

Public Health England Safety issue

### **Delivering Accident Prevention** at local level in the new public health system

Part 1: Context

Raise awareness

Education (

Preventative measures (

Partnership working

**Reduced Risk of Injury** 

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### Foreword

14,000 people die in the UK, the majority in England, and more than 700,000 will be seriously injured in England alone. Over a lifetime a third of the population will have their lives diminished by an accident. The costs to the nation from these largely preventable injuries are enormous and rising.

The scale of accidents means that this is an issue that cannot be ignored and needs to be considered as part of Joint Strategic Needs Assessments.

This Handbook has been produced by the Royal Society for the Prevention of Accidents with funding from the Department of Health, and in consultation with the Department, the National Institute for Health and Clinical Excellence and others. Public Health England will be supporting the implementation of the Handbook.

It sets out the context and background to this key public health issue, including new research into the scale of the problem, and provides practical advice on prevention through case studies and evidence of best practice.

The Public Health Outcomes Framework sets out five key indicators related to the prevention of accidents and this Handbook will support the work to address these indicators as well as influencing many other areas of the public health agenda.

The Handbook will also provide valuable guidance on effective interventions for those involved in developing local strategies.

This resource is not just about accident prevention but complements other areas of public health by providing examples of principles and practices that can be applied across many areas of local prevention work.

It will help to enable people to take responsibility for their own safety by giving local authorities, health and wellbeing boards and other partners the tools to put in place programmes to support positive behaviour change.

It will also provide the information, advice and services that are necessary to reduce the burden of accidents on individuals, families, local communities and the nation.

We would recommend the Handbook to those at local level and hope that it will be helpful to them in making what we realise are difficult decisions about where to place priorities, and in then taking these forward.





Kenin A. Dellee

Anna Soubry MP

Parliamentary Under Secretary of State for Public Health

**Professor Kevin Fenton** 

Director of Health and Wellbeing Public Health England (PHE)

# Every year thousands of people's lives are affected by an accident. Around

### Key messages

- The scale of the burdens and costs associated with unintentional injuries are truly staggering and also contribute to inequalities.
- Accidents are eminently preventable. By preventing them, we safeguard people and reduce costs: estimates of the ratio of the financial return from injury prevention range, for example, from 50 to one for bicycle helmets and 17 to one for smoke alarms.
- Many of the levers for improving safety already lie within the reach of local authorities.
- Preventing unintentional injuries will also help local authorities meet their obligations in other areas; for example preventing falls will reduce pressure on social care budgets and the draft Care and Support Bill sets out new duties for local authorities to ensure that adult social care and housing departments work together.
- As a minimum we suggest that elected members:
- Find out what is going on in their area in relation to unintentional injury prevention
- Find out what works
- Collaborate with the experts and existing partnerships
- Support current work to ensure that it is maintained
- Make sure those most at risk in their community get the support they need.
- This Handbook brings together in one place all of the relevant data, and links to resources and tools, including NICE guidance on accident prevention.
- We hope that this document will be helpful to directors of public health and other local practitioners in making the case that injury prevention should be on the priority list of local government and other local bodies including health care organisations.
- We believe that it also exemplifies the new approach to achieving transformational change at local level in which action is not imposed from above, but emerges with the consent and collaboration of those whom it is intended to benefit.

### **Executive summary**

This Handbook is intended to demonstrate the importance of accidents to public health and to the wider health and social care system. It aims to bring together in one place all of the relevant data, and links to resources and tools, including NICE guidance. We also hope that it will serve a more general function, which is to show how it is possible to take an area of public health like accident prevention and:

- Build the evidence base for it
- Put together a coalition of partners
- Demonstrate how action in this one area can impact on other areas
- Show return on investment.

It also includes a number of case studies which have done exactly this.

Part 1 of this Handbook explains the context and background of accidents. Part 2 takes a more detailed look at accident prevention in practice, highlighting key areas of home, road, water and leisure safety, with key messages, and case studies for each area as well as practical advice on how to evaluate accident prevention programmes.

#### Why are accidents important?

The scale of the burdens and costs associated with unintentional injuries are truly staggering:

- They account for 13% of emergency hospital admissions and 5% of total hospital admissions
- They cost UK society an estimated £150billion every year
- accident than children from better off families .

#### Are accidents preventable?

As this Handbook shows, injury prevention is complementary to other areas of public health, not in competition with them. However, there is a qualitative difference between an episode of unintentional injury which either happens or doesn't, and a disease process like the development of coronary heart disease which can be slowed down but which cannot be prevented completely.

#### What are the benefits of accident prevention?

There is abundant evidence that unintentional injury prevention actually works. For example, the Safe At Home programme, which RoSPA delivered, provided advice and equipment to thousands of families who were thought to be at risk. An evaluation showed that there were major benefits, not simply in terms of reduced injuries but also in the way the programme was perceived by those at whom it was aimed.

It also reduces costs, and estimates of the ratio of the financial return from injury prevention (relative to the initial investment) range, for example, from 50 to one for bicycle helmets and 17 to one for smoke alarms.

#### Why should accidents be important to local authorities?

Since 1 April 2013, local authorities have been taking responsibility for public health. They now receive a ring-fenced public health grant, and are able to measure their success in discharging their new duties against a Public Health Outcomes Framework which includes indicators on unintentional injury prevention.

• They contribute to inequalities with children from poorer backgrounds being five times more likely to die as a result of an

#### **Every local authority will also need to:**

- Complete a Joint Strategic Needs Assessment (JSNA)
- Establish a Health and Wellbeing Strategy and investment plan
- Prepare to commission public health services.

Accident prevention needs to be considered within the JSNA and in the Health and Wellbeing Strategy because many of the levers for improving safety already lie within the reach of local authorities. Some areas such as Blackburn with Darwen have in fact, reframed injury prevention proposals in terms of the safeguarding agenda, and this has helped to secure agreement on the introduction of 20mph speed limits in residential areas.

We are aware, however, that many local authorities are currently experiencing severe constraints on their funds. Advocates of unintentional injury prevention such as RoSPA are therefore realistic about the need to make the case for such interventions, and respectful of the processes of local democracy which give locally elected bodies the autonomy to choose their own priorities, in consultation with the communities which they serve.

#### We would suggest that elected members:

- Find out what is going on in their area in relation to unintentional injury prevention
- Find out what works
- Collaborate with the experts and existing partnerships
- Support current work to ensure that it is maintained
- Make sure those most at risk in their community get the support they need.

Furthermore, it is important to recognise that preventing unintentional injuries is not just an issue in itself. It will also help local authorities meet both their statutory and their non-statutory obligations in other areas. For example, the importance of reducing the pressure on social care budgets that arise from falls is recognised by a whole series of national policy documents which have emphasised the importance of preventing such accidents through partnerships with the NHS, housing authorities and others. This is why the draft Care and Support Bill also sets out new duties for local authorities to ensure that adult social care and housing departments work together.

#### How will this Handbook help?

We hope that this document will be helpful to directors of public health and other local practitioners in making the case that injury prevention should be on the priority list of local government and other local bodies including health care organisations. We believe that it also exemplifies the new approach to achieving transformational change at local level in which change is not imposed from above, but emerges with the consent and collaboration of those whom it is intended to benefit.

More detailed information on facts and figures, research and case studies showing practical application can be found in Part 2.

### 1.1 Introduction: purpose of the resource

Accidents are expensive in terms of both human and financial cost. They destroy lives and families and have a big effect on economic growth. Most accidents are truly preventable and the prevention of an accident has a significant impact: stopping the injury stops the cost and also stops the morbidity, rather than just reducing it as in the case of many other health promotion programmes.

Accident prevention is one of the 17 key areas identified as a responsibility for local authorities within the new framework for delivering public health. Many of the key themes around preventing accidents are cross-cutting and can be applied across the spectrum of public health. This resource will help to quantify the need for accident prevention and the potential return on investment in this area. Whilst it will provide tools for anyone with a responsibility for developing accident prevention programmes it will have a much wider application for improving public health in general.

We know, for example, that some sub-groups of the population are more likely to indulge in several high risk behaviours such as smoking and drinking more than the recommended amount of alcohol. Furthermore, problems in early life such as conduct disorder are associated not only with impaired physical health, and substance misuse, but also with the increased risk of accidental death, and with attempted and completed suicide<sup>1</sup>.

Some lifestyle risk factors also directly contribute to accidents such as excessive alcohol consumption, which can lead to increased risk taking, and smoking, which can increase the risk of fires. Not surprisingly, action to improve lifestyle can prevent accidents and there are links between accident prevention and many of the other priorities in the Public Health Outcomes Framework. A holistic approach is, therefore, essential.

### Who is this resource for?

This Handbook will provide valuable information for anyone with a responsibility to ensure that accident prevention is delivered as a key public health priority including:

- Local authority elected members
- Directors of public health
- Directors of adult services
- Directors of children's services
- Members of health and wellbeing boards
- Clinical commissioning groups.

### What needs to be done?

People need support to take responsibility for their own safety through:

- Local public health programmes that influence positive behaviour change
- Improved accident prevention education in schools and in the home, ensuring people have the skills and knowledge to make positive lifestyle choices
- Access to good quality, evidence-based accident prevention information for both professionals and the public
- Encouragement to contribute actively to the management of their own health and wellbeing
- Ensuring that all services are delivered as part of a local, managed network
- Ensuring care pathways are in place so people get the level and guality of care they need in a timely fashion.

### Who has produced this resource?

This resource has been produced by RoSPA with funding from the Department of Health (DH) and in consultation with many partners including the National Institute for Health and Clinical Excellence (NICE), selected directors of public health, NHS Bristol and others involved in delivering public health across the country.

It builds on NICE's existing guidance on unintentional injury prevention to the under 15 age group, as well as guidance on falls. NICE is publishing briefings on its existing recommendations on public health interventions on a range of issues targeted at a Health and Wellbeing Boards (HWB) and a local authority audience. However, we understand that there are no plans to produce a briefing on accident prevention so this handbook will complement NICE's work and provide support to those seeking to implement NICE guidance on injury prevention.

### Why now?

This is a time of great change with the delivery of public health having been transferred to local authorities. As a result of the Health and Social Care Act 2012, local leadership for public health will be at the heart of the new public health system. Upper tier and unitary authorities will have certain duties delegated from the Secretary of State for:

- Weighing and measuring children
- Health check assessments
- Sexual health services
- Public health advice services.

Beyond these, local authorities must take what steps they deem appropriate to improve the health of their populations, backed by a ring-fenced grant and a specialist public health team led by the local directors of public health (DPH).

The DPH will be the lead officer in the local authority for health, and a statutory chief officer. He/she will champion health across the whole of the authority's business, promoting healthier lifestyles, scrutinising and challenging the NHS and other partners to promote better health and ensuring threats to health are addressed. He or she will be a key member of the HWB Contributing to the development of the Joint Strategic Needs Assessment (JSNA) and the Joint Health and Wellbeing Strategy, within the framework of the national Public Health Outcomes Framework, the DPH will wish to ensure a rigorous focus on local priorities and action across the life course to ensure a preventative approach is embedded in the local system.

#### Local authorities, directors of public health and health and wellbeing boards will be supported by Public Health England, a new public health delivery service based on the highest standards of evidence and professional and scientific advice.

Public Health England (PHE) will carry out functions and activities that would not be practicable to replicate in each local authority. PHE will incorporate within it the Health Protection Agency (HPA), the National Treatment Agency and the Public Health Observatories, as well as other key expertise in evidence-based public health delivery such as the National Diet and Nutrition Survey. It will build on recognised expertise within the public health system and use the synergies between the different bodies joining PHE to develop an integrated approach to evidence, innovation and information and intelligence, collecting and publishing data. PHE will provide health protection through the former HPA function and help local authorities maintain emergency preparedness and resilience, working through 15 local centres in four regions.

It will ensure that local authorities, the NHS and DH have the understanding, advice and tools they need to drive improvements in health successfully. PHE will drive improved outcomes in health and wellbeing, and protect the population against existing and future threats to health.

There are great opportunities for all areas of public health including accident prevention. At the same time the current financial climate makes it imperative for all those involved in promoting and protecting the public's health to find innovative and cost-effective approaches. This Handbook will demonstrate why accident prevention is such a key issue, and use it as an example of how it is possible to marshal evidence for effectiveness and cost-effectiveness. It will also demonstrate how learning from one area such as accident prevention can be applied to other areas of public health.

### "Accident prevention"? A note on terminology

RoSPA has sought to tackle the scourge of accidents on people's lives for more than 90 years. In recent years the term "accident prevention" has come into question and often been replaced with "unintentional injury prevention". However, events such as falls, burns and scalds, fires, poisoning and choking are still regarded by the general population as "accidents" and it is vital, therefore, that people are made aware that such events are preventable. So whilst it is of course recognised that unintentional injury prevention is now a term widely regarded as a better description of the issue, in this resource the term "accident prevention" has generally been used. However, because there are different contributors, the term "injury prevention" may also be used in places. In either case, the term refers to unintentional injuries and local areas should use the terminology that best suits them when developing local plans and policies.

It is also important to distinguish between unintentional injuries caused by accidents and intentional injuries caused by violence. Unfortunately the distinction has become blurred, particularly in relation to the collection of data. The two areas are not mutually compatible or interchangeable and different approaches will often be required to address these two distinct areas.

This resource is not intended to address issues around intentional injuries, whether self-inflicted or inflicted by others, although there may of course be some overlap in risk factors (as we have seen) and some crossover with strategies to deal with child protection and adult safeguarding.

### Some key facts about accidents:

- Unintentional injuries accounted for 12.5% of emergency hospital admissions in 2010/11<sup>2</sup>.
- Unintentional injuries accounted for 5% of total (all) hospital admissions in 2010/11<sup>2</sup>.
- Accidents costing society an estimated £150billion every year (see page 36).
- Accidents claimed the lives of 13,505 people in the UK in 2010/2011. England and Wales accounted for 11,390 of these deaths<sup>3</sup> (Scotland for 1.657<sup>4</sup> and Northern Ireland for 458<sup>5</sup>). Just under 5,000 died as a result of a home accident.
- The costs of an injury requiring in-patient treatment have been estimated at £16,900°. The bill for treating home accidents therefore runs into billions of pounds.
- Home and leisure accidents alone cost UK society £95billion annually. At least £25billion of that is paid by taxpayers through healthcare and benefits costs.<sup>6</sup>
- Childhood injuries are closely linked with social deprivation. Children from poorer backgrounds are five times more likely to die as a result of an accident than children from better off families – and the gap is widening.<sup>7</sup>
- During the past 25 years, a co-ordinated national plan (delivered locally) to reduce road accidents has worked dramatically, producing all-time lows. This demonstrates that a similar co-ordinated approach could have a significant impact on other accident areas. Accidents are a major but preventable public health issue which, if tackled, could benefit society not only by preventing severe suffering, trauma and stress but also by providing huge financial savings.
- Visits to A&E have doubled in the years leading up to 2011/12 and the rate is increasing see Figure 1.

#### Figure 1: Emergency attendances England 2000–2012



Source: NHS Information Centre, Hospital Episode Statistics HES: online, A&E attendances, England from 2000/01 – 2011/12

### **1.2 Implications for accident prevention** and other areas of public health

### "Strategies and policies relating to children, young people and older people need to incorporate injury prevention.

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

Local authorities have a long history of active involvement in accident prevention including, for example, road and transport safety, home safety and housing standards, fire safety, health and safety at work, consumer and product safety and safety of older people and children through the services delivered by children's and adult social care departments. As the role of the directors of public health (DPH) will be to work across all local authority functions these changes provide further opportunities for joined-up approaches to tackling accidents.

In line with NICE guidance<sup>8</sup> the new framework makes clear, public health is not solely the responsibility of the local authority. It will require action on a personal and community level involving individuals, third sector organisations and business. There is therefore an opportunity for DsPH to take the lead in involving all sectors of society in tackling and reducing accidents.

It is important that at a local level the scale of accidents and the actions needed to prevent them are included in:

- Joint Strategic Needs Assessments (JSNAs)
- Health and Wellbeing Strategies
- Other relevant strategies and service plans across the local authority, clinical commissioning groups and other relevant organisations.

### Backdrop of current economic climate and reduction in local public services

In the current spending review cycle, many local authorities have experienced significant reductions in central government grants which have affected the provision of services.

In addition, the impact of reforms to the welfare benefits system will further affect the social and economic support the state provides to the most deprived and vulnerable populations.

If progress is to be made in reducing health inequalities, then public health leaders in local authorities may need to look beyond the management of the funds transferred from the NHS to local government.

All of the budgets in local government that can be considered "health related" (transport, housing, education, economic development, etc.) may have to be deployed. This will involve spending these diminishing budgets in ways that bring win-win outcomes for accident prevention, health equity and transport, housing, economic development and education.

## Accident prevention and links to other agendas: children's services and safeguarding

The high level of unintentional injury among children is described elsewhere in this Handbook.

#### Definition: safeguarding and promoting the welfare of children

"The process of protecting children from abuse or neglect, preventing impairment of their health and development, and ensuring they are growing up in circumstances consistent with the provision of safe and effective care that enables children to have optimum life chances and enter adulthood successfully."<sup>9</sup> (Working together to safeguard children, DCFS, 2010)

The term "safeguarding" has come to be seen as synonymous with protection from abuse. This is particularly true in the recent guidance released on adult safeguarding, but the origins of this view lie very much at the heart of the children's safeguarding agenda. Child protection is clearly a critical area and the principal focus of local children's safeguarding boards has been on this aspect of children's health and wellbeing.

However, the definition given above points to a much wider view of safeguarding which applies to the provision of safe care and circumstances that prevent any impairment to a child's health and wellbeing. Other sections of this resource highlight the scale and impact of unintentional injury on the lives of children and their families. There are clear synergies between injury prevention and the children's safeguarding agenda as a whole.

Safeguarding and promoting the welfare of children is the responsibility of the local authority, working in partnership with other public organisations, the voluntary sector, children and young people, parents and carers, and the wider community. A key objective for local authorities is to ensure that children are protected from harm.

Recent guidance has been published on how safeguarding arrangements fit with the new public health and NHS structures. It states that: "Local safeguarding children's boards (LSCBs) will continue to be the key statutory mechanism for agreeing how the relevant organisations in each local area will co-operate to safeguard and promote the welfare of children in that locality, and for ensuring the effectiveness of what they do. Through its annual report, the LSCB will provide a comprehensive analysis of safeguarding children in the local area."<sup>10</sup> If safeguarding is to be ensured in the fullest sense of protecting a child's health and development, and ensuring safe and effective care to provide optimum life chances, LSCBs will need to be fully aware of the problem of unintentional child injuries in their area and support measures that can prevent them.

### Case Study: Safe At Home

Under-5s are most likely to be unintentionally injured in the home and this case study demonstrates how some of the causes of those injuries can be prevented successfully.

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

#### **Evidence**

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

According to the Audit Commission report Better Safe than Sorry 2007<sup>11</sup> accidental injury among under-15s results in two million visits to A&E by children each year, costing £146million.

The Marmot Review<sup>32</sup> provides further confirmation of the inequalities in health.

Figure 2: Causes of injuries to under-5s



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

#### **Delivery**

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

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

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

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

#### **Evaluation**

The University of Nottingham's independent evaluation of SAH reported 96 per cent satisfaction among beneficiaries with 91 per cent feeling their home was safer. Subsequent analysis of HES data has indicated that in the top five SAH areas, hospital admissions fell by 10 per cent. 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 £11million compared with the programme's cost of just £2.4million in these areas. 4 00

#### **Plan/resource/partner**

Safe At Home (SAH) aimed to provide equipment, training and education in areas with the highest hospital admissions for accidental injury to under-5s. RoSPA achieved this aim by developing criteria to select the families at greatest risk.

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. The methodology used was very close to that recommended by NICE guidance (PH30 recommendations 1–5) published in 2010.

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

Asphyxia, etc. 3% Comprehensive record-keeping ensured that independent evaluation could review the effectiveness of every step of the process.



### Figure 3: Hospital admissions due to serious unintentional (accidental) injuries 2008/9 – 2011/12 and future projection

Source: RoSPA analysis using NHS Information Centre, Hospital Episode Statistics HES: online, A&E admissions, England from 2000/01 – 2011/12

More in-depth information about SAH can be found in Part 2

### Adult social care and an ageing population

Older people are at elevated risk of death or disability due to an accident, most commonly a fall. A fall can often result in a loss of independence and confidence, which can diminish an older person's resilience and quality of life and increase care costs. Older women over the age of 75 are most at risk.

NICE's clinical guideline on falls,<sup>8</sup> The assessment and prevention of falls in older people, makes recommendations about the care of older people in the community or extended care who have either suffered a fall or who are considered at risk of falling:

"Some medicines can result in accidents in some people, particularly older people through side effects such as increased postural sway or blurred vision, resulting in confusion and falls. Community pharmacies are a trusted local health resource on the safe use of medicines, offering easy access, especially for deprived populations who may not use other services, long opening hours and an informal environment for advice and support."

The continuing work of the Falls Collaborative Groups, led by the Action on Children's Accident Project team (ACAP) in Burnley, Pendle and Rossendale<sup>12</sup> has also led to a reduction in ambulance call-outs as a result of a fall. The work is based on the principle of "community action" - in which ideas are tested under the PDSA methodology: Plan, Do, Study, Act - these are "do-able" small chunks of work which are not too off-putting to tackle. This type of approach has a strong known-to-work evidence base<sup>13</sup>. Initiatives being carried out by the local volunteer groups cover: raising awareness of medication review; exercise; footwear and foot care; eyesight checks; and environmental adaptations. The aim is to spread and adapt ideas that have an impact in multiple settings and work towards future sustainability.<sup>14</sup>

The high level of unintentional injury among older people is described elsewhere in this Handbook. Adult social care services have a key responsibility for the health and wellbeing of older people within their communities.

"A fall or a fracture can turn a person's life upside down. Action to prevent trips and falls is critical to turning the rising tide of hospital admissions and costs

"We also know that the best practice in treating fractures can make a huge difference to a person's recovery both physically and in terms of self confidence

"Both prevention and treatment are at their most effective when social care and the NHS work together. Integrated care can go a long way to improve services for older people. The Coalition Government is putting in place the legal conditions and financial incentives to drive greater integration." **Care Services Minister Paul Burstow: February 2012** 

In its policy paper A Vision for Adult Social Care the Government emphasised the importance of prevention:<sup>15</sup>

"Prevention is the first step. All of us want to maintain independence and good health throughout our lives. We also know that a considerable proportion of care needs can be avoided or significantly reduced if we intervene earlier. It is always far better to prevent or postpone dependency than deal with the consequences."

The paper signalled the Government's intention to include preventative services for older people in its public health reforms and encouraged local authorities to recognise their role.

Local authorities can exploit the many opportunities to improve preventative services by:

- Developing community capacity and promoting active citizenship, working with community organisations and others across all services, establishing the conditions in which the Big Society can flourish
- Commissioning a full range of appropriate preventative and early intervention services such as re-ablement and telecare, working in partnership with the NHS, housing authorities and others.

This paper was followed up in 2012 by the white paper, Caring for our future: reforming care and support,<sup>16</sup> which set out widespread proposals for changing the way adult social care is delivered. Once again the importance of prevention was emphasised. For example, new investment was announced in relation to providing services to make homes safer.

The benefit of aids and adaptations in helping people to stay independent in their own homes for as long as possible, and also in reducing accidents, was recognised. Handyperson's schemes were also acknowledged as important in providing small repairs that could minimise hazards in the home. Extending these types of services can be very effective in making homes safer for vulnerable households.

The white paper highlighted the need for NHS, public health, adult social care and other local authority services to work together to "consider housing needs and resources" when assessing the needs of their local area. Where needs are identified and prioritised, local commissioning plans should take account of these. The draft Care and Support Bill will go further, and will set out new duties to be placed on local authorities to ensure that adult social care and housing departments work together. This will support adaptations and home repair services to join up better with people's care and support.

There are also links between accident prevention and the Adult Social Care Outcomes Framework<sup>17</sup> (ASCOF), particularly in relation to:

- Domain 1 "Enhancing the quality of life for people with care and support needs"
- Domain 2 "Delaying and reducing the need for care and support".

Action to address the Public Health Outcomes Framework indicators on falls and hip fractures will help to meet the ASCOF indicators within these two domains. The ASCOF states as an outcome measure that "earlier intervention, diagnosis and re-ablement means that people and their carers are less dependent on intensive services". Prevention work to address repeated falling will certainly support the delivery of the indicator aimed at increasing "the proportion of people aged 65 or over who are still at home 91 days after discharge into re-ablement/rehabilitation services." However there is also a need to focus on prevention being the initial fall. It is well documented that if a person has fallen once, the likelihood of further falls is increased with the consequences being more serious injury or death. Reducing the number of falls that happen in the first place could have a significant impact on these domains.

More information about falls prevention can be found in the home safety section in Part 2





The report, Breaking Through: Building Better Falls and Fractures Services in England,<sup>18</sup> commissioned by the Minister of State for Care Services, clearly states the need for integration between public health, adult social care and NHS services in tackling the issue of falls prevention. It recommends that:

- Local GPs and hospitals must work together with local authorities to put in place better care programmes for older people who suffer from falls and fractures
- Local health leads should run health campaigns on how people can look after their bone health and prevent falls themselves
- Local health leads should offer financial incentives to improve care
- A national database should be set up to monitor non-hip fractures.

### **Case Study: Handyperson's Schemes**

The evaluation of the Department for Communities and Local Government (DCLG) Handyperson Programme<sup>19</sup> has shown that handyperson services are assisting large numbers of older, disabled and vulnerable people to live independently in their own homes for longer, in greater levels of comfort and security.

These schemes offer an important safety net for older people, and they also enhance the effectiveness of health and social care provision through the delivery of often very simple and very low cost interventions. Services are consistently highly rated by people who use them, and they are valued for their trustworthiness, reliability, quality, and crucially for the skills and respectful attitudes of the staff. As the population ages there will be greater demand for such services, and a greater imperative to assist older people to live independently. Handyperson services can and do support the preventative agenda. The evaluation states:

"Based on conservative modelling assumptions, the benefits achieved by the handyperson programme outweighed the costs of providing the programme by 13 per cent. Investment in handyperson services leads to avoided costs elsewhere. In particular the biggest costs that can be avoided are with social services. Financial benefits of handyperson services could be significantly greater than this as the scope of this modelling has been limited to benefits for which a financial value can be attributed. Benefits such as improving older people's independence, quality of life and sense of wellbeing can also be achieved, but are not quantified in the model."

This evaluation has demonstrated that handyperson services provide value for money and while this is the overriding message, the "value-added" aspects of services can only strengthen the case for supporting these services. Small things do matter, and can make an enormous difference.

#### **Case Study: Falls Prevention Services** Figure 4: Age profile of admissions after a fall Over-65s are most likely to be unintentionally injured in the home. This case study demonstrates how some of the causes of these Age 0–14 10% injuries can be prevented successfully. This Age 15–59 15% Age 60-74 10% area is covered by the Public Health Outcomes Aae75+65% Framework Indicators 2.24: Injuries due to falls

in people aged 65 and over / 4.14: Hip fractures in people aged 65 and over.

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.

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 the patient returns home, they often need extra health and social care support

### In 13 years, the number of over-60s requiring 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. A&E attendances resulting from a fall have been predicted to double over the next 25 years

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.

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

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 and Age Concern, as well as direct referrals from older people themselves.

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

RoSPA has been actively involved in developing falls prevention strategies and delivers accredited falls prevention training. The Dudley Falls Prevention Service is an example of successful delivery.

Each person referred to the Dudley service is visited at home and all possible causes of falls are investigated, including environmental risks such as tripping and clutter. By reducing the common risk factors and by providing appropriate equipment, falls can be reduced by between 10-40%.

Since the introduction of the Dudley Falls Prevention 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 to neck of femur.

"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 older people we would have been happy with a flatline position – but costs have gone down. Also, the quality of life improvements are immeasurable." Falls prevention manager, Joint Accident Prevention Strategy for Dudley 2009–12.

Source: RoSPA analysis using NHS Information Centre, Hospital Episode Statistics HES: online, A&E admissions, England from 2000/01 – 2011/12

17



Source: RoSPA / All Wales Injury Surveillance System (AWISS) / **Government's Actuary Departm** 

### Accidents in the NHS

Figures issued by the National Patient Safety Agency (NPSA)<sup>20</sup> show that patient safety remains a top priority for the NHS. The number of patient safety incidents in England that occurred between 1 October 2011 and 31 March 2012 and were submitted to the NPSA by 31 May 2012, was 612,414. This is an increase of 2.3% compared to the previous reporting period (1 April 2011 to 30 September 2011.)

#### The data shows that:

- 413,459 (68%) of patient safety incidents resulted in no harm to the patient;
- 154,681 (25%) resulted in low harm
- 39,039 (six%) resulted in moderate harm
- 5,235 (one%) resulted in death or severe harm.

The most common types of incident were: patient accidents – slips, trips and falls (26%); medication incidents (11%); and incidents relating to treatment and/or procedures (11%) This trend remains consistent with previous data releases.

Describing the value of the data, the NPSA states: "Identifying patient safety incidents and ensuring they are reported and analysed is at the heart of reducing risk in healthcare. NHS organisations should use the data and review the tools, guidance and support available to them. This will ensure patient safety incidents continue to be reported and learned from, strengthening the patient safety culture across all levels of the NHS."

The National Reporting and Learning System continues to capture, analyse and feed back patient safety incidents to the NHS, and the NHS Commissioning Board will maintain oversight of the system in the future.

### Transfer of patient safety function to the NHS **Commissioning Board Special Health Authority**

The key functions and expertise for patient safety developed by the National Patient Safety Agency (NPSA) have now been transferrred to the NHS Commissioning Board Special Health Authority (the Board Authority). This ensures that patient safety is at the heart of the NHS and builds on the learning and expertise developed by the NPSA, driving patient safety improvement.

The Board Authority will harness the power of the National Reporting and Learning System (NRLS), the world's most comprehensive database of patient safety information, to identify and tackle important patient safety issues at their root cause.

Healthcare organisations should continue to report patient safety incidents to the NRLS. Working across sectors the NHS Commissioning Board Authority will utilise patient safety incident data to analyse risk, drive learning and improve patient safety.

Scrupulous reporting and analysis of safety related incidents, particularly incidents resulting in no or low harm, provides an opportunity to reduce the risk of future incidents through learning. Nearly 100% of trusts in England submitted incident reports to the NRLS for this set of data; 70% of organisations reported monthly during this period, compared with 65% last time.

### **Transport and health**

Transport and Health Resource: Delivering Healthy Local Transport Plans<sup>21</sup>, produced by the Department of Health and Department for Transport highlights the impact that transport can have on health. It highlights the importance of including measures to reduce road traffic injuries in Local Transport Plans. Safer roads can have a positive impact on people's willingness and ability to use them for healthy activities such as cycling and walking. For example, it cites one study that has suggested that as cycling doubles, the risk of accidents per kilometre travelled by cyclists decreases by 34%<sup>22</sup>. It also highlights the impact of 20mph limits in reducing cycling and pedestrian casualties and the influence of inequalities on road casualty figures. More detailed discussions on the issues around improving road safety and meeting the relevant Public Health Outcomes Framework indicator are found elsewhere in this report but there is a clear link between improving safety on the road and improving the type of usage that could lead to other health benefits.

More information about road safety can be found in the road safety section in Part 2 of this resource.

### **Case Study: 20mph Zones and Speed Limits**

Public Health Outcomes Framework 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.

#### **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.

#### **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 more than 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 more than 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 free online road safety evaluation toolkit is available at www.roadsafetyevaluation.com.

### 1.3 Accident prevention and the Public Health Outcomes Framework

The inclusion of accident prevention indicators within the Public Health Outcomes Framework<sup>23</sup> "Healthy lives, healthy people: Improving outcomes and supporting transparency" (2012), recently refreshed to reflect technical developments since January 2012<sup>23</sup> demonstrates the importance of tackling this issue. Work to prevent accidents will also address some of the otherkey priorities.

NICE has also produced guidance that is relevant to the Public Health Outcomes Framework.<sup>24</sup>

### The overarching indicators

Action to reduce unintentional injury is aligned with the overall vision for the public health system as set out in the Public Health Outcomes Framework, contributing to the two high level outcomes.

Vision: To improve and protect the nation's health and wellbeing, and improve the health of the poorest fastest.

### **Outcome 1: Increased healthy life expectancy**

#### Taking account of the health quality as well as the length of life.

In addition to the years of life lost for people of working age, highlighted in the earlier chapter 1.4, it needs to be remembered that accidents have a significant impact on the health and quality of life of the older population. In the last 13 years the number of over-60s needing in-patient care for falls-related injuries has more than doubled, standing at more than 357,000 in 2010–11 in NHS hospitals in England alone. For many of these patients, life will never be the same again.

Similarly, accidents to children can have significant long-term effects on the quality of their own lives and that of their families. A serious scald, for example, can require many years of treatment and cause significant physical and mental distress.

### Outcome 2: Reduced differences in life expectancy and healthy life expectancy between communities

#### Through greater improvements in more disadvantaged communities.

There are big differences between socio economic groups in terms of the numbers affected by home accidents. For example, a child with long-term unemployed parent(s) living in a disadvantaged area is 37 times more likely to die from exposure to smoke or flames than children whose parents are in higher earning and managerial professions. A recent study in Liverpool also found a positive correlation between falls among over-75s and deprivation.

Unintentional injury in the home therefore affects people across the life course and action taken to reduce unintentional injuries will contribute to meeting both outcome measures.

### The five key indicators related to accident prevention

The scale of the accident problem has been recognised in the Public Health Outcomes Framework. The indicator on mortality from causes considered preventable covers accidental injury as a preventable cause of death. In addition, five key indicators have been developed that specifically relate to accident prevention.

#### Indicator 4.3: Mortality rate from causes considered preventable

The graph below highlights where the peaks exist for home, road and leisure accidents and identifies where action is needed to address this and meet the public health indicators.

Figure 6 - Unintentional (accidental) injury rates reported to A&E by age



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

- Under–5s are most likely to be unintentionally injured in the home. The Safe At Home case study on page 12 demonstrates how some of the causes of these injuries can be prevented successfully. This area is covered by the 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.
- Young adults are most likely to be unintentionally injured while undertaking leisure activities. Case study SE1 2 Learning about Safety by Experiencing Risk featured in Part 2 demonstrates how some of the causes of these injuries can be prevented successfully. This area is covered by the 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.
- Young people are a group at particular risk and speed is a major risk factor that influences the number of road 3 casualties. The 20mph Zones case study on page 19 demonstrates how some of the causes of these injuries can be prevented successfully. This area is covered by the Public Health Outcomes Framework indicator 1.10 (as designated by the Department of Health): Killed or seriously injured casualties on England's roads.
- Over-65s are most likely to be unintentionally injured in the home. The Falls case study on page 17, demonstrates how some of the causes of these injuries can be prevented successfully. This area is covered by the 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.

#### Indicator 1.10: Killed and seriously injured casualties on England's roads See also the road safety section in Part 2 of this resource.

One of the Department for Transport's earlier Public Sector Agreement targets was to reduce the number of people killed or seriously injured by 40%, and the number of children killed or seriously injured by 50% by 2010 compared with the baseline of 1994-8.

The Department for Transport's new Strategic Framework for Road Safety (2011)<sup>25</sup> draws together and updates the wide-ranging issues that will need to be addressed to reduce road casualties. The framework also drops overarching national targets in favour of a new proposed Road Safety Outcomes Framework that will complement the current measure.

The Department of Health's public health framework, Healthy lives, healthy people: Improving outcomes and supporting transparency, after (2012)<sup>23</sup> also highlights the importance of reducing casualties and serious injuries on England's roads and the current measure is included in the new Public Health Outcomes Framework.

#### Figure 7: Deaths and serious injuries on roads in England 2008-10



Source: Injury Profiles, managed by Public Health England's Knowledge and Intelligence Team (South West) - www.injuryprofiles.org.uk

#### Indicator 2.7: Hospital admissions caused by unintentional and deliberate injuries in under 18s See Part 2 of this resource for more information on accident prevention in practice for the under-18s

Hospital admissions due to unintentional injuries are 18 times higher than the number of admissions due to intentional injuries.<sup>22</sup>

Injuries are a leading cause of hospitalisation and represent a major cause of premature mortality for children and young people. They are also a source of long-term health issues, including mental health problems related to experience(s) of injury. The inclusion of this indicator is key for cross-sectoral and partnership working to reduce injuries, including child safeguarding.

Department of Health (2012) Improving outcomes and supporting transparency. Part2: Summary technical specifications of public health indicators.

People at key stages in their lives (for example pregnant women and learner drivers) tend to be very receptive to safety messages. In contrast, intentional injuries, by definition, are very difficult to prevent.

#### Figure 8: Hospital admissions to under-18s in England 2010/11



Source: Injury Profiles, managed by Public Health England's Knowledge and Intelligence Team (South West) – www.injuryprofiles.org.uk

The return on investment from the prevention of unintentional injuries is far higher than for intentional injuries. What is more, the sheer number of unintentional injuries, however measured, dwarfs the number of intentional injuries.

From the table below, it is clear that for public health practitioners to deliver improvements against indicator 2.7, they should ensure that programmes aimed at reducing unintentional injuries attract between four times and 18 times more investment than programmes aimed at reducing intentional injuries.

#### Table 1: Perspectives related to unintentional and intentional injuries, England and Wales 2010

Perspective	Unintentional	Intentional	Multiple
Hospital admissions due to external causes, England (HES online, NHS Information Centre)	733,454 admissions	41,322 admissions	17.7
Preventable Years of Life Lost age 0–60, England and Wales (ONS data specially commissioned and analysed by RoSPA )	97,000 PrYLL	17,000 PrYLL	5.7
Years of Life Lost, all causes, age 15–64, England and Wales (ONS Deaths Register published online)	117,000 YLL	24,000 YLL	4.9
Deaths, all causes, all ages, England and Wales (ONS Deaths Register published online)	11,438 deaths	2,465 deaths	4.6

Source: NHS Information Centre, Hospital Episode Statistics (HES): hospital admissions, Englan Life Lost and mortality data, England and Wales 2010

#### Figure 9: Falls in over-65s in England in 2010/11



Source: NHS Information Centre, Hospital Episode Statistics (HES): hospital admissions, England 2010. RoSPA analysis of Office for National Statistics Preventable Years of Life Lost, Years of

### *Indicator 2.24: Injuries due to falls in people aged 65 and over*

Falls are the largest cause of emergency hospital admissions for older people, and have a significant impact on long term outcomes, e.g. being a major cause of people moving from their own home to long-term nursing or residential care.

A measure that reflects the success of services in preventing falls will give an indication of how the NHS, public health and social care are working together to tackle issues locally.

Department of Health (2012) Improving outcomes and supporting transparency. Part2: Summary technical specifications of public health indicators.

#### Indicator 4.14: Hip fractures in people aged 65 and over

Hip fracture is a debilitating condition - only one in three sufferers return to their former level of independence and one in three end up leaving their own home and moving to long-term care (resulting in social care costs). Hip fractures are almost as common and costly as strokes and the incidence is rising. There is evidence of interventions to treat osteoporosis, to prevent falls and to prevent fractures in people who have already suffered one fragility fracture. Inclusion of this indicator in the Public Health Outcomes Framework will encourage prioritisation of such interventions.

Department of Health (2012) Improving outcomes and supporting transparency. Part2: Summary technical specifications of public health indicators.

#### Figure 10: Hip fractures over-65s in England in 2010/11



A range of additional indicators are indirectly related to accident prevention, including mortality from causes considered preventable, excess winter deaths, utilisation of outdoor space for exercise/health reasons and older people's perception of community safety.

Source: Injury Profiles, managed by Public Health England's Knowledge and Intelligence Team (South West) – www.injuryprofiles.org.uk

### Links to the other public health priorities

Public health is all about preventative health care. The role of the health and wellbeing boards is to increase the involvement of all local players in public health planning, building effective partnerships and improving communications building on the three key domains of public health practice, as set out by the faculty of public health.

Decision-makers and commissioners need to take measures today in order to prevent problems tomorrow. They will also need to be aware that accidental injury prevention is included in the 17 public health responsibilities for local authorities, as outlined in the Government's Healthy Lives, Healthy People Update.<sup>26</sup> There are also links where accident prevention could feed into a number of the other 16 priorities. Examples are given in the table below.

### Links to key domains in the NHS Outcomes Framework and to clinical commissioning

According to the NHS Commissioning Board 2013–14 planning guidance (Everyone Counts) for clinical commissioning groups (CCG) in England, the CCG performance will be assessed using a number of indicators. Achievement of improvement in some of these indicators will determine whether the CCG is paid a quality premium set at £5 per head.

The outcome indicators required for the quality premium are related to four national measures:

- Reducing potential years of life lost through amenable mortality (12.5% of quality premium) (see page 31 for a definition of amenable mortality)
- Reducing avoidable emergency admissions (25% of quality premium)
- Ensuring roll-out of the Friends and Family Test and improving patient experience of hospital services (12.5% of quality premium)
- Preventing healthcare associated infections (12.5% of guality premium).

Three local measures, which should be based on local priorities identified in joint health and wellbeing strategies, will be agreed between individual CCGs and the area teams of the NHS Commissioning Board (NHS CB).

There are clear links between injury prevention and two of the overarching objectives and related guidance on achieving the quality premium:27

- Domain 1 of the NHS Outcomes Framework
- Reducing avoidable emergency admissions (25% of guality premium): a composite measure drawn from four measures in Domains 2 and 3 of the NHS Outcomes Framework.

The King's Fund paper, Transforming Health Care: Ten Priorities for Commissioners,<sup>28</sup> has also identified primary and secondary prevention as two of these priorities and identified the savings that can be made from implementing NICE guidance on brief interventions in a number of health areas. Similar application, for example, of the NICE guidance on unintentional injuries (PH29 and 30) and falls prevention (CG21), as well as other evidence based interventions around injury prevention could achieve an equivalent impact.

• Reducing potential years of life lost through amenable mortality (12.5% of quality premium): the overarching objective for

### Accident prevention links to public health responsibilities

#### Table 2: Accident prevention links to public health responsibilities

Some of 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	$\checkmark$	Fire safety. In 2010–11, 2,748 house fires were caused by smoking, killing 96 people and injuring more than 800.
		There is a key opportunity to make smokers who are attempting to quit aware of the safety benefits but also to reinforce prevention messages among those who are not yet ready to quit.
		Case Study – Lincolnshire
		The county council, primary care trust and smoke-free Lincs Alliance have collaborated with the Fire Service to promote the smoke-free homes message each time the fire
		the house then they are offered a referral to the stop smoking service. This has had a positive effect as uptake of smoke-free home status helps to reduce domestic smoking-related fire deaths and referrals to the stop smoking service increase the chances of the home remaining smoke-free.
Alcohol and drug misuse services	$\checkmark$	A strong correlation exists between accidental injury and alcohol and drug misuse.
Obesity and community nutrition initiatives	$\checkmark$	Improved health will enable people to remain more active which will assist them to stay safe in later years but it will be important to increase awareness of accident prevention at the same time.
Increasing levels of physical activity in the local population	$\checkmark$	Encouraging physical activity is a positive step towards people being safer and healthier in later life but may lead to an increase in accident rates unless prevention advice and safer routes to school, for example, are included.
Assessment and lifestyle interventions as part of the NHS Health Check Programme	$\checkmark$	Could include emphasis on changing lifestyles in a safe and responsible manner, e.g. cycling safety. A holistic health check programme will also include raising awareness of accident prevention issues so that people can enjoy healthier lives longer.
Public mental health services	$\checkmark$	Feedback from many accident prevention programmes shows that they empower people, through knowledge, to make their own decisions.
Accidental injury prevention	$\checkmark$	See case studies in this Handbook for examples of successful implementations.
Behavioural and lifestyle campaigns to prevent cancer and long-term conditions	$\checkmark$	Connected to healthy lifestyles, exercise and outdoor activity, which include need to take sensible precautions to reduce accidental injury.
Local initiatives on workplace health	V	Opportunities to use existing RoSPA initiatives and networks, e.g. Safety Groups UK – a nationwide network of health and safety groups whose secretariat is provided by RoSPA. Safety 24/7, for example, highlights to employers the importance of reinforcing safety at home as much as in the workplace, given the costs to business of lost days as a result of home accidents.
Supporting, reviewing and challenging delivery of key public health funded and NHS delivered services such as immunisation programmes	$\checkmark$	Opportunity to include safety messages alongside health information especially because under-5s are a key risk group for accidental injuries at home. Over-65s are also a key target group for annual flu immunisation programmes and are also at increasing risk of home accidents.
Local initiatives to reduce excess deaths as a result of seasonal mortality	$\checkmark$	Connected to RoSPA campaigns on issues such as slips, trips and falls among older people and evidence of the effects of cold on increasing accidents and their effects.
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	$\checkmark$	Close connection with other safety initiatives including with small children, young adults and older people.
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 e.g. families living in temporary accommodation, migrants or people with language difficulties may be disadvantaged in terms of an understanding of the accident risks.

### 1.4 A new understanding of the scale of the accident problem in relation to other public health issue

Accident prevention is easy and inexpensive to deliver, to a largely receptive audience, and it also returns more relative value to society, measured in quality life years and financial savings, than any other of the 17 Government priorities for public health.

For many years, those working to prevent unintentional (or 'accidental') injuries have faced an ongoing battle for public, private and voluntary sector resources because the number of deaths caused by accidents was simply not high enough compared to the "big killers" such as cancer, cardiovascular disease and respiratory disease.<sup>29</sup>

cardiovascular disease, respiratory disease and ischaemic heart disease and accounted for 2% of all causes of death.

Lives healthy people'. Figure 11 shows there was a larger number of deaths due to unintentional injuries than other public health priorities such as alcohol-related disease and diabetes.

Figure 11: Deaths, underlying causes, England and Wales 2010



#### Underlying causes of death

Source: RoSPA analysis of Office for National Statistics for England & Wales, 2010

\* Others includes mental disorders and diseases of the nervous, digestive and genito-urinary systems

- According to data from the ONS<sup>30</sup>, deaths due to unintentional injuries in 2010 were ranked in fifth place behind cancer,
- Injury prevention, therefore, deserves its place among the 17 priorities listed in the Government's 2010 white paper 'Healthy
- However, we know that accidental death is a feature of the early part of life the biggest killer in the UK up to the age of 39.

According to the Data Observatory, "Years of Life Lost (YLL)<sup>31</sup> is a measure of premature mortality. Its primary purpose is to compare the relative importance of different causes of premature death within a particular population and it can therefore be used by health planners to define priorities for the prevention of such deaths. It can also be used to compare the premature mortality experience of different populations for a particular cause of death. The concept of YLL is to estimate the length of time a person would have lived had they not died prematurely". For example, a child aged five who suffers a fatal injury is deprived of 75-80 years of potential life, or 75-80 YLL. For someone who succumbs to cancer at 70 years of age, they are deprived of 10–15 YLL. The YLL is therefore a useful measure of the loss of human potential.

Accidents can be defined as "any unexpected or unplanned event that may result in death, injury, property damage, or a combination of serious effects."<sup>32</sup> By their nature, accidents cause the unexpected loss of human potential and it therefore makes sense to review the mortality data, but this time using the YLL measure. Given that life expectancy changes slightly from year to year, the Office for National Statistics for England & Wales (ONS) calculates YLL up to arbitrary limits of 65, 75 and 85 years of age. This allows consistent comparisons of YLL over time.

ONS data for YLL for all causes of death within the population aged 15-64 (described by the ONS as the "working age" population) shows that deaths due to unintentional injuries are the second biggest cause of YLL behind cancers. On the graph (fig 13), the rather large 'others' category includes many unrelated causes of death such as mental disorders and diseases of the digestive, nervous and genito-urinary systems.

Figure 12: Deaths, underlying causes, highlighting proportion due to unintentional injury England and Wales 2010



Source: RoSPA analysis of Office for National Statistics mortality data, England and Wales, 2010

Figure 13: Percentage of total Years of Life Lost to people of working age (15–64) from all causes, England and Wales 2010



Source: RoSPA analysis of Office for National Statistics mortality data, England and Wales, 2010



Source: RoSPA analysis of Office for National Statistics Preventable Years of Life Lost data, England and Wales, 2010

Figure 15: Preventable Years of Life Lost, highlighting proportion due to unintentional injuries, within the working age population (age 15-64). England and Wales 2010.



Source: RoSPA analysis of Office for National Statistics Preventable Years of Life Lost data, England and Wales, 2010

It makes sense for limited public health resources to be invested in tackling preventable causes of death, thereby saving many years of life that would otherwise be lost. In the course of a lifetime, a typical household, for example, earns enough money to contribute £650,000 in direct and indirect taxes<sup>33</sup>. A family tragedy such as a car crash would have completely wiped out this earnings potential. The challenge for public health decision-makers is to identify preventable causes of

As well as being the second biggest cause of YLL for this age

group, deaths due to unintentional injuries account for a very

death and, within these, the relative investment priorities.

In 2012, the ONS published a definition of avoidable causes

of death<sup>34</sup>. The ONS gives the following broad definitions:

Preventable mortality: a death is preventable if, in the light of

be avoided by public health interventions in the broadest sense. Avoidable mortality: avoidable deaths are all those defined as preventable, amenable, or both, where each death is counted

and amenable definition, all deaths from that cause are counted

The ONS goes on to list causes of death which it considers to be

injuries are classed as preventable, along with behaviour-related

as a strong runner-up to preventable cancers, accounting for a considerable 19% of all Preventable YLL (PrYLL), as shown in

in both categories when they are presented separately.

through good guality healthcare.

digestive system.

the pie Figure 15 and Figure 16.

of mortality which included "amenable" and "preventable" causes

health issue.

considerable 11% of total YLL making them a significant public

Amenable mortality: a death is amenable if, in the light of medical knowledge and technology at the time of death, all or most deaths from that cause (subject to age limits if appropriate) could be avoided

understanding of the determinants of health at the time of death, all or most deaths from that cause (subject to age limits if appropriate) could

only once. Where a cause of death falls within both the preventable

amenable, preventable or both by their ICD-10<sup>34</sup> code. Unintentional

diseases such as HIV and cancers of the respiratory system, skin and

Extracting the data for preventable causes of death within the 15-64 year age group consolidates the position of unintentional injuries



#### Figure 16: Percentage of total Preventable Years of Life Lost within the working age population (age 15–64), England and Wales 2010)

While unintentional injuries are the leading cause of death among young people, the significance of preventable cancers increases rapidly with age. This is illustrated by considering the PrYLL profile for the slightly younger age group, up to age 60. In this case, unintentional injuries account for 23% of PrYLL (figure 18) and become the leading cause of PrYLL, narrowly ahead of preventable cancers (figure 19).





Source: RoSPA analysis of Office for National Statistics preventable years of lost data for England & Wales 2010

Source: RoSPA analysis of Office for National Statistics preventable years of lost data for England & Wales 2010

The analysis for the working age population excludes the 0–14 age group. Given that accidents are the leading cause of death for people under the age of 39, it makes sense to see whether the profile changes when they are included. Figure 17 shows the PrYLL profile for all ages to 65. At first glance, it seems surprising that this profile is virtually identical to that of figure 16 with unintentional injuries still accounting for 19% of PrYLL. On reflection, however, this is because the number of deaths in the 0–15 age group is relatively small and therefore has little effect on the overall PrYLL profile.

#### Figure 17: Percentage of Preventable Years of Life Lost (PrYLL) among people up to the age of 65 (0-64), England and Wales, 2010



Source: RoSPA analysis of Office for National Statistics preventable years of lost data for England & Wales 2010

Figure 18: Percentage of Preventable Years of Life Lost (PrYLL) among people up to the age of 60, England and Wales, 2010



Source: RoSPA analysis of Office for National Statistics preventable years of lost data for England & Wales 2010

#### Figure 19: Percentage of Preventable Years of Life Lost (PrYLL) among people up to the age of 60, England and Wales, 2010

Figure 20 shows the result of repeating the analysis for various age groups. For most of our lives, unintentional injuries are the leading cause of PrYLL. They only fall behind preventable cancers for the population aged 0–65. They drop to third place behind preventable cancers and cardio vascular disease for the population, aged 0–85.

### 70% 60% 50% 40% 30% 20% 10% 0 10 20 30 40 50 60 70 80 90 Age up to... (years)

Figure 20: Percentage of total preventable Years of Life Lost due to unintentional injury, by age, England and Wales 2010

Source: RoSPA analysis of Office for National Statistics Preventable Years of Life lost data, for England & Wales

That said, even this does not provide a like-for-like comparison. There is no adjustment here for quality life years, or the weighting that should be given to accidents because for every life lost, hospital attendance figures show there are more than 60 blighted by serious injury with many, many more affected by minor injury. Most importantly, it does not consider the efficacy (cost/benefit/effect) of an intervention, a comparison in which accident prevention does very well.



### 1.5 Costs of accidents: human and societal

## The cost to individuals, the NHS, other agencies and society of accident-related deaths and injuries is truly enormous. Costs are both financial and human but for the most part remain hidden from view.

Looking first from the financial perspective the annual cost of accidental injury across all age groups to the NHS in England alone has been estimated to be  $\pm 2.2$  billion<sup>11</sup>. With the cost of treating a child for a serious scald being up to  $\pm 250,000,^{35}$  it is clear how accident-related costs can quickly mount up. The costs associated with hip fractures present a similar picture, with  $\pm 1.4$  billion<sup>36</sup> spent on treatment. These are just costs associated with the health service costs to society are much higher.

The value to society of preventing reported road accidents in 2011 was £15.6billion. For all road accidents, including those not reported to the police, the total value of preventing them was estimated at £34.8billion. This valuation of prevention is based on a willingness-to-pay approach that includes the human costs such as the pain, grief and suffering from an accident, as well as an estimation of the direct financial costs due to lost output and the medical treatment of injuries.<sup>37</sup>

In the 2010/11 Health and Safety Executive Annual Statistics Report, the total cost to society associated with workplace injuries (including fatalities) in Great Britain was estimated to be £5.4billion in 2009/10. In August 2009, the Work Foundation produced a considerably larger estimate for the same cost and placed it in the range of £20–32billion.<sup>38</sup>

RoSPA commissioned research, published in 2010 by TRL<sup>6</sup>, which found that the annual cost to society of the 2.7million home accident casualties who visit A&E<sup>39</sup> was an estimated £45.6billion, based on an average cost of £16,900 per victim. The cost findings were based on: lost contribution to the economy (lost output); the value of avoidance of injury (the amount the community would be prepared to pay to avoid the chance of an injury happening); and the cost of medical, Social Security and other support services. Costs to the individual and long-term care were not included. The figure does also does not include the cost of home accident deaths, for which the cost per fatality is estimated at £1.61million. The cost of people who seek GP treatment after a home accident is also not included.

When the leisure accident casualties from the Leisure Accident Surveillance System (LASS)<sup>39</sup> are also taken into consideration, the figure becomes a staggering £94.6billion, which is the total cost to society of home and leisure accidents that result in A&E attendance.

### Table 3: Total annual costs to society of unintentional injuries

Area	Cost
Road	£35billion
Workplace	£20–32billion
Home	£46billion
Leisure	£49billion per year
Total	£148–160billion per year

On a human level, accidents do not just cause immediate pain and suffering to the victim, the most stark of which being death in an untimely and violent manner. Grief can last a lifetime and divorce and family breakdown are recognised as potential consequences of serious accidents. Families can suffer extreme financial hardship as a result of an accident, particularly if the person killed or injured is the main breadwinner. But the stress and strain of caring for an injured loved one should also not be underestimated. For families in which a loved one suffers a severe and debilitating injury, life can change forever.



#### **Return on investment:- Prevention works, prevention pays**

Accident prevention is one of most cost-effective ways of reducing both human and financial costs to society. On Britain's roads, for example, despite massive increases in traffic over the last 20 years or so, the number of people killed each year has fallen from about 5,500 people to about 2,000. Injuries too have reduced from about 75,000 a year in the mid 1980s to 45,000 per annum in the mid-1990s. There are many reasons for these casualty reductions, including, for example, safer cars. But one of the most important is that Britain has had comprehensive national road safety strategies and casualty reduction targets, beginning in the mid-1980s, which have been evidence-led and based on data and research. Such strategies have embodied road safety policies and interventions. These have harnessed the focus and energy of the wide range of agencies that deliver or promote road safety, including central and local government, the emergency services, road-related trade and user groups and the private and voluntary sectors so that, on the whole, they have all been working towards the same shared goals, with agreed priorities and partnership working.

Evidence shows that since a falls prevention programme was introduced in Dudley the number of hip fractures has reduced year on year. The health and social care costs of a hip fracture are approximately £20,000, and the reduction in falls in the area has resulted in a saving of approximately £3million.<sup>11</sup>

A strategy for public health can build on the success of these and other initiatives that have developed across the country because – demonstrably – they save lives and reduce costs to the NHS, thus releasing resources to be spent in other areas of health need.

The NICE guidelines, Preventing unintentional injuries in the home among children and young people aged under 15: providing safety equipment and home risk assessments, recommend the supply and installation of safety equipment into the homes of those most at risk. This reinforces the work carried out through Safe At Home which has, supplied and installed home safety equipment in the homes of more than 66,000 families across England, thus creating the potential to reduce accidents in the homes of those most at risk. The educational section of the project has left a legacy of more than 141 local partnerships and more than 4,000 trained professionals who have, in turn, been instrumental in delivering safety messages to more than 300,000 families.

The evaluation of the Safe At Home scheme reported the positive value of projects of this nature, and there is evidence of some sustainability. However, national support and guidance could still be needed if the recommendations made by NICE are to be successfully implemented.

Return on investment calculations have been made for a variety of accidental injury prevention activities.

Table 4: Return on investment for injury prevention activities<sup>40</sup>

Activity/Item	Return on investment
Childproof cigarette lighters	x 72
Child booster seats	x 71
Bicycle helmets	x 48
Child safety seats	x 42
Smoke alarms	x 17
Prevention counselling by paediatricians	x 9

Source: Centre for Disease Control and Prevention, National Centre for Injury Prevention and Control

### 1.6 Accidents and health inequalities

In England, inequalities in health exist across a range of social and demographic indicators, including income, social class, occupation and parental occupation, level of education, housing condition, neighbourhood quality, geographic region, gender and ethnicity. Inequalities are evident in many health outcomes, including mortality, morbidity, self reported health, mental health, death and injury from accidents and violence

#### The Public Health Outcomes Framework has set two overarching outcomes:<sup>23</sup>

**Outcome 1: Increased healthy life expectancy;** taking account of the health quality as well as the length of life (note: This measure uses a self-reported health assessment, applied to life expectancy)

**Outcome 2: Reduced differences in life expectancy and healthy life expectancy between communities** *Through greater improvements in more disadvantaged communities* 

Reducing health inequalities runs as a key theme throughout the framework. The Marmot Report, "Fair society, Healthy lives"<sup>41</sup> also highlights the impact of inequalities:

The Marmot Report highlighted the impact of health inequalities when looking at accidental deaths among children. The single major avoidable cause of death in childhood in England is unintentional injury – death in the home for under-5s and on the roads for over-5s. The report noted that there are more deaths from unintentional injury than, for example, from leukaemia or meningitis and the social class gradient in child injury is steeper than for any other cause of childhood death or long-term disability.

While overall rates of death from injury in children have fallen in England and Wales over the past 20 years, this has not been the case for rates in children in families in which no adult is in paid employment. Children in the 10% most deprived wards in England are four times more likely to be hit by a car than children in the 10% least deprived wards.<sup>42</sup> Road deaths, especially among pedestrians and cyclists, are particularly high among children of parents who are classified as never having worked or as long-term unemployed.<sup>43</sup> Particular groups face further inequalities. Black ethnic minority groups in London are 1.3 times more likely to be injured as pedestrians and car occupants on the city's roads than those in white ethnic groups, according to a study at 10mph zones.<sup>44</sup>

Children of parents who are long-term unemployed, or who have never worked, are 13 times more likely to die as a result of unintentional injury and 37 times more likely to die from exposure to smoke, fire or flames than children of parents in higher managerial or professional occupations.<sup>11</sup>

Adults in the most deprived areas are more than twice as likely to be admitted to hospital and almost twice as likely to die as a result of unintentional injury as adults in the least deprived areas.<sup>45</sup>

Research indicates that social disadvantage seems to be more important than ethnicity as a determinant of accidents to children in the home. Whilst there is a strong gradient by social class there are no significant differences among ethnic groups.<sup>46</sup> However, age and gender play an important factor. Those most at risk from home accidents are the 0–4 years age group with boys experiencing more accidents then girls. More women than men over the age of 65 die as the result of an accident in the home with falls accounting for the majority of both fatal and non-fatal accidents.<sup>39</sup>

Research indicates that children do not take on responsibility for their own safety until they are school age.<sup>47</sup> This of course can vary with each child, however there is evidence to suggest that young school children cannot accurately judge the speeds of vehicles travelling faster than 20mph.<sup>48</sup> Young people with learning disabilities have a higher rate and different pattern of injuries when compared with young people without learning disabilities, but little is known regarding adults.<sup>49</sup>

Gender and age are risk factors in relation to water related accidents; Immersion related deaths are predominantly a male phenomenon. A number of studies have suggested that this is associated with greater exposure to water, participation in activities such as boating and a propensity to drink alcohol before swimming and to swim alone.<sup>50</sup> Age reflects, in the most part, the day-to-day activities of those involved, activities are also thought to reflect the life stage of the victim.<sup>51</sup> More information on water-related accidents can be found in Part 2.

### "There is a relationship between injury and deprivation. In 2010, those living in the most deprived areas had nearly twice the rate of mortality due to injury compared to the least deprived". <sup>51</sup>

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

#### Figure 22: Mortality due to all injuries (and sub categories) by deprivation, England, 2010



#### Figure 21: Deaths to under-16s as a result of road traffic accident



Source: Fair Society, Healthy Lives - The Marmot Review

Local studies, including the case study of childhood injuries in Bristol, featured in this resource have confirmed the correlation between areas of high deprivation and, for example, admissions or attendances at A&E, as a result of an unintentional injury.

The response to these clear inequalities should be two-fold. Action to tackle inequalities and deprivation will have an impact in reducing accidents as well as addressing many other health and social issues. However, it is also important to focus injury prevention activity on those most at risk. Examples of programmes that focus on reducing accidents in the most vulnerable communities and age groups are given throughout this resource.

Source: Annual report of the Chief Medical Officer, Volume 1, 2011 - Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

### 1.7 Delivering successful interventions

#### Key organisations and structures which have a role to play in accident prevention and may provide good opportunities for partnership working:

- Health and wellbeing boards Bristol featured in this resource have
- Children's trusts / children and young people's partnership boards
- Local safeguarding children boards
- Child death over view panels
- Clinical commissioning groups
- Public health teams
- Environmental health services
- Early years services
- Health visiting services
- Family nurse partnerships
- Road safety departments
- Fire and rescue services
- Trading standards departments
- Sure start children's centres
- Interactive safety centres
- Local housing authorities
- Local voluntary and community sector organisations.

#### Checklist for elected members and health and wellbeing boards

- Have you been preparing to commission accident prevention services since 1 April, 2013
- Do you understand your local community's needs in relation to accident prevention?
- Has the health and wellbeing board been briefed on the need to address accident prevention?
- Is the new statutory Joint Strategic Needs Assessment (JSNA) being used to assess the accident prevention priorities and link them to other local government aims?
- Are proposals for maintaining the delivery of accident prevention services included in the Health and Wellbeing Strategy?
- Does the Health and Wellbeing Strategy prioritise the following indicators from the Public Health Outcomes Framework?
- 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: Injuries due to falls in people aged 65 and over
- Indicator 4.14: Hip fractures in people aged 65 and over.
- Are you using the scrutiny process to ensure that there is access to accident prevention services for the most vulnerable groups?

#### What can you do as an elected member?

- Find out what's going on in your area in relation to accident prevention
- Find out what works
- Work with the experts and existing partnerships
- Support existing work to ensure that it is maintained
- Make sure those most at risk in your community get the support they need.

#### The process chart on page 44 outlines the delivery of successful interventions:

- Research data and the need for the intervention
- Assess the local picture; compare data with national figures and that of other districts
- Make sure accident prevention is in your local JSNA
- Make sure accident prevention is on the agenda for your health and wellbeing board if not, enquire why not
- Identify and involve key players and stakeholders
- Contact RoSPA for advice and support.

#### **Partnership working**

Partnership working is at the core of the new public health system, with health and wellbeing Boards, Joint Strategic Needs Assessments and Joint Health and Wellbeing Strategies all providing opportunities to embed partnership approaches to unintentional injury prevention.

Researching, forming and maintaining good partnerships takes time and effort. However, it is an investment that will be cost effective. Effective partnership working is essential to address the spread of interests and responsibilities and should form an important part of any area's unintentional injury prevention strategy and work plans. It can help to achieve cost-effectiveness and avoid duplication of effort, making sure that all available resources are used in the best possible way.

Partnership working is seen as key for road safety. The 2011 Department for Transport research report, Delivery of Local Road Safety, states that "partnership working enhances the efficiency and effectiveness of local road safety, and generates cost savings".<sup>52</sup> It also notes that the benefits of integrating road safety into the broader local authority policy agenda include access to alternative funding streams and the skills and resources of other departments.

In 2009, a cross-departmental review of child accident prevention recommended that local areas appoint child injury prevention coordinators. This approach was further endorsed in the NICE guidance for preventing unintentional injuries in under 15s published in 2010 and in the Evidence Update published by NICE in February 2013.

NICE Guidance PH29<sup>8</sup> recommends that local authority children's services and their partnerships, in consultation with local safeguarding children boards, and other local authority services that may have a remit for preventing unintentional injuries such as education, environmental health and trading standards, should ensure there is a child and young person injury prevention co-ordinator to help achieve the commitments set out in local plans and strategies for children and young people's health and wellbeing.

#### What makes an effective partnership?

Effective partnerships are built on:

- Shared goals and understanding of the purpose of the partnership
- Clear roles and responsibilities for delivering outcomes
- Strong leadership and project champions within each partner organisation
- Allowing time to establish trust and joint methods of working, but not at the expense of action
- Joint problem-solving and decision-making
- Sustained commitment and an understanding that it can take time for partnerships to deliver results
- Sharing budgets, when appropriate
- Good governance and accountability.

Partnerships can take many different forms, from close integration, which might involve sharing budgets or jointly funding posts, to loose partnerships and networks that can shift and develop according to the task.

"The evidence indicated what can be achieved by a child injury prevention programme co-ordinated at a local level, and is consistent with the recommendation in NICE PH29 to ensure that an injury prevention co-ordinator is in place."40



### Table 5: Delivering successful interventions – process flow

Recruit high level support

Enlisting the commitment of directors of public health and wellbeing boards and commissioning bodies is crucial to ensuring that accident prevention is a key element of public health delivery. Accident prevention needs to be in service specifications, business plans and local public health strategies



Consider specific local need for the greatest impact

Consult locally – taking local views will help to inform the assessment of local needs and secure local support. Consider talking to GPs, voluntary organisations, community groups, the police, fire and rescue



Identify and involve key players and stakeholders (multidisciplinary working)

A multi-agency approach will help to ensure integration, commitment and avoid duplication. Pulling resources together including time can achieve wider coverage and a bigger impact



Develop skills and resources. Identify and



meet training needs

Deliver intervention

Evaluation should be undertaken during delivery. This will enable the assessment of delivery to see if it is working, giving opportunity to improve so the delivery is effective and efficient. Evaluation, which should also be undertaken at the end of a programme will provide a basis for sharing good practice with others. The information can also be used to plan and develop future programmes

Research data and the need for the intervention Assess the local picture, compare data with national figures and that of other districts



#### Access any existing initiatives

Consider how the new work relates to existing structures and initiatives – what can be done to fill any gaps and make improvements to show progress



Agree a strategy - identify performance indicators Agree local targets, priorities, objectives and goals

#### **Evaluate and disseminate**

### 1.8 Where do I find key data?

There are a variety of sources of accident prevention data. Some areas of accident prevention are better served than others. Data relating to fires and road accidents, for example, are widely available. Some areas of home accidents are less well served in that, even when data is available on the numbers of people injured and broad categorisation is achieved by the use of ICD codes, causal data are often not available. This hinders prevention work and makes measuring its effectiveness in terms of reduced numbers of injuries caused by specific accidents, more difficult.

In including a number of key indicators relating to injury prevention, the Public Health Outcomes Framework is a welcome tool although it will not completely fill the gap because, it does not penetrate deep enough to provide clear causal data. However, it does serve to provide each local authority area with a baseline in relation to a number of key issues.

Headline data have been used in a number of sections in this Handbook to illustrate the scale of accidental injury in terms of Years of Life Lost, age groups and sectors of the population most affected by particular accidents, and priorities for intervention. Data are constantly changing, and rather than present a large amount of data in this section, the aim is to provide links to key sources of injury data.

The links below provide information on hospital admissions, data related to the key public health outcomes indicators and some specific data sources as well as giving the opportunity to set the situation in England into an international context where necessary.

#### 1. Public Health Outcomes Framework baseline data www.phoutcomes.info

The data currently published in this tool are the baselines for the Public Health Outcomes Framework, together with more recent data where these are available. The baseline period is 2010 or equivalent, unless these data are unavailable or not deemed to be of sufficient quality. The first data were published in this tool as an official statistics release in November 2012, with a subsequent update in February 2013. Future official statistics updates will be published as part of a quarterly update cycle.

#### The tool allows you to:

- Compare your local authority against other authorities in the region
- Benchmark your local authority against the England average.

#### 2. Hospital Episodes Statistics (HES) www.hesonline.nhs.uk

Improving performance against public health outcomes requires an understanding of the injuries that contribute to the admission rate. Hospital Episode Statistics for England, which contain figures for hospital admissions and are produced by the NHS information centre are publicly available from www.hesonline.co.uk. (Follow: "Accessing the data", "Freely available data", "Inpatient data" and "External cause tables").

The Excel tables can be ordered by age group and number of admissions to highlight, for example, the largest single causes of unintentional injury leading to emergency admissions in 0–14 year olds (falls involving playground equipment).

#### 3. Injury Profiles (HES A&E data by local authority) www.injuryprofiles.org.uk

The Injury Profiles provide a snapshot of injuries occurring in each local authority in England. Interactive maps and charts enable comparisons to be made regionally and nationally for more than 40 injury related indicators. The aim is to highlight the burden of injuries and large variations across England. The resource is managed by Public Health England's Knowledge and Intelligence Team (South West)

- 4. See the Injury Observatory for Britain and Ireland (IOBI) website for access to an injury prevention evidence base, practical prevention tools, latest injury news and information on conferences and events
- 5. See the England Injury Information Resources Guide for access to online statistics, databases, websites, strategies, policies and reviews that may be relevant to work supporting injury prevention in England.
- 6. See the Public Health Observatory with Public Health England's Knowledge and Intelligence Team (South West) page for links to regional resources provided by the network of Public Health Observatories.

- 7. Deaths due to accidents http://www.ons.gov.uk/ons/rel/vsob1/injury-and-poisoning-mortality-in-england-andwales/2010/stb-inj-and-poisoning-2010.html
- 8. AWISS (Welsh A&E data) www.capic.org.uk/
- 9. UK National Burn Injury Database (NBID) http://ibidb.org/nbid
- 10. Fire safety data http://www.communities.gov.uk/documents/statistics/pdf/568234.pdf
- 11. Road accident statistics http://www.dft.gov.uk/statistics/series/road-accidents-and-safety/
- 12. EU IDB (Western European A&E data) included for international comparisons webgate.ec.europa.eu/
- 13. USA injury data (National Electronic Injury Surveillance System NEISS) included for international comparisons www.cpsc.gov/
- 14. Patient Safety Incident Reports Eighth data release: 12 September 2012 http://www.nrls.npsa.nhs.uk/organisationdata/

### An example of the use of HES injury data in Bristol

NHS Bristol routinely produces analyses of Hospital Episode Statistics (HES) data to help prioritise the injuries that it should work with its partners to address first. Awareness of the injuries that result in the "big number" contributions to emergency admissions have led to the development of new and innovative programmes of work. Not all practitioners have easy access to this level of local detail, although it is available to all public health analysts with access to the Secondary User Service (SUS), or their local data warehouse.

Local HES data is updated with information provided by hospital trusts on a monthly basis. In Bristol, analysis is conducted and presented quarterly, which is frequent enough for our monitoring and planning purposes. Local data will vary slightly from the "official" final national HES numbers for the previous year that are published once data cleaning is complete. NHS Bristol has not found the differences to be significant.

#### Uses

As an example, over the last four years HES data has been used in Bristol for:

- Mapping child injury-admissions to the reach areas of children's centres
- Comparison of neighbouring authorities rates of admission from different injuries
- Age, seasonality and length of stay (for example) of children sustaining non-collision cycling injuries, falls involving playground equipment, other road traffic injuries and burns and scalds
- Observing the numbers of admissions has led NHS Bristol to commission further research into non-collision cycling injuries (the largest cause of travel and transport related injury) and develop policy aimed at countering the increasing trend of falls involving playground equipment
- Calculating the top ten injury causes of emergency admission
- Presenting the proportion of falls involving playground equipment that occur at home
- Calculating the proportion of all emergency admissions to hospital that are due to unintentional injuries;
- Mapping emergency admissions to show injury hotspots
- Helping to manage performance against the (old) National Indicator NI070
- Mapping emergency admissions from falls in care homes to enable comparison of rates between different providers of care
- Comparing and triangulating hospital data with other data sources (including police data on killed and seriously injured from travel and transport collisions and incidents of methadone poisoning investigated by the local safeguarding children board)

The value of this data for informing priorities for injury prevention work in Bristol has been enormous.

#### **Problems with the data**

From a practitioner's perspective, there are shortcomings with the HES data.

1. Only rudimentary indication of causes and circumstances in which the injury occurred can be obtained from HES data. The International Classification of Diseases (ICD10) secondary diagnosis code may indicate "fall involving bed" and we can estimate from more detailed analysis the proportion that occurred "at home" or "in another specified place" and the age and gender of the child involved, but there is no indication of the type of bed, or the activity of the child immediately preceding the fall.

2. The ICD10 codes include many "catch all" codes such as "unspecified fall" and "other fall". These are used by coders when the patient's hospital notes do not include enough information to allocate a more specific ICD10 code.

3. Some ICD10 codes are vague. For example "fall on the same level from slipping, tripping and stumbling" will be attributed to a very wide diversity of circumstances.

Bristol NHS has consulted with doctors and paediatricians to develop a better understanding of these vague codes and the findings are presented in the full case study in Part 2.

While the national data is publicly available and local in-year data is available to public health analysts with access to the SUS, analysts are under considerable workload pressure to supply health data for all aspects of the Joint Strategic Needs Assessments and other topics and service specific requests. Injury is still (in the context of limited resources) seen in some areas as a priority secondary to other health agendas. While analysing local injury data is technically possible, the construction of the syntax necessary is a detailed and specialised function. Public health analysts wishing to obtain local HES data may find the syntax presented in Part 2 helpful.

#### Summary

Local Hospital Episode Statistics are available and are useful in helping to set priorities for addressing the injuries that will make the biggest contributions to reducing the emergency admission rate. But the data must be used in conjunction with epidemiological studies that can help inform practitioners about at-risk groups, the circumstances of injury occurrence and the effectiveness of interventions.

A more detailed case study of Bristol's HES data is included in Part 2- it includes a description of the uses to which the system has been put, its shortcomings, as well as a reference to the syntax that will help analysts to produce injury admission reports.

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### Notes



### **RoSPA's public health team can be contacted using** the details below:

### The Royal Society for the Prevention of Accidents

RoSPA House 28 Calthorpe Road Edgbaston Birmingham B15 1RP					
Tel:	0121 248 2506				
Fax:	0121 248 2001				
Email:	publichealth@rospa.com				
Website:	www.rospa.com				
Twitter:	www.twitter.com/rospa				
Facebook:	www.facebook.com/rospa				
Blog:	http://safetygonesane.wordpress.com/				
YouTube:	www.youtube.com/rospatube				

RoSPA's public health web page: www.rospa.com/publichealth/ March 2013

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### **Notes**



#### **RoSPA Headquarters:**

28 Calthorpe Road, Edgbaston, Birmingham B15 1RP

Telephone: +44 (0)121 248 2000 Fax: +44 (0)121 248 2001

Registered Charity No. 207823 VAT Registration No. 655 131649

www.rospa.com

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