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Key Area Handbook

ACCIDENTS

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ACCIDENTS

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PREFACE

This handbook forms part of a series of Health of the Nation Key Area handbooks. In The Health of the Nation White Paper published in July 1992 the Government said that the National Health Service Management Executive would commission handbooks on possible local approaches to each of the five Key Areas identified in the White Paper: Coronary Heart Disease and Stroke, Cancers, Mental Illness, Accidents and HIV/AIDS and Sexual Health.

The aim of the handbooks is primarily to assist managers and directors in purchasing authorities (DHAs, FHSAs and purchasing consortia) to develop local strategies for reducing mortality and morbidity in each Key Area. The handbooks also aim to disseminate widely information about local initiatives to managers and directors in provider organisations and to group together other relevant information. The handbooks may also be of interest to organisations such as local authorities and the voluntary sector which join together with the NHS in alliances for health.

The information in the handbooks is illustrative rather than prescriptive, and it is intended that they should be used as practical guides. NHS managers and others will wish to use the guides selectively and adapt them to suit local circumstances in the light of local priorities and available resources. The handbooks vary in length, structure and content as a result of the differences in subject matter, secondary audiences and the amount of prominence each Key Area has had in the past.

The handbook series is complemented by a range of other documents which the Department of Health has issued in order to help implement the Health of the Nation strategy. A supplement to the Public Health Common Data Set, which contains baseline data on the primary targets was issued in October 1992. First Steps for the NHS, which sets out suggestions for management action for each Key Area, grouped by type of contract or plan, was issued in November 1992. A workshop on Alliances for Health was held in

November 1992 and a report will be published in Spring 1993. In addition, a sub-group of the Minister's Wider Health Group has been established to produce a handbook with guidance on how to form healthy alliances. The Department of Health also plans to publish a discussion document to advance the process of setting local targets.

The production of the Key Area handbooks has been the result of a joint working venture between the Department of Health, the NHS and other organisations. The handbooks could not have been published without the help and advice of colleagues from outside the Department and we are grateful to them for their valuable contribution.

The ultimate purpose of the Health of the Nation initiative is to bring about further continuing improvement in health. The intention of the Key Area handbooks is to contribute to that process.

Comments on this handbook are very welcome and should be sent to Dr Kathie Binysh, Department of Health, Room 527, Wellington House, 133-155 Waterloo Road, London SE1 8UG.

The intention is to carry out an evaluation exercise later in the year based on feedback from users.

Further copies are available from:

BAPS,
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Heywood, Lancashire OL10 2PZ.

CHAPTER 1

INTRODUCTION

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INTRODUCTION

- 1.1 The strategy for health, *The Health of the Nation*, established accident prevention as a Key Area, or national priority. Death rates from accidents have been falling steadily for many years, but with a faster decline over the same time in many fatal infectious diseases, accidents have now emerged as the leading cause of death in younger age groups. In addition, they cause considerable short-term illness, absence from work and, not infrequently, permanent disability.

PREVENTING ACCIDENTS

- 1.2 Most accidents are preventable. The Government attaches particular emphasis to dispelling fatalistic attitudes towards accidents, and to showing how accidents can be reduced through measures such as education, training and environmental improvements. While many effective methods of prevention have been developed in recent years, **there is still much that could be achieved** without unduly restricting personal liberties – for example in areas such as fire prevention and the use of smoke alarms, road safety, and the promotion of sensible and appropriate drinking.

THE ROLE OF THE NHS

- 1.3 Traditionally, the health service has tended to see its role as ‘picking up the pieces’ after accidents – through injury control, emergency medical care, hospital treatment and rehabilitation. Most experience of preventing accidents has been built up by other agencies, such as local authorities and voluntary organisations. Health agencies have now begun to appreciate the very significant contributions that they can make to accident prevention, in partnership with the other interested agencies, and their roles are beginning to change.
- 1.4 This handbook suggests that the NHS can develop its contribution to accident prevention, usually through existing resources, by:
- making accident prevention a key element of health promotion
 - participating in local multi-agency schemes (healthy alliances)

- collecting and sharing information on the incidence, causes, severity and cost of accidents
- providing high quality treatment and rehabilitation services.

THE NATIONAL FRAMEWORK

1.5 There are a number of national initiatives under way as part of the *Health of the Nation* strategy which will underpin the development of local initiatives. In addition to the Cabinet committee and three expert working groups, which continue to oversee the strategy as a whole, there are national initiatives specific to accident prevention. These include:

- an **NHS Focus Group** which published a report in November 1992 suggesting how accident prevention could be included in contractual arrangements
- the **Accidents Task Force** whose role includes identifying research and information needs and disseminating good practice
- **periodic publications from the Department of Health** relevant to accidents, which will cover the use of supplementary indicators to monitor the strategy, guidance on the promotion of healthy alliances, policy appraisal and health, and local targets.

TERTIARY PREVENTION OF ACCIDENTS

1.6 The main purpose of this handbook is to offer suggestions on the primary and secondary prevention* of accidents. However, tertiary prevention (including emergency services by ambulance staff and hospital A&E services and rehabilitation treatment by occupational therapists and others) is equally important. Tertiary prevention by Accident and Emergency departments, general practitioners, voluntary agencies and others involved in the treatment of accidental injuries will contribute to the overall objective of reducing ill-health, disability and death from accidents.

*Appendix A contains definitions of the terms primary, secondary and tertiary prevention as used in this handbook.

CHAPTER 2

EPIDEMIOLOGICAL BACKGROUND

Children under 15	13
Young adults aged 15-24	13
People aged 65 or over.....	13



EPIDEMIOLOGICAL BACKGROUND

- 2.1 Accidents are a major cause of avoidable ill-health, injury and death (see figure 1).** They affect all age groups, but children, young adults and older people are particularly vulnerable. Accidents are the most common cause of death under 30, but the absolute number of deaths is greatest in people aged 65 and over (4,626 people in 1991). There has been a downward trend in accidental deaths in England over the last 30 years, which may be attributable to the measures already taken to prevent accidents, but this trend appears to have halted in some age groups, including young adults aged 15-24. Levels of injury, ill-health and disability resulting from accidents are very significant, although harder to monitor than mortality because of a shortage of information. **The collection of more data on injury and ill-health caused by accidents is a priority** for both the Department of Health and the NHS; it is particularly necessary for developing local targets.

CHILDREN UNDER 15

- 2.2** The major causes of accidental death in children are road traffic accidents, burns and scalds, suffocation and drownings. Up to the age of four, most fatal accidents occur in the home. After the age of five, most are caused by road traffic accidents (RTAs); usually the child is a pedestrian. Nearly twice as many boys as girls die as a result of accidents.*

YOUNG ADULTS AGED 15-24

- 2.3** Road traffic accidents are the single largest cause of accidental death in young adults. Nearly 50% of deaths in men and 30% of deaths in women in this age group are as a result of an accident. Risk-taking behaviour combined with lack of experience, alcohol and, to a lesser extent, drugs are significant factors in accident causation for this age group.

PEOPLE AGED 65 AND OVER

- 2.4** Falls and road traffic accidents cause most of the accidental deaths in this age group. Although accidents are not a major cause of death compared to other causes in this

*Figures for accidental deaths throughout this document exclude deaths under 28 days.

age group, the death rate from accidents in the over 75s is considerably greater than in any other age group. Accidents, such as falls, are an important cause of disability and use of the health service in this age group.

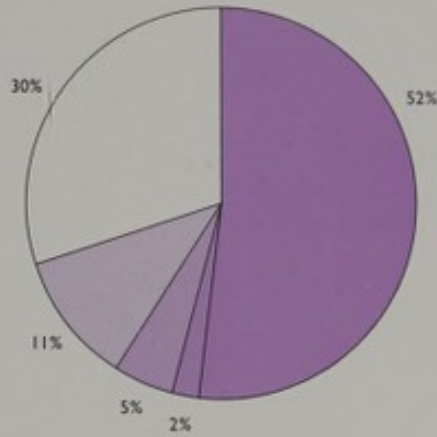
2.5 Further epidemiological information is at *appendix C*.

Deaths from Accidents by Age All Persons England 1991

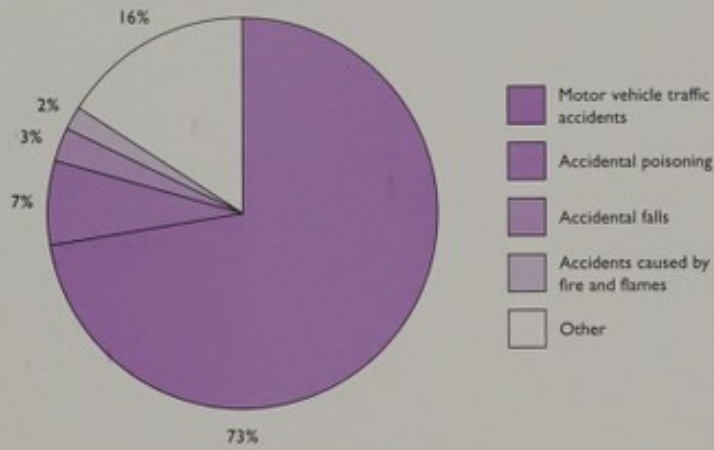
Figure 1

Percentages may not add up to 100 due to rounding

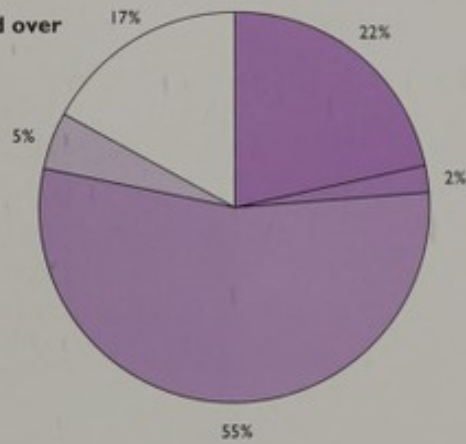
0-14 years



15-24 years



65 years and over



Source: OPCS (ICD E800-E949)

Figure 1: [Faint text describing the figure]



Figure 1

Legend:
[Faint text for legend items]



Figure 2



Figure 3

Figure 4

CHAPTER 3

NATIONAL AND LOCAL TARGETS

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NATIONAL AND LOCAL TARGETS

NATIONAL TARGETS

3.1 Accidents were included in *The Health of the Nation* to **reduce ill-health, disability and death caused by accidents**. National targets have been set for reductions in death rates. Targets have three principal functions:

- they clarify what might otherwise be no more than general good intentions
- they enable all concerned to focus their efforts on common objectives
- they provide a yardstick for measuring achievement.

Table 1

THE HEALTH OF THE NATION TARGETS FOR ACCIDENTS

To reduce the death rate for accidents among children aged under 15 by at least 33% by 2005 (from 6.6† per 100,000 population in 1990 to no more than 4.4† per 100,000).

To reduce the death rate for accidents among young people aged 15-24 by at least 25% by 2005 (from 24.0† per 100,000 population in 1990 to no more than 18.0† per 100,000).

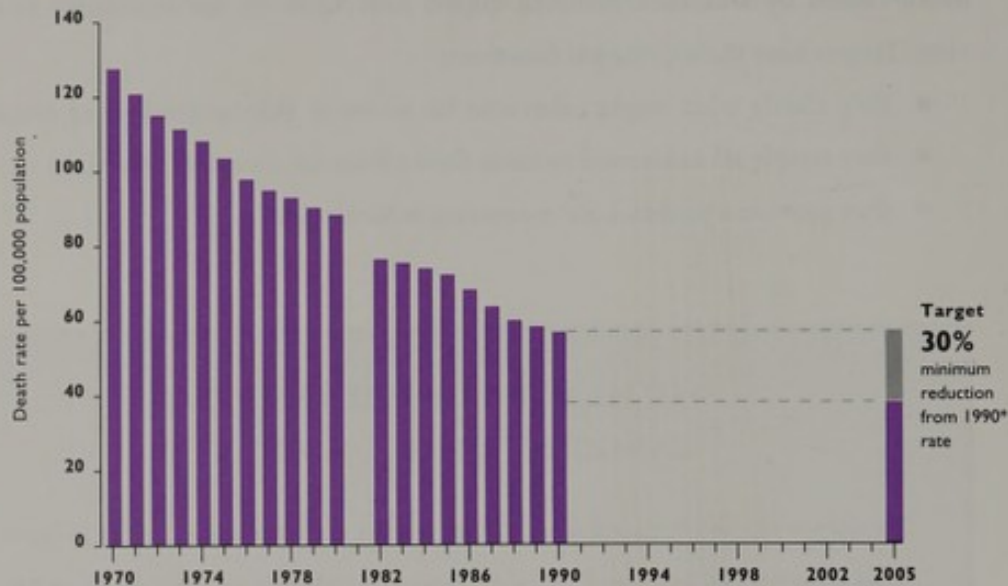
To reduce the death rate for accidents among people aged 65 and over by at least 33% by 2005 (from 55.8† per 100,000 population in 1990 to no more than 37.4† per 100,000).

†The use of 1991 census based population estimates and in certain cases age-standardised rather than crude rates has resulted in certain revisions to the figures quoted in the White Paper.

3.2 There are already some existing national targets for accidents. The World Health Organisation proposed a target for Europe as a whole in *Health for All* (to reduce deaths from accidents by 25% by the year 2000; baseline 1980), and the Department of Transport has set targets for reductions in road traffic accident casualties in Great Britain (to reduce casualties by one third by the year 2000; baseline calculated as the average level of casualties between 1981-85).

Death rates for Accidents
England 1970-1990 and target for the year 2005**
All persons aged 65 and over†

Figure 2



* Rates are calculated using a 3 year average plotted against the middle year of the average

** Data for 1981 were affected by industrial action by registrars and are excluded, thus rates for 1980 and 1982 are based on two year averages

† Rates are calculated using the European Standard Population to take into account differences in age structure

Source: OPCS (ICD E800:E949)

LOCAL TARGETS

3.3 Achievement of the *Health of the Nation* targets in a typical district health authority with a resident population of 250,000 would involve approximately

- one fewer death from accidents in children under 15
- two fewer deaths from accidents in people aged 15-24
- five fewer deaths from accidents in people aged 65 and over.

3.4 As the numbers of deaths will be small at local level, alternative targets will need to be developed locally, particularly for ill-health and injuries and for establishing processes for reducing risks. The geographical area for targets can be defined to cover districts, localities, purchasing consortia or other boundaries.

3.5 Local targets should be:

- achievable but challenging
- related to identified local concerns
- possible to monitor.

For monitoring progress towards targets, it may be possible in many cases to make greater use of existing sources of data (see chapter 7).

PRIMARY AND SUPPLEMENTARY INDICATORS

3.6 Targets were set nationally in terms of mortality because figures for deaths are readily available, but the overall objective is to reduce both mortality **and morbidity**. Local accident targets for reducing ill-health, injury, and deaths and for establishing process measures may also act as indicators for the national targets.

3.7 In December 1992 the Department of Health published the *Specification of National Indicators* setting out the information required to monitor progress towards the targets in *The Health of the Nation*. The document covered **primary indicators** – ie, measures related directly to the national targets – and work is also under way to identify a larger set of **supplementary indicators**, including measures of actions taken to achieve each of the targets, intermediate changes of behaviour, precursors and incidence. Details will be published in due course.

SUBJECTS FOR LOCAL TARGETS

3.8 Accident prevention will often involve the NHS in areas of work where other agencies already have experience and responsibilities and may have initiatives in progress. Consequently, local targets will not be just for health authorities, but will need to be developed jointly **with local alliance partners**. Table 2 shows areas where work might be done to develop local targets.

Examples of Local Targets

Table 2

Target age group	Causation targets	Injury targets	Subsidiary death targets	Process targets	Aim of process targets
Children aged 0-14	reduce house fires	reduce burns and inhalation of smoke and fumes	reduce deaths in pre-school children	health visitors, GPs etc to include safety advice in each home visit	maximise opportunities for promoting safety
	reduce RTAs involving children	reduce head injuries	reduce deaths in children aged 5-14	establish local coordinating group	closer work by NHS with police, local authority
Young adults aged 15-24	reduce drownings	reduce admissions for near drownings	reduce deaths in 15-18 year olds	assess environment by rivers and canals, ensure safety	meet needs identified by local residents
	reduce motor vehicle accidents	reduce multiple injuries	reduce deaths in 17-24 year olds	establish joint working with police, RSOs, motorcycle retailers, etc	facilitate other agencies in accident prevention
People aged 65+	reduce falls	reduce fractures of the femur	reduce deaths from falls in those aged 75+	establish follow-up home visit and assessment after falls	identify those at risk and their needs
	reduce age specific RTAs	reduce head injuries	reduce deaths from RTAs in those aged 65-75	consider traffic calming measures in areas with high elderly population	ensure that strategies include environmental factors

CHAPTER 4

THE NHS ROLE IN ACCIDENT PREVENTION

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THE NHS ROLE IN ACCIDENT PREVENTION

THE KEY ROLES OF THE NHS

- 4.1 There are four key roles for the NHS in relation to accidents:
- including accident prevention as a key element of health promotion
 - participating in local multi-agency schemes (healthy alliances)
 - collecting and sharing information on the incidence, causes, severity and cost of accidents
 - providing high quality treatment and rehabilitation services.

CONTRACTING

- 4.2 Measures to reduce accidents that the NHS develops within these four roles, and evaluation of these measures, will need to be included in contracts. **The report of the Health of the Nation Focus Groups (*First Steps for the NHS*, November 1992)** gave illustrations of how accident prevention might be included in contracts. Contracts are increasingly being developed at different geographical levels: for example, across districts, purchasing consortia and localities. This allows a valuable flexibility to tailor accident prevention and treatment contracts to needs, but care must be taken that specific local problems are not 'lost' in contracts for larger areas.
- 4.3 Clauses on accident prevention and treatment services can be included in:
- service specifications prepared by DHAs to support purchasing contracts
 - business plans
 - computer contracts
 - published local strategies for accident prevention and injury control.
- 4.4 Implementation of most of the action recommended in the following paragraphs can only be achieved through the contractual process. Illustrations of how accident prevention might feature in contracts are given in the next section of this chapter, starting at paragraph 4.15. Health authorities should discuss with GPs locally how Primary Health Care teams can help.

THE PROMOTION OF ACCIDENT PREVENTION

Safety Education

- 4.5 Health authorities already run or are involved in structured health promotion and education programmes, for topics which in many cases include accident prevention. This framework of strategic and consistent health education can often be supplemented effectively by **opportunistic interventions**. Opportunistic initiatives, by their nature, can be too easily overlooked but there is a strong case for encouraging health professionals to include opportunistic health education, particularly about accidents, that is consistent with the on-going strategic approach, as a routine aspect of their work. Examples include:
- health visitors, occupational therapists and community nurses discussing risks during home visits and in the community more generally
 - GPs giving safety advice in consultations and home visits
 - midwives and physiotherapists discussing accident risks during the antenatal period
 - paediatricians giving safety advice in consultations
 - chiropodists giving advice on safe mobility
 - opticians assessing those at risk because of declining sight
 - A&E staff making available health promotional material in waiting areas
 - ambulance staff advising community groups and schools about accident risks, first aid and resuscitation
 - pharmacists giving advice and leaflets when dispensing medicines
 - school doctors and nurses advising on safety on the roads, at school and in sports and leisure
 - health service staff can also help and encourage others to make use of contacts with the public – eg Social Services staff such as home helps; child-minders etc.

Advice on Hazards

- 4.6** Locally, health service staff such as health visitors and occupational therapists are often in a position to help identify hazardous environments or products. Remedial action will need to be coordinated with local authority environmental health and trading standards departments, which have regulatory responsibilities for environmental health and product safety. These departments will usually have information and promotional material available which will be of use to health service staff and experience of initiatives such as home safety check schemes. Materials may also be available from professional bodies representing NHS staff (eg Medical Royal Colleges, BMA, RCN, HVA, COT, CSP) and voluntary organisations. It is particularly important to ensure that these materials are accessible to all members of the community, including black and ethnic minority groups.

Table 3 overleaf shows some examples of hazard modification and areas in which NHS staff can be involved.

Advice on Hazards

Table 3

Activity to decrease hazards	Examples of NHS staff who may be involved
advice on general safety risks (in homes and the wider environment) and on safety equipment (including participation in loan schemes)	primary health care staff, community nurses, health visitors, maternity staff, geriatricians, occupational therapists
checking homes for smoke alarms and hazards to young children, older people and other vulnerable groups	health visitors, GPs, OTs, community nurses
advice on using protective equipment, eg in sports, or cycle helmets, to users and supervisors	physiotherapists, primary health staff, school nurses and doctors
enforcement of legislation on child resistant containers for medicines and household products; disposal of unwanted medicines (DUMP campaigns)	pharmacists, GPs
advice on certain health and safety procedures, eg safe lifting, to staff and carers	physiotherapists, OTs, GPs, ambulance staff, occupational health nurses
guidelines on the provision and use of aids for daily living for frail older people and people with disabilities	OTs, GPs, community nurses
advice on use of medication whilst driving or operating machinery	doctors, nurses, pharmacists, occupational health nurses
ensuring that hospitals and other buildings are safe and accessible (as in the RCP Charter for Disabled People Using Hospitals)	managers, advised by clinical and estates staff

COLLABORATING WITH LOCAL AGENCIES

4.7 Health authorities will need to consider how best to participate in local accident prevention groups, or how to establish such a group in areas where none exists, by identifying agencies with experience in accident prevention (such as local authorities) and those with potential to help. The purposes of such groups include:

- bringing together all disciplines with an interest in local accident issues
- the formulation of local strategies, plans and policies
- initiating action or commissioning others to initiate it
- evaluating local progress.

Chapter 6 discusses joint working in more detail. *Appendix E* contains an example of the membership of a coordinating group.

4.8 The formation of sub-groups with representatives of specialised areas of accident prevention work, led in each case by the agency with the greatest involvement, could also be considered. **Care should be taken, however, to avoid duplicating or undermining existing work.** Depending on local circumstances, the focus of such groups might be drawn from the following:

- children aged 0-14
- people aged 15-24
- people aged 65+
- road safety
- home safety
- locations where accidents recur
- safety in the workplace
- sports and leisure safety.

Sub-groups for the three target age groups are discussed in *chapter 5*.

COLLECTING AND SHARING INFORMATION

- 4.9** Information is essential for successful accident prevention but is often insufficiently detailed, particularly in respect of cause and severity. *Chapter 7* discusses ways of developing information on accidents and *appendix D* describes existing sources of data. **Improving information - making greater use of existing sources of information or collecting additional data - will be one of the most important steps that health authorities can take to reduce accidents.** It is also important that this information is shared with the other agencies involved, with suitable measures taken to ensure patient confidentiality.

TREATMENT AND REHABILITATION SERVICES

- 4.10** The main focus of this handbook is on preventing accidents occurring. However, the development of services for the treatment of accidental injuries provided by A&E departments, primary health care teams, statutory and voluntary ambulance staff, and others is **equally important in reducing mortality and disability.** For example, the present initiative to put one ambulance paramedic on every front-line emergency ambulance will secure improved and more rapid pre-hospital care.

LINKS TO NHS ACTIVITY IN OTHER AREAS INCLUDING ALCOHOL MISUSE

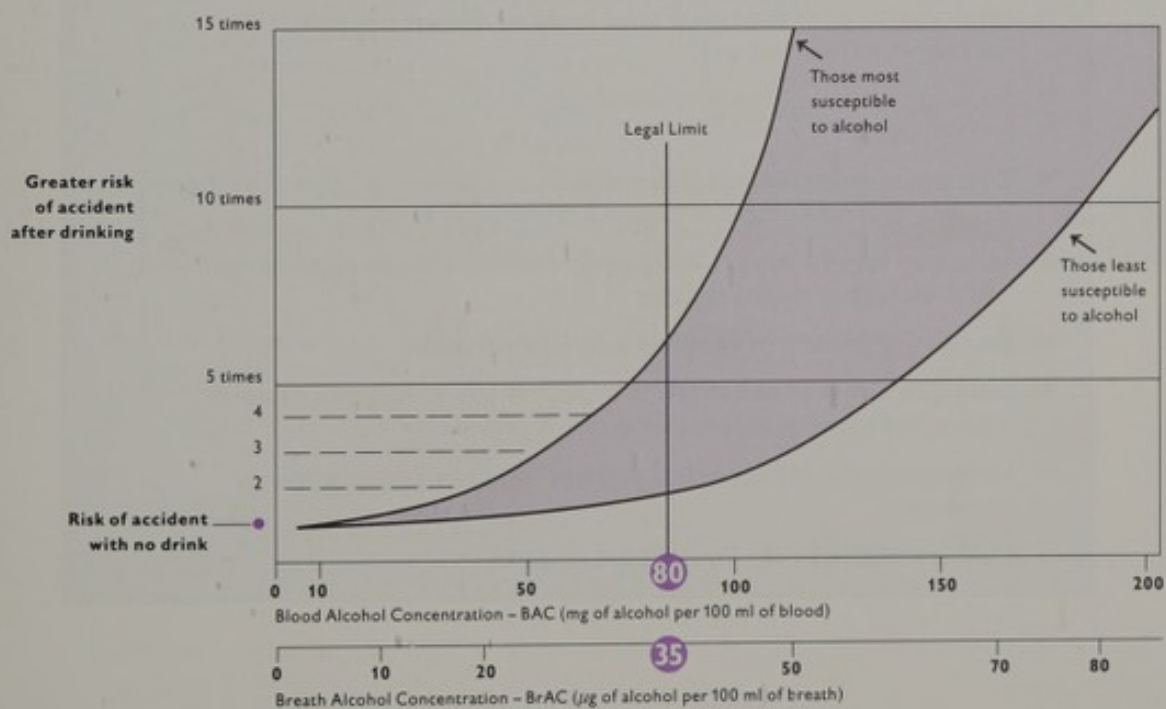
- 4.11** Work to prevent accidents will have a bearing on other areas of health and welfare work, and vice versa. Occasionally sudden onset of illness (for example, diabetes or coronary heart disease) causes accidents and in these cases NHS staff can identify patients at risk and give advice on activities such as driving (and remind patients when they need to notify DVLC and car insurers). There could be links to services for people with disabilities or conditions such as arthritis or dementia, and in some cases research may be relevant both to accident prevention and to other areas of health (eg into whether some solo-driver car accidents are 'hidden' suicides).

4.12 Although outside the scope of this handbook, non-accidental injury contributes significantly to the work of the accident and emergency services. Non-accidental injury can take many different forms including child abuse, abuse of the elderly and self-inflicted injury. The priority for the agencies concerned with treating accidental injuries is to **be alert to the possibility of abuse** and to have the means of bringing in specialist support for multi-disciplinary assessments and interventions. There may also be lessons to be learned about the risks to which vulnerable groups are exposed which might inform accident prevention generally.

4.13 Alcohol is estimated to be a contributory factor in 20 to 30% of all accidents. In some cases this figure is even higher – alcohol is estimated to contribute to 60% or more of fatal car accidents in young men between 10:00 pm and 4:00 am (see figure 3). The contribution that alcohol makes to accidents can be more wide-ranging than appears at first sight: it is estimated that some 30% of pedestrians involved in fatal road traffic accidents have drunk more alcohol than the legal limit for driving (and that more have drunk some alcohol up to this limit) and an unknown proportion of accidents to children occur when adults responsible for the child's welfare have been drinking alcohol.

Risk and Alcohol Levels

Figure 3



- 4.14 Agencies involved in accident prevention will need to work closely with those responsible in each area for promoting **sensible drinking** – with regard to consequences such as the effect on health and well-being – and **appropriate drinking** – no drinking if driving or a similar activity is involved – and with those providing accessible and effective treatment for alcohol misusers.

ACCIDENT PREVENTION IN CONTRACTS

Purchasing contracts

- 4.15 Districts will need to consider how they can promote accident prevention across all their functions, including the placing of contracts. Illustrative examples are given in *tables 4-8* of DHA activities and items which might be included in contracts with acute, community and mental health units. (These tables are not exhaustive.)

Examples of action DHAs can take on accident prevention

Table 4

- Including accident prevention in the **review process** for provider agencies
- Identifying a **key individual** to be responsible for accident prevention
- Requiring providers to contribute to **strategies, plans and policies** for accident prevention and to outline the action required and duties expected
- Providing for **clinicians to disseminate accident prevention messages** to the public
- Establishing a **checklist of good practices**, which can be used in the review process
- Developing **communications systems** to promote accident prevention and inform progress/achievements in accident prevention
- Setting up appropriate **training programmes** and using appropriate health and safety record systems
- Establishing systems of **medical and clinical audit**
- Setting up a **resource centre** to include all key documents, research papers, books and pamphlets on accident prevention
- Undertaking **epidemiological studies** to inform provider agency campaigns
- Making available **funds** for audit and research

Suggestions specific to contracts with acute units

Table 5

Each purchasing agency can include in its contracts with acute units:

- setting up mechanisms for **recording information** on all accident patients referred to the unit up to the requirements of the national minimum data set (MDS) and collecting additional data relevant to causation and injury severity from ambulance services and A&E departments
- providing regular returns on **analysis of data** about localities to purchasers and other bona fide interested parties
- ensuring that **health promotion material** relating to topical accident prevention matters is regularly available; where appropriate this material should also be available in languages other than English
- ensuring that there is **adequate liaison** about individual patients with general practitioners, community units and mental health services
- co-operation with other agencies in providing **training in first aid and resuscitation** to members of the public
- working up a timetable for introducing **trauma scores** for serious injuries, monitoring and decisions over where to take patients
- co-operation with the Ambulance Service in providing **training in advanced life support** to emergency staff and key medical and nursing staff
- 24 hour **availability of adequately trained professional staff** appropriate to the level of service being provided
- ensuring that there is a mechanism for the **audit of outcome** of treatment and care of all patients in A&E minor injury units and in hospital (there is pilot work under way in some places)
- encouragement to orthopaedic units to **assess older people** who have had falls and to identify treatable causes
- encouragement to A&E departments to maintain '**risk registers**' for children and people aged 65 and over

Suggestions specific to contracts with community units

Table 6

Each purchasing agency can, additionally, include in its contracts with community units:

- ensuring adequate **liaison with A&E departments and hospital wards** over individual patients
- ensuring adequate **liaison with GPs** about individual patients
- setting up **child health surveillance protocols** to include accident prevention appropriate for the stage of a child's development
- ensuring adequate **training of key personnel** (health visitors, district nurses, school health staff etc) in accident prevention work
- making available topical **health promotion material** in suitable locations

Suggestions specific to contracts with primary care providers

Table 7

Health authorities can discuss with GPs locally what contribution they may be able to make. For example, **screening for treatable causes of falls in older people**, such as:

- deteriorating vision, secondary glaucoma and cataracts
- neuromuscular problems such as Parkinson's Disease
- postural hypotension
- multiple drug therapy, including over-use of hypnotics or anti-depressants
- elder abuse
- osteoarthritis of the knee or hip, giving rise to instability

Suggestions specific to contracts with mental health units

Table 8

Each purchasing agency can in its contracts with mental health units:

- ensure adequate **liaison with A&E departments and hospital wards** about any patients sustaining an injury (including poisoning) who may have mental health problems, including possible problems with alcohol or drugs and with attempted suicide

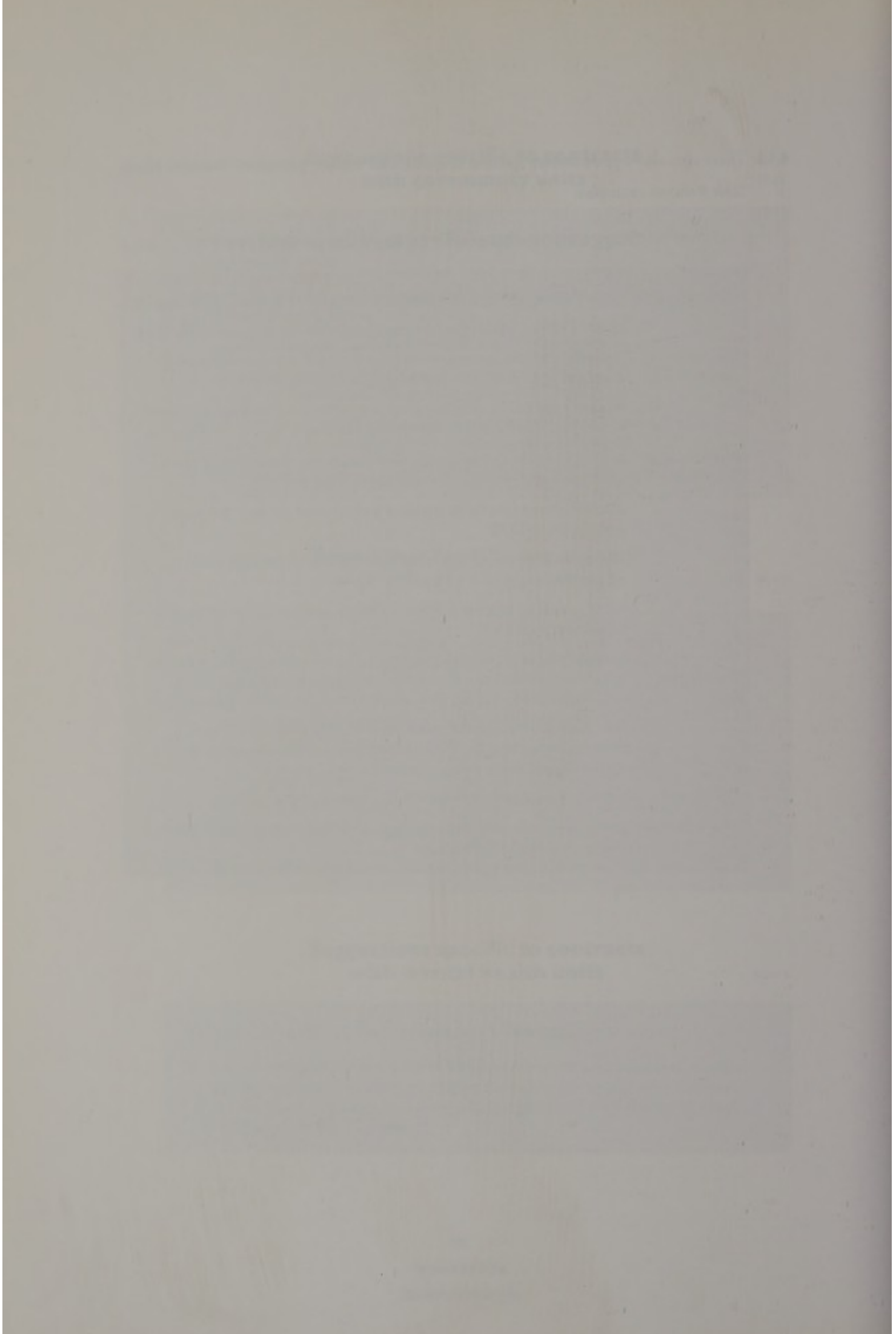
4.16 There are also opportunities specific to particular service providers' business plans.

Table 9 shows examples.

Suggestions specific to service providers

Table 9

Acute units	<p>setting up severity and trauma scores for all patients with injuries</p> <p>identify a post with specific responsibility for accident prevention</p>
Community units	<p>showing accident prevention films, where these are available, and displaying promotional material in waiting areas</p> <p>ensuring the inclusion of accident prevention and safety messages in programmes for child health surveillance and care of the over 75s</p>
Ambulance services	<p>setting and monitoring agreed minimum response times for ambulance service operations to respond to 999 calls</p> <p>placing at least one fully trained paramedic on each front line ambulance by 1996</p> <p>setting up and recording trauma scores for all patients with serious injuries</p> <p>being prepared to give advice on safety, accident prevention, first aid and resuscitation</p>
General practices	<p>being prepared to advise the local community, sports clubs and leisure organisations and voluntary first aid societies on matters relating to safety and accident prevention, first aid and resuscitation</p> <p>being prepared to give advice on driving to older people, on drinking and driving, storage of medicines, medication for people aged 65+ and other similar matters for their patients</p>
Opticians	<p>advising on accident risks in the light of impaired vision</p>
Pharmacists	<p>giving advice on safe use, storage and disposal of medicines and general health promotion</p>



CHAPTER 5

THE TARGETED AGE GROUPS

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Young adults aged 15-24.....	43
People aged 65 and over.....	45



THE TARGETED AGE GROUPS

CHILDREN UNDER 15

- 5.1 Although there has been significant progress in the prevention of childhood accidents, much remains to be done. There is considerable variation between the incidence of accidents in districts and in the level of attention that they receive.
- 5.2 Local authorities have important responsibilities relating directly to the needs of children. Examples of how the NHS can contribute – through local coordinating groups – to local authority planning and policies are given in *table 10* below.

Opportunities for NHS liaison with local authorities

Table 10

Local authority departments	Examples of areas of work	Possible NHS involvement through coordinating group
Planning & Transportation	highways planning, road safety planning, traffic calming measures, road safety education, controlled parking taking particular account of risks around schools, playgrounds etc, involvement in car safety seat loan schemes	help identify local risks eg through A&E and ambulance information, assistance with road safety education, help identify young families for loan schemes, eg through maternity units
Education	provision of safety education and safe use of equipment	back up and encourage safety education, also give safety advice to children and parents
Housing	planning and maintenance of safe buildings, suitable housing for families that may be at risk	help identify families that might be at risk, liaison and feedback from health staff home visits
Social Services	inspection of day care and residential facilities	help advise on inspections and help ensure mandatory safety standards
Environmental Health	responsibility for home safety, safety of council premises and health and safety regulations	help identify risks in homes and other locations and liaise with department
Trading Standards	extensive responsibilities controlling the safety of goods	report risks and give feedback to trading standards department
Leisure Amenities	parks, playgrounds, sports grounds and stadia: safety of equipment and safe maintenance	help identify high risk areas and activities

5.3 The following are some examples of activities relating to childhood accident prevention. Some of the areas of accident prevention will be relevant to more than one age band.

Babies & Toddlers (0-1)

- Safety in cars
- Home safety check schemes
- Safety on parents' bicycles
- Use of child resistant containers (CRCs)
- Provision of stair and fire guards

Pre-School Children (1-4)

- Road safety training for parents and children
- Paediatric liaison service for accident repeaters and child abuse
- Safety checks on playgrounds
- Education of parents to ensure awareness of risks (eg from inappropriate toys, polythene bags, baby walkers, tricycles, peanuts)
- Provision of safety glass or film
- Smoke alarms
- Child-proof car door locks
- Clothing reflectors

School Children (5-14 and beyond)

- Road safety for children who may be unaccompanied
- Adequate coaching and training for all sports and leisure pursuits
- Learning first aid and resuscitation skills
- Education on the avoidance of serious and dangerous accidents to which older children and young adults (aged 15-24) are prone
- Correct use of safety equipment, eg restraints in cars
- Use of cycle helmets and clothing reflectors
- Traffic clubs
- Daily living skills in kitchen and on stairs, use of appliances
- School health liaison for children 'at risk' and with disabilities
- Safety education within school curriculum

- Learning to swim (Dorset HealthCare NHS Trust organises and pays for swimming lessons for toddlers and mothers)
- Cycle training

Development of Local Strategies for Children

5.4 If establishing a group to coordinate collaborative work, health authorities should also consider the following steps for developing a local strategy.

- **Assess local circumstances and consult locally.** Children are at particular risk from:
 - ~ road traffic accidents
 - ~ house fires
 - ~ drownings
- **Identify local key players.** In the NHS these may be
 - ~ health visitors
 - ~ general practitioners
 - ~ school nurses/doctors
 - ~ midwives
 - ~ A&E staff
 - ~ community health doctors and paediatricians.

Local authority departments will need to be closely involved in work with children. *Table 10*, on page 39, shows examples of opportunities that coordinating groups might create for this. In addition to local authorities' key role, voluntary organisations (eg British Red Cross Society and St John Ambulance) and community groups (such as scouts or girl guides), and the emergency services, are also important partners for accident prevention.

- **Assess existing initiatives** – for example: car seat or cycle helmet loan schemes; traffic control (there is some evidence from other European countries that traffic calming can be effective); housing legislation (local authorities can make full use of legislation for housing in multiple occupancy to ensure accommodation such as B&B for homeless families is free of hazards).

- **Encourage the development of initiatives** – eg A&E departments notifying all attendances under 16 years to GP, health visitor and school nurse, or reporting all playground injuries to local authority leisure and amenity services departments. There are now several 'quality initiatives' in A&E related to children's services where this is happening and many A&E departments have 'risk registers' for children.
- **Assess particular needs** – these may include:
 - ~ resources
 - ~ research
 - ~ management arrangements
 - ~ evaluation of past progress and dissemination of proven good practice.

EXAMPLES OF LOCAL INITIATIVES

Junior Citizen

- 5.5 Started in Greenwich, this scheme is now run across London by the Metropolitan Police and British Telecom (the contact point is Scotland Yard) with the participation of schools, local authorities, local fire brigades, British Gas, health authorities, and others. School trips are organised to different settings where emergencies are simulated, which the children then take part in resolving (eg repairing a gas leak, dialling 999). The scheme aims to increase understanding of what to do in emergencies in children aged 10-11 (but could be adapted to suit other age groups), and of how to protect themselves from accidents and violence. It also aims to help schools identify areas for teachers' attention.

South Warwickshire Child Accident Prevention Strategy

- 5.6 South Warwickshire Health Authority is collaborating with other local organisations to produce a multi-agency strategy and further develop child accident prevention. Particular attention is being given to targeting action at specific risks and locations in this predominantly rural and dispersed community; clarifying the responsibilities and potential of the staff and agencies involved; and encouraging an informed and committed workforce. Action plans have been issued for local consultation with initial targets, completion dates and success criteria for establishing monitoring and

liaison arrangements; improving the collection and sharing of information (with a local task force to coordinate this); and meeting staff development training needs.

Spelthorne Summer Safe Scheme

- 5.7** Spelthorne Council has organised its activities for children in school summer holidays in collaboration with the local police so as to ensure that they are not only popular but are also designed to be safe.

YOUNG ADULTS AGED 15-24

- 5.8** Accident prevention among the 15-24 age group presents particular challenges. Relatively little is known about accident prevention with this age group by the health and social services sector, as teenagers and young adults tend to fall between agencies and may have little contact with these services. GPs, however, do have significant contact. Successful initiatives have been undertaken with this age group, for example by sporting organisations and by road safety officers with police, ambulance staff and others.
- 5.9** Although outside the scope of this handbook, the high level of violent injuries in young adults may have characteristics in common with the liability of this age group to accidental injury. This needs further research – perhaps in the context of the general health promotion and health care needs of teenagers and young adults – and needs to be considered both by health authorities and by the Department of Health. This means locally that others working in promoting health with this age group – for example, as part of the Health of the Nation strategy in the Key Area of HIV/AIDS and Sexual Health – may have experience of successful ways of reaching this age group that can help inform accident prevention. Clinical psychologists may also be able to contribute.
- 5.10** The following are some of the areas which local strategies may cover:
- Ensuring full awareness of the effects of alcohol, drugs and solvents, their relation with risk-taking and the scope for behaviour change
 - Ensuring awareness of the hazards of motoring, adequate training to ride a motorcycle and drive a car
 - Special attention to high risk sporting and leisure activities

- Initiatives to reduce work-related accidents, especially when first starting employment
- First aid and resuscitation courses
- Encouraging use of cycle helmets and reflective clothing
- Raising awareness of hazards in the kitchen and at DIY
- Specialised rehabilitation and training for repeat traffic offenders and drink drive offenders
- Adequate training for hazardous occupations.

Developing Local Strategies for Young Adults

5.11 The key steps for establishing a strategy for reducing accidents in young adults will include:

- **Assess local circumstances and consult locally** – teenagers and young people are at particular risk from death and injury from
 - ~ road traffic accidents
 - ~ accidents during sports and leisure activities
 - ~ accidents to which alcohol, drugs and substance misuse have contributed
 - ~ work-related accidents
 - ~ 'accidental' poisoning and overdose.
- **Identify key players** – these may include:
 - ~ GPs – 25% of young people see their GP in any year
 - ~ local authorities – eg road safety, leisure services, trading standards and environmental health
 - ~ occupational health nurses/medical officers
 - ~ family planning and open access clinics
 - ~ youth groups/organisations
 - ~ employers and managers of employment training
 - ~ retailers (eg record, sports and cycle shops)
 - ~ publicans, alcohol retailers, licensees and magistrates
 - ~ police and probation officers, and intermediate treatment services eg for repeat drink/drive offenders
 - ~ driving instructors and examiners.

- **Assess existing initiatives** – for example, are local publicans aware of the Portman Group's *Running the Marathon* training package, which can help them prevent violence and drink/driving in their customers, and deal with under age drinking. Coventry has declared its intention to be a 'drink/drive free city' by the end of the century: others may be able to learn from its approach.
- **Encourage the development of initiatives** – there may be scope for campaigns working with the retail and commercial sector, such as record shops, pubs or sports shops; for the sharing of information such as A&E attendances for occupational injury to local regulatory bodies such as Environmental Health departments or the Health and Safety Executive; or for following up A&E attendances.

EXAMPLES OF LOCAL INITIATIVES

Liverpool Community Alcohol Initiative

- 5.12** The Liverpool Community Alcohol Initiative has developed an information pack about alcohol, which is given free by driving instructors to all new drivers in Liverpool when they register for driving lessons.

Wheelwatch

- 5.13** The Brewers' Society, the national trade association for brewers and pub retailers, has been running *Wheelwatch* campaigns since 1987. *Wheelwatch* involves point of sale material which is made available free to more than 70,000 pubs and bars. The 1992 campaign, *Lose It*, features a new pub poster and reminds customers that by drinking and driving they are in danger of losing their licences. It is a successful private sector initiative which is welcomed by the Government in its campaign against drinking and driving.

PEOPLE AGED 65 AND OVER

- 5.14** This is a particularly important but still sometimes neglected group. Although at 65 most people are fit and well, accidents become more frequent with age and are more likely to lead to serious ill-health and disability. Fear of accidents also restricts independence and has links with anxiety and stress for many older people. Prevention will help to extend the healthy active life expectancy of older people and enhance the quality of life in old age.

- 5.15** Many accidents in very old age stem from increased physical frailty, and falls are a particular concern. It is estimated that up to 60% of falls in this age group occur in the home. Falls often result in injury, from which some older people may never recover completely (such as proximal femoral fracture), and the long-term effects of which can be hard to determine. An association has been found between falls and quantifiable risk factors such as a decline in vision, balance, sensory perception, strength, and neuromuscular function. Another major concern with this group is their vulnerability to road traffic accidents.
- 5.16** Co-ordinated planning and management of appropriate housing, road safety, pharmacies, surgeries, shopping and leisure facilities will make a major contribution to safety in old age. Sub-groups may seek to influence this long-term objective and also to become involved in the areas of work below.

Falls and Home Safety

- advice and training in hazard avoidance
- regular review of medication (especially sedatives, tranquillisers, hypotensive agents) and discontinuation unless absolutely necessary
- provision of special equipment and adaptations where needed
- maintenance of safe and even pavements and smooth roads, free from obstacles and early clearance of hazards (leaves, snow, ice)
- encouraging appropriate mobility and flexibility exercises
- encouraging 'risk registers' to draw attention to patients with a history of falls
- helping to ensure adequate home and street lighting
- monitoring of falls and other accidents where feasible – eg in nursing homes
- setting up home safety check schemes (including checking of the physical environment and general advice, eg on safer footwear) and arranging where necessary for simple repairs (ie home maintenance schemes)
- encouraging manufacturers to design products and packaging that are easy to use even with poor dexterity
- include advice on accidents in over-75s health check and other visits or consultations by health professionals
- checking on heating arrangements and help with claims for heating allowance

Transport Safety

- health professionals – eg GPs, ophthalmologists, opticians, audiologists, geriatricians and others in regular contact with older people – advising on the risks which physical and sensory impairment pose
- regular local publicity on the vulnerability of older people in crossing the road
- provision of pedestrian-only shopping areas
- ensuring that pedestrian crossings allow enough time for people with less mobility to cross the road, and general accessibility of the built environment (including pavements free of parked cars)
- initiatives to help ensure that public transport vehicles are safe and that drivers understand the needs of frail older users
- ensuring clear road signing and sufficient 'disabled' parking places
- advice on cycling and walking
- initiatives to repair the effects of vandalism, such as broken lights

Developing Local Strategies for Older People

5.17 The key steps to be considered in forming local accident prevention strategies include the following:

- **Assess local circumstances and consult locally.** In working with this group it is important to bear in mind:
 - ~ physical environments
 - ~ current states of physical ability and disability
 - ~ prescribed medication
 - ~ the need to reconcile desirable interventions with maintaining independence
 - ~ the range of agencies, relatives and friends involved in working with this group.
- **Identify key players** – for example:
 - ~ GPs and practice nurses
 - ~ community nurses and health visitors
 - ~ social services welfare staff
 - ~ housing department, sheltered housing and nursing home staff – many of these are employed by local authorities

- ~ relatives and friends
 - ~ voluntary organisations (eg Age Concern)
 - ~ social clubs
 - ~ physiotherapists and occupational therapists
 - ~ ambulance staff – an important link between hospital units and patients in the community
 - ~ other domiciliary services, such as chiropody
 - ~ consultants in geriatric medicine and orthopaedics
 - ~ audiologists and opticians.
- **Assess existing initiatives** – including an assessment of client satisfaction and an assessment of provision for people with different levels of independence. Can monitoring and mitigation of the long-term health consequences of accidents be improved? A study at St Bartholomew's Hospital, reported at the College of Occupational Therapists "Safe as Houses?" conference, suggested that screening of very elderly people living independently can reveal previously unrecognised risk factors and help accident prevention.
 - **Encourage the development of local initiatives** – for example following up all significant falls in people aged 65 and over by a visit from a community health care worker or therapist. Studies in the USA have shown that comprehensive post-fall assessments reduce hospitalisation rates.

EXAMPLES OF LOCAL INITIATIVES

Safe and Secure at Home

- 5.18** This scheme, run by Mid Glamorgan County Council, is a multi-agency initiative involving fire services, the police and local trading standards and social services departments. Older people are offered a visit to their homes, where they are given advice and a free booklet on home safety and self protection, and the home is checked for fire and injury hazards. As part of the scheme, smoke alarms, door chains and front door spy-holes are fitted free of charge.

Older Pedestrian Safety Pack

- 5.19** Developed by the Transport Research Laboratory (TRL) and the British Institute of Traffic Education and Research (BITER), based on the seven principles of defensive walking. The information pack, which includes a video, was launched in March 1991 and is intended for use by local Road Safety Officers and other professionals in offering advice to help older pedestrians.

Age 60+

- 5.20** This campaign by Devon County Council, using the actor Bill Pertwee as a figurehead, was launched in April 1991 and is intended to last at least three years. Its aim is to reduce the number of accidents in the county involving older people. Leaflets, posters, newsletters and other materials have been distributed through a wide range of agencies including health clinics, doctors' surgeries, chemists and opticians. Refresher training courses are also run for older drivers, centred on the Driver Centre near Exeter.

Cross With Confidence

- 5.21** Launched in February 1992 by West Midlands highways authorities, this campaign was taken up by seven West Midlands local authorities. The aim is to improve the crossing habits of older pedestrians and to increase awareness of their needs by other road users. The campaign is supported by bus advertising, multi-agency seminars, exhibitions and public meetings. Some 60,000 leaflets have been distributed.

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1. The first part of the report deals with the general properties of the system. It is found that the system is stable and that the reaction is reversible. The equilibrium constant is found to be 1.5 at 25°C. The activation energy is found to be 15 kJ/mol. The reaction is first order in A and second order in B. The rate constant is found to be 0.01 s⁻¹ at 25°C.

2. The second part of the report deals with the effect of temperature on the rate constant. It is found that the rate constant increases with increasing temperature. The activation energy is found to be 15 kJ/mol. The pre-exponential factor is found to be 0.01 s⁻¹.

3. The third part of the report deals with the effect of concentration on the rate constant. It is found that the rate constant is independent of concentration. The pre-exponential factor is found to be 0.01 s⁻¹.

4. The fourth part of the report deals with the effect of solvent on the rate constant. It is found that the rate constant is independent of solvent. The pre-exponential factor is found to be 0.01 s⁻¹.

CHAPTER 6

HEALTHY ALLIANCES FOR ACCIDENT PREVENTION

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HEALTHY ALLIANCES FOR ACCIDENT PREVENTION

- 6.1 Successful accident prevention involves a range of different agencies, and alliances are essential to address the spread of interests and responsibilities. Accident prevention is in many cases a new emphasis for the NHS, but some other agencies already have substantial experience in this field, and **the NHS will need to participate in local joint working**, or healthy alliances. Healthy alliances have been described as:
- a partnership of organisations and/or individuals to enable people to increase control over and to improve their health and well-being
 - any arrangements for joint working, collaboration and cooperation between the purchasing authority and other agencies.
- 6.2 The need to think and work in terms of healthy alliances is advocated in a range of contexts, such as:
- *Developing Districts* (EL(90)MB/86)
 - *Moving Forward* (EL(91)40)
 - the King's Fund paper, *Making It Happen – the Role of the Authority Chief Executive* (January 1992)
 - initiatives such as WHO Health For All by the Year 2000, and WHO Healthy Cities.*

THE ROLE OF HEALTH AUTHORITIES IN ALLIANCES

- 6.3 Although accident prevention will in many cases represent a new emphasis for health authorities, in working towards the Health of the Nation targets they are well placed to take the initiative and form alliances in areas where these do not already exist. Where alliances do already exist, health authorities will need to consider how best to work with the other agencies involved. Health service managers will need to build on experience of joint working (eg Joint Consultative Committees and joint service specifications, and the forthcoming conference publication by the NHS Management Executive, *Healthy Alliances*). Contracts will need to be developed so as to reflect this; the report of the NHSME Health of the Nation Focus Group on Accidents (*First*

*The WHO Healthy Cities programme started in 1986 and now involves 34 European project cities, two of which are in England. It seeks to improve health and make maximum use of local initiative. Many other areas in England are also involved through the UK Health For All Network.

Steps for the NHS, November 1992) gives guidance on this, and there are examples at paragraph 4.15 of this handbook.

6.4 Health authorities have three main roles in alliances for accident prevention:

- facilitating action
- collecting and sharing information
- contracting for high quality services for prevention and treatment.

Facilitating action will include opportunities for:

- improving data collection, in collaboration with others
- ensuring the sharing of information
- helping to eliminate service gaps and discontinuities
- avoiding duplication of services and effort
- coordinating specific areas of work
- supporting and motivating others
- ensuring the most effective use of resources, such as information, skills and finance, by helping to identify which agency should lead on an initiative, and providing appropriate support.

CRITERIA FOR SUCCESS

6.5 Forming alliances and sustaining them require skill. Some experiences of alliances for accident prevention have been documented (eg Hull Healthy City Initiative). Health authorities and their partners in alliances will need to learn from local experience, but some criteria for success are apparent:

- **Trust** – a prerequisite. Successful alliances continuously assess the balance of power, and **no individual agency should appear to be ‘taking over’**. The essential contribution of each agency must be recognised and valued. A **shared agenda** needs to be agreed. **Sharing resources** helps build trust; it must be seen to be equitable and clearly documented.
- **Good communication** – the free sharing and joint development of **information about accidents** within alliances underpins much successful prevention. Alliance members can also facilitate communication outside the alliance by **disseminating each other’s promotional material**: for example, health service staff can help ensure that older or disabled people are aware of

the safety checks and product modifications that may be available from gas and electricity boards.

- **Openness** – sharing of information needs to be frank and honest for progress to develop and be sustained.
- **Understanding** – action is often achieved by the mutual pursuit of individual interests within a shared agenda. To develop this agreement alliance partners need to **understand each other's organisations**: their interests, their opportunities and their constraints.
- **Dynamism** – **motivation** and **personal commitment** are key factors, arising from skilled management and coordination.
- **Flexibility** – can arise among a broad membership which is **open to ideas**.
- **Innovation** – can develop in alliances without unduly rigid management boundaries and with mutually supporting members.
- **Authority** – securing and sustaining the **commitment and support** of **Chief Officers** is often essential.
- **Cohesion** – careful coordination can avoid disintegration and maintain common objectives. Consideration is needed in maintaining **good personal relationships** between members, taking into account the interests of all partners, and **joint working** – actually doing work together, and learning together.

MEMBERSHIP OF HEALTHY ALLIANCES FOR ACCIDENT PREVENTION

- 6.6 The partners involved and their roles will vary depending on local circumstances and the issues being addressed, but may include the following:
- **the public** – for local needs assessment and support. Parent groups and community groups can enable and support those working for change or progress, and help set the agenda. Different sections of the local community should be represented.
 - **local authorities** already have substantial experience in accident prevention. Their responsibilities include highways, road safety, home safety, town planning, enforcement of regulations on building and on health and safety,

aspects of health promotion, and safety in their own activities and premises. *Table 11* gives the main responsibilities.

- **the health service** – including DHAs, FHSAs, NHS Trusts, GP fundholders and purchasing consortia.
- **voluntary organisations** – national bodies (eg RoSPA, CAPT, Age Concern) and numerous local ones; health authorities should consider the benefits of membership of the national agencies as many local authorities have done.
- **industry** – opportunities for their own staff and the community at large.
- **police** – information and knowledge eg about road traffic accidents, and frequent contact with the public.
- **emergency, fire & rescue services** – information and knowledge that may assist prevention work, also work in areas such as resuscitation and first aid training.
- **educational establishments** – regular contact with children and young people and also parents and older people eg through adult education courses.
- **health and social care professionals** – a wide range is able to contribute; some examples are at paragraphs 4.5 and 4.6.
- **the retail and commercial sectors** – important for all age groups, particularly young adults; contact may also be indirect – eg associations representing groups of retailers, or magistrates and local authorities granting licences.
- **the media** – in promoting prevention messages and publicising achievements.
- **Regional Home Safety Councils** – there are 12 RHSCs providing a network, and undertaking local initiatives.

Local authority responsibilities

Table 11

	County Councils	District Councils	Metropolitan District and London Borough Councils
Education	√†		√†
Libraries	√		√
Trading standards	√		√
Refuse disposal	√		√
Fire	√		*
Personal social services	√		√
Structure planning	√		√
Highways, traffic and transport coordination	√‡		√‡
Water safety		√	√
Police	√		*
Passenger transport		√	√
Road maintenance		√	√
Building regulations		√	√
Local planning and development		√	√
Housing		√	√
Environmental health		√	√
Parks and open spaces	√s	√s	√
Playing fields, leisure centres and swimming baths	√s	√s	√
Museums and art galleries	√s	√s	√
Road safety	√d	√d	√
Home safety		√	√

† = responsibility for grant-maintained schools lies with governors, headteachers and the Department for Education.

‡ = responsibility for trunk roads rests with the Department of Transport

* = normally organised by a joint board or authority representing a number of councils (usually the constituent parts of the former GLC and metropolitan county councils)

s = shared responsibility

d = responsibility lies with the County Council but work may be undertaken by the District Council on an agency basis

EXAMPLES OF LOCAL INITIATIVES

Liverpool Accident Prevention Group

- 6.7** The Accident Prevention Group was convened in 1991, as part of the WHO Healthy City project, with members from a wide variety of disciplines. Its remit includes defining and coordinating policy on accidents, bringing together information on accidents, tracking accident prevention work by the different agencies, helping to define the remit of each agency, facilitating community participation in accident prevention, stimulating research and developing targets for reductions in accidents. The group has also published a report on road safety in Liverpool and brought together information to produce a fact-sheet on road accidents involving older people.

Cities of London and Westminster Home Safety Council

- 6.8** Founded in 1985, the aim of the Home Safety Council (HSC) is to encourage collaboration between local agencies involved in home safety. It brings together staff from Westminster and the City of London, the Metropolitan Police, London Fire Brigade, British Gas, London Electricity and Disability Action Westminster. Other agencies (eg Age Concern) can also be involved, and the HSC has worked with the commercial sector to fund projects. Successes include lobbying for smoke alarms in Westminster's accommodation for older people; integrating home safety into local authority health promotion; input to the 'Safe and Secure' grants scheme for home safety equipment as part of the 'Westminster Initiative'; and developing home safety awareness training, with Social Services staff and Health Visitors, for childminders, playgroup leaders and foster carers.

Avon Play It Safe Action Groups

- 6.9** The Avon Play It Safe Coordinating Group has formed eight action groups in different areas around the county. Areas targeted for individually developed safety campaigns include high-rise flats and housing estates, together with the use of central locations for specific events, eg local fire station, supermarket, school. This method is developing ownership at local level which it is hoped will result in effective outcomes.

CHAPTER 7

ACCIDENT INFORMATION AND DATA COLLECTION

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ACCIDENT INFORMATION AND DATA COLLECTION

- 7.1** Effective collection and use of information about accidents have proved to be central features of successful national and local accident prevention schemes. Information needs to be disseminated to staff in the relevant agencies so that it can be used for:
- **targeting** the most important types of accident or risk groups
 - **motivating** key players
 - **measuring** the effectiveness of preventive activity.

EXISTING SOURCES OF DATA

- 7.2** Much successful work has already been done in this country making use, in particular, of the data sources shown in *table 12*. More details of these sources of information are contained in *appendix D*.

Existing sources of data

Table 12

- police road traffic accident statistics (Stats 19)
- the Hospital Episode System (HES)
- the Home Accidents Surveillance System (HASS)
- the Leisure Accidents Surveillance System (LASS)
- Home Office (Fire Brigade) fire statistics
- the General Household Survey
- OPCS accidental death data
- HSE database of notifiable accidents
- the Public Health Common Data Set
- Poisons Information Systems
- RoSPA drowning statistics

- 7.3** There are also many examples of effective accident prevention programmes in other countries (eg Sweden, Denmark, Australia, the USA and Canada), where the development of information on accidents has been fundamental.

OPPORTUNITIES FOR FURTHER DATA COLLECTION

7.4 Within healthy alliances there is a number of agencies with information that will be relevant to accident prevention. Alliance members will be able to build up jointly a picture of the local community that can be used to target important causes of accidents and high-risk groups. This might involve identifying:

- numbers and distribution of accidents in different age groups
- the availability of sources of prevention advice
- pointers to opportunities for prevention initiatives
- high-risk groups and locations where accidents recur, and their characteristics
- low-risk groups or locations and their characteristics.

Examples of sources of information for this are shown in *table 13*. Greater use may often be made of information from these sources.

Potential sources of information

Table 13

Source of information	Agency with most involvement
A&E departments	health service
information collected by local agreement in GP surgeries	health service
hospital in-patient data (a more standardised population than A&E attenders: information from this group might be particularly valuable if severity coding is undertaken)	health service
questionnaire surveys of lifestyle and opinions (eg for data on minor injuries or building up 'risk profiles' and defining the 'complete accident experience')	health service and/or others eg local authority, CHC – with advice from experts
Emergency services' records (eg ambulance services hold significant data on road traffic accidents)	ambulance, fire and rescue services
coroners' post mortems	coroners' offices
Health and Safety Executive investigations	HSE; environmental health departments
Environmental health departments' records	local authorities
records of accidents by location	examples include health service (eg hospital accident books), local authorities (eg school or sports centre records)

- 7.5** The NHS has a unique ability to develop information on accidents through its role of treating accidental injuries in A&E departments, GP surgeries and elsewhere. The need for information about people who have been injured in accidents – which only the NHS can provide – has long been recognised by other agencies in accident prevention. **Improving information on accidents is a priority for the health service and will be one of its most important ways of contributing to alliances.**

ACCIDENT AND EMERGENCY DEPARTMENTS

- 7.6** A significant proportion of accidental injuries are treated in NHS Accident and Emergency (A&E) departments, and these departments offer major potential for improving data collection. Many departments have computerised databases which collect a nationally agreed set of data items, and some of these also collect further data useful for accident prevention. The nationally agreed data items include information on the type of incident – for example, whether the attendance was due to an accident or trauma at home, a road traffic accident or an injury due to sport.
- 7.7** The Minimum Data Set (MDS) developed by the NHS Management Executive's Information Management Group (IMG) in collaboration with the NHS, changes from April 1993 so that information will then be recorded separately about patients attending due to accidents, as well as the location of the accident. Although the cause of the accident will not be collected as such, additional information will be recorded about the investigations, diagnoses and treatments given in the A&E department.
- 7.8** The data set is intended to be the **minimum** collected for operational management purposes. Where the need is justified and resources allow, some A&E departments also record additional information, which enables more sophisticated analysis. This includes:
- **detailed demographic data** – uses for this include a scheme in which analysis of accidents by age groups is used by health visitors in giving advice on accident prevention.
 - **detailed cause-specific data** – this might, for example, allow greater analysis of where accidents occur.

- **severity data** - severity coding systems are in operation in a few departments (eg Major Trauma Outcome Study) but none as yet includes minor injuries. Severity coding aids analysis, which in turn may make possible targets for reducing injury and all accidents as well as mortality. Some examples of indicators that may be suitable are shown in *table 14*.

Examples of indicators of severity

Table 14

- length of stay/average length of stay in hospital
- measurement of severity on the Injury Severity Score (ISS) and the Abbreviated Injury Scale (AIS)
- RIDDOR scoring by days off work and certain specific categories
- certain proxy conditions might be identified - eg fractured femurs
- deaths or serious injury as a proportion of total injuries
- permanent disability rate
- discharge - eg recovery at home or transfer for continuing care

7.9 The Department of Health plans to give greater coordination to the development of A&E information systems in these respects and will be looking to identify and disseminate good practice. Whilst not wishing to stifle local initiative, the aim is to avoid duplication of effort and secure a sufficiently uniform approach to enable the central collection of information on accident-related morbidity.

7.10 The main features of the revised A&E MDS, and an indication of the direction that an additional subsidiary data set might take, are shown in *table 15*.

Accident information in the revised MDS

Table 15

Fields of the A&E minimum data set	Suggestions of further useful data
<p>Demographic data Age, sex, postcode</p> <p>Patient group RTA Other accident Assault Deliberate self harm Non-injury Brought in dead</p> <p>Location of incident Home Work Educational establishment Sport Public place Other</p> <p>Diagnosis, investigation, treatment Codes for local development pending nationally agreed definitions</p>	<p>Mechanism of injury</p> <p>Severity See <i>table 14</i>; this field will need national agreement</p> <p>Supplementary location codes</p> <p>Type of injury: ICD code</p> <p>Activity Activity and supplementary activity codes for research into particular injuries and localities</p> <p>Supplementary transport codes</p> <p>Geographical location of incident</p> <p>Safety precautions in use</p> <p>Disability estimate</p>

KEY STEPS TOWARDS EFFECTIVE DATA COLLECTION

7.11 Among the steps that may be needed in the process are:

- **Identification of local characteristics** – in rural areas, GP surgeries are likely to treat many accidental injuries that in urban areas would be treated by A&E departments. Assess use of the potential sources of information in *table 13*.
- **Consultation** – local authorities, health service managers and A&E, primary care and public health staff, the emergency services, local accident prevention groups, and members of the public would be key contributors to this. Commitment is a key factor for success and can be ensured at this stage.
- **Development of computer software** – computer programmes are needed to extract and analyse information, and enable feedback to staff collecting data, to check validity. Evesham General Hospital has developed with the local Public

Health and Audit departments, in less than one year and within existing resources, an information system to run on a PC using the free Epi-Info database. The system is capable of collecting and analysing large amounts of comprehensive information on accidents. If different compatibility with mainframe systems was needed in the future, it might still represent a cost-effective pilot for data collection.

- **Analysis of information** – a named person with responsibility for generating and analysing data should be identified. This person could also ensure feedback of progress to staff and alliance members. DsPH can ensure that accident prevention is given priority by including accidents in annual reports.
- **Agreement of local procedures** – in joint initiatives, action plans and financial arrangements should be explicit and agreed.
- **Development of skills** – staff training may be needed, eg to ensure consistent coding of data that is collected, and the successful adoption of new methodologies.
- **Provision for evaluation and dissemination** – evaluation criteria and mechanisms for publicising local successes and risks should be ensured and agreed locally. Quick dissemination of information to staff will be needed.

REPORTING AND DISSEMINATION

7.12 Districts will need to consider arrangements for reporting and disseminating information on accidents; options include regular statistical reports and Annual Health Reports of Directors of Public Health. These might help to enable comparison with other areas, allow a national picture of accident statistics to be built up, inform the development of local schemes and give feedback to staff involved. Routine statistical analyses might include:

- numbers of attendances at A&E by age, sex and class of accident
- numbers of admissions, discharges and deaths by age, sex and class of accident (eg road, home, occupational)
- the extent to which intoxication by alcohol is a factor in accidental deaths and injuries
- seasonal or trend analysis by weeks of the year.

Consideration should also be given to:

- regular (eg annual) aggregation of these, with comparison against other districts in the region or nationally
- publishing data on accidents from other sources alongside that from the health service.

7.13 Establishing reporting arrangements might highlight specific local issues and point to the need for further research in specific areas, eg:

- measurements of severity of accidents and the effects of permanent disability
- special studies relevant to local issues – eg differences in accidents between ethnic groups
- the effects of alcohol
- falls in older people
- the incidence of road, home and occupational accidents in different social classes
- costings of accidents.


EXAMPLE OF LOCAL INITIATIVES

Childhood Injury Prevention and Promotion of Safety (CHIPPS)

7.14 The Department of Child Health, Newcastle, hopes to build upon an epidemiological study of child accidental injuries undertaken in three health districts in the Northern region in setting up a unit concerned with research and development in childhood injury prevention. The original study was of the case notes of a stratified sample of children aged 0-16 years admitted to hospital with accidental injuries in 1986 and coroners' reports (and case notes) for all accidental child deaths between 1980 and 1986. It showed that, when differentiated by injury severity, there are major systematic differences in the basic epidemiology of child accidental injury by age and place of residence of the victims as well as in the nature and causes of injury sustained. The conclusion is that injury severity scores can be used to define a severity threshold, within the range of injuries leading to hospital admission or death. This would enable more accurate targeting and evaluation of preventive measures than is possible from crude admission rates.

Sheffield Children's Hospital

- 7.15** With the introduction of information technology in the A&E department, work was started on a system that would incorporate information on accident causation as an integral part of routine data collection for use in both monitoring and research. Data are collected routinely on location, date, time and (from 1993) mechanism of accidents, with sets of codes defined in Sheffield where existing coding systems were too detailed or too imprecise. The system is flexible and could be adapted according to need or to enhance comparability. It will continue to develop in the light of progress.



CHAPTER 8

RESEARCH AND DEVELOPMENT

Examples of areas of research in accident prevention 71



RESEARCH AND DEVELOPMENT

- 8.1** There has so far been relatively little research into the health service role in accident prevention, compared with other areas of health promotion. Much of the research that has been done has focused on the cause or nature of accidental injuries; however, **greater understanding of effective methods of accident prevention, and how these can be more widely applied, is also needed.** Such research might include evaluating the effectiveness of environmental and legislative changes and education, and the effect they have on attitudes and behaviour. Account will need to be taken of the research already commissioned – for example, the Department of Transport's research already covers a wide range of road safety projects.
- 8.2** Research will contribute towards assessing the effectiveness of new and existing preventive strategies, and there are opportunities under the new R&D strategy for the NHS in:
- academic research programmes
 - departmental and regional research and development programmes
 - operational field research in health districts, NHS units or in collaboration with other agencies.

A description of the strategy can be found in *Research for Health*, published by the NHS Management Executive in September 1991. A description of the role of RHAs is set out in *NHS R&D Strategy: Guidance for Regions*, published in September 1991.

EXAMPLES OF AREAS OF RESEARCH IN ACCIDENT PREVENTION

- 8.3** The success of the NHS R&D strategy in identifying and addressing NHS needs will depend upon those implementing the health strategy at local level putting forward and developing ideas for research in collaboration with experienced research workers and the new regional R&D function. Some examples of research that might be undertaken (usually in collaboration with other agencies) in respect of the targeted age groups, are listed overleaf.

All Accidents

- long term consequences (ie disability) following accidents
- the effects of alcohol in causing accidents
- the relationship of socio-economic factors with the incidence of accidents
- prevention of burns and scalds in children and the elderly
- effects of fatigue on road and industrial accidents
- what prompts risk-taking behaviour and how it can be modified
- ergonomic studies in the design of equipment and built environments appropriate for use by all ages while still being suitable for people with reduced dexterity and mobility
- evaluation of prevention programmes
- how mental states and human relationships influence accidents and to what degree
- the needs of ethnic minority groups
- how to reduce house fires

Children

- the effectiveness of education in accident prevention
- evaluation and development of road safety training
- ergonomic studies on children for use in design of child safety equipment

Young People

- effects of alcohol, medication and drugs on driving performance
- risk-taking behaviour and precautionary measures in hazardous sports
- how to reduce serious occupational accidents
- how to reduce the influence of the menstrual cycle on women's accidents

Older People

- effect of medication on the causation of falls and how best to influence doctors' prescribing habits for older people
- effect of increased age on risks in driving
- evaluation of GP health checks for over-75s on providing effective screening, eg to reduce falls by screening functional abilities of older people

- evaluation of occupational therapy assessment of older people's homes
- evaluation of multi-disciplinary falls clinics run in day hospitals
- effect of exercise on falls in older people
- randomised studies of fallers and non-fallers
- effect of prevention and treatment of osteoporosis on reducing the consequences of falls in older people
- longitudinal studies on the outcome of elderly people attending A&E as a result of accidents
- health education as an effective means of influencing the behaviour of older people and their non-professional carers.

8.4 Information systems are being developed to improve the dissemination of research findings of value to the service.

17

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud. The document also highlights the need for transparency and accountability in all financial activities.

The second part of the document outlines the specific requirements for record-keeping, including the need to maintain complete and accurate records of all transactions, to ensure that all records are properly stored and protected, and to ensure that all records are readily accessible for review and audit.

The third part of the document discusses the consequences of non-compliance with the record-keeping requirements, including the potential for fines, penalties, and other legal actions. It also emphasizes the importance of ongoing monitoring and reporting to ensure that all requirements are being met.

The fourth part of the document provides a detailed overview of the record-keeping process, including the steps involved in identifying, recording, and storing transactions. It also discusses the importance of regular audits and reviews to ensure that the record-keeping process is working effectively and to identify any areas for improvement.


The fifth part of the document discusses the role of technology in record-keeping, including the use of electronic systems and databases to store and manage records. It also highlights the importance of ensuring that any technology used is secure and reliable, and that all data is properly backed up and protected.

The sixth part of the document discusses the importance of training and education for all staff involved in record-keeping. It emphasizes that all staff must be properly trained and educated on the requirements and procedures for record-keeping, and that ongoing training and education is essential to ensure that all staff are up-to-date on the latest developments in record-keeping technology and practices.

The seventh part of the document discusses the importance of maintaining a strong relationship with the relevant regulatory authorities. It emphasizes that all staff must be aware of the requirements and expectations of the regulatory authorities, and that ongoing communication and reporting are essential to ensure that all requirements are being met.

The eighth part of the document provides a summary of the key points discussed in the document, and emphasizes the importance of ongoing monitoring and reporting to ensure that all requirements are being met. It also provides a list of resources and contacts for further information and support.

The document concludes with a statement of commitment to the highest standards of record-keeping and to the integrity of the financial system. It emphasizes that all staff are responsible for ensuring that all transactions are properly recorded and stored, and that all records are readily accessible for review and audit.



CHAPTER 9

NEXT STEPS



NEXT STEPS

9.1 This handbook has shown the four principal roles for the NHS in accident prevention:

- including accident prevention as a key element of health promotion
- participating in local multi-agency schemes (healthy alliances)
- collecting and sharing information on the incidence, causes and severity of accidents
- providing high quality treatment and rehabilitation services.

While working in these four areas the NHS also needs to develop its role as a catalyst in collaborative initiatives, and develop local strategies in partnership with others.

9.2 Much more needs to be done to investigate and evaluate the NHS role in accident prevention. This handbook should therefore be seen as *work in progress* which will be built up by the dissemination of further good practice, research findings and policy advice.

9.3 It is intended that this handbook will be updated in the light of improvements in understanding accident prevention. Comments on the handbook and suggestions for additional material would be welcomed, and these should be sent to:

Dr Kathie Binysh
Department of Health
Health Promotion Division
Room 527 Wellington House
133-155 Waterloo Road
London SE1 8UG

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- * The second part of the report deals with the general situation in the country.
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Appendix A

NOTE ON DEFINITIONS

Accidents

- A.1** This handbook regards accidents as the cause or potential cause of injuries as classified by the ICD system in codes E800-E949. This definition excludes violence and self-harm on the grounds that, although the injuries presented may be similar, the causes and prevention are distinct.

Accident prevention

- A.2** This term has been used to mean the prevention of an accident's actual occurrence, or **primary prevention**. Primary prevention includes:
- safety education initiatives for at risk groups and for staff (eg on safer lifting procedures)
 - modification of hazards in the environment (eg provision of aids such as raised toilet seats, bath rails and rubber bath mats).

Secondary prevention

- A.3** This term is used for action taken before an accident's occurrence to reduce the severity of injury the accident can cause. Secondary prevention includes:
- the use of safety equipment (eg car safety belts).

Tertiary prevention

- A.4** This refers to activity taken after an accident's occurrence to reduce the severity or lasting effect on health of an accidental injury. Tertiary prevention includes:
- treatment to assist recovery from accidental injury (eg in A&E departments, by ambulance crews or by first aiders)
 - rehabilitation services to reduce disability (eg physiotherapy and occupational therapy).
- A.5** These definitions may differ from those currently used in the NHS, where the tendency may be to describe treatment, including hospital treatment in an A&E department, as secondary prevention and specialist treatment, including trauma centres, as tertiary prevention.

Appendix B

KEY STEPS FOR DEVELOPING A LOCAL STRATEGY

- **Consider the local picture** – assess local needs and existing information and expertise. Compare data with that of other districts, the national best and international figures (when figures are available and relevant). Do statistics reveal any particular local characteristics? Consider what local organisations there are and the range of local initiatives. What is the distribution of responsibilities and interests? Who is, or might be, able to help – for example, with monitoring, educational initiatives or evaluation?
- **Consult locally** – taking local views (eg from GPs, Road Safety Officers, voluntary organisations, community groups, the police, CHCs, cross-sections of the main client groups) will help to inform the assessment of local needs and secure local support.
- **Develop local alliances** – officer(s) responsible for accident prevention should be identified within each agency. In health authorities, a member of staff with experience in leading health promotion and working with other sectors would be an asset. District health authorities may initiate joint working where arrangements for this do not already exist, although they will not necessarily retain the lead. Local alliances should recognise the need for involvement at all levels and in all purchasers and providers, and should represent the very wide range of staff with an interest in accident prevention, eg in health authorities and local authorities.
- **Produce a statement** which defines clearly local aims and objectives for accident prevention, the distribution of responsibilities and the contribution each healthy alliance partner is to make towards preventing accidents.
- **Enlist the support of senior managers** – senior managers can play an invaluable role by showing clear and visible support for the development of joint working in accident prevention, within the overall framework of the Health of the Nation.

- **Consider existing arrangements** – consider how new work relates to existing structures. Has accident prevention work been effective to date? Is effort being duplicated in any cases, or could closer coordination facilitate greater results? How are plans for implementation of the Health of the Nation being discussed with key partners for accident prevention? How will management and purchasing decisions take account of existing mechanisms for joint working? What issues remain to be addressed, and are there areas of work with potential for improvement? Is full use being made of existing sources of data, eg Home Office Fire Statistics? Are there gaps in local monitoring abilities needing new projects such as a development of information collection at A&E departments, or needing additional monitoring tools, such as ‘geographic information system maps’ of health and social indicators?
- **Assess possible interventions** – what could be done to fill gaps, and to make progress where there is room for improvement? What new opportunities are opened up by joint working?
- **Assess R&D needs** – consider local information and service development needs. Would any of these best be met by formal research? Is there a role for local academic departments? Should new R&D be recommended to the RHA, local authority or Government Department, or be organised jointly between relevant agencies? Is best use being made of existing R&D information?
- **Agree local targets** – priorities, goals, objectives and targets need to be agreed within alliances. Local targets could be published, perhaps with comparisons to the national average where this is possible.
- **Agree a local strategy** – this should:
 - ~ respect the priorities and capabilities of each organisation
 - ~ address local needs
 - ~ be built on flexible and effective joint working networks
 - ~ identify local targets and projects, including human and financial resources
 - ~ be underpinned by effective monitoring

- ~ have a timetable for reviewing activities and giving feedback progress to the senior managers responsible for implementation of the Health of the Nation.
- **Develop skills and resources** – what support will be needed for the further development of joint working? Are extra staff training and educational resources needed, eg from Health Promotion Officers? Do any resources need to be developed – eg information strategies and systems?
 - **Establish purchasing and monitoring arrangements** – accident prevention will need to be incorporated in contractual arrangements. Sharing information may increase its value for accident prevention, and help to strengthen alliances. Joint funding arrangements may equally help strengthen alliances.
 - **Provide for evaluation and dissemination** – mechanisms for these should be agreed across alliances.

Appendix C

ADDITIONAL EPIDEMIOLOGICAL INFORMATION

Death and ill-health from accidents

- C.1** Accidents are a major cause of avoidable ill-health, injury and death. They are the most common cause of death in people under 30, and make a significant contribution to ill-health and disability. Accidents affect all age groups, but children, young adults and older people are particularly vulnerable. Accidental injury accounts for 8.3% of all potential years of life lost under 75 years and for 7% of NHS expenditure. Accidents are also a leading cause of injury and ill-health, and the overall objective of *The Health of the Nation* is to reduce injury and ill-health as well as deaths. The incidence of accidental injury is harder to monitor than mortality, due to the relative shortage of information, but the objective of the strategy is to reduce death, injury and ill-health and the collection of information about morbidity is a priority (see *chapter 7*).
- C.2** In 1991 the number of deaths from accidents (classified as ICD codes E800-E949) in England was 10,193 (6,004 males and 4,189 females: see *table 16*). These represent 1.9% of all deaths in all age groups. If age groups are examined separately, the proportion of accidental deaths is greatest in the younger age groups, but the absolute number of deaths is greatest in older age groups. The ill-health and disability caused by accidents is also greatest among older people, as is the fear of accidents and the effect of this on quality of life. There appears to have been a downward trend in accidental deaths in England over the last 30 years, and in the last decade (1981-1991) rates of death for all accidents fell by 23%. This indicates the efficacy of interventions such as improvements in the physical environment, legislative change, safety promotion among the public and continuing improvements in the treatment of accidental injuries. However, the downward trend appears to have halted in some age groups, including people aged 15-24 and certain other age groups (eg 35-44): more active intervention may be needed with these age groups.
- C.3** The UK has one of the lowest death rates for accidents compared with other countries. The main exception is pedestrian deaths, especially in children, where the death rate is substantially higher than most European countries.

Deaths Caused by Accidental Injuries (ICD 800:949) England, 1991

Age group	Number	MALES		Number	FEMALES	
		Rate per 100,000 population	Per cent of total deaths		Rate per 100,000 population	Per cent of total deaths
Under 1*	34	10.0	1.2	27	8.3	1.3
1-4	105	8.0	21.1	53	4.2	13.3
5-14	225	7.4	35.4	99	3.4	23.1
15-24	1,234	35.5	45.2	310	9.3	30.5
25-34	879	23.2	25.4	171	4.6	10.8
35-44	675	20.3	11.8	186	5.6	5.4
45-54	573	20.8	4.6	229	8.3	2.9
55-64	494	20.9	1.5	273	11.1	1.4
65-74	625	32.9	0.9	509	21.9	1.0
75-84	752	77.4	0.8	1,129	68.4	1.2
85+	408	205.5	1.1	1,203	212.4	1.3
Total	6,004	-	2.3	4,189	-	1.5

*Excludes deaths under 28 days

Source: OPCS

C.4 The main causes of accidental death are shown by sex in *figure 4* overleaf. They are road traffic and transport accidents, home accidents, and occupational accidents. Alcohol misuse is a contributory factor to these causes in a significant number of cases: about one sixth of all road deaths are caused by drink/driving (some 700 people in 1991).

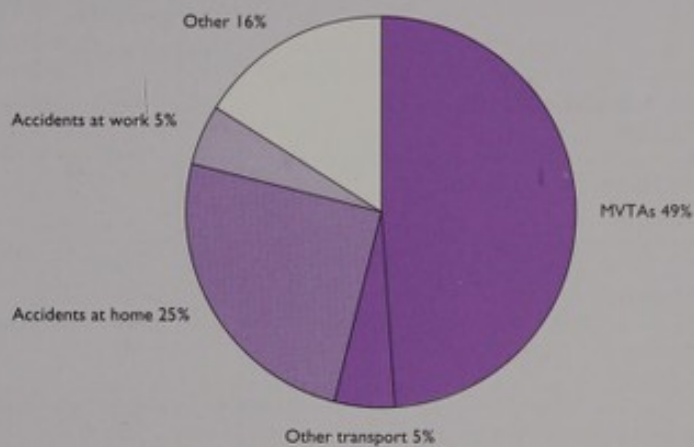
Accidents in Children Under 15

- C.5** Nearly twice as many boys as girls die as a result of accidents. In 1991, 543 children under 15 in England died as a result of an accident, making this the most common cause of death in children over 1 year (see *figure 5*).
- C.6** The major causes of accidental death in children are road traffic accidents, burns and scalds, suffocation and drownings. Up to the age of four, most fatal accidents occur in the home. After the age of five, most accidental deaths are caused by road traffic accidents. Most road accidents to children under 15 happen when they are pedestrians (see *table 17, page 88*).

Deaths from Accidents* Males England and Wales 1990

Figure 4

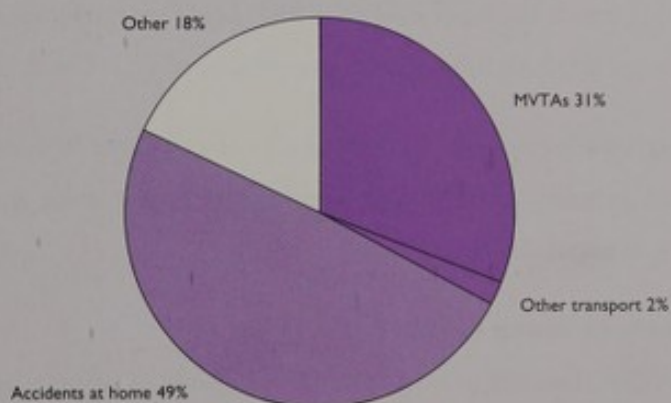
100% = 7,182 deaths



Source: OPCS

Deaths from Accidents* Females England and Wales 1990

100% = 4,554 deaths



* Excludes deaths under 28 days

Source: OPCS

Accidental Deaths in Children Under 15 England, 1991

Cause	Number of male deaths	Number of female deaths
Motor vehicle traffic accidents <i>ICD E810-E819</i>	187	96
Motor vehicle non-traffic accidents <i>ICD E820-E825</i>	1	1
Falls <i>ICD E880-E888</i>	20	5
Fire and flames <i>ICD E890-E899</i>	40	29
Drowning and submersion <i>ICD E910</i>	29	8
Inhalation of food or other substances and suffocation <i>ICD E911-E914</i>	46	18

Source: OPCS

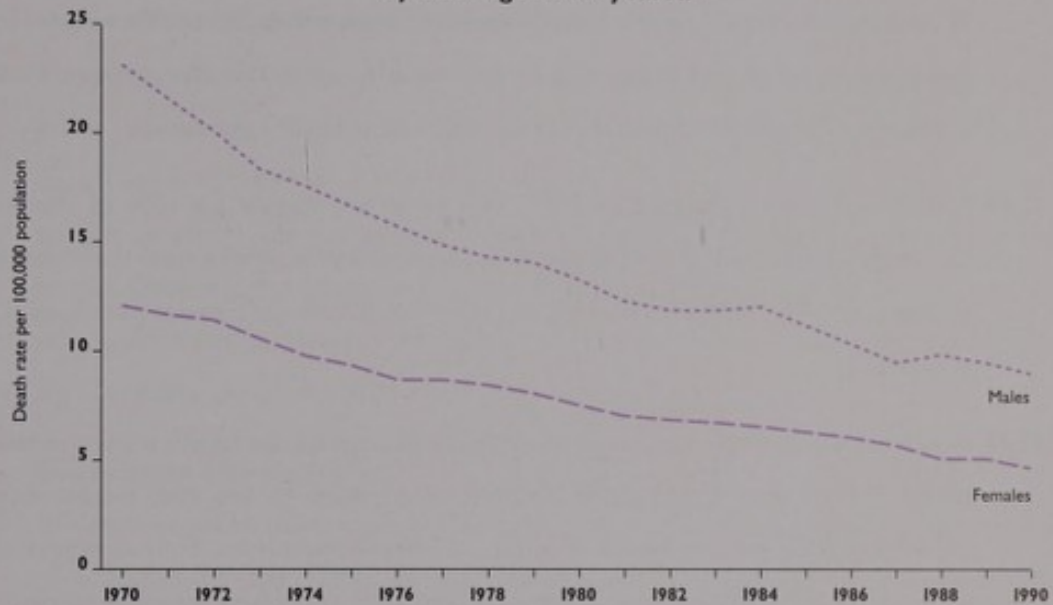
- C.7** In addition to deaths, accidents cause a very significant amount of morbidity in this age group. Exactly how much injury and ill-health is caused by accidents needs to be quantified but it has been estimated that every year a figure in the order of 10,000 children are left with long-term consequences to their health from accidents.
- C.8** There are socio-economic and geographical variations in death rates from accidents. Children in social class V have significantly higher risks of accidental injury than children in social class I.

Accidents in Young Adults Aged 15-24

- C.9** Nearly 50% of deaths in men and 30% of deaths in women in this age group are as a result of an accident (see figure 6). Road traffic accidents are the single largest cause of accidental death in young people. Risk-taking behaviour combined with lack of experience, alcohol and to a lesser extent drugs are significant factors in accident causation for this age group.

**Death Rates for Accidents
England 1970-1990*
by Sex Aged 0-14 years#**

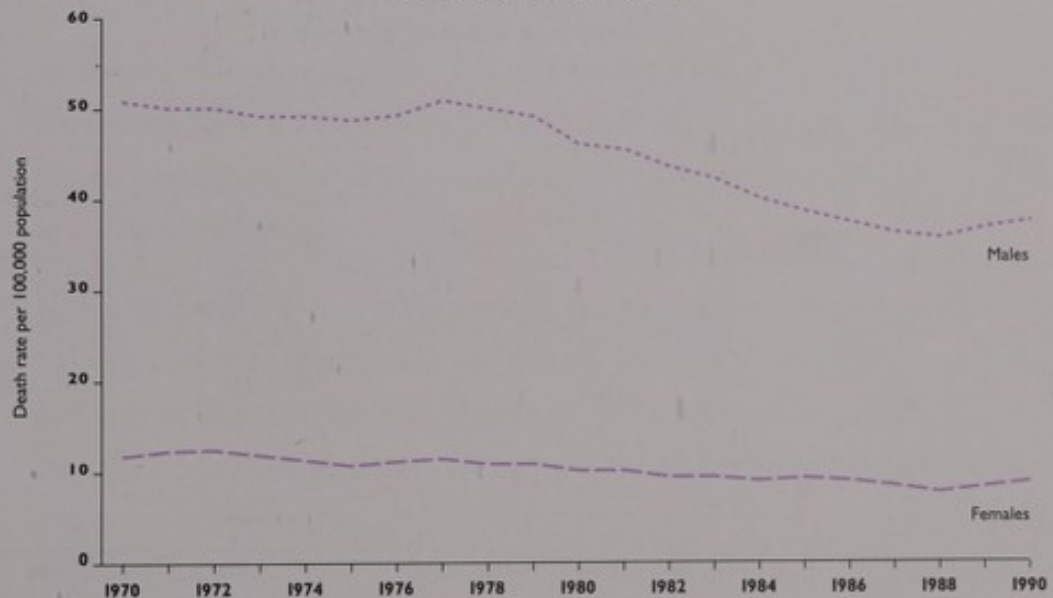
Figure 5



*Rates are calculated using a 3 year average plotted against the middle year of the average
#Rates are calculated using the European Standard Population to take into account differences in age structure
Source: OPCS (ICD E800E949)

**Death Rates for Accidents
England 1970-1990*
by sex Aged 15-24 years**

Figure 6



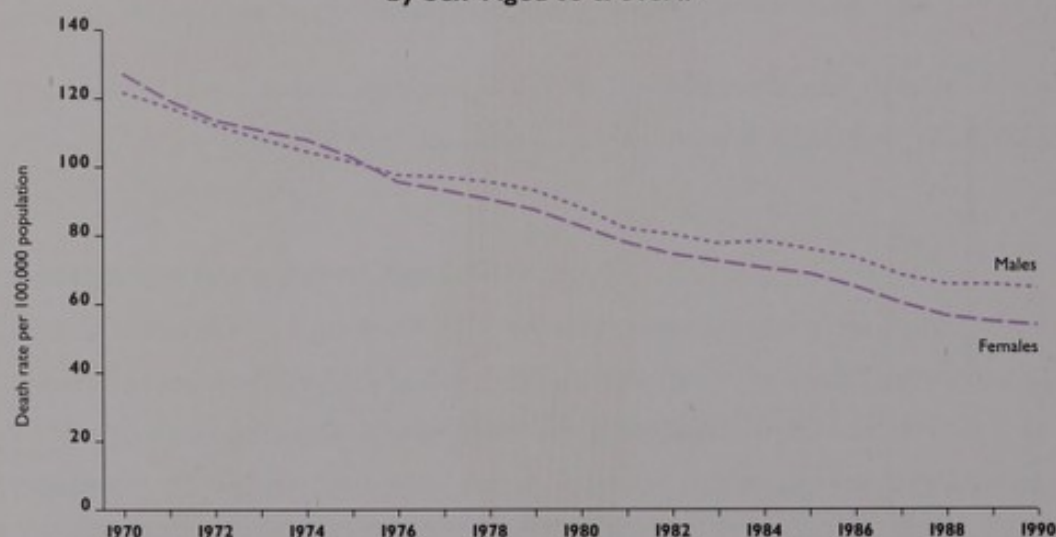
*Rates are calculated using a 3 year average plotted against the middle year of the average
Source: OPCS (ICD E800E949)

Accidents in People Aged 65 and Over

- C.10** In 1991 4,626 people aged 65 and over in England died as a result of accidents (*figure 7*). Although accidents are not a major cause of death compared to other causes in this age group, many of the deaths may be preventable, and the death rate from accidents in the over 75s is still considerably greater than in any other age group.
- C.11** In the over 75s in England in 1991, falls were responsible for 67% of the female accidental deaths and 52% of the male accidental deaths, whilst road traffic accidents account for 14% and 24% of accidental deaths in females and males in this age group respectively.
- C.12** Accidents are an important cause of disability and use of the health service in this age group. It is estimated that about 500,000 people aged 65 and over require hospital attention each year as a result of home and leisure accidents. Falls comprise about 65% of all accidents to people aged 65 and over for which hospital treatment is sought; many RTAs also occur, particularly among pedestrians.

**Death Rates for Accidents
England 1970-1990*
by Sex Aged 65 & over#**

Figure 7



* Rates are calculated using a 3 year average plotted against the middle year of the average

Rates are calculated using the European Standard Population to take into account differences in age structure

Source: OPCS (ICD E800E949)

EXISTING SOURCES OF DATA FOR ACCIDENT PREVENTION

Home Office (Fire Brigade) Fire statistics

- D.1** There is a wealth of information in these statistics about fires in general and fires that result in death and injury. This information includes details such as time of day of fires, source of ignition, cause, characteristics of building occupancy, location, and specific analyses – for example, of fires and casualties in dwellings covered by smoke alarms. National fire statistics are published by the Home Office; local brigades – who collect the data – may be able to provide local information, which could be supplemented by studies from Burns Units where these are available.

Police stats 19 returns

- D.2** Information about personal injury accidents on public roads involving a road vehicle is collected by the police. A standardised set of information concerning the circumstances of the accident and details of the vehicles and casualties involved are reported on a *Stats 19* return to the Department of Transport by the relevant police force or local authority. This information provides the basis for the Department of Transport's road accident database. Within the Department of Transport it is used to analyse the detailed characteristics of road accidents, and to monitor changes in casualty levels for broad road user groups. Both these functions underpin a programme of road accident publications which provide summary information for users involved in road safety activities. It also provides the basis for monitoring progress towards the Secretary of State's targeted reduction in casualty levels by the end of this century.

- D.3** Within the past few years the road accident database has been augmented with additional vehicle information taken from the Driver and Vehicle Licensing Authority in Swansea. This has expanded the role of the road accident database into the area of vehicle safety, and the ability to analyse, for particular make and models of cars, accident involvement rates and the risk of driver injury once involved in an accident. The road accident database is also used within the Transport Research Laboratory to support their research programme. A copy of the data base is also used

to map the location of accidents on to a national road network. The network supports Department of Transport Regional Offices' operations in the identification of accident clusters and black spots, and in developing new road and traffic schemes.

- D.4** Police and local authorities also make use of road accident data collected at source to support their own local road and safety initiatives.

The home and leisure accident surveillance systems

- D.5** The Home Accident Surveillance System (HASS) and the Leisure Accident Surveillance System (LASS) have been developed by the Department of Trade and Industry (DTI) over the last ten years. Information from a rolling sample of hospitals has increased understanding of the circumstances of home accidents in children and older people, which products are involved in DIY accidents and, more recently, which kinds of playground equipment are related to accidents in children. Data from HASS and LASS can be made available from the DTI to the participating hospitals.
- D.6** The DTI has extended HASS and LASS to include road accident casualties from November 1992. The revised survey covers a fixed sample of 18 hospitals, which together have catchment areas representative of the UK. This extension of the survey involves collecting information on some injuries in more detail and adding some new questions to the survey. DTI is at the same time introducing a computer system for recording the HASS and LASS data.
- D.7** To ensure these data are compatible with published *Stats 19* results, they will be collected to include three calendar years initially, with a review after the end of 1995. It is estimated that this system will supply data on 30,000 RTAs per year.

OPCS surveys and statistics

- D.8** The Office of Population Censuses and Surveys (OPCS) produces national statistics for accidental deaths, and conducts a number of relevant regular and ad hoc surveys, including the General Household Survey.

Poisons information service

- D.9** The National Poisons Information Service, at the National Poisons Unit, has a well developed role in collecting data on accidental poisoning and working with agencies

that are concerned with the formulation of prevention strategies and the evaluation of their effectiveness. Information is available to all health care professionals.

RoSPA drowning statistics

- D.10** RoSPA collects a range of information on accidents. RoSPA drowning statistics include information on the circumstances of drownings and some data on near-drownings, with the figures updated continuously, rather than annually.

Information technology

- D.11** In the NHS, some of the necessary information is already routinely collected and in many health districts is available on computer. With modest adaptation and expenditure most districts could collect, analyse and disseminate much more of the essential information required for accident prevention, such as data on severity and causes of accidents. Health service managers should ensure that the resources available allow for the development of effective data collection and should consider investment for the greater use of information technology where this is needed. *Table 18* shows examples of systems for this which are in use internationally.

Table 18

Examples of available information technology

Accident Coding Systems	ICD-9 E Codes: very detailed breakdown of cause of accident with fifth digit code for place of injury NOMESCO CODES (Nordic Medical Statistical Committee)
Injury Surveillance Systems	CHIRPP (Canadian Children's Hospitals Injury, Research and Prevention Programme) HASS and LASS (Home and Leisure Accident Surveillance Systems) ISS and VISS (Injury Surveillance Scheme and Victorian Injury Surveillance Scheme from Monash University Accident Research Centre) RIDDOR (collated by local authorities and the HSE under health and safety law: Reporting of Injuries, Diseases and Dangerous Occurrences Regulations) STATS 19 (Police road traffic accident injury reporting scheme) PORS (Dutch home accident surveillance scheme)
A&E Computer Systems	CAER (Computer-based Accident and Emergency Records) Systems designed for individual A&E Depts (eg Brighton, Frenchay)

Appendix E

EXAMPLES OF MEMBERS OF A LOCAL ACCIDENT PREVENTION GROUP

Core members in all localities

- Local authority
- ~ Environmental Health
 - ~ Highways
 - ~ Housing
 - ~ Amenities
 - ~ Social Services
 - ~ Education
 - ~ Planning/Engineers and Surveyors
 - ~ Trading Standards

Police

Fire/Rescue

Ambulance

NHS

- ~ A&E Department
- ~ Public Health Medicine
- ~ Health Promotion
- ~ Community Nursing

Bodies from which other members may be drawn, depending on local circumstances

- | | |
|-------------------------------|--------------------------------|
| Youth Organisations | Trades Unions branches |
| Council for Voluntary Service | Sports and Leisure Clubs |
| Help the Aged | Local newspapers, TV and Radio |
| Community Health Council | Civic Service Society |
| Parent/Teacher Associations | Council of Churches |
| School Governors | Relate |
| St John Ambulance | Church Clubs and Organisations |
| Red Cross | |
| Rotary | |
| Chamber of Commerce | |

Appendix F

EXAMPLES OF BODIES PROVIDING MATERIALS FOR ACCIDENT PREVENTION AND SAFETY PROMOTION

Those marked with a * also produce catalogues of resources available from other organisations.

Age Concern

Astral House, 1268 London Road, London SW16 4EJ

***BITER (British Institute of Traffic Education & Research)**

Kent House, Kent Street, Birmingham B5 6QF

***CAPT (Child Accident Prevention Trust)**

Fourth Floor, Clerks Court, 18-20 Farringdon Lane, London EC1R 3AU

College of Occupational Therapists

6-8 Marshalsea Road, Southwark, London SE1 1HL

Department of Trade and Industry

Consumer Safety Unit, 10-18 Victoria Street, London SW1H 0NN

Department of Transport

Road Safety Division, 2 Marsham Street, London SW1P 3EB

***Electricity Association**

30 Millbank, London SW1P 4RD

***Health Education Authority**

Hamilton House, Mabledon Place, London WC1 9TX

Home Office

Fire Prevention Literature, PO Box 590, London SE99 7UT

Local Authorities

Local authorities generally have a range of publications on safety. Some authorities produce resources such as road safety teaching packs, or have specifically designed kitchens to highlight kitchen safety for toddlers. Examples include: Hereford and Worcester, Durham, Mercia, Sheffield. Some are leaders in producing materials for black and ethnic minority groups – eg Bradford Metropolitan Council.

London Accident Prevention Council

The Road Safety Centre, 71 Basinghall Street, London EC2Y 7TJ

London Home & Water Safety Council

Community Safety & Consumer Protection, London Borough of Waltham Forest,
Low Hall Depot, Markhouse Avenue, London E17 8BJ

Medical Commission on Accident Prevention

c/o Royal College of Surgeons, 35-42 Lincoln's Inn Fields, London WC2A 3PN

***National Centre for Road Safety Education**

Faculty of Education and Community Services, University of Reading,
Bulmershe Court, Reading RG6 1HY

PACTS (Parliamentary Advisory Council for Transport Safety)

St Thomas' Hospital, Lambeth Palace Road, London SE1 7EH

***Play It Safe! - Action for Child Safety**

BP Charity Base, The Chandler, 50 Westminster Bridge Road, London SE1 7QY

***British Red Cross Society**

6 Grosvenor Crescent, London SW1X 7SQ

Road Safety Officers' National Films Committee

Contact local RSO or tel 0885 483 795

***RoSPA (Royal Society for the Prevention of Accidents)**

Cannon House, The Priory Queensway, Birmingham B4 6BS

St John Ambulance

1 Grosvenor Crescent, London SW1X 7SQ

Examples of other bodies

Universities (eg Newcastle, Glasgow, Reading)

Motoring organisations - the AA, RAC

Associations of Road Safety Officers

Transport Research Laboratory

Appendix G

UK NATIONAL ORGANISATIONS WITH A SPECIAL INTEREST IN ACCIDENT PREVENTION

Child Accident Prevention Trust (CAPT)

4th Floor

Clerk's Court

18-20 Farringdon Street

London EC1R 3AV

Tel: 071 608 3828

Health and Safety Executive (HSE)

Stanley Precinct

Bootle

Merseyside L20 3QZ

Tel: 051 951 4000

Institute of Sports Medicine

c/o Faculty of Engineering and Science

Westminster University

115 New Cavendish Street

London W1M 8JF

Institution of Environmental Health Officers

16 Guildford Street

London SE1 0ES

Tel: 071 928 6006

Medical Commission on Accident Prevention

c/o Royal College of Surgeons of England

35-43 Lincoln's Inn Fields

London WC2A 3PN

Tel: 071 242 3176

Parliamentary Advisory Council for Transport Safety (PACTS)

c/o St Thomas' Hospital

Lambeth Palace Road

London SE1 7EH

Tel: 071 922 8112

Royal Society for the Prevention of Accidents (RoSPA)

Cannon House

The Priory Queensway

Birmingham B4 6BS

Tel: 021 200 2461

Appendix H

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Child Accident Prevention Trust

- ~ Approaches to Local Child Accident Prevention (six pamphlets on planning and operating CAPT schemes) – London, CAPT 1991
- ~ Basic Principles of Child Accident Prevention – London, CAPT 1991

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- ~ The Management Response to Childhood Accidents – London, Kings Fund 1987

Department of Health

- ~ The Health of the Nation: a Strategy for Health in England – London, HMSO 1992

Department of Health and Social Security

- ~ Strategies for Accident Prevention – London, HMSO 1988

Department of Trade and Industry

- ~ Home Accident Surveillance System and Leisure Accident Surveillance System (various reports published annually) – London, HMSO

Department of Transport

- ~ Children and Roads: A Safer Way – London, HMSO 1990
- ~ Road Accidents Great Britain – London, HMSO annually
- ~ Road Safety Report 1990/91 – London, HMSO 1991
- ~ The Older Road User – London, HMSO 1991

Faculty of Public Health Medicine

- ~ Health Measurement Toolbox – London, FPHM (3rd edition 1991)

Health Education Authority

- ~ Preventing Accidents to Children: a Training Resource for Health Visitors – London, HEA 1991

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Home Office

- ~ Fire Statistics - London, Government Statistical Service annually

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- ~ Play It Safe - London, BBC 1992

Local Authorities Association

- ~ Road Safety Code of Good Practice - London, LAA 1989

National Association of Health Authorities and Trusts/Royal Society for the Prevention of Accidents

- ~ Action on Accidents; the Unique Role of the Health Service - Birmingham, NAHAT/RoSPA 1990

Owen D, Kilham H and Oates K

- ~ The Complete Book of Child Safety - Bromley, Harrap 1991

Office of Population Censuses and Surveys

- ~ Mortality Statistics on Accidents and Violence - London, HMSO published quarterly

Royal College of Physicians

- ~ Preventive Medicine - London, RCP 1991 (a chapter on accidents)

Royal College of Surgeons

- ~ Accident Prevention: a Social Responsibility - London, RCS 1989

Watkins S

- ~ Cutting Pedestrian Casualties - London, Transport 2000 1992

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- ~ Saving Children: a Guide to Accident Prevention - Oxford, OUP 1991

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