

ROSPA

*The Royal Society for the
Prevention of Accidents*

**THE BIG
BOOK OF
ACCIDENT
PREVENTION**



The Big Book of Accident Prevention

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Sponsor acknowledgement



"As winners of the Sir George Earle Trophy* in 2012, Finning UK & Ireland are proud to support RoSPA in the publication and distribution of this excellent document, which makes the case so clearly for accident prevention. Armed with the information contained in the 'Big Book', we feel sure that key decision-makers in public health will see the value of placing this subject at the top of their priority list. As a company committed to the safety of all our workers, our customers and the public as well as their families and the communities in which they live, we know there is no better way to save lives and reduce injuries."
Neil Dickinson, Managing Director, Finning UK & Ireland.

*The Sir George Earle Trophy is the premier workplace health and safety award in the UK, arguably in the world. Established for over 50 years, the Trophy recognises the highest standards of conformity to best practice in any industry sector. As well as their performance excellence, entrants are judged on their determination to address intractable safety issues, their teamwork, their innovation and their contribution outside the workplace into the wider community. Finning UK & Ireland was the well-deserved winner for 2012, taking the pre-eminent position in a competition of 2,000 UK and international companies.

Dear Colleague

Accident prevention – the No. 1 priority for public health

This is your copy of a short publication which we at the Royal Society for the Prevention of Accidents have designed to highlight the very real impact that effective accidental injury prevention can have on the health of your population.

We know that there are many issues competing for a place within your Joint Strategic Needs Assessment. Health and Wellbeing Boards (HWBs) need to find solutions which do the most, with the least. Accidental injury prevention is low cost and high impact. It is easy to deliver (there is a well-worn pathway of best practice) and it is broadly welcomed by the people it helps. Because it affects the young so much, our new research shows (pages 8 and 9) that this is also the principal cause of premature, preventable mortality (measured in Preventable Years of Life Lost or PrYLL) for most of a person's life. We believe it should be the No. 1 priority for public health.

Nearly a third of the population has their lives diminished due to an accident. The costs to the nation are enormous and rising but accidents are preventable. This publication aims to help you deliver successes against the new, accident related indicators in the Public Health Outcomes Framework for England 2013–2016:

Indicator 4.3: Mortality from causes considered preventable

Indicator 1.10: Killed and seriously injured casualties on England's roads

Indicator 2.7: Hospital admissions caused by unintentional and deliberate injuries in under-18s

Indicator 2.24: Falls and injuries in the over-65s / Indicator 4.14: Hip fractures in the over-65s

There are just three things I would urge you to do:

- Make sure that accident prevention is on the agenda for your HWB. If it isn't, ask why not and give it the consideration it deserves. Interrogate your local data to see how the issue affects you
- Contact RoSPA for advice and support. We will make sure that your HWB is briefed, consulted and updated at every stage of the development of your public health planning and delivery. We are here to help you – use us
- Keep this as your touchstone document and use it to refresh and renew your commitment to this vitally important issue – helping to save the lives and reduce the injuries of the people you have determined to protect.



Kind regards

Professor Yvonne Doyle MD, DCH, MPH, FRCPI, FFPHM, FFPHMI Director of Public Health, NHS South of England Trustee, Royal Society for the Prevention of Accidents

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Professor Dame Sally Davies – Chief Medical Officer's Annual Report, November 2012



Professor Mike Kelly,
Director, Centre for Public Health Excellence, NICE

"I welcome this RoSPA publication as it supports guidance from NICE and will help local decision-makers take an evidence-based approach to delivering positive results against the relevant indicators in the Public Health Outcomes Framework."



Dr John Middleton,
Vice President, UK Faculty of Public Health and Director of Public Health, NHS Sandwell

"This publication is a timely reminder of the value of early intervention on accidents, a most productive area of work for public health. I urge Health and Wellbeing Boards to give this subject its proper place, a high priority in their local plans."



Dominic Harrison,
Joint Director of Public Health, Blackburn with Darwen Care Trust Plus

"Accident prevention is a public health priority – not least because unintentional injuries are a major cause of years of life lost. For instance, we know many more children from low-income communities than high-income communities suffer unintentional injuries that are preventable. This guide makes a significant contribution to the evidence-base and the action needed to address such inequality."



David Kidney,
Head of Policy, Chartered Institute of Environmental Health

"Accidental injuries create healthcare and benefits costs, hold back our economy and distress all those involved. Preventive measures are often cheap and effective, thus offering England's new public health service some quick wins. This publication gives practical advice about effective interventions for reducing injuries through accidents; interventions which every health and wellbeing board should consider."



Professor Richard Parish,
Chief Executive, Royal Society for Public Health

"Injury prevention is one of the top investments we can make for the future health and wellbeing of the community. This is a classic example of health gain, cost reduction and wealth creation going hand in hand."



Suzette Davenport,
Lead on Road Safety for the Association of Chief Police Officers (ACPO), and Deputy Chief Constable of Northamptonshire Police

"Although great progress has been made on road safety in recent years, there is still much work to do. We need to maintain a clear focus on the need to reduce deaths and injuries on our roads, which is eminently achievable. This document refreshes the case for accident prevention, especially amongst young drivers, reinforcing the significant progress that can be made if we, the stakeholders, all work together."



Professor Ronan Lyons,
Chair, Injury Observatory for Britain and Ireland

"I am delighted to support this excellent report by RoSPA. Local action is the key to injury prevention and local data stimulates local action. It is important that all emergency departments collect sufficient data to support their local injury prevention community. The UK is one of 34 European countries that have signed up to the Joint Action on Monitoring Injuries in Europe (JAMIE) project."



Dr Stephen Watkins,
Director of Public Health, NHS Stockport

"In a safe society people who climb mountains use the right equipment, check it before they set out, obtain a weather forecast, tell somebody their route and support a mountain rescue service. In a risk-averse society people don't climb mountains. I want a safe society not a risk-averse society."



Mark Cashin,
Chairman of the CFOA National Home Safety Committee and Deputy Chief Fire Officer, Cheshire Fire & Rescue Service

"Though fire deaths are at an all-time low, they continue to kill many vulnerable people every year. The Chief Fire Officers' National Home Safety Committee is committed to further reducing fire deaths – and all other forms of accidents. CFOA recognises the essential role RoSPA plays here and is, therefore, pleased to support its Big Book of Accident Prevention."

Why accident prevention should be your top priority for public health

Healthcare is expensive; accident prevention is low cost and high impact

If accident prevention is the easiest and cheapest way to save a life, why is it not the top public health priority?

We all want to live in a safe society, not a risk-averse one

The biggest killer of children, post-infancy, is accidents

Accident prevention helps to hone people's natural survival skills

We have forgotten that sometimes the simplest solutions are the best

Children of parents who have never worked or who are long-term unemployed are 13 times more likely to die from unintentional injury than children of parents in higher managerial and professional occupations

Accident prevention encourages resilience, resourcefulness and self-reliance

Home and leisure accidents continue to increase because we're not doing enough to prevent them

Accidents cost the state £20-30 billion per annum

Accidents are the principal cause of premature, preventable death for most of a person's life

Repeated sneering at "elf 'n' safety" devalues the worth of accident prevention

The taxpayer cannot bear exponential increases in the cost of healthcare

It is the first duty of every politician to protect the people who elected them from avoidable harm

Accidents cut our national productivity by at least 3 per cent – three times the current rate of growth

Accidents are 100 per cent preventable – so why not prevent them?

Preventing harm to others is a hallmark of a civilised society

Home and leisure accidental death is at least four times greater than in the workplace and on the road

If the tone is right, most people welcome a conversation about improving their lives

Every child in our country should have the same right to life, regardless of how wealthy its parents are

Accident prevention is a safeguarding issue

The quickest and easiest way to save cost to the NHS is accident prevention

Accidents cost UK society about £150 billion per annum

Training people to take responsibility for their own safety is not the "nanny state"

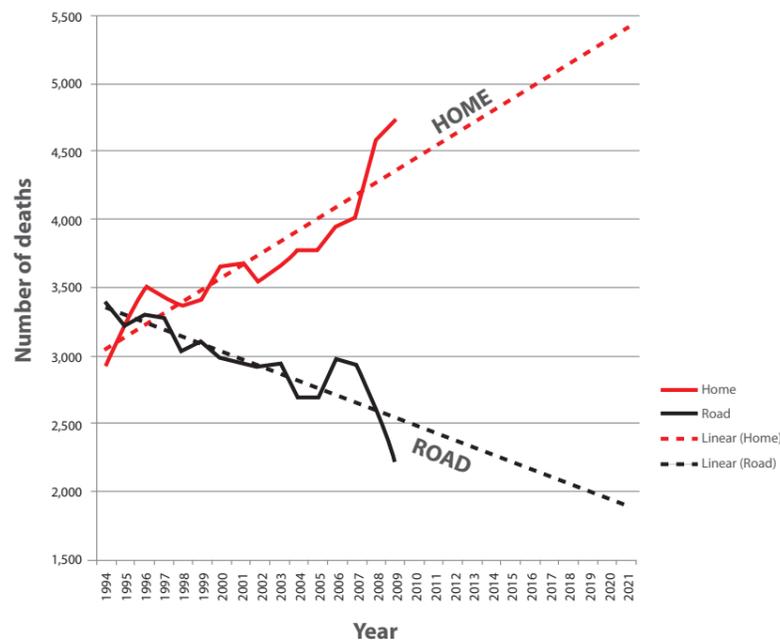
As a nation, we should be proud of our record on workplace and road safety

Children of parents who have never worked or are long-term unemployed are 20 times more likely to die as pedestrians than children of parents in higher managerial or professional occupations

Accident prevention

During the past 25 years, a co-ordinated national plan to reduce road accidents, that is being delivered locally, has worked dramatically in producing all-time lows. In the home, the opposite is true – home accidents are at epidemic levels. In the same time frame, admissions to A&E have doubled, with accidents costing society an estimated £150 billion every year. Home and leisure accidents alone cost society £95 billion and at least £25 billion of this is paid by taxpayers through healthcare and benefits costs. This increasing burden is unsustainable.

Figure 1 – Extrapolation of deaths on the road and in the home: Looking ahead 10 years, England & Wales



Source: RoSPA analysis of the annual Deaths Registered DR table 7, produced by the Office for National Statistics (ONS) for England and Wales

“Every year, about 5,000 people die as a result of a home accident.”

Source: England & Wales: Office for National Statistics (ONS)
 Scotland: Information Services Division (ISD) Scotland
 Northern Ireland: Northern Ireland Statistics and Research Agency (NISRA)

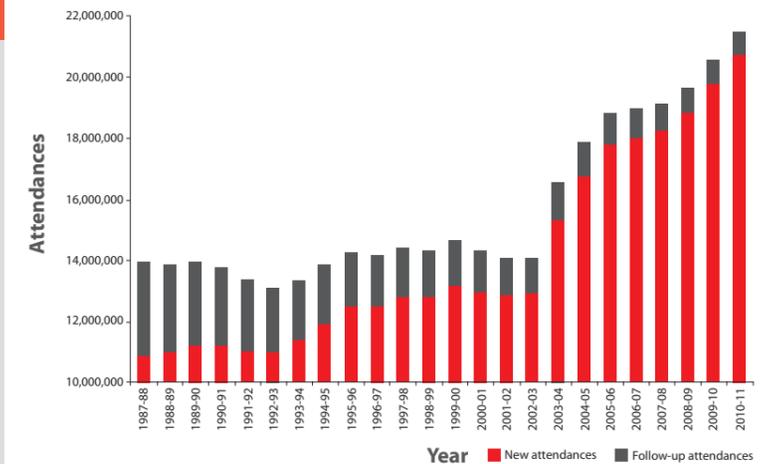
Accident prevention works

- Easy and inexpensive to deliver
- Engages a receptive audience
- Produces relatively quick results
- Returns more life years (measured in PrYLL) to society than other major public health issues.

Accidents

- Kill about 14,000 per annum across the UK
- Are the main cause of death for children post-infancy
- Are the principal cause of death up to the age of 39
- Are the principal cause of premature, preventable death for most of our lives
- Seriously injure more than 700,000 per annum in England alone
- Are often violent in nature
- Destroy families and diminish communities.

Figure 2 – Emergency department attendances - England 1987–2011



Source: DH 126708, published online by the Department of Health

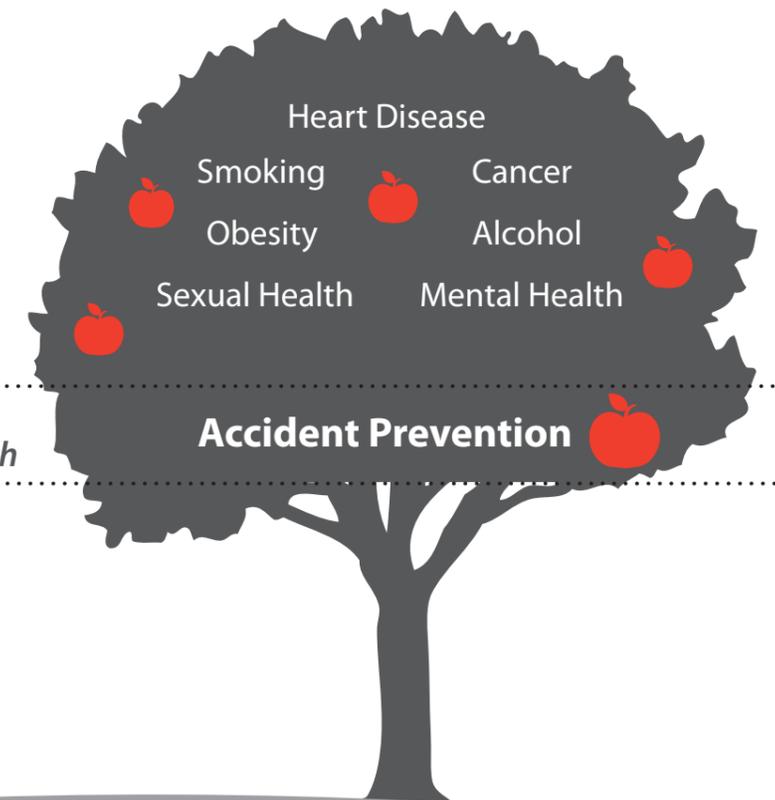
The 2012 Health and Social Care Act will lead to major reforms within the NHS and public health in England. Local Clinical Commissioning Groups will be responsible for substantial financial budgets and from April 2013, they will have to absorb the rising cost of attendances at hospital Emergency Departments (A&E).

The tree of public health

Accident prevention is easy and relatively inexpensive to deliver, to a largely receptive audience. Being focussed on information and education, accident prevention produces immediate changes in behaviour and rapid results – unlike the slow behavioural change associated with disease prevention. It should therefore be considered to be “low hanging fruit” of public health as well as the biggest apple on the tree.

Accident prevention is the ‘low-hanging fruit’ of public health

Figure 3 – The tree of public health

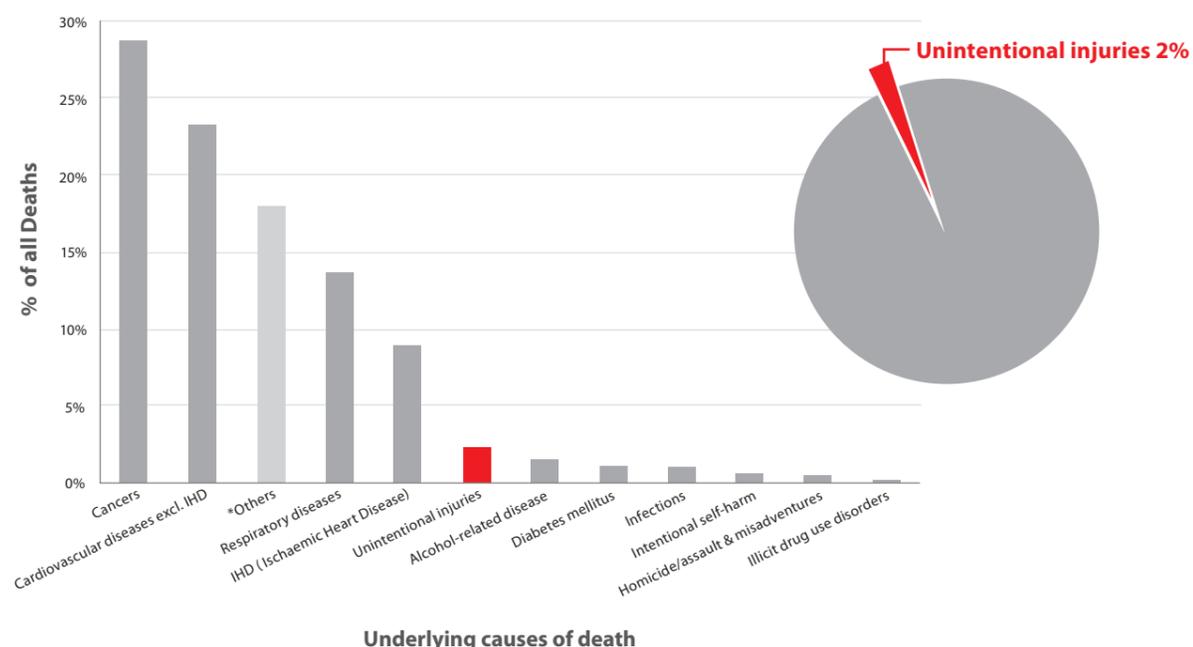


A fresh look at the evidence

Human life is precious and we have a moral obligation to challenge the leading causes of death. Doesn't it make sense to invest limited public funds into areas where we can save the most lives, especially if that coincides with making the most savings to the NHS?

Our fresh look at the evidence has led to a radical reappraisal of the investment priorities for public health. The traditional starting point in public health is to focus on mortality data – Fig 4.

Figure 4 – % of all deaths in 2010 by all underlying cause, all ages



Source: RoSPA / Office for National Statistics for England & Wales
 * Others includes mental disorders and diseases of the nervous, digestive and genito-urinary systems

According to ONS data for England and Wales, the leading causes of death in 2010 were cancers, cardiovascular diseases and respiratory diseases. At just 2% of total deaths, unintentional injuries may appear to be a relatively small problem and therefore a relatively low priority for public health.

However, this changes significantly when we consider the value of all of the years of life lost (YLL) as the result of premature death using ONS data. This brings accidents rapidly up the priority list, accounting, in this example, for 11% of all YLL to the working population (15–64).

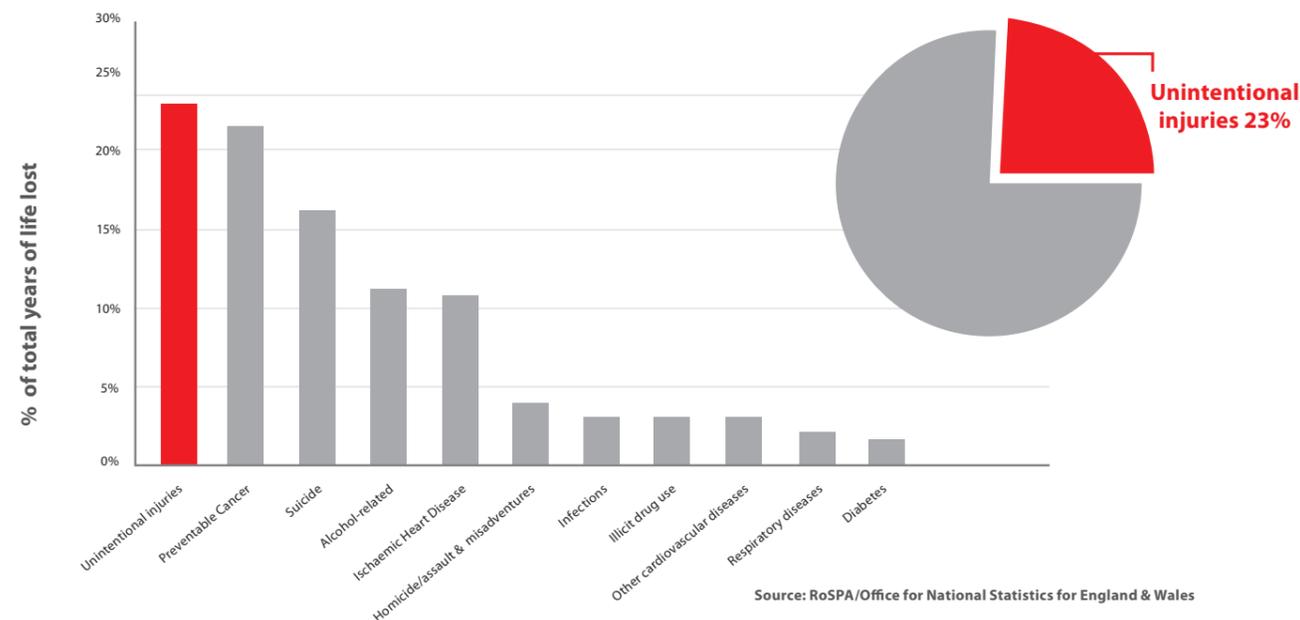


Finally, we have looked at YLL due to preventable causes of death in the working population, filtering out those which we just can't prevent. Accidents now account for 19%. During this three-stage process, unintentional injuries have moved from being a relatively minor issue to becoming a leading priority for public health.



The consequences of this new approach are even more significant when we also include young children and look at the 0–60 age group – Fig 5.

Figure 5 – % of total preventable years of life lost (PrYLL) in 2010 to people up to age 60



At 23% of all PrYLL to people aged 0–60, unintentional injuries are the leading cause of preventable, premature mortality. This continues to be the case into people's 70s, making accidents the dominant cause of preventable death in our lives. In the mid-80s (beyond life expectancy), accidents then fall behind preventable cancers and heart disease to become the third most significant cause of preventable mortality.

But this is not the whole story. There are other factors which we want to measure precisely but which indicate that the case for accident prevention is even stronger:

- **Quality Adjusted Life Years (QALYs).** If these were measured too, the position of accidents on this scale would become even more significant, since they affect the young so much.
- **Morbidity/mortality ratios.** For every life saved through an accident prevention programme, many more serious and minor injuries can be prevented, a factor which does not apply to diseases in the same way.
- **Efficacy.** Accident prevention is already known to be one of the cheapest and most effective forms of public health intervention.
- **Changing priorities.** Heart disease rates are dropping, cancer rates are stable but accident rates are increasing. If we don't react soon, accidental death and injury will become even more of an issue.

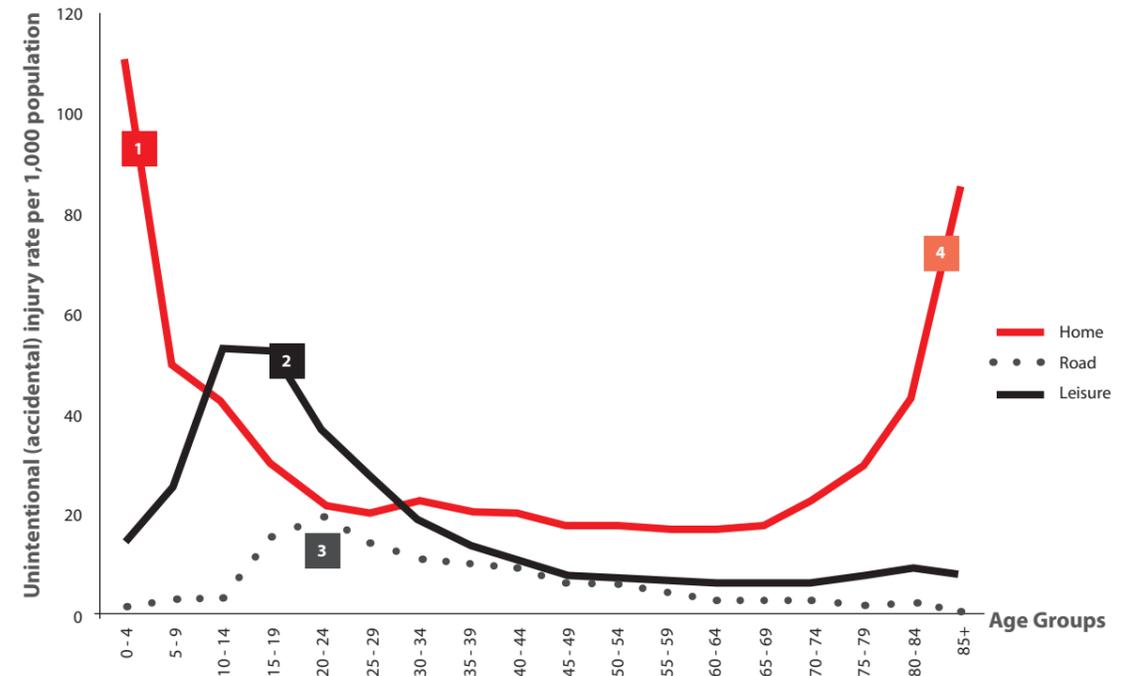
Taking all of these factors into account, it is clear that accident prevention should be the **No. 1 priority for public health** in this country. Aligning the dominant cause of premature, preventable death (measured in PrYLL) with the most cost-effective intervention strategies presents us with a superb opportunity to save lives and reduce injuries on a hitherto unprecedented scale.

Accidents wipe out more years of future happiness...

Every year, many thousands of people are cut down in their prime as a result of an accident. Their sudden, often violent, death is all the more tragic because it is premature: wiping out abruptly so many years of future happiness – not just for them, but for their families, friends and colleagues. When we talk of “years of life lost”, we talk of the average number of years an accident victim would have lived if he or she had not died before their time: the years not spent falling in love, setting up a business, raising children or travelling the world... Because accidents affect the young so much, they cast a very long shadow over the lives of those left behind, for whom every anniversary or milestone is a painful reminder of what might have been – but wasn't.



Figure 8 – Unintentional (accidental) injury rates reported to A&E by age



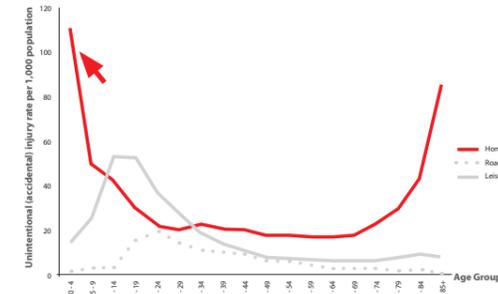
Source: RoSPA / All Wales Injury Surveillance System (AWISS)

- 1 Under-5s are most likely to be unintentionally injured in the home. **Case study 1, on page 12,** demonstrates how some of the causes of those injuries can be prevented successfully. This area is covered by the following Public Health Outcomes Framework indicator 2.7 (as designated by the Department of Health): Hospital admissions caused by unintentional and deliberate injuries in under-18s.
- 2 Young adults are most likely to be unintentionally injured while undertaking leisure activities. **Case study 2, on page 14,** demonstrates how some of the causes of those injuries can be prevented successfully. This area is covered by the following Public Health Outcomes Framework indicator 2.7 (as designated by the Department of Health): Hospital admissions caused by unintentional and deliberate injuries in under-18s.
- 3 Young people are a group at particular risk and speed is a major risk factor that influences the number of road casualties. **Case study 3, on page 16,** demonstrates how some of the causes of those injuries can be prevented successfully. This area is covered by the following Public Health Outcomes Framework indicator 1.10 (as designated by the Department of Health): Killed or seriously injured casualties on England's roads.
- 4 Over-65s are most likely to be unintentionally injured in the home. **Case study 4, on page 18,** demonstrates how some of the causes of those injuries can be prevented successfully. This area is covered by the following Public Health Outcomes Framework indicators 2.24 and 4.14 (as designated by the Department of Health): Falls and injuries in the over-65s / Hip fractures.

Safe At Home

Indicator 2.7: Hospital admissions caused by unintentional and deliberate injuries in under-18s

Safe At Home (SAH) was a national scheme providing home safety equipment and education to disadvantaged families with children under 5 years old. It was funded by the Department for Education from 2009–11 and delivered by RoSPA in line with NICE guidance PH30 recommendations 1–5.



“It showed me how to be safe in the home with the little one. I would recommend home safety checks to every parent as it saves lives.”
Source: SAH Scheme Recipient

Evidence

Hospital admissions among under-5s, following an accidental injury, have been rising by five per cent per annum. Those in the lowest social class have 13 times the rate of death and injury of those in the most affluent class.

According to NICE guidance, accidental injury among under-15s results in two million visits to A&E each year, costing £146million.

The Marmot Review (published 2010) provides further confirmation of these inequalities in health.

Plan/resource/partner

SAH aimed to provide equipment, training and education in areas with the highest hospital admissions for accidental injury to under-5s and within these, RoSPA developed criteria to select the families at greatest risk.

RoSPA agreed budgets and targets, sourced relevant equipment, built local delivery partnerships in 130 English local authority areas and set up administrative/ logistical processes to follow-up on home safety checks and coordinate delivery.

Comprehensive records ensured that independent evaluation could review the effectiveness of every step of the process.

Delivery

RoSPA trained 4,000 members of staff employed by local partners to identify and mitigate typical accident risks in the home to the under-5s.

Local partners used their data, together with RoSPA selection criteria, to identify families with the highest need. A SAH home safety check was incorporated into each family’s next regular home visit.

Based on the results of the safety check, 66,000 families received safety education together with a selection of equipment (including safety gates, fireguards, cupboard locks, corner cushions, window restrictors, bath mats and blind cord shorteners) which was professionally installed.

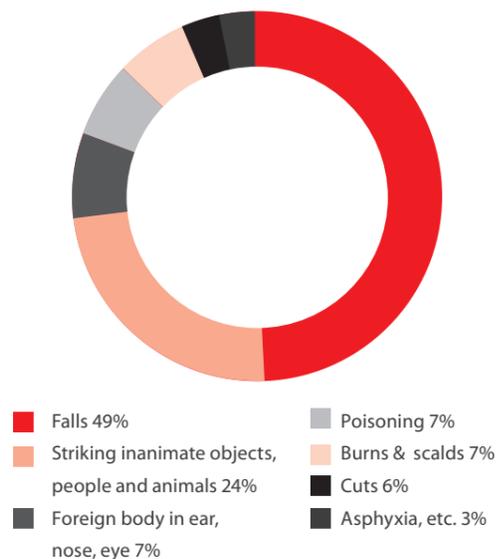
Education, video materials and height charts were provided to more than 300,000 other families that did not meet the criteria for free equipment.

Evaluation

The University of Nottingham’s independent evaluation of SAH reported 96% satisfaction among beneficiaries, with 91% feeling their home was safer. Subsequent research suggests that across England, Safe At Home helped reduce the 5% annual rise in hospital admissions due to an unintentional injury to just 1%. In the 10 best-performing SAH areas (Fig.10), a 29% reduction in hospital admissions appears to have been the result of the SAH programme, allied to excellent local leadership, enthusiasm and effective inter-agency coordination.

At an estimated cost to society of £33,200 for a serious non-fatal injury to an under-5, this equated to a saving of £27million compared with the programme’s cost of just £1.7million in these areas.

Figure 9 – Cause of injuries to under-5s

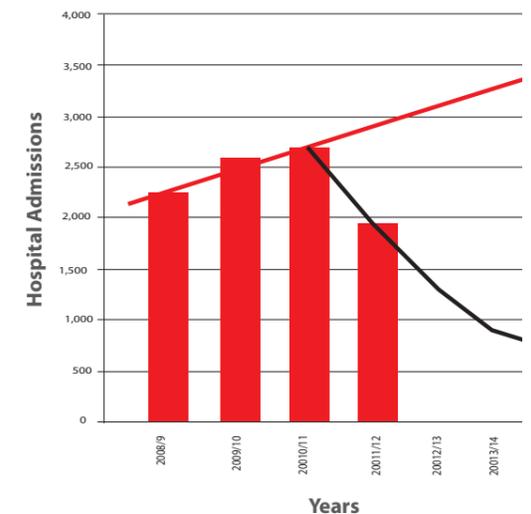


Source: RoSPA analysis of Home and Leisure Surveillance System (HASS) data 2002 for children under 5 years of age



Educational materials were produced and distributed to more than 300,000 families

Figure 10 – Hospital admissions due to serious unintentional (accidental) injuries



Source: RoSPA / NHS Information Centre Hospital Episode Statistics (HES)

LASER

Indicator 2.7: Hospital admissions caused by unintentional and deliberate injuries in under-18s

Learning About Safety by Experiencing Risk (LASER) is an approach used by schemes such as Crucial Crew and Junior Citizen. Practical, interactive scenarios teach children aged 9–11 how to deal with hazards in a fun and exciting way. “Learning by doing” benefits children hugely throughout life as it teaches them to assess risks and become more independent so they can enjoy activities, such as climbing trees, safely. The LASER Alliance – a network of organisations using the LASER approach – is hosted by RoSPA.

Evidence

According to the Audit Commission’s report, “Better safe than sorry”: “Unintentional injury is a leading cause of death and illness among children aged 1–14 years, and causes more children to be admitted to hospital each year than any other reason”.

For every serious injury that results in an overnight hospital admission, there are 25–30 times as many visits to A&E due to less serious injuries. In 2010, these less serious injuries resulted in 4.51 million attendances to A&E by children and young people under the age of 20 – equivalent to one third of this age group.

Children need to be taught how to enjoy the world around them while keeping themselves free from injury. Evidence shows that LASER teaching methods enable children to retain information such as hazard recognition and rescue procedures more effectively, and for longer periods of time, than classroom-based study.

Figure 11 – Hospital admissions in England in 2010/11 amongst 0-14 year olds due to unintentional injuries



- Falls 37%
- Struck by blunt or sharp object 10%
- Transport 8%
- Foreign body entering through orifice or skin 5%
- Other strikes, crushing, bites or stings 5%
- Accidental poisoning 5%
- Burns, scalds or venomous bites 3%
- Drowning, strangulation or suffocation 1%
- Other

Source: NHS Hospital Episode Statistics (HES)

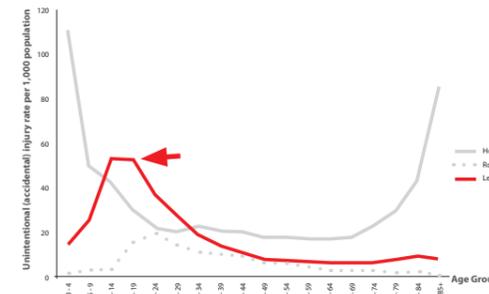
Plan/resource/partner

About 200 LASER schemes operate around the UK. Some run all-year-round at permanent venues, such as Bristol’s LifeSkills centre, Edinburgh’s Risk Factory, Talacre’s Dangerpoint or Birmingham’s Safeside.

Annual schemes, that operate for one to four weeks, are run by local authorities, emergency services, utilities firms and charities working together – and can reach large numbers of pupils in a short space of time.

Covering home, road, leisure and personal safety issues, these events are relatively inexpensive as costs can be shared. They can be held at a suitable venue or visit schools in a roadshow style.

Nottinghamshire FRS Safety Zone provides an opportunity for more than 2,000 schoolchildren aged 9 to 11 to learn about safety and the prevention of accidents in a realistic setting. This takes place over two weeks at the National Water Sports Centre at Holme Pierrepont in Nottingham.



“Being part of RoSPA’s Laser Alliance allows us to attend national and regional events and workshops and to meet other safety professionals. As regional champions, we would encourage anyone in a similar field to consider becoming a member of the Alliance.”

Source: Julie Evans, Centre Manager, Dangerpoint

Delivery

Children who take part in LASER schemes learn how to deal with hazards through group work in a controlled and supervised environment. Their knowledge and confidence are increased, attitudes changed and skills developed.

Practical demonstrations show pupils aged 9–11 what to do in a range of situations, such as if they see someone get into difficulty in water or discover a fire. Children are given the opportunity to work through the scenarios themselves, using problem-solving skills.

Such memorable activities help children to become more confident and independent.



Evaluation

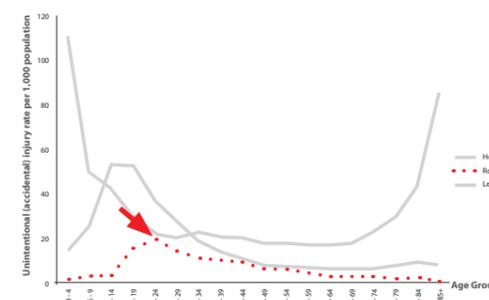
LASER centres use surveys to assess the knowledge and skills of children before and after their LASER session. Many centres are also independently evaluated. For example, a joint team of researchers from the Universities of Oxford and Oxford Brookes evaluated the Bristol LifeSkills programme. The results showed that at three and 12 months post-visit, children who had visited LifeSkills were more knowledgeable and performed better on nearly all relevant tests and were rated as more confident in dealing with emergencies than control children. These results suggest that while LifeSkills can improve children’s safety knowledge it also had a positive effect on children’s capacity to act on their knowledge. The evaluators stressed the importance of the “vivid and realistic sets as a backdrop for similar interactive small group teaching methods”.

“A mother who was electrocuted while watching TV has praised her young son and his best friend who saved her life. The young hero had been to a home safety event the week before and knew exactly what action to take. Harley learned his life-saving skills at the Crucial Crew event, which was held at Norfolk Showground.” Norwich Evening News, September 23, 2006

20mph zones and speed limits

Indicator 1.10: Killed and seriously injured casualties on England's roads

Reducing traffic speed to 20mph or less in residential areas is a very effective way of protecting the most vulnerable road users – children, pedestrians and pedal cyclists – from the risk of being killed or injured on the road, as well as encouraging people to walk and cycle.



“Important benefits of 20mph schemes include quality of life and community benefits, and encouragement of healthier and more sustainable transport modes such as walking and cycling.”

Source: Department for Transport

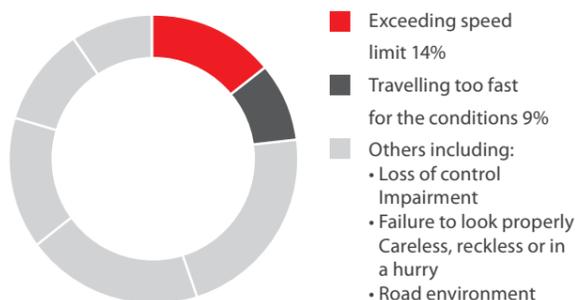
Evidence

Higher vehicle speeds increase the likelihood of a collision occurring, and also mean the collision, and any resulting injuries, will be more severe.

Speed management to ensure that drivers travel at an appropriate speed is an essential part of the World Health Organisation's whole-system approach to road safety, which places human vulnerability to injury at the centre of how roads and vehicles are designed, as well as the speed with which drivers use them. Speed management has also been a fundamental aspect of Britain's road safety strategies for the last three decades. A well-designed road network reduces the risk of exposure to the conditions that can cause fatal injury.

The relationship between a vehicle's impact speed and the severity of injury is well established, especially for pedestrians who are more likely to be fatally injured at higher impact speeds. In built-up residential areas, reducing traffic speed is one of the most effective ways of reducing the risk to vulnerable road users, such as children, pedestrians and pedal cyclists, as well as encouraging more people to walk and cycle.

Figure 12 – Contributory factors in road fatalities



Source: Tables RAS50007 & RAS5008 Reported Road Casualties in Great Britain – 2011 Annual Report, DfT 2012

Plan/resource/partner

RoSPA believes that schemes to reduce vehicle speeds to 20mph are the best compromise between mobility and risk.

20mph zones, which incorporate traffic calming techniques, have been shown to be a very effective way of preventing injuries, especially to vulnerable road users. They also offer the potential to reduce the inequalities in pedestrian injury rates between affluent and deprived areas. 20mph limits, which do not incorporate traffic calming measures, typically result in smaller reductions in speed but can be adopted over a wider area because they are less expensive than 20mph zones.

RoSPA works with public and private sector partners on speed management strategies that include better design of roads with more attention paid to the needs of pedestrians and cyclists. These strategies also include improved vehicle design, better driver education/training and speed limit enforcement as well as ensuring that employees who drive for work drive at safe speeds within speed limits.



Delivery

A 2008 survey in England found that there were an estimated 2,148 20mph zones, of which 399 were in London. Recently 20mph limits have been introduced over a large proportion of the road network in several major cities, including Portsmouth, where the speed limit on 94% of the roads is 20mph and Bristol, where over 500 roads are covered by 20mph limits. Other local authorities are planning to introduce widespread 20mph limits.

20mph limits can be more effective when coupled with other transport planning or road safety interventions.



Evaluation

Many evaluation studies have demonstrated the effectiveness of 20mph zones (with traffic calming). Grundy, for example (British Medical Journal, December 2009), finds they reduce casualties by over 40%, and are even more effective in reducing the numbers of child casualties and fatal or serious crashes.

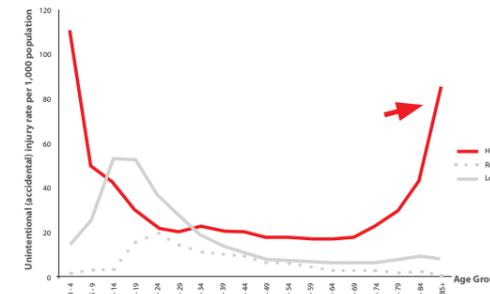
There are fewer evaluations of 20mph limits (without traffic calming) but there is evidence that they do reduce speeds. 20mph limits provide other public benefits, such as encouraging more cycling and walking and creating a more pleasant environment. Further evaluation of 20mph limits will provide more evidence about the circumstances in which they are most effective.

Many local authorities will choose to accompany the introduction of 20mph zones and limits with publicity and education. RoSPA has been supporting road safety departments in developing their skills at evaluating education campaigns through workshops and seminars. Our online road safety evaluation toolkit is at www.roadsafetysafetyevaluation.com.



Falls prevention services

Indicator 2.24: Falls and injuries in the over-65s / 4.14: Hip fractures in the over-65s
 Falls prevention services tackle falls in older people, particularly in areas where there is a concentration of over-65s, focusing on preventative strategies that assess and address risks in the home using simple pieces of equipment and improving physical stability through exercise.



“The reduction in falls in the area has resulted in a saving of approximately £3million. Our outcomes have been a fall in the number of hip fractures. Given the increase in the numbers of older people we would have been happy with a flatline position – but costs have gone down. Also, the quality of life improvements are immeasurable.”

Source: Falls prevention manager, Joint Accident Prevention Strategy for Dudley 2009-12

Evidence

Falls are a major concern among older people, with the health and social care costs of a hip fracture estimated at £20,000.

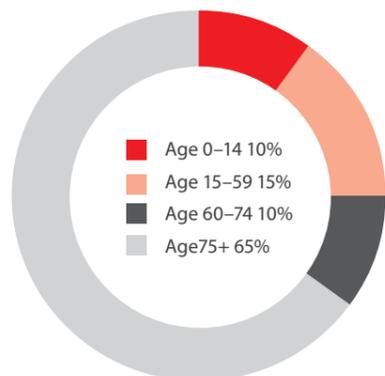
A person’s home environment can contribute to the risk of falling.

Accidents place a heavy burden on public health expenditure. Older people visiting A&E as a result of home accidents are more likely to be admitted than any other age group. Once patients return home, they often need extra health and social care support.

In 13 years, the number of over-60s needing inpatient care for falls-related injuries has more than doubled, standing at more than 357,000 in 2010-11 in NHS hospitals in England alone.

With an ageing population, and an emphasis on enabling older people to live as independently as possible, falls (especially in the home) are an issue that cannot be ignored.

Figure 13 – Age profile of hospital admissions after a fall 2010/11



Source: NHS Hospital Episode Statistics (HES)

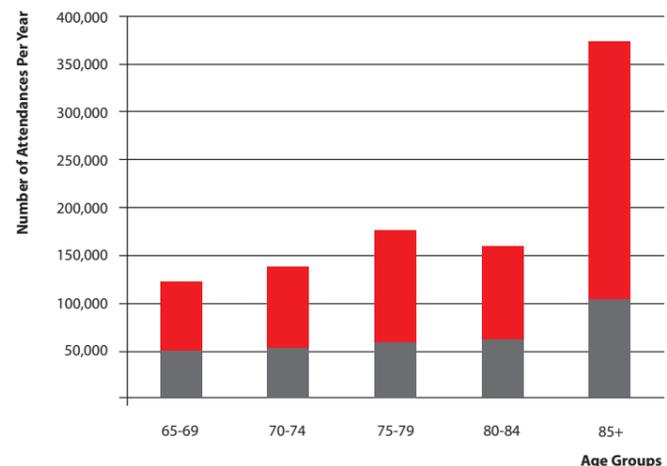
Plan/resource/partner

Falls prevention services work with a range of partners to identify at-risk members of the community. Referrals can be made by GPs, hospital staff, social care professionals, Age Concern, as well as direct referrals from older people themselves.

The structure of the service is flexible but can include a manager, postural stability programme co-ordinator, falls advisers, a handyman and an administrative assistant.

RoSPA has been actively involved in developing falls prevention strategies and delivers accredited falls prevention training.

Figure 14 – UK A&E attendances of over-65s to double in 25 years Projection 2008 – 2033



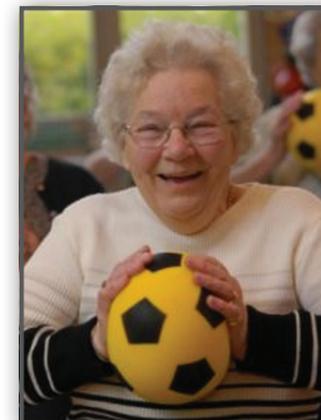
Source: RoSPA / AWISS / Government’s Actuary Department

Delivery

The Dudley Falls Prevention Service is an example of successful delivery:

Each person referred to the service is visited at home and all possible causes of falls are investigated, including environmental falls risks such as tripping and clutter.

By reducing the common risk factors and by providing appropriate equipment, falls can be reduced by between 10 and 40 per cent.



Evaluation

Since the introduction of the Dudley Falls Service in 2003, there has been a 38% reduction in the number of over-65s attending A&E as result of a fall and a 4% reduction in fractures of the neck or femur.



RoSPA and public health: A century of saving lives

The Royal Society for the Prevention of Accidents has a proud history dating back to 1916. From awareness campaigns, education and training to calling for legislative change, RoSPA is committed to standing up for safety at home, on the road, at work, at leisure and through safety education.

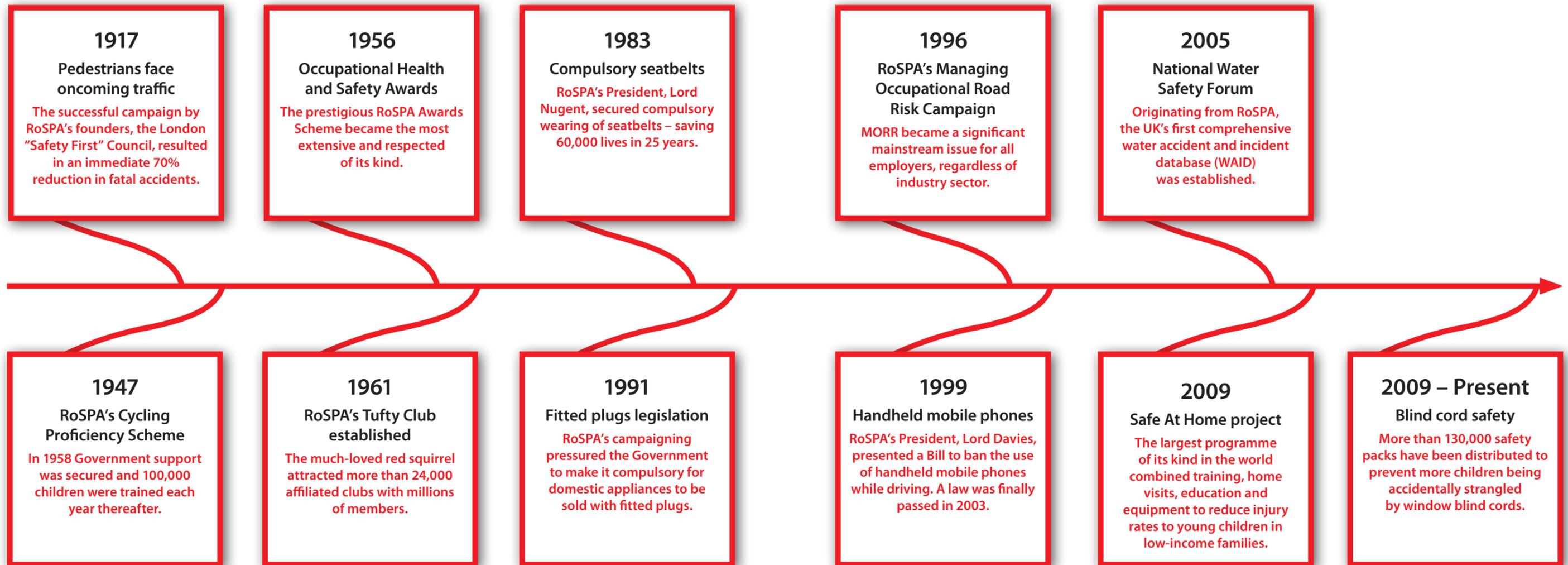
RoSPA believes in the importance of identifying and prioritising accident prevention issues using evidence – so that prevention is proportionate to risk.

Mission: To save lives and reduce injuries

RoSPA's mission statement and objectives link clearly to the public health priorities, including the Government's commitments to "helping people live longer, healthier and more fulfilling lives" and to "improve the health of the poorest, fastest".

An active participant in the 2002 Department of Health Accidental Injury Task Force, RoSPA was more recently part of the group which developed the "Preventing unintentional injuries among under-15s" guidance, which was published in 2010 (in three complementary documents) by the National Institute for Health and Clinical Excellence (NICE).

RoSPA has the experience and the knowledge to assist with a strategic approach to accident prevention.



The 2011 white paper, "Healthy lives, healthy people: update and the way forward", outlined 17 public health responsibilities for local authorities. Accident prevention programmes can make a significant contribution to the delivery of the vast majority of these responsibilities. This table shows the connections between accident prevention and each of the responsibilities.

The 17 public health responsibilities for local authorities, as outlined in the "Healthy lives, healthy people: update and way forward" white paper, July 2011	Accident prevention agenda	Relevant connection
Tobacco control	✓	Fire safety. In 2008, 2,800 house fires were caused by smoking, killing 101 people and injuring more than 900.
Alcohol and drug misuse services	✓	A strong correlation exists between accidental injury and alcohol and drug misuse.
Obesity and community nutrition initiatives	✓	Encouraging physical activity is likely to increase accident rates unless prevention advice is included.
Increasing levels of physical activity in the local population	✓	Encouraging physical activity is likely to increase accident rates unless prevention advice is included.
Assessment and lifestyle interventions as part of the NHS Health Check Programme	✓	Should include emphasis on changing lifestyles in a safe and responsible manner, e.g. cycling safety.
Public mental health services	✓	Feedback from many accident prevention programmes shows that they empower people, through knowledge, to make their own decisions.
Dental public health services	✓	Up to 50 per cent of children sustain an injury to the mouth by the time they leave school. In older children most of these are caused by falls and sporting accidents.
Accidental injury prevention	✓	See case studies for examples of successful implementation.
Population level interventions to reduce and prevent birth defects	✓	Opportunity in pre-natal classes to educate expectant mothers on dangers faced by their babies, particularly in the first five years.
Behavioural and lifestyle campaigns to prevent cancer and long term conditions	✓	Connected to healthy lifestyles, exercise and outdoor activity, which include the need to take sensible precautions to reduce accidental injury.

The 17 public health responsibilities for local authorities, as outlined in the "Healthy lives, healthy people: update and way forward" white paper, July 2011	Accident prevention agenda	Relevant connection
Local initiatives on workplace health	✓	Opportunities to use existing RoSPA initiatives, e.g. Safety Groups UK – a nationwide network of health and safety groups whose secretariat is provided by RoSPA.
Supporting, reviewing and challenging delivery of key public health funded and NHS delivered services such as immunisation programmes	✓	Opportunity to include safety messages alongside health information.
Comprehensive sexual health services	✓	Opportunity to include safety messages alongside sexual health information for young people – a particularly vulnerable group in terms of accidents.
Local initiatives to reduce excess deaths as a result of seasonal mortality	✓	Connected to RoSPA campaigns on issues such as slips, trips and falls among the elderly, driving safety in winter conditions, and drowning of young people in hot weather.
Role in dealing with health protection incidents and emergencies as described in Annex B of the "update and way forward" document	✓	These could be used as a vehicle to disseminate safety information to the public – particularly vulnerable groups.
Promotion of community safety, violence prevention and response	✓	Close connection with other safety initiatives including with small children, young adults and young drivers.
Local initiatives to tackle social exclusion	✓	Opportunity to connect with socially excluded people on a topic which is of interest and value to them, opening doors for wider conversations.

Question	Answer
How big an issue is this?	Accidents are the principal cause of premature, preventable death (measured in Preventable Years of Life lost (PrYLL)) for most of a person's life – see pages 8 and 9 for more detail.
How does this compare to other public health issues?	Measured in PrYLL, accidents are the principal mortality issue up to age 60. It is only when a person enters their mid-70s that preventable cancers become a more significant issue. In the mid-80s, heart disease overtakes accidents which then move into third place. However, measured in PrYLL, they are at least the third biggest cause of mortality for the whole of life expectancy and maintain a strong position in this table even in the later stages of life.
Why do accidents deserve to be given a high priority?	Accidents are relatively easy to prevent, mainly through education and information. Interventions are both inexpensive and effective, saving money and suffering. They are also quick to materialise, making their value apparent. These factors have long been understood. It is only now, since our PrYLL analysis has shown that we have an excellent alignment of efficacy, cost and significance, that we can say with confidence that accidents should be the No. 1 priority for public health.
Does accident prevention work?	Every intervention that we have designed has reduced accidents and saved money. In recent times, our focus on outcomes has produced ever-better results. A well-designed programme can reduce accidents by 20–30% in the target population/area. The return on investment typically ranges between 3 times to 10 times. See the Case Studies for more examples.
Is this the “nanny state”?	At RoSPA, we believe that life should be “as safe as necessary, not as safe as possible”. People need to be empowered (through knowledge) to make their own safety decisions. After that, they should be expected to take responsibility for themselves and their loved ones. This is the opposite of the “nanny state”, which simply accepts the increase in accidents, and offers more and more treatment, without attempting to stop the accidents from happening in the first place.
How do we assess our need and develop appropriate plans?	Using local injury data, it is possible to identify the most productive areas for development. RoSPA can help you to analyse this data and design a plan to make the most cost-effective interventions.
How will we know if we have been successful?	Every local plan needs a before/after evaluation to measure outcomes and prove value for money. RoSPA can advise on how to design professional measurement into the plan, so that its value can be seen by all, including local stakeholders and taxpayers.

Question	Answer
What do people think of accident prevention interventions?	Unlike many other public health interventions, the audience is generally receptive. People quickly understand that this knowledge can help them and their loved ones, by applying “common sense” advice, based on an understanding of the risk. Mums are avid receivers of our education on keeping young children safe. School-age children love safety and are motivated by altruism. Young adults and young drivers are more of a challenge, but we have evolved methods of engaging them in a positive way, by appealing to their need to develop skills. The elderly know that they are being helped in a practical way, to stay safe and healthy to maintain their quality of life.
Is there a deprivation dimension to accident prevention?	Children of parents who have never worked or who are long-term unemployed are 13 times more likely to die from unintentional injury, and 37 times more likely to die as a result of exposure to smoke, fire or flames than children of parents in higher managerial and professional occupations. The same children are 20 times more likely to die as pedestrians than children of parents from higher managerial groups.
How do we rank compared to other countries?	In road safety terms we are excellent. We are poor at home and leisure safety interventions. In particular, Canada, the Netherlands, and the Scandinavian countries have much more success in these areas than we have demonstrated recently. We can learn from them and apply some of their ideas. RoSPA hosts the European Child Safety Alliance, which compares best practice internationally.
Is accident prevention a stand-alone issue?	There are many crossovers with, for example, fire prevention, alcohol abuse, exercise and sport, wellbeing and health-visiting. We want to design interventions so that they have positive consequences on other public health areas and we see our subject as an important part of a complex picture.
How well do you work with other stakeholders?	Although we are experts on accident prevention, our value lies in understanding the big picture and tailoring it to local needs. Ours is a multi-faceted issue and it needs the coordination of a range of experts and delivery partners to gain the right outcomes for each area. Coordinating and leveraging their contributions is our skill.
Is there scope for innovation?	Every successful public health intervention originated as an innovation and there is huge scope to invent and deliver new and exciting solutions to old problems. It's all about firing people's imagination to do something creative to save lives and reduce injuries.

A variety of data sources have been used in preparing this publication, including:

- The Office for National Statistics Mortality statistics publications for England and Wales (series DR, DH2 and DH4), which have given an insight into the changing levels of home and road accident deaths
- The Home Accident Surveillance System (UK) and Hospital Episode Statistics (England) for detail regarding accident-related A&E visits and hospital admissions
- The All Wales Injury Surveillance System, which has provided detail on the age and location profiles of accidental injuries
- The Department for Transport, Health and Safety Executive and TRL for the financial costs of accidents
- The National Institute for Health and Clinical Excellence for detail relating to accidents involving children and young people
- The South West Public Health Observatory (SWPHO) and its online Injury Profiles tool
- Department of Child Health at Cardiff University and the NSPCC – ‘Oral injuries and bites on children’
- The NHS Information Centre
- Full references are available from RoSPA on request. Many of them can also be found in the “References” section in our extensive response to the Department of Health’s White Paper: ‘Healthy lives, healthy people: our strategy for public health in England.’

See www.rospa.com/publichealth/

RoSPA is more than happy to provide assistance to those looking for accident-related data.

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RoSPA’s public health web page: www.rospa.com/publichealth/

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