



Centre for
Public Health



Liverpool Unintentional Injury Prevention Audit

Executive Summary

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Executive summary

Liverpool has one the highest rates of hospitalised unintentional injury in the region. Injury prevention can therefore play an important role in improving the health of the population and reducing the burden placed on local health and other services. This audit was commissioned by Liverpool Primary Care Trust (PCT) to provide an in-depth understanding of the current situation for injuries across the Trust. It aimed to identify strategies to increase injury intelligence and further develop the prevention efforts being currently implemented across Liverpool. The audit was designed to determine: the availability, accessibility and quality of injury data; the types of injuries that occur and their locations; groups of people most at risk; prevention strategies currently in place across Liverpool PCT; and effective, evidence-based prevention strategies reported in the scientific literature. This was approached using a variety of methods, which included mapping and analysing available datasets, interviews with practitioners, and academic literature searches.

Availability, accessibility and quality of data

Availability of unintentional injury data was good; nine data sources were identified that covered the Liverpool PCT area. Seven of these datasets were accessible within the time frame of the report, and access to one (North West Ambulance Service [Nवास] data) was under discussion at the time of writing. Only one dataset proved more difficult to access (General Medical Practitioner [GMP] data) due to the lack of a central data collection point or provider. The quality and content of available datasets varied considerably. In general, datasets provided limited information on the location and circumstance of unintentional injuries. Although data from Walk in Centres (WICs) / Minor Injury Units (MIUs) was accessible, more exploratory work is needed with this dataset before its use as part of a surveillance system can be assessed.

Unintentional injury levels in Liverpool

Overall, levels of unintentional injuries in Liverpool have increased between 2004 and 2007. However, differences in trends were found by injury type; levels of road traffic accidents (RTAs) and fire-related injuries decreased over the same period. For the majority of injury types, males experienced larger proportions of injury than females. Differences were also found across age groups; higher levels of injury were found among older people for all injuries, falls, and fire-related injuries, while young people were most affected by RTAs, poisonings and sports-related injuries. Those living in the most deprived areas experienced higher rates of unintentional injury than those in more affluent locations. Furthermore, lifestyle groups most affected by injuries were those categorised as Urban Challenge and Multicultural Centres (see Appendix 1), two of the most deprived classifications.

Current unintentional injury prevention initiatives and multi-agency working

This audit highlighted a wide range of prevention strategies currently in place across Liverpool PCT that addressed unintentional injuries in children, road safety, health and safety in the workplace, and injuries in the home (including falls among the elderly). However, these were rarely evaluated. While all agencies were involved in multi-agency work, practitioners highlighted a general lack of awareness of prevention activities implemented by other agencies and concerns about possible duplication of efforts.

Evidence-based injury prevention interventions

The scientific literature contained a large amount of evaluated national and international interventions for injury prevention. For RTAs, the most effective included traffic calming measures, the provision and promotion of bicycle helmets, and multi-component community interventions that combined education with traffic calming measures. For home and community injuries, there was evidence for the effectiveness of improved playground layout to reduce childhood injuries, and exercise and multi-component programmes to prevent falls among older people.

Based on the findings of the audit, we make a number of key recommendations to help further develop unintentional injury prevention in Liverpool PCT.

Key recommendations

1. Establish a multi-agency steering group for unintentional injury prevention

A multi-agency steering group should be set up to ensure that a joined up approach to unintentional injury is implemented, and to enable the sharing of good practice. If required, smaller, specialised steering groups could be set up covering specific injury groups/age groups to improve the effectiveness and functionality of co-ordinated action.

2. Develop an unintentional injury prevention strategy

Based on current data, a prevention strategy should be drawn up by the steering group to help co-ordinate the prevention work being carried out in the PCT. The strategy should set out the roles of the different agencies involved in injury prevention, agreed targets to reduce unintentional injuries, and planned strategies to achieve these goals.

3. Monitor and evaluate prevention initiatives

Agencies should be encouraged to consider evaluation in the initial stages of intervention planning, to ensure thorough evaluations are carried out for all prevention activities. The provision of home safety devices, a commonly utilised intervention throughout Liverpool, should be evaluated in terms of injury reductions.

4. Promote injury prevention initiatives among local agencies

Information on any prevention initiatives that are being (or have been) carried out within Liverpool should be shared with other relevant agencies via the steering group. This will ensure all agencies are aware of current practice and prevent duplication of efforts.

5. Target interventions at high risk groups

Initiatives should be targeted at those individuals most at risk of injury (e.g. deprived populations) to help reduce inequalities in injury burden. Families and communities that rarely come in to contact with local services are a particular target group, since most current prevention initiatives are service based.

6. Develop the consistency and quality of accident and emergency department datasets

Liverpool PCT and the Injury Prevention Steering Group should work closely with the Trauma and Injury Intelligence Group (TIIG) to encourage more comprehensive and consistent data collection across accident and emergency departments (AEDs). Key developments should include the expansion of location information to include places in the home. This could be used to inform the development of prevention initiatives for home settings, including the prevention of falls among the elderly.

7. Assess the feasibility of a central data collection point for GMP data

Work should be carried out to assess the feasibility and usefulness of setting up a central data collection point for GMP data. An audit of the data could determine what is currently collected, what extra information could be collected, whether such data would be useful to agencies, and how data could be accessed.

8. Explore the use of MIU/WIC data further

Further work should explore MIU/WIC data more thoroughly to assess its use as part of a surveillance system.

9. Develop a routine monitoring system

A routine monitoring system should be put into place to enable unintentional injuries to be observed more regularly and thoroughly. Such a system would allow any emerging problems to be identified and addressed quicker and prevention efforts to be evaluated easier. This system could be located within the existing TIIG injury surveillance system.

Injury specific recommendations

1. All unintentional injuries

Prevention initiatives should be developed, implemented and targeted towards high risk groups. These are: males, those aged 65 years and over, residents living in the most deprived areas, and those living in Urban Challenge and Multicultural Centre lifestyle classification areas across Liverpool. In particular interventions should be targeted in the following MSOA areas of Liverpool, E02001370, E02001360, E02001389, E02001369 and E02001374.

2. Road traffic accidents

The steering group should liaise with Merseyside Road Safety Partnership and support local initiatives and road safety strategies where relevant. Interventions should be targeted at children and young drivers living in the most deprived areas of Liverpool, particularly the MSOAs of E02001385, E02001385 and E02001354. Traffic calming and multi-component road safety interventions should be initiated in hotspots contained within Speke, Liverpool City Centre and Kensington.

3. Fire-related injuries

The steering group should liaise with Merseyside Fire and Rescue Service and support local initiatives and fire safety strategies where relevant. Interventions should be targeted at older communities and the most deprived areas of Liverpool, particularly the MSOAs of E02001374, E02001379 and E001360.

4. Fall-related injuries

A comprehensive strategy and plan of action to prevent falls amongst those over 65 years of age should be developed and monitored by the steering group. Interventions implemented should be evidence-based and include, for example, exercise programmes for older people and multi-component programmes to prevent falls. Interventions should be targeted at older communities and the most deprived areas of Liverpool, particularly the MSOAs of E02001360, E02001389, E02001370, E02001369 and E02001368.

5. Poisoning

Research should be conducted to understand why females and those aged 15-24 years have the highest rates of hospital admissions for poisoning. Safe-use of prescription and over the counter drugs needs to be promoted particularly in the 15-24 age group and in the most deprived areas of Liverpool, including the MSOAs of E02001370, E02001369, E02001364, E02001374 and E02001389.

6. Sports injury

More investigative work is required to understand the causes of sports injury and its prevention.

7. Childhood injuries

The steering group should liaise with colleagues from Alder Hey AED, children centres and local schools to further understand the causes of childhood injury and support the development of childhood injury prevention initiatives. Interventions should be targeted at the most deprived areas of Liverpool, particularly the MSOAs of E02001390, E02001389, E02001360.

Table A: Summary of injury data by injury type

Injury type	Hospital admissions / mortality data	Other data sources
All unintentional injuries	<ul style="list-style-type: none"> ➤ 31,134 hospital admissions between April 2004 to March 2008 ➤ 459 deaths between 2004 and 2007 ➤ During this time, admissions increased by 9% and deaths by 22% ➤ Just over half of admissions (52%) and deaths (55%) male ➤ People aged 75 years and over were more likely than any other age group to be admitted ➤ The most deprived areas, and those classed as Urban Challenge, had the greatest rates of admissions and deaths 	N/A
Road traffic accidents	<ul style="list-style-type: none"> ➤ 2,542 hospital admissions between April 2004 to March 2008 ➤ During this time, admissions decreased by 11% ➤ 67% male ➤ People aged between 5 and 19 years of age were more likely than any other age group to be admitted ➤ The most deprived quintile, and areas classed as Multicultural Centres, had the greatest rates of admissions 	<p>Aintree and the Royal Liverpool AED</p> <ul style="list-style-type: none"> ➤ 13,884 attendances between April 2004 to March 2008 ➤ 58% male ➤ People aged 15 to 24 years of age (30%) were more likely than any other age group to attend these AEDs ➤ 5% admitted to hospital <p>STATS 19 data</p> <ul style="list-style-type: none"> ➤ 11,205 casualties between 2004 and 2007 ➤ During this time, casualties decreased by 25% ➤ RTAs involving males were more likely than those involving females to be serious or fatal (14.3% compared with 9.1%) ➤ The severity of injury was most likely to be serious or fatal if they were a pedestrian (26%) or a motor cycle (up to 125cc) rider or driver (30%)
Fire-related injuries	<ul style="list-style-type: none"> ➤ 214 hospital admissions between April 2004 to March 2008 ➤ The most deprived areas had the greatest rates of admissions 	<p>Merseyside Fire and Rescue Service</p> <ul style="list-style-type: none"> ➤ 684 fire-related injuries recorded between April 2004 and March 2008 ➤ During this time, recorded injuries decreased by 46% ➤ 57% male ➤ People aged 50 and above are at the greatest risk of experiencing a fire-related injury ➤ The most common ignition method for fires that resulted in a fire-related injury were a cooker/oven (22%), matches (17%) or smoking materials (14%) ➤ The majority of fire-related injuries were sustained in a fire in a residential dwelling (82%)
Falls	<ul style="list-style-type: none"> ➤ 17,803 hospital admissions between April 2004 to March 2008 ➤ During this time, admissions increased by 12% ➤ 54% female ➤ People aged 75 years and over were more likely than any other age group to be admitted ➤ The most deprived areas, and those classed as Urban Challenge and Senior Neighbourhood, had the greatest rates of admissions 	<p>Aintree and the Royal Liverpool AED</p> <ul style="list-style-type: none"> ➤ 29,036 attendances between April 2004 to March 2008 ➤ 59% female ➤ People aged 65 years and over (42%) were more likely than any other age group to attend these AEDs ➤ 19% admitted to hospital

Injury type	Hospital admissions / mortality data	Other data sources
Poisonings	<ul style="list-style-type: none"> ➤ 3,611 hospital admissions between April 2004 to March 2008 ➤ During this time, admissions increased by 16% ➤ 58% female ➤ People aged between 15 and 24 years (32%) were more likely than any other age group to be admitted ➤ The most deprived areas, and those classed as Multicultural Centres and Urban Challenge, had the greatest rates of admissions 	N/A
Drowning	<ul style="list-style-type: none"> ➤ Only nine hospital admissions between April 2004 to March 2008. No further analyses were made 	N/A
Sports injuries	<ul style="list-style-type: none"> ➤ 334 hospital admissions between April 2004 to March 2008 ➤ During this time, admissions increased by 45% ➤ Over eight in ten (86%) were male and 39% were aged 10 to 19 years 	Aintree and the Royal Liverpool AED <ul style="list-style-type: none"> ➤ 4,301 attendances between April 2004 to March 2008 ➤ During this time, attendances increased by 43% ➤ 91% male ➤ People aged 15 to 25 years (57%) were more likely than any other age group to attend these AEDs ➤ 31% admitted to hospital
Events of undetermined intent	<ul style="list-style-type: none"> ➤ Only 187 hospital admissions between April 2004 to March 2008. No further analyses were made 	N/A
Child injuries (0-17)	Unintentional or deliberate injuries <ul style="list-style-type: none"> ➤ 7,205 hospital admissions between April 2004 to March 2008 ➤ 62% female ➤ Children aged 10-14 years (31%) were more likely than any other age group to be admitted ➤ The most deprived areas, and those classed as Urban Challenge and Multicultural Centres, had the greatest rates of admissions 	Alder Hey AED <ul style="list-style-type: none"> ➤ Between April 2004 and March 2008, 681 attendances for bites and stings, 680 for accidental-ingestion injuries, 614 for deliberate ingestion, 1,152 for RTAs and 55,926 for accidents grouped as other ➤ Males at higher risk for most injuries, except deliberate injuries ➤ Those aged 10-14 years were most at risk of injuries, with the exception of accidental ingestion injuries (higher risk for those under the age of 5)
Injuries in the workplace	N/A	RIDDOR <ul style="list-style-type: none"> ➤ 5,969 injuries recorded between April 2004 to March 2008 ➤ 68% male ➤ Employees injured were mainly aged between 35 and 49 years (43%) ➤ The majority of injuries were over-3-day injuries, and only a very small proportion was fatal ➤ The majority of injuries were caused by slips, trip or fall (29%)