INJURY PREVENTION - A STRATEGIC PRIORITY FOR ENVIRONMENTAL HEALTH?

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Are injury prevention, environmental health and public health interconnected?

- Public health includes health protection
- Health protection includes environmental health
- *Does environmental health include injury prevention?*
What is Environmental Health?

• Those aspects of human health and disease that are determined by factors in the environment.

• The theory and practice of assessing and controlling factors in the environment that can potentially affect health.
What is injury?

The acute transfer of energy from the environment to human tissue

- Mechanical
- Thermal
- Electrical
- Chemical

Or

impairment of bodily function due to lack of a vital environmental element (air, water, warmth)
“The term environmental health is associated overwhelmingly with a narrow range of activities centring on the enforcement of regulations relating to specific toxic, infectious or allergenic agents.

“...one of the most serious threats to human health – injury – has been largely excluded from the environmental health paradigm.”

Our assertion

Injury is an environmental health issue *par excellence*.

Injury merits consideration as a major strategic priority by
• the public health community
• environmental health professionals
INJURY IS A GLOBAL PUBLIC HEALTH CHALLENGE

- Approx 5 million deaths annually worldwide
- Leading cause of death in children/young people
- Deaths are only tip of injury iceberg
- Injury mortality rising in developing countries, falling in developed
- Most injuries unintentional but pattern changing
Scottish Injury Mortality (1997-2001)

Mortality from unintentional injury, children under 15 years of age by deprivation category 1997-2001 (Scotland).

Source: General Registrar for Scotland (GROS)
The 3 Es of Injury Prevention

• EDUCATION

• ENFORCEMENT OF LEGISLATION

• ENVIRONMENT/ENGINEERING
The Haddon Matrix

Example of Pedestrian Head Injury

<table>
<thead>
<tr>
<th></th>
<th>Host</th>
<th>Agent</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-injury</td>
<td>Child running</td>
<td>Car speeding</td>
<td>Rain</td>
</tr>
<tr>
<td>Injury</td>
<td>Skull fracture</td>
<td>Bumper impact</td>
<td>Microbes</td>
</tr>
<tr>
<td>Post-injury</td>
<td>Coma</td>
<td>Unskilled first aid</td>
<td>Hospital care</td>
</tr>
</tbody>
</table>
Modified DPSEEA

- DRIVING FORCES: Economic, social, political
- PRESSURES
- STATE
- EXPOSURE
- EFFECT
- SOCIAL
  - DEMOGRAPHIC
  - ECONOMIC
  - BEHAVIOURAL
  - Includes perception of environment

- ACTIONS
European initiatives on environmental health and children

- SCALE (EC)
- CEHAPE (WHO)
- CSAP (EC and WHO)
EU Environmental Health Strategy:

Science
Children
Awareness
Legislation
Evaluation
CEHAPE

Children’s Environmental Health Action Plan for Europe

Injury prevention is one of the Regional Priority Goals of CEHAPE
CSAP

- Child Safety Action Plan for Europe
- International initiative supported by WHO/EU
- Scotland and Wales participate in UK
- Benchmarking data
CEHAPE and SCALE share a concern for the environmental impact on children’s health and on enhancing the evidence base for action.
UK initiatives on environmental health and children

- UK: Children’s Environmental Health Strategy 2009
- Scotland: Good Places, Better Health 2008
**Good Places, Better Health**

- Aims to deliver environments promoting human health, wellbeing and equality of opportunity
- Initial priorities around child health, wellbeing and safety (IP)
- Focuses on need for better evidence to highlight gaps and point to solutions
- Linked to Environmental Determinants of Public Health in Scotland (EDPHiS), a multi-disciplinary study to support the policy development
Key messages

- IP already occurs in health promotion, consumer safety, occupational health, police, fire etc departments
- Efforts are fragmented, uncoordinated and hindered by the lack of a strategic “home” for injury prevention
- Integrating IP efforts within an environmental health strategic framework will promote effectiveness
- A robust infrastructure already exists for environmental health and health protection in the UK and elsewhere
- Delivery is possible with minimal additional resources
Conclusions

• IP’s natural strategic “home” lies within environmental health and its broader domain of health protection

• This approach has potential to co-ordinate and enhance existing IP efforts

• Injury prevention and safety promotion should be strategic priorities for environmental health
“Peach Tree in Bloom”  Van Gogh, 1888