Knowledge and Evidence in Child Injury Prevention:
Ten years between Clinical Ideals and Public Health Practices

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The emergence of evidence in injury prevention

The Cochrane Collaboration

Results published in Cochrane Reviews
Online in The Cochrane Library.

“State of the Art”
Cochrane Injuries Group (CIG)

• Launched in 1997

• First systematic injury review published in 1998

• From 2003 the number of reviews increased steadily

• Around ten years of interest in evidence based injury research
Objective

• What is the evidence-base in child injury prevention according to the Cochrane Injuries Group?

• How can the evidence be characterized?

• How useful in measuring the effectiveness of injury preventive strategies is “the state of the art”? 
Methods:
Browse library by review group: “Cochrane Injuries Group”

<table>
<thead>
<tr>
<th></th>
<th>Total (CIG)</th>
<th>Injury Prevention</th>
<th>Child Injury Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reviews</td>
<td>103</td>
<td>35</td>
<td>29</td>
</tr>
<tr>
<td>Protocols</td>
<td>28</td>
<td>3</td>
<td>3</td>
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For each review we have noted information on:

- **Study designs**
- **Outcome variables**
- **Author’s view on results:**
  - a) Evidence-based
  - b) Promising or beneficial
  - c) No or insufficient evidence of impact
- **Author’s view on challenges in writing the review**
The evidence-based interventions (11)

1. Alcohol-related interventions (counseling) targeting drunk driving recidivism
2. Bicycle helmets
3. Bicycle helmet non-legislative interventions
4. Bicycle helmet legislation
5. Booster seats 4-8 year olds
6. Graduated driver licensing among young drivers
7. Home safety education and provision of safety equipment
8. Motorcycle helmets
9. Red light cameras
10. Speed enforcement devices
11. Swimming pool fencing
Promising or beneficial interventions (9)

1. Adoption of the WHO “Safe Communities” program
2. Alcohol ignition interlock programs
3. Increased police patrols for preventing alcohol-impaired driving
4. Parent education on preventing injuries during childhood
5. Pedestrian and cyclist visibility
6. Traffic calming measures
7. School-based violence prevention
8. Smoke alarms
9. Street lighting for preventing road traffic injuries
No or insufficient evidence (9)

1. Community-based interventions for the prevention of burns and scalds
2. Educational interventions to reduce injuries in agriculture
3. Educational interventions for the prevention of eye injuries
4. Education of children for the prevention of dog bite injuries
5. Interventions in alcohol serving settings
6. Modifications of home environment
7. Post-license driver education
8. Safety education of pedestrians
9. School-based driver education
Seven implications of clinical ideals in injury practices:

1. Evidence is informative and motivational

2. Evidence emphasizes the method first and the research question second

3. Evidence is hard to get
(Continued)

4. Injury is the favorite outcome

5. Passive or built-in measures are not easy to fit into RCTs

6. Randomized Controlled Trials are costly for low frequency injuries

7. The objective of evaluations are changed to confirming rather than exploring
Moving beyond evidence

• Re-assess the role of RCT

• Take contextual variables as a challenge

• Re-introduce knowledge
Thank you!

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