

# Interventions to prevent accidental injury to young people aged 15–24

## Evidence briefing summary

### Introduction

Accidental injury is a major cause of mortality and morbidity in young adults aged 15–24. This age group, which has received far less attention than children and older people, includes the period from late adolescence and the transition to early adulthood.

This evidence briefing is a review of reviews of interventions to prevent accidental injury to young people in the 15–24 age group.

The following research questions form the basis of the briefing:

- what constitutes effective interventions for the prevention of accidental injury to young people and young adults?
- what current activities to prevent accidental injury demonstrate signs of success?
- what kind of measures provided by schools, colleges, further education, workplaces, leisure services or pubs and clubs might be effective?
- what professional and non-professional interventions have been effective?
- what lessons can be learnt from interventions with deprived or disadvantaged groups, and geographic initiatives, eg for

homeless and/or unemployed young people, and neighbourhood renewal programmes?

- what are the costs and benefits of accidental injury prevention initiatives?

This briefing uses the term 'accidental injury'. There has been considerable debate in the international literature about the use of the terms 'accidents' and 'accidental injury' (Davis and Pless 2001; Green et al. 2003). The term 'accidental injury' was used by England's Accidental Injury Task Force and also as the title of the Health Development Agency's Collaborating Centre, so the term has been retained in this briefing.

The briefing is structured to focus on three settings:

- roads, ie as a vehicle user (passenger or driver), cyclist, motorcyclist or pedestrian
- work, school or further education
- leisure, including entertainment and sport.

Review-level papers were selected from a comprehensive literature search. Reviews were selected on the basis that their titles and abstracts (if available) fulfilled all of the following criteria:

This summary presents an overview of the findings from a review of reviews of interventions to prevent accidental injury to young people in the 15–24 age group. It was undertaken by the Health Development Agency (HDA) but published after the functions of the HDA were transferred to NICE on 1 April 2005. Neither this summary nor the full report represent NICE guidance. The full report – Errington G, Athey K, Towner E et al. (2006) *Interventions to prevent accidental injury to young people aged 15–24* – is available at [www.publichealth.nice.org.uk](http://www.publichealth.nice.org.uk)

## Introduction (cont.)

- reviewed interventions for the prevention of unintentional injuries
- focused on effectiveness, costs or benefits of such interventions
- addressed the age range or part of the age range of interest (15–24 )
- published in English.

Studies were excluded if they originated from developing countries (because of

lack of transferability to the UK) or addressed intentional injury. Search parameters were from January 1999 to September 2004.

The searches yielded 4068 references, which were reduced to 471 after sifting. Twenty-two systematic reviews were identified for critical appraisal. Two members of the research team

independently conducted critical appraisal of the reviews. Eight reviews were included for data extraction.

## Key findings

- Legislation and enforcement have been effective interventions in preventing accidental injury to young people in this age range.
- Interventions that use environmental measures and protective equipment have also been shown to be effective.
- Stand-alone educational interventions have not been shown to be effective, but when combined with other approaches such as legislation and engineering, may be successful. However, with multi-factorial intervention programmes it is difficult to attribute the degree of success to any single element.
- Road interventions such as raising the legal drinking age from 18 to 21, random breath testing, seat belt legislation, compulsory protective helmets for motor-cyclists and bicyclists, lowering the drink-driving limit (blood-alcohol concentration) and graduated driver licensing schemes have been shown to be successful.
- Within the sports and leisure setting, legislative measures, such as the mandatory use of mouthguards and face protectors, and modifications to the rules of games, have been shown to be effective in reducing injuries. Other successful sports interventions include the use of equipment such as helmets and eye protectors, taping previously injured ankles, strength training and conditioning exercises.
- There is scant review-level evidence of effective interventions to reduce accidental injuries among the 15–24 age group within the workplace, or in pubs and clubs. No reviews specifically addressed injuries in schools.
- There is very little review-level evidence on the relative effect of interventions between different groups of the population such as disadvantaged or deprived groups of young people, or those living in different geographical areas. Insufficient detail is provided within the review-level material to determine whether professionals or non-professionals delivered the interventions.
- There is a little review-level information on the cost effectiveness and benefits of injury prevention programmes.

## References

Davis R, Pless B (2001) BMJ bans 'accidents'. *British Medical Journal* 322:1320–1.

Green J, McConnell J, Ozanne-Smith J et al. (2003) Rapid responses from BMJ.com. *British Medical Journal* 327:53–5.

### Authors of this review:

Gail Errington, Kathleen Athey, Elizabeth Towner, Heather Dickinson, Mariana Brussoni, Michael Hayes, Louise Millward, Nichole Taske

### Contact:

website: [www.publichealth.nice.org.uk](http://www.publichealth.nice.org.uk)

ISBN: 1-84629-252-2

© National Institute for Health and Clinical Excellence 2006