Adopting a Systematic Public Health Problem Solving Approach to:

Injury & Violence Prevention

PART 1:
UNDERSTANDING THE PROBLEM
Identifying a Problem is Important

..but it is only useful for injury & violence prevention if this initiates careful, considered actions and 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?
The 3 P's of PREVENTION

Passion

Possibilities

Remember the Proverbs:

“Fools Rush In ...Where Angels Fear to Tread”

& “Discretion is the Better Part of Valor”

If we do not start our planning with a clear and focused problem definition, the intervention program will get into trouble.
An “anything is better than nothing” approach to prevention ..

.. creates the risk that non-strategic interventions will be implemented in the community with negative consequences for all injury & violence prevention initiatives.

We must approach injury and violence problems in a critical, systematic way
The 3 P’s of PREVENTION

Passion
Possibilities
Problem Solving

Public Health Problem Solving Process

1. Problem identification.
2. Problem measurement and definition [& measurement].
3. Identification of key determinants.
4. Identification of candidate control strategies; intervention selection.
5. Intervention (includes policy) planning
6. Intervention implementation.
7. Evaluation - plus response to findings
8. Developing a communication strategy

Adapted from: Guyer, B. in Armenian and Shapiro, 1998
STEPS 1&2

- Problem Identification
- Problem Definition
  - And measurement of the problem as defined.

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.

We’ll work in topic-specific groups to practice public health problem solving

What is this problem?
Goal: Reduce **Prescription Drug Poisoning** in DE

- **What group?**
  - Age group, people prescribed drugs, off-prescription users, habitual users, inexperienced recreational users, prescribing physicians/clinicians, other?

- **What general locale?**
  - All of DE, 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?

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**Injury Problem Measurement**

Is this a public health problem?

Why?
Why is this injury a problem?

- Magnitude of problem
  - Incidence
  - Prevalence
  - Major changes in trends
- Severity of the injury
- Consequences of injury
- Involves a vulnerable group
- Costs
- “Preventability”
- Community concern

Can and should we allocate resources to this problem?

Warm Up Thinking Activity ...

- Think about your focus area.
- How might you define the problem or problems you face in Delaware?
- Why is it important?
  - This is only a warm up - don’t get too anxious!
Identifying an issue that must be changed is seldom enough to help us fully understand how to make that change.

- Factor 1 - ?
- Factor 2 - ?
- Factor 3 - ?
- Issue to be changed
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?

1. Problem Identification ✓
2. Problem Definition & Measurement ✓
3. Identify Key Determinants
What’s KEY?

Key Determinants

A key determinant is a CRITICAL factor that influences a problem
Critical Influences

- The factor causes the problem
  - and/or

- The factor influences the recognition of the problem
  - and/or

- The factor is predisposes, enables and/or reinforces the problem or the proximal determinants

Problems seldom have a single cause

Problems never have a single key determinant
To prevent injury we must first identify - and then interrupt - the causal pathway.

But that’s not enough to inform an intervention.

Injury & Violence are problems of populations

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

Dr. George W. Albee
1921-2006
Looking beyond the individual

Strategic intervention planning requires that we understand the causal chain AND the factors that support or inhibit it.
Before we “treat” any IVP problem we must make a more thorough diagnosis

Determinants of Health

Policies and Interventions

Physical Environment

Behavior

Individual

Social Environment

Biology

Access to Quality Health Care

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

Proximal determinants

Family/Work

Behavior

Biology

Health

Social

Environment

School/Neighborhood/Community
Distal determinants

Family/Work
Behavior
Biology
Social
Environment
School/Neighborhood/Community

Political/Economic Gender Roles
Social Stratification

Culture
Interactions: e.g., race relations

Social-Ecological Influences

Public Policy
- law, regulation, standards & enforcement

Community
- culture, values, norms

Schools or Workplace
- social & physical environment

Interpersonal
- social networks

Individual
- knowledge, attitude, beliefs, skills
Learn how to ask the right questions

+ persevered 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?

Introduction to the

Phased Environmental Influences (PEI) Matrix
Understanding Environmental Context

☑ Many injury and violence problems and challenges are complex
   ◆ E.g., alcohol-related injury; lack of willingness to screen for IPV, community violence, even lack of resource allocation, etc.).

☑ The **Phased Environmental Influences Matrix** helps us understand the physical and social environmental contexts in which this problem developed and how it can be changed.

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

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Phased Environmental Influences Matrix *

State Issue Being Analyzed Here:

Environmental Contextual Factors

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Historic Phase Factors

Current Phase Factors

Future Phase Factors

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!

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?

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?

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**Phased Environmental Influences Matrix**

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*Identified Levels of Social Environmental Influences*
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These are specific to your setting. You choose these

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**Step 1: Let’s think of possible levels of influence**

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PEI Matrix Application - 1

What are the levels of influence in your focus area?

Data Gathering & Analysis ...

.. provides the foundation for strategic intervention development
Information about the injury is not enough ...

- A good problem diagnosis usually requires the use of data from several sources.

What is the most critical information problem we have?
PEI Matrix Application - 2

Beginning our diagnostic thinking

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**Current Phase Factors**

*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?*

**Future Phase Factors**

*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?*

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**Discussion**

*What about all those gaps? There’s so much I don’t know.*
This is so complicated - why bother?

An intervention will not be effective if:

- the underlying assumptions are wrong
- the program does not affect intervening variables
- the program/activity is not implemented adequately
- the program effects can not be sustained

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"