



Appendix I:

Section 4: Methodology for case studies

The case study examples that are included in this document are considered a 'first round'. We set out to provide case studies to illustrate implementation examples of good practice and a more detailed analysis of lessons learned to assist those considering implementing the strategy in their own setting. However the reality is that many programmes have not been examined with respect to their effectiveness and it is even less likely that they will have been evaluated using a rigorous research design that includes a comparison group and a look at behavioural and injury outcomes. As a result many programmes could not be included as case studies in this version, but it is anticipated that as more programmes receive adequate evaluation additional examples can be added.

Case studies were sought and selected based on the following criteria:

- Example programme addresses issues of priority within Europe (based on injury burden).
- Example programme met our definition of good practice.
- Example programme corresponds with one of the good practices identified.

- Example programme has been implemented and evaluated (both process and outcome evaluations completed) in a European setting and found to be effective.

In addition to the selection criteria, where possible we also attempted to select case study examples that reflected a range of resource intensities (e.g., a range of costs to implement) and implementation levels (e.g., national, regional or local). Case studies were also selected to try and reflect the efforts from as many areas of Europe as possible. Case study examples were sought in a snowball approach through various sources including members of the European Child Safety Alliance and other child injury prevention and safety promotion experts. In addition, internet searches and selective reviews of the recent literature were used to identify additional potential case studies.

For each potential case study selected, a contact person was identified and a research associate contacted him or her to ascertain that the potential case study met the inclusion criteria. Once this was established, available documentation was examined and a standardised interview was conducted that sought and summarised the following information:

- Implementation level (at what level was the strategy focussed – national, regional or local?)

- Strategy approach (which of the 3 E's was used – education, engineering, enforcement or a combination?)
- Setting of intervention (where did the intervention take place?)
- Target audience for the intervention (at who was the intervention aimed?)
- Resource intensity – an indication of the resource intensity required [€ = up to €20.000/year, €€ = €20-90.000/year, €€€ = €100-299.000/year, €€€€ = €300-999.000/year, €€€€€ = €1.000.000 plus/year]*
- Background for the initiative (including rationale, driving force, timeframe and major partners)
- Aim & objectives of intervention
- Key steps / actions in intervention
- Evaluation of intervention
- Lessons learned (including barriers and facilitators, advice to countries and issues around transferability)

*The resource implications provided should be interpreted carefully. First they do not include in-kind support which in many cases far outweighs the actual budget spent on the implementation of a strategy. Second although the resource intensity estimates provided come from the project personnel themselves, it is important to remember that costs vary by country for many things such as people's time, printing of resources, etc. As a result the resources required when looking at transferring a strategy from one setting to another may vary from what is reported here.





- References
- Contact information for intervention

Following each interview, the case study was written up in a consistent format, which included the addition of the evidence statement supporting the strategy. Case studies were then returned to the contact for confirmation and clarification before being added to the guide. Of note, three of the cases studies - Safe Road to School in Faro, Portugal; Bicycle Helmet Campaign, Denmark and Child Resistant Packaging for Chemicals, Netherlands - are enhanced expansions of case studies originally collected for the WHO for the Children's health and environment case studies summary book⁹³

Finally it is important to note that the cases studies included in the following section are an initial attempt to illustrate examples of existing good practice. The European Child Safety Alliance invites submission of additional case study ideas that meet the criteria described above for inclusion in future editions. Please forward case study ideas to secretariat@childsafetyeurope.org



Bicycle Helmet Initiative Trust

United Kingdom

IMPLEMENTATION LEVEL	Local
APPROACH	Education
SETTING	Schools, youth groups
TARGET AUDIENCE	Children aged 9 to 15 years old
RESOURCE IMPLICATIONS	€€
EVIDENCE BASE:	Community-based education/advocacy programmes around child cycle helmet wearing lead to increased helmet wearing. ^{1,2,3,4}

Background

Since 1992, a community-based programme to promote helmet use among children has been run in certain UK schools. The Bicycle Helmet Initiative Trust selects schools for intervention based on local knowledge of high risk, disadvantaged areas.

Prior to implementing the programme, all students are given a baseline self-completion questionnaire to assess their attitudes towards helmets and helmet use and determine how the programme needs to be tailored to address key issues.

School-based talks, with age-specific information, are given to students by trainers. Students 10 to 12 years old are initially targeted to promote messages early enough to have an impact. Presentations to older students are designed to reinforce cycle safety messages that they should have been exposed to at younger ages.

Presentations include:

- True case scenarios and videos of head injured children;
- A demonstration using an egg and a small helmet to illustrate the effect of a head injury with and without a helmet;
- An interactive discussion to include children's thoughts and experiences;

- Information on how to wear a helmet properly;
- Information on general cycle safety.

These presentations are supplemented by a low cost helmet purchase scheme. In deprived areas, helmets are provided free. Children are asked to pledge to wear cycle helmets.

Policy Background/Driving Force

Cycling injuries in the UK are estimated to number 90,000 on the roads and over 100,000 off-road.⁵ Each year, 37 to 50 young cyclists are killed, with 70-80% of all deaths caused by traumatic brain injury. One study estimates that 18% of serious casualties would have had only minor injuries, and 11% would have avoided injury altogether.²

In 2000, the Department for Transport set a target to reduce the number of children killed or seriously injured by 50% by 2010, particularly tackling the significantly higher incidence in disadvantaged communities. This target has driven local Road Safety departments.

Partners

- Bicycle Helmet Initiative Trust
- Local hospital
- Local schools

- Royal College of Nursing
- Royal College of Paediatrics and Child Health
- Headway
- Child Brain Injury Trust
- Brake
- Child Accident Prevention Trust
- Local media
- Local businesses.

Aims & Objectives

- To increase safe cycling and helmet wearing.
- To decrease head injury amongst cyclists aged less than 16 years.

Evaluation

A controlled evaluation study compared one UK city that had the campaign with a neighbouring city that did not.⁵ Samples of children from state schools and youth groups were recruited from each city. Independent samples of 500 children aged 11 to 15 years completed a questionnaire prior to the start of



⁵ See Lee et al. (2000) for references for statistics.

the campaign and at the end of each year of the three-year campaign. Response rates were 91% for the intervention group and 93% for the control group.

Children were asked to rate the question “If you cycle, do you wear a helmet?” on a three-point scale (always, sometimes, never). Results from the self-completion questionnaire indicated that “always” wearing a helmet among children in the intervention area increased significantly from 11% in 1992 to 31% in 1997 ($U=49155$, $p < 0.001$). Reported use increased non-significantly from 9% to 15% in the control area. At the end of the study, self-reported helmet use among children in the intervention area was significantly higher than among children in the control area (16% difference; $U=68654.5$, $p < 0.001$).⁵

Injury data from the Accident and Emergency department in the intervention city were monitored for pedal cycle injuries among children under 16 years old from June 1988 to May 1998. Cycle-related head injuries remained relatively stable in the years before the start of the programme, at approximately 112.5/100,000 population (<16 years). In the first year of the campaign injuries declined significantly to 62.5/100,000, remaining at 60.8/100,000 in 1997-98 ($Q=10.68$, $p < 0.005$). This represents a fall in head injuries as a percentage of total bicycle-related injuries from 21.6% to 11.6%.⁵

Key Steps

- Identify target area, based on need and commitment.
- Secure funding.
- Set up a local steering group.
- Provide training on helmet programme to include all aspects of helmet promotion and effectiveness to all identified trainers.
- Sample the target group on helmet attitude and use.

- Implement programme plan into schools.
- Provide affordable or free helmets.
- Provide age appropriate educational material, including a video and cycle safety game.
- Re-sample the target group on helmet attitude and use after the programme.
- Evaluate the outcomes and amend the programme as needed.

Lessons Learned

Barriers

- Limited availability, quality and completeness of injury data from hospitals and police sources.
- Limited availability of funding, especially lack of continuity of funding.
- Absence of national helmet promotion campaigns.
- Ambivalence of cycle industry towards helmets.
- Absence of relevant public health targets.
- Peer pressure against the use of helmets, especially when children move from primary to secondary schools and wish to emulate older students.
- Lack of legislation requiring the use of cycle helmets.
- Adult cycling organisations with civil liberties agendas that do not recognise needs of children.

Facilitators

- A champion determined to address cycling-related head injuries.
- A sound basis in research.
- Accessible timely data.
- Strong support from local Road Safety Officers, schools, teachers and parents.
- Consistent publicity from local media.
- Support from local businesses for expansion of the scheme.
- Establishment of a charity to run it nationally.
- Department for Transport target to reduce road-related deaths.

Advice to Countries/Transferability

- Tailoring of messages to local needs is crucial.
- It is important to understand the needs of the group being targeted. For example, barriers to helmet use may change depending on the population. Children in disadvantaged areas may be concerned about helmet cost, whereas those in other areas may be more concerned about helmet appearance. Initial consultation with the target population can help determine some of these issues in order to tailor messages.
- Local requirements and needs may vary depending on context. For example, urban areas may have more traffic and present different risks to rural areas. Messages should be tailored accordingly.
- Local data can provide information on the incidence and types of cycle-related injuries among children. This information can help with targeting of messages.



- Stable local leadership is essential.
- Children should be the focus of the programme.
- The programme can be linked with government targets around the need to increase children's levels of physical activity.
- A solid link with the health sector is needed.
- The cost of head injury to the health service can be a powerful argument in favour of a local programme.
- Partnerships are important to the success and sustainability of the programme, and can provide support in the face of anti-helmet criticism. Useful partners include a mix of non-governmental organisations and private groups. For example, head injury groups can provide personal experience; medical colleges can provide lobbying power; insurance companies can provide financial investment, particularly as they benefit financially from prevention activities.
- The need to become well versed in the arguments for and against helmet use is essential. Knowledge of the evidence base that supports helmet use can help rebutt arguments against use. Facts need to be sound and based on strong scientific evidence.
- Cost of the programme varies depending on the number of schools targeted. In the UK, a basic programme with free helmets in 10 schools costs approximately €23,000. This does not include the cost of a management team.

References, Additional Information

1. Harborview Injury Prevention and Research Center. (2001). Best practices. Seattle: University of Washington. Available at <http://depts.washington.edu/hiprc/practices/index.html>
2. Klassen, T. P., MacKay, J. M., Moher, D., Walker, A., Jones, A. L. (2000). Community-based injury prevention interventions. *The Future of Children*, 19(1), 83-110.
3. Royal, S. T., Kendrick, D., Coleman, T. (2005). Non-legislative interventions for the promotion of cycle helmet wearing by children. *The Cochrane Database of Systematic Reviews*, Issue 3.
4. Towner, E., & Dowswell, T., Mackereth, C., & Jarvis, S. (2001). What works to prevent unintentional injury amongst children? An updated systematic review. London: Health Development Agency. Available at http://www.hda.nhs.uk/downloads/pdfs/prevent_injuries.pdf
5. Lee, A., Mann, N., & Takriti, R. (2000). A hospital led promotion campaign aimed to increase bicycle helmet wearing among children aged 11 -15 living in West Berkshire 1992-98. *Injury Prevention*, 6, 151-153.

See also:

<http://www.bhit.org/>

<http://www.whohelmets.org/bhit.htm>

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