Advancing Childhood Injury Prevention in a Changing World

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Haven’t we talked about this?

- Yes - at the September conference
- No - we’ll be taking another step towards application

Presented on January 18, 2011
A Shared Goal

- Achieving community-level change using evidence from successful change initiatives.

But How?
What if I told you …

I believe the change we’re living through now will move unintentional childhood injury prevention forward.

Does this feel familiar?

I believe the drought we’re living through now could drive unintentional childhood injury prevention forward.
Why this optimism?

• Challenging circumstances help us grow

• They challenge us to change the way we:
  ➢ View things
  ➢ Do things

• They destabilize the status quo

Our Challenge

• To achieve our childhood injury prevention goals we must succeed in:

  1. Addressing childhood injury problems in new, effective ways.

  2. Developing childhood injury prevention capacity with limited resources.
To achieve our childhood injury prevention goals we must succeed in:

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Which is more important? Please Vote for 1 or 2

I believe #1 is the key to #2

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### Haddon Matrix: Child Pedestrian Injury

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

* Age = age-related considerations such as development.
**Haddon Matrix:**

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This is true but is it useful for prevention?

**Children are not Little Adults**

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A child sees the world differently, and that world is ever-changing.

**The Child’s View**

**The World’s View**

**Child Pedestrian Injury Example - continued**

**Problem or Symptom?**
Problem or Symptom?

- **Problem:**
  - The child’s behavior
  - “The child is an unsafe pedestrian”

- **Symptom**
  - Social and physical environmental conditions
  - “The child pedestrian is in an unsafe environment”

**Key Prevention Concept #1**

We cannot change a child’s age and development-related limitations.

We must understand development but look beyond the “obvious” to identify **modifiable** variables.
A child discovers their world ..

by exploring it

What Is the Child’s World?

That depends on when you ask the question!
Like the child, it grows in size and complexity

I think, at a child’s birth, if a mother could ask a fairy godmother to endow it with the most useful gift, that gift should be curiosity.

Eleanor Roosevelt

Curiosity: Gift or Risk Factor?

I have no special talent. I am only passionately curious.

Albert Einstein
Curiosity: Gift or Risk Factor?

Our answer will influence our intervention choices

What will this curious infant do next?

What should we do to protect him?
The “obvious” injury prevention answer: separate the child from the risk factor

But at what developmental cost?

We need **Substitution** not **Separation**

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Curiosity is Essential

Exploration is much more than fun

Play is the WORK of Children!
Injury prevention is about more than reducing deaths and injuries. It’s about protecting a child’s fundamental need to live, explore, learn and grow in a safe and healthy environment.

Childhood injury exhibits strong developmental trends:

We must understand these - they have implications for our intervention decision making.
Causes of death and injury in infants

**INFANTS:**
Suffocation & Choking, Motor Vehicle Occupant, Drowning, House Fires, Falls, Poisoning, Abuse & Homicide

Our Challenges:
- Safe environments
- Informed and alert caretakers
- Rapidly changing ability and behaviors

Causes of death and injury in toddlers

**TODDLERS:**
Motor Vehicle Occupant, Drowning, Fire, Suffocation & Choking, Pedestrian, Falls, Poisoning

Our Challenges:
- The Great Explorers!
- Safe environments for the increasingly mobile and fearless
- Sudden fatigue

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Causes of death and injury in elementary school age children

Our Challenges:
- Mismatched physical and cognitive abilities
  - Especially in groups
- Adults over-estimate their abilities
- Adults under-estimate their developmental needs

Causes of death and injury in teenagers

Our Challenges:
- Major physical, cognitive, social, and emotional transitions (high risk)
- Exponential increase in independent mobility and exposure to risk factors
- Adults under-estimate their physical and developmental needs
A focus on a child’s behavior can be a “True But Useless” distraction

Some information, although true, is of little practical help in crafting a response.

Jerry Sternin (developer of the positive deviance problem solving approach) called this information “true but useless”

Adequate review of injury risk factors includes both intrinsic and extrinsic risk factors:

- Developmental level
- Pre-existing conditions
  - physical/cognitive/etc.
- Physical environment
- Social environment
  - Individual/family level
  - Community
  - Systems
- Injury patterns and outcomes
- Exposure
Part 2: How Do We Protect Children?

Key Prevention Concept #2

First, Do No Harm

1. Non-strategic interventions are more than ineffective, they may introduce new risk

2. We must remain vigilant for unintended negative consequences
If we want to address childhood injury, we must understand environment.

For better or worse, children are in constant interaction with their environment.

Goal: Modify the child’s environment - or the way the child is exposed to it.

Kids Must Be Kids!
The Maternal Child Health Community has long recognized the influence of environmental conditions on health.

Injury is no different than disease. We must aim for action to achieve environmental (ecological) change.
Most children are injured by products of the physical and social environments that we as adults have created.

What’s in the environment?

HOME  SCHOOL  TRAVEL  RECREATION  DAYCARE  CYBERSPACE

There Are So Many Ever-Changing Pieces
Environmental conditions favor the agent/vehicle and increase the child's risk for injury.

“Negative ecological balance”

Our Vision:

“Positive ecological balance”

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Remember who we are
(What is public health anyway?)

Public health is: “What we, as a society, do collectively to assure the conditions in which people can be healthy”


Whatever the Public Health challenge, we must modify multiple health determinants

Source: U.S. Department of Health and Human Services, Health People 2010
Before we can “treat” this “injury” problem we must make a more thorough diagnosis

Determinants of Health

- Policies and Interventions
- Physical Environment
- Behavior
- Individual
- Biology
- Social Environment
- Access to Quality Health Care

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

We cannot ignore 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

Graphic: Carolyn Cumpsty Fowler - adapted from the Social-Ecological Model
But ....

What about our lack of infrastructure?

Social and Political Contextual Influences

- IVP Problem Identification
- IVPP Problem Analysis
- IVP Program Design
- IVP Program Delivery
- IVPP Impacts

Infrastructure
- Internal
- External

Epidemiology, Program Design, Implementation, Evaluation, Information Sharing
Human Resource Issues, Funding, Partners, Socio-Political Influence

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Our Change Challenge: Building Injury Prevention Capacity:

But whose capacity?

Injury Prevention Reality

No single health, social service, law enforcement, or judicial system can prevent child deaths and injuries.
“It takes a village” to protect children

All Public Health Achievement Requires:

• Coordinated
• Comprehensive
• Organized Community Effort

Because of the often “political” nature of effective strategies, this is critically important for Injury Prevention
Our Change Challenge: Building Injury Prevention Capacity:

“The sustained ability of people - as individuals, groups, communities, institutions, and societies - to anticipate, identify and address injury problems and threats to safety in a strategic, effective, ethical and equitable manner”

This is my definition of Injury Prevention Capacity

Here’s another “yes, but..” challenge
Our _________ just doesn’t “get” it

Pick your favorite: organization, leadership, community, society, state, etc

The world hates change, yet it is the only thing that has brought progress.

Charles Kettering
1876-1958
Yes, it’s true ...

I believe the adverse circumstances we’re living through now will move unintentional childhood injury prevention forward.

• “There is no education like adversity”
  Benjamin Disraeli (1804-1881) British Prime Minister

• “Adversity has the effect of eliciting talents, which in prosperous circumstances would have lain dormant”
  Horace (65 BC-8 BC)

• “Show me someone who has done something worthwhile, and I'll show you someone who has overcome adversity”
  Lou Holtz (B. 1937)
My optimism is based on:

• the motivating importance of protecting child development
• the commitment of our field
• what we know about change
• the work of Jerry Sternin

Lessons in Positive Deviance

Jerry Sternin
1938-2008
Jerry Sternin’s Ecological Change Challenge

Host

Agent

Environment

Malnutrition

Social Environment

Physical Environment

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The story of positive deviance

An excerpt from Atul Gawande’s forward to “The Power of Positive Deviance”

Why Use Positive Deviance Strategies in Injury Prevention?

• Our problems require social change
• Other solutions haven’t worked
• Positive deviants exist, and

• There is sponsorship and local leadership commitment to address the issue


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We need to build on our strengths

“Amplify positive deviance”

(spread the light)

Where are your bright spots?
Your Most Important Resource is:

Relationships, Relationships, Relationships!

A critical question

- Are we ready for these relationships?
Step 1: Reframe our role

- How do we see ourselves?
  - Doers?
  - Leaders?
  - Facilitators?

- How do others see us?
  - No assumptions please!

Step 2: Pay Attention Differently

- Avoid the tendency to look at the size of the challenge and the lack of resources.

- Find your bright spots.

- Don’t fixate on “what” they do (or did).

- Commit to understanding “how” these positive deviants succeeded.
Step 3: Reject Conventional Wisdom

Conventional wisdom is often neither

Step 4: Spend time learning about other people’s turf

You may discover inspiring ideas, “Bright Spots”, and a new way of looking at the world

“You can’t stay in your corner of the Forest waiting for others to come to you. You have to go to them sometimes.”

Winnie the Pooh (A. A. Milne)
Step 5: Learn a shared language (Whose language are you speaking?)

“If you talk to a man in a language he understands, that goes to his head. If you talk to him in his language, that goes to his heart.”

--Nelson Mandela

Step 6: Look for connecting concerns

We will have to build - and cross - many bridges
Examples of connecting concerns:

- Children who achieve their full potential
- Reduced health care costs
- Children ready and able to learn
- Improved air quality — reducing childhood asthma

SAFE & WALKABLE COMMUNITIES

- Reducing childhood obesity
- Increased physical activity
- Reducing injury risk & maximizing effective teaching time

Step 7: Remember small steps are smart steps
Reflect on - and enjoy - your progress

It’s amazing what ordinary people can do if they set out without preconceived notions .... Where there is an open mind there will always be a frontier.

Charles Kettering
1876-1958
Some excellent change resources*

http://heathbrothers.com

*These are personal favorites – I don’t have a financial interest in any of these publications.