the rationale or motivation for a behavior
- Example
 - Knowledge, attitudes, beliefs, personal preferences, cognitive and affective domain, existing skills and self-efficacy beliefs

Reinforcing Factors

- Definition
 - Factors subsequent to the behavior that provide continuing reward or incentive for the behavior to become persistent
- Example
 - Social support, peer influence, significant others, vicarious reinforcement (i.e. modeling behavior of someone influential to the individual)

Enabling Factors

- Definition
 - Antecedents that enable (allow) motivation to be realized; they can affect behavior directly or indirectly through an environmental factor
- Example
 - Programs, services, and resources are enabling factors for behavioral and environmental outcomes; new skills are enabling factors for a behavioral outcome

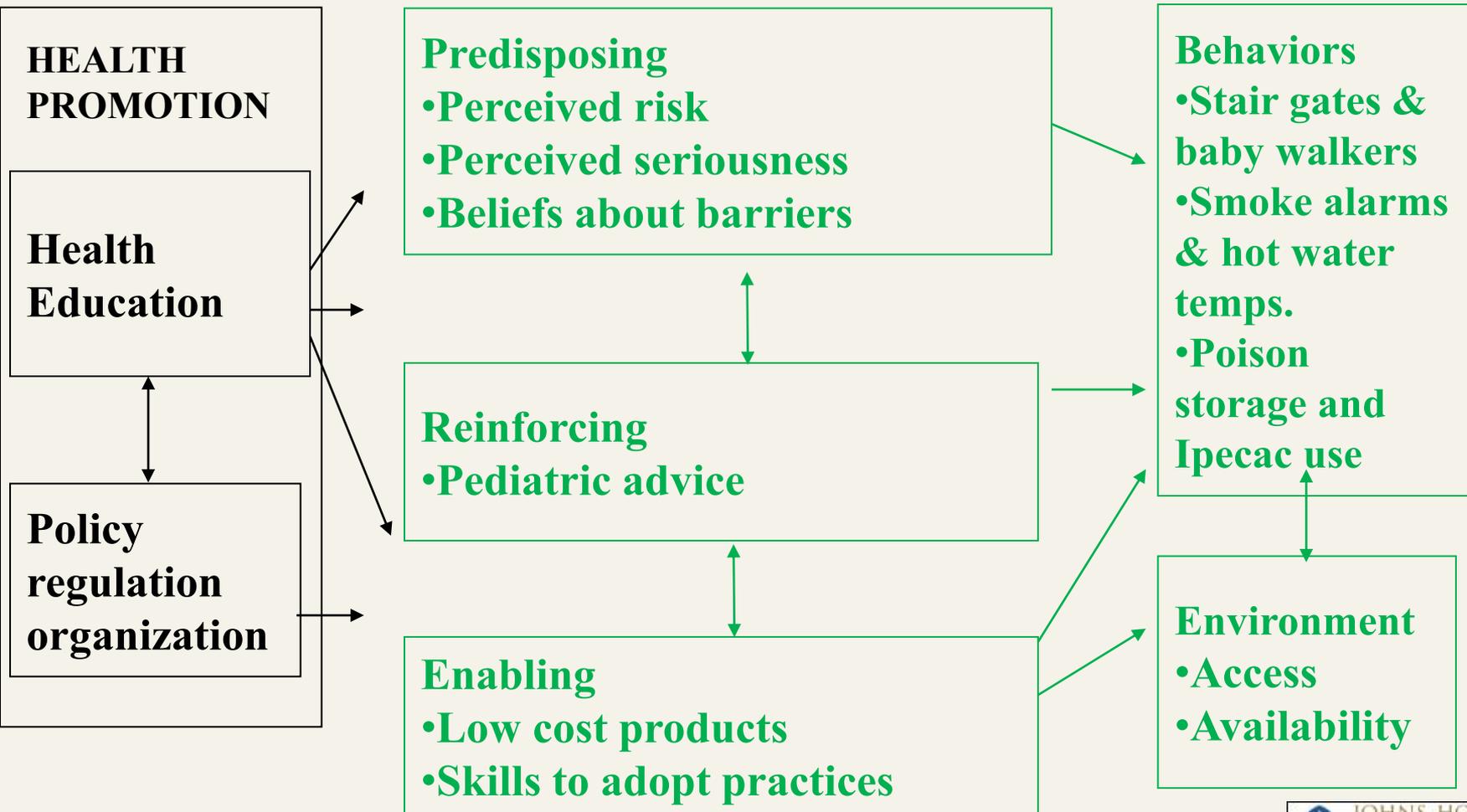
Methods of Educational Assessment

- Research Literature
 - Descriptive, correlational studies
 - Evaluation, intervention studies
- Original data collection with intended audience
- Expert review and input
- Once you've identified the PRE factors, rate and prioritize:
 - Importance of the factor
 - Changeability

Identifying important and changeable factors

	More Important	Less Important
More Changeable		
Less Changeable		

Where would you put: housing quality? Child's personality traits? Parent's knowledge of child development? Access to low cost safety products?

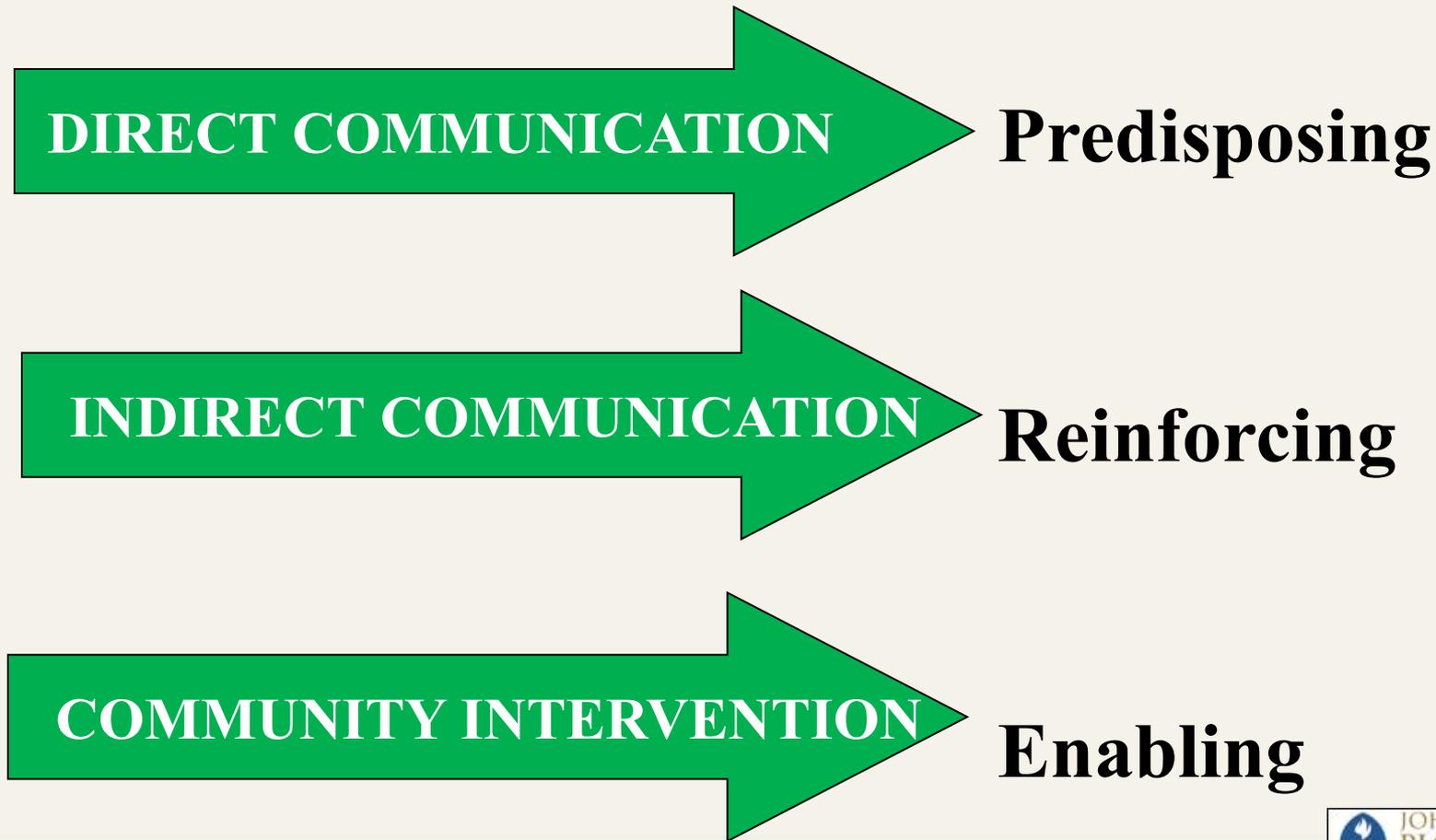


Remember:

“The decision to place a factor in one category or another is less important than ranking the factor as an influence or determinant of behavior worthy of attention and finding a way to address it in the program.”

Green & Kreuter

Step 4. Intervention Methods and Administrative Considerations



Direct Communication Strategies to Address Predisposing Factors

- mass media
- small media
- face to face communication

Advice for Parents delivered by pediatricians, safety educator, CHW

- Discuss risk of injury with parents
- Discuss seriousness of injuries
- Discuss barriers to safer practices

Indirect Communication Strategies to Address Reinforcing Factors

- Train-the-trainer/ influential others
- Resource materials
- Technical assistance
- Lay health advisors; buddy systems

- Pediatric counseling training program
- Home visitor program

Community Intervention Strategies to Address Enabling Factors

- Advocacy through press conferences, lobbying, letter writing campaigns
- Community mobilization through coalitions, grassroots organizing, demonstrations
- Organizational change strategies, policy and procedures

Established Children's Safety Center

- Accessible and affordable safety items
- Safety expert

Created CHW home visiting program

Pediatric Counseling Program

Training
Program

5 hours, faculty led, hands-on, role plays, homework

Solicit
Advise
Focus
Encourage

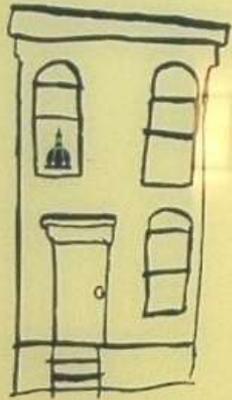
Counseling
Framework

Children's Safety Center

**Free
personalized
education**

**Reduced cost
safety
supplies**





children's
Safety Center

WHEN FIRE STRIKES:
GET OUT!
STAY OUT!



In grateful appreciation of:

- Local's Home Safety Council
- The Chesapeake Health Plan Foundation
- The Chesapeake Foundation for Children

for their generous support of the Children's Safety Center





HOME VISITS

Community Health Workers:

- *Identify hazards in client's home*
- *Personalize education/coach on installation*
- *Refer to the Children's Safety Center*

Assessing the administrative and policy environment

- WHY: To identify the policies, resources, and circumstances prevailing in your organizational situation that could facilitate or hinder program implementation
- HOW:
 - Create measurable program objectives and realistic timelines for implementation
 - Assess consistency of program with organizational mission, policies, and regulations
 - Identify barriers to implementation and strategies to address them
 - Identify and coordinate the resources necessary to implement a program

**PROGRAM
COMPONENTS**

**Pediatric
Counseling**

**Children's Safety
Center**

Home Visits

**Predisposing
Perceived Risk
Perceived Seriousness
Beliefs about Barriers**

**Reinforcing
Pediatric Advice**

**Enabling
Low cost products
Skills to adopt practices**

**Behaviors
Stair gates &
baby walkers
Smoke alarms
& hot water
temps.
Poison storage
and Ipecac
use**

**Environment
Access
Availability**

Safe Home Findings

- Amount and quality of physician counseling improved
- Counseling led to more satisfied patients, but had no effect on safety practices
- Counseling and visiting Children's Safety Center was associated with more observed safety behaviors
- Home visits had no added benefit

The cover of a guide titled "The Johns Hopkins Children's Safety Center A Replication Guide". It features a collage of photos showing children in a safety center, a woman talking to a child, and a child in a hospital bed. The text on the cover includes:

The Johns Hopkins Children's Safety Center
A Replication Guide

Prepared by

CENTER FOR
INJURY RESEARCH & POLICY

at the Johns Hopkins
Bloomberg School of Public Health

With support from

LOWE'S HOME SAFETY COUNCIL





Application Session 2

Phased Environmental Influences Matrix ©

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Historic Phase Factors						
------------------------	--	--	--	--	--	--

Current Phase Factors						
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Future Phase Factors						
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In this application session, you will continue your discussions.

Pick what you believe to be the most important **behavior and the most important **environmental** factor and complete Step 2 of your PRECEDE/PROCEED Framework.**

Complete Step 3 of the Framework by identifying the most important and most changeable **Predisposing, Enabling and Reinforcing influences**

Based on this analysis, complete Step 4 – deciding on your interventions – what programs and policies are needed and how will you make it happen?

Remember, you don't have to know details. It is very helpful to realize what you don't know; this guides your questioning.

Debrief and Lessons Learned

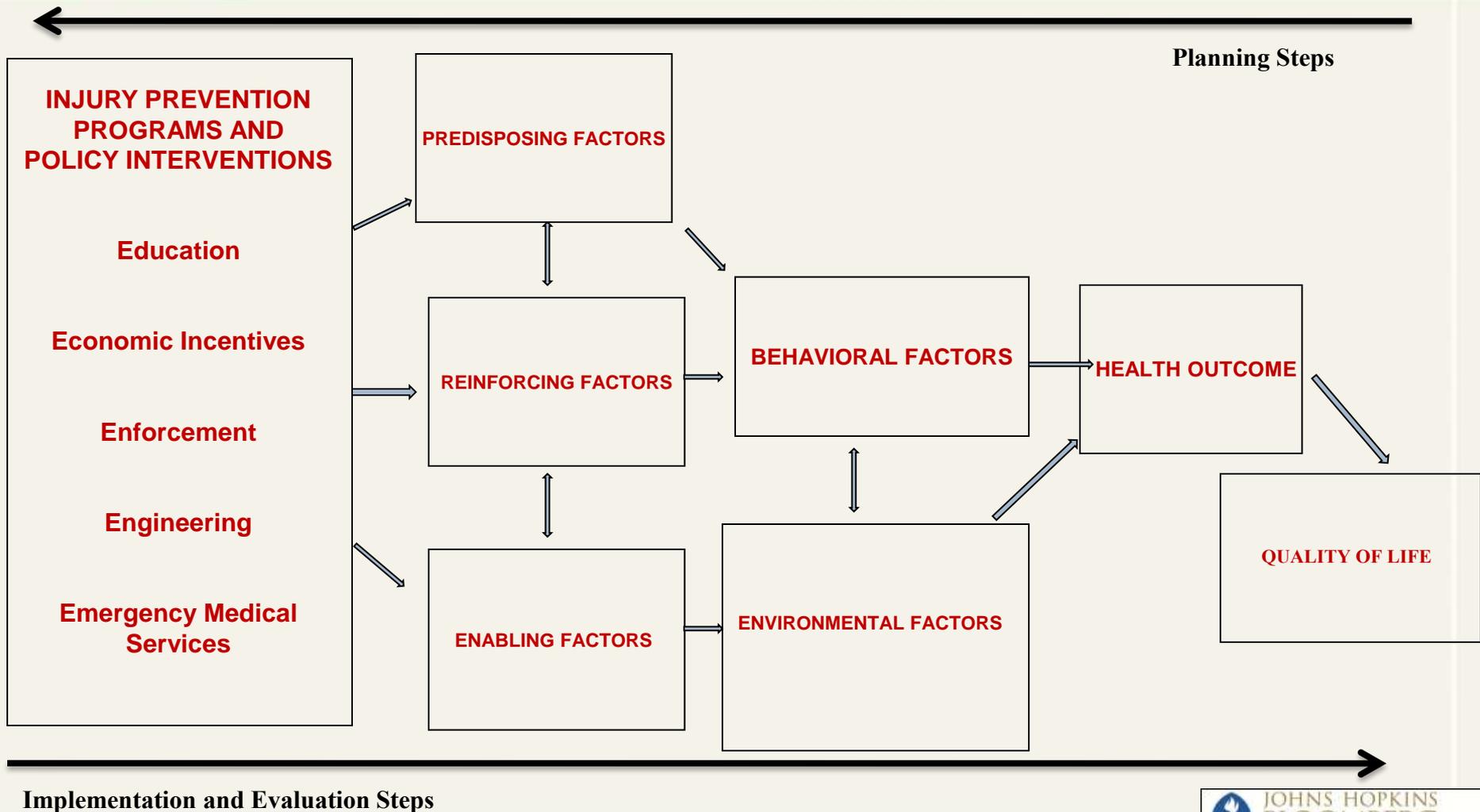
What have we learned?



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Historic Phase Factors								
Current Phase Factors								
Future Phase Factors								

PRECEDE/PROCEED FRAMEWORK APPLIED TO INJURY PREVENTION



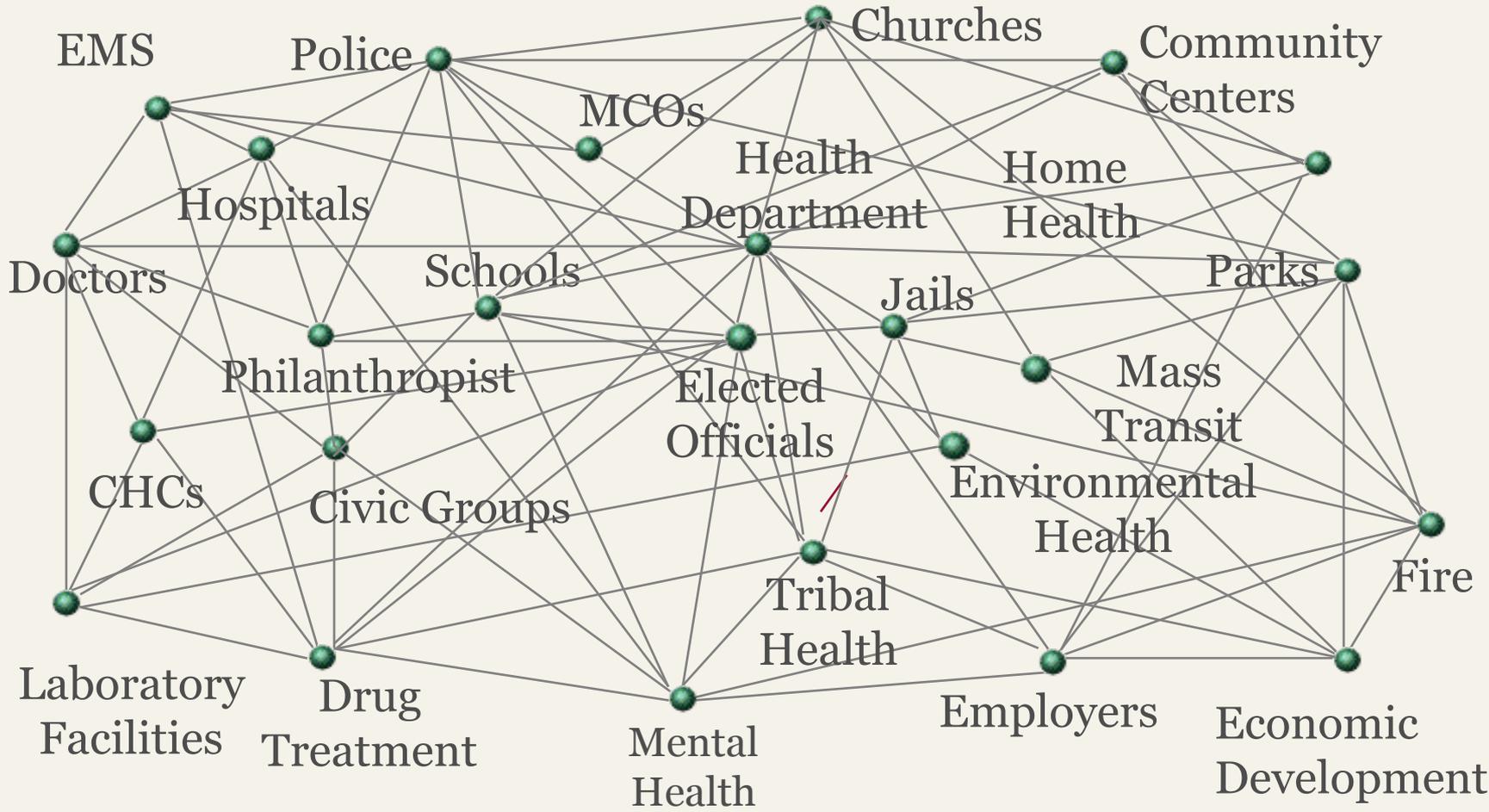
Adapted from L.W. Green and M. Kreuter

What have we learned about community?

- Community is:
 - complex
 - connected
 - constantly changing
 - influential



Injury Prevention Challenge or Opportunity?



Adapted from CDC's Local Public Health System Graphic

**Community is
the solution**



not the site

BUT ...

If you've seen one community,
you've seen one community



- Even apparently similar situations may be different
- Each presents unique challenges and opportunities.

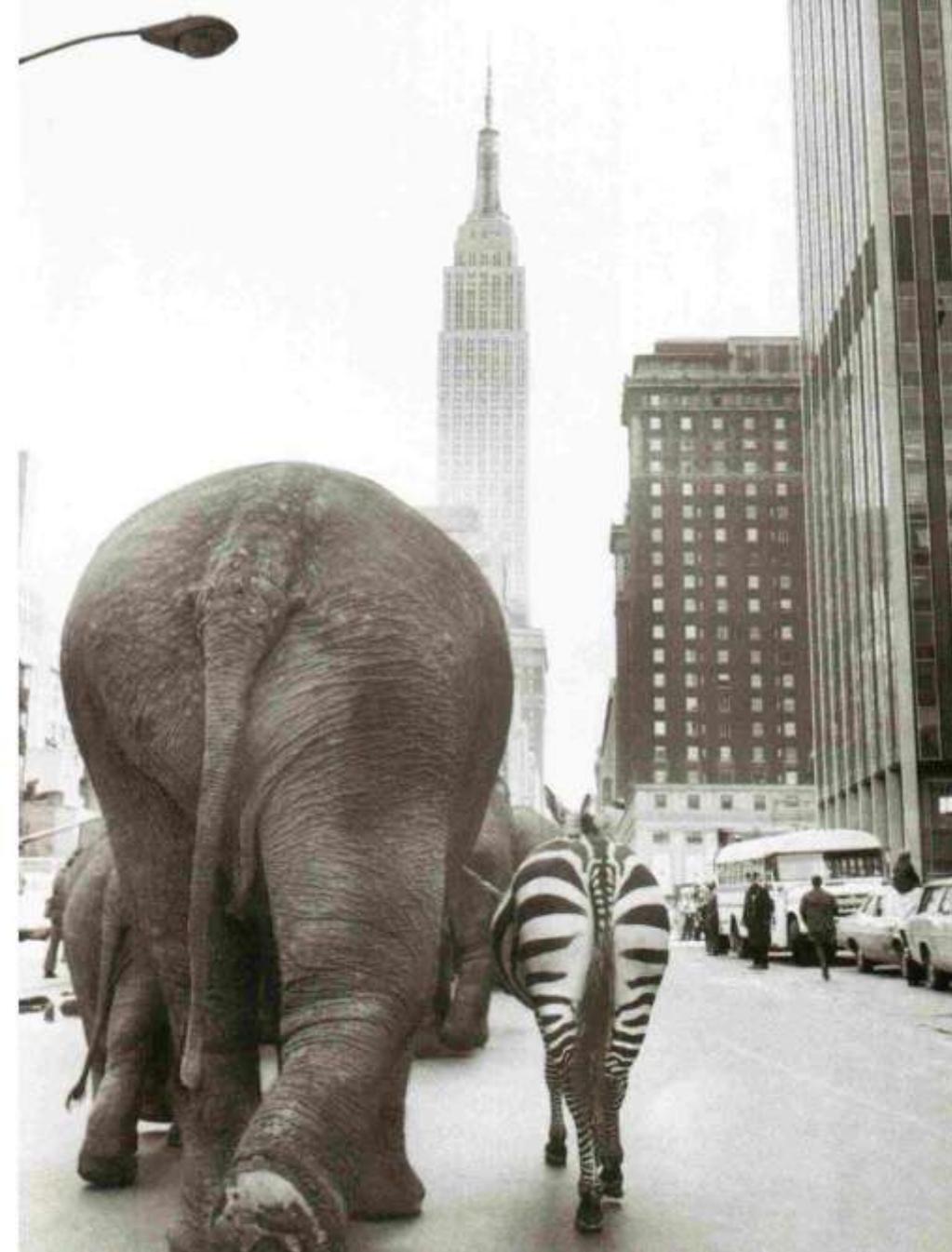
Context is Crucial!

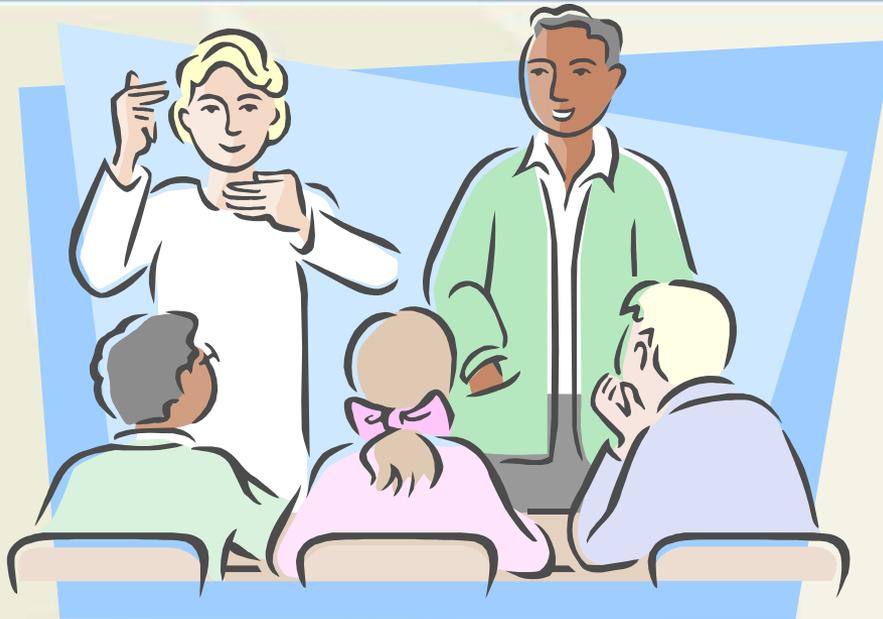
What fits in one context may be:

- unfeasible
- ineffective
- inappropriate
- disruptive

in another.

Even “model programs” must be tailored to fit.





Engage community members from day 1

The Cost of Uninformed Action



An “anything is better than nothing” approach to injury prevention creates the risk that **non-strategic** interventions will be implemented in the community with **negative consequences** for all injury prevention initiatives.



The Power of Restraint

- A journey of a thousand miles begins with a single step

Lao-tzu

604 BC-531 BC

New translation:

- **“The journey of a thousand miles begins beneath one’s feet”**