

## Unintentional injuries in children and young people

### Summary

- Hampshire compares favourably with England, regional and statistical neighbours where comparisons can be made on indicators for unintentional injuries in children.
- The rates of road traffic injuries and hospital admissions for all types of injury in under 16s in Hampshire are in line with similar areas and lower than the England average.
- More people aged 16-25 years are injured on Hampshire roads compared to the national average (804 and 722 per 100,000 16 to 25 year olds respectively), although rates in Hampshire are similar to comparable counties.
- There were 3,158 hospital admissions due to injuries in children under 18 years in Hampshire in 2010/11.
- Hospital admissions due to all injuries and falls in 0-4 year olds in 2010/11 in Hart and Rushmoor were significantly lower than the average for Hampshire and England but higher than average in Winchester.
- There were 320 police reported road traffic casualties in children aged under 16 years in Hampshire in 2011: almost half of all child road casualties occurred in the 12-15 year age group and 94% of cycle casualties occur in those aged 8-15 years.
- Child road traffic casualties in Hampshire fell by 13% from 2005-2009 to 2011.
- Children from the most deprived families are 13 times more likely to die from unintentional injuries and 37 times more likely to die in a fire than children living in the least deprived areas. Children in the 10% most deprived wards in England are four times more likely to be hit by a car than children in the 10% least deprived wards.

### Recommendations

- Develop a cross sector Hampshire Strategy for unintentional injuries in children (promoting 'making every contact count').
- Appoint an injury co-ordinator for Hampshire (as defined in NICE guidance).<sup>1</sup>
- Emphasise the importance of physical injury prevention in Hampshire's Children and Young People Plan.
- Establish a performance monitoring process for unintentional injuries in children, aligned with best practice guidance and the Public Health Outcomes Framework.
- Review current injury prevention strategies and activities against NICE guidance.
- Consider the relative importance of mode of transport in relation to casualties and casualty rates to target interventions for road traffic injuries.

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<sup>1</sup> South West Public Health Observatory. 2012. Injury Profiles.  
[http://www.apho.org.uk/default.aspx?QN=INJURY\\_DEFAULT](http://www.apho.org.uk/default.aspx?QN=INJURY_DEFAULT)

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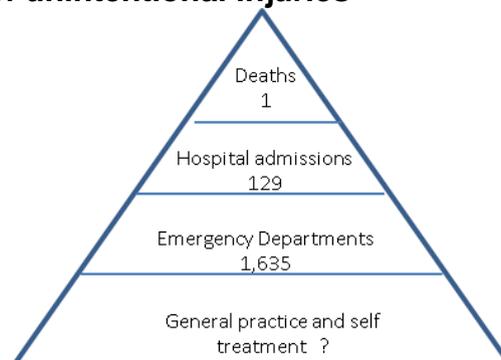
## 1. Introduction

Unintentional injuries are the leading cause of death in children aged between 1 and 4 years and 15 to 19 years in England and Wales and are the second leading cause of death in children aged 10 to 14 years<sup>2</sup>. The term unintentional injury is used in preference to accident as the latter implies that an event is unavoidable whereas most injuries and their precipitating events are predictable and preventable<sup>3</sup>. The importance of play and exploration in child development must be recognised but measures can be taken to reduce the incidence and severity of injuries that may lead to serious morbidity, disability or death.

There were 1,585 deaths from unintentional injury in children and young people aged between 0 and 24 years in England and Wales in 2010<sup>4</sup>. There has been a downward trend in deaths from unintentional injuries over the past thirty years and the UK compares favourably with other European countries having the fourth lowest rate of deaths from all injuries in 0-19 year olds (4.98 per 100,000). Yet the rate is almost twice as high as the best European country (Sweden, 2.7 per 100,000)<sup>5</sup>.

Assessing the burden of injuries to children is challenging. For every child death, there will be many non-fatal injuries with consequences for individuals, families and health, education and social care services. Figure 1 illustrates the burden as estimated from studies in the UK, Sweden and the Netherlands.

**Figure 1: The burden of unintentional injuries**



Source: WHO European Report on Child Injury Prevention<sup>6</sup>

<sup>2</sup>Office for National Statistics. 2012. <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-277727>

<sup>3</sup>Davis R, Pless B. 2001. BMJ bans 'accidents'. Accidents are not unpredictable. BMJ 322:1320-21

<sup>4</sup>Child and Maternal Health Observatory. 2013. Accident Prevention Reports. [www.chimat.org.uk](http://www.chimat.org.uk)

<sup>5</sup>European Child Safety Alliance. Child Safety Report Cards 2012 – How safety conscious are European countries towards children? <http://www.childsafetyeurope.org/publications/info/child-safety-report-cards-europe-summary-2012.pdf>

<sup>6</sup>WHO. 2008. European Report on Child Injury Prevention. [http://www.euro.who.int/\\_data/assets/pdf\\_file/0003/83757/E92049.pdf](http://www.euro.who.int/_data/assets/pdf_file/0003/83757/E92049.pdf)

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## 2. Level of need in the population

Although all children are exposed to everyday hazards, some are at greater risk of injury than others<sup>7</sup>. Children may be more vulnerable to injury if they are:

- aged 0-5 years (generally, under-5s are more vulnerable to unintentional injuries in the home)
- over the age of 11 (generally, over-11s are more vulnerable to unintentional injuries on the road)
- have a disability or impairment (physical or learning)
- are from some minority ethnic groups
- live with/in a family on a low income
- live in accommodation which potentially puts them more at risk (this could include multiple occupied housing and social and privately rented housing).

Children from the most deprived families are 13 times more likely to die from unintentional injuries and 37 times more likely to die in a fire than children living in the least deprived circumstances. Children in the 10% most deprived wards in England are four times more likely to be hit by a car than children in the 10% least deprived wards<sup>8</sup>.

## 3. Injury Data for Hampshire

Overall, Hampshire compares favourably with England, regional and statistical neighbour averages where comparisons can be made on indicators for unintentional injuries in children. The rate of road traffic injuries in under 16s in Hampshire is in line with similar areas and lower than the England average. The same is true for hospital admissions for all injury types for children aged 0-17 although there is variation between districts within Hampshire. However, more people aged 16-25 years are injured on Hampshire roads compared to the national average (804 and 722 per 100,000 16 to 25 year olds respectively), although rates in Hampshire are similar to comparable counties<sup>9</sup>.

A summary of available unintentional injury data for Hampshire tells us that:

- The child injury profile for Hampshire County is similar to statistical neighbours (Central Bedfordshire, South Gloucestershire and North Somerset).
- There were 3,158 hospital admissions due to injuries in children under 18 years in Hampshire in 2010/11.
- Hospital admissions due to all injuries and falls in 0-4 year olds in 2010/11 in Hart and Rushmoor were significantly lower than the average for Hampshire and England and higher than this average in Winchester.

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<sup>7</sup> NICE. 2010. NICE Public Health Guidance 29, Strategies to prevent unintentional injuries among children and young people aged under 15. <http://guidance.nice.org.uk/PH29>

<sup>8</sup> UCL Institute of Health Equity, Marmot Review Team. 2010. Fair society healthy lives. The Marmot review. <http://www.instituteoftheequity.org/projects/fair-society-healthy-lives-the-marmot-review>

<sup>9</sup> Child and Maternal Health Observatory. 2013. Accident Prevention Reports. [www.chimat.org.uk](http://www.chimat.org.uk)

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- There were 320 police reported road traffic casualties in children aged under 16 years in Hampshire in 2011: almost half of all child road casualties occurred in the 12-15 year age group and 94% of cycle casualties occur in those aged 8-15 years.
- Child road traffic casualties in Hampshire fell by 13% from the average for 2005-2009 to 2011.
- Over the three year period from 2009-2011, 44% of road traffic casualties aged under 16 years were vehicle occupants, 34% were pedestrians and 22% were cyclists.
- The proportion of casualties by mode of transport varies between local authority areas; vehicle occupants represent over half of all under 16 road traffic casualties in Winchester, Test Valley and the New Forest. Pedestrians account for most road traffic casualties in Havant and Rushmoor and cyclists account for 59% of casualties in Gosport.
- The rate of injuries in cyclists in 8-15 year olds in Gosport is more than twice as high as the next highest rate area (Havant).
- 70% of all moped and motorbikes under 125cc casualties in Hampshire in 2011 were aged 15-19 years.
- Injury data are collected by different agencies in Hampshire and there is no single forum for evaluation and review.
- Emergency hospital admission data are readily available.
- A high proportion of injuries in the home are not reported or recorded.

### 3.1 Hospital Admissions

There were 3,158 hospital admissions due to injuries in children aged under 18 years in Hampshire in 2010/11<sup>10</sup>. Hospital admissions for all injuries of children under 18 years and for falls in children aged 0-4 years were lower than the Hampshire average in Hart (figures 2, 3 and 4). Rates were higher than average for all injuries and fall admissions for children aged under 5 years in Winchester. This relatively high rate in Winchester is inconsistent with known risk factors for injuries in children (i.e. deprivation).

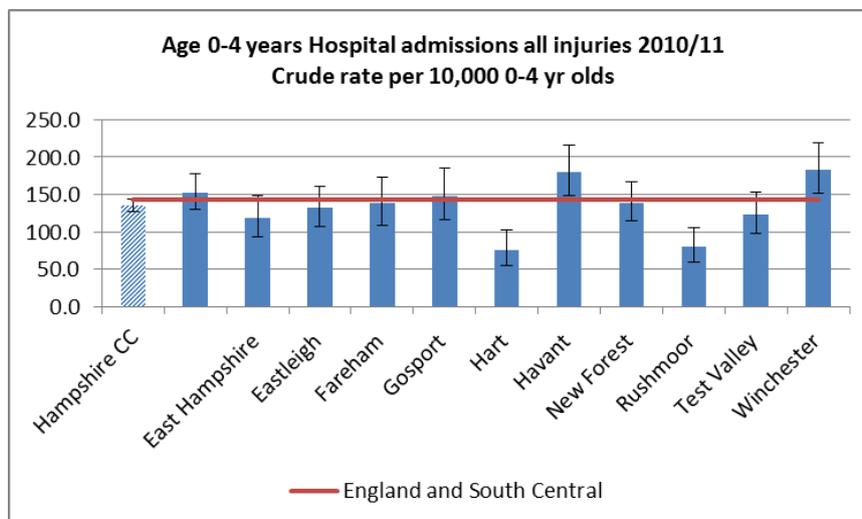
It should be noted that differences in criteria for admissions, such as the maximum wait time of 4 hours in A&E and local clinical practice, may account for some of the differences and this needs further investigation.

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<sup>10</sup> South West Public Health Observatory. 2012. Injury Profiles.  
[http://www.apho.org.uk/default.aspx?QN=INJURY\\_DEFAULT](http://www.apho.org.uk/default.aspx?QN=INJURY_DEFAULT)

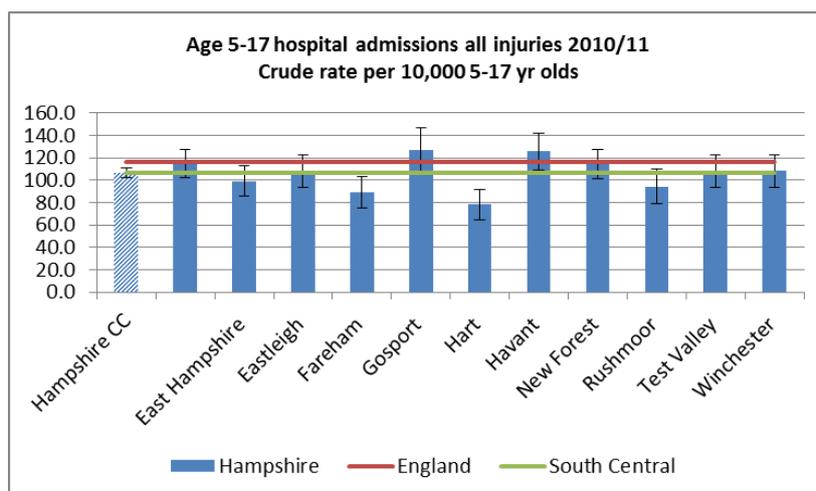
# Unintentional injuries in children and young people

**Figure 2: Hospital admission rates, all injuries age 0-4 years Hampshire 2010/11**



Source: South West Public Health Observatory Injury Profile<sup>11</sup>

**Figure 3: Hospital admission rates, all injuries age 5-17 years, Hampshire 2010/11**

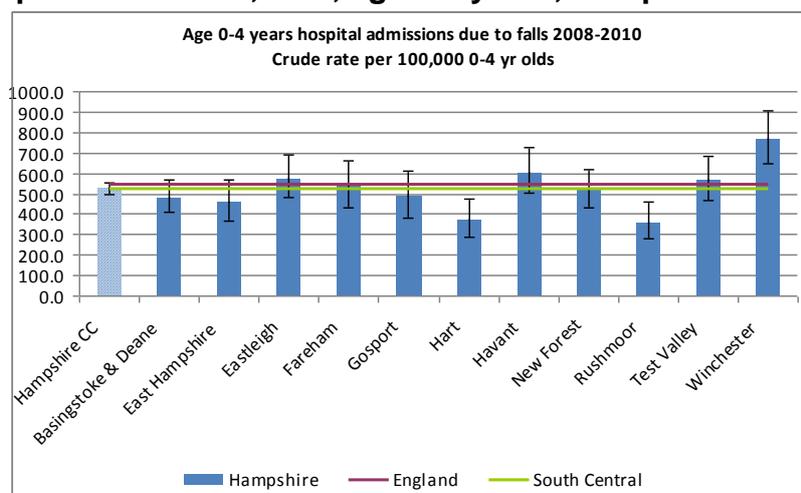


Source: South West Public Health Observatory Injury Profiles

<sup>11</sup> Child and Maternal Health Observatory. 2013. Accident Prevention Reports. [www.chimat.org.uk](http://www.chimat.org.uk)

# Unintentional injuries in children and young people

**Figure 4: Hospital admission, falls, age 0-4 years, Hampshire 2008/10**



Source: South West Public Health Observatory Injury Profiles

## 3.2 Hospital Accident and Emergency Attendance

Hospital admission coding is more robust than coding for Accident and Emergency (A&E) attendance and so is not presented in this chapter. From 2015, acute healthcare providers and out of hours GP services will be required to record every emergency visit made by a child<sup>12</sup>. The objective is to improve child protection and data will be linked to social care records. However this should also provide a reliable and useful resource for surveillance of unplanned healthcare use including for unintentional injuries.

## 3.3 Road Traffic Injuries

There were 3,540 road traffic casualties recorded by the police in Hampshire in 2011 (excluding motorways). Of these, 320 were children aged 0-15 years. Almost half of all child road casualties occurred in the 12-15 year age group and 94% of cycle casualties occur in those aged 8-15 years<sup>13</sup>. Child casualties in Hampshire fell by 13% in 2011 from the average for 2005-09. The average reduction across the UK for the same time period was 19%. 52 children were killed or seriously injured (KSI) on Hampshire roads in 2011, a reduction of 7% from the 2005-09 average<sup>14</sup>.

A further 567 casualties were car drivers aged 17 – 24 years and 279 were moped or motorbike drivers in the same age bracket. Road traffic fatalities in children are low in comparison to other age groups. Over the past 5 years there has been between zero and 3 child deaths per year on Hampshire roads with no deaths in two of those

<sup>12</sup> Department of Health. 2012. New child abuse alert systems for hospitals announced (press release) <http://www.dh.gov.uk/health/2012/12/abuse-alert-system/>

<sup>13</sup> Hampshire County Council. 2012. Road casualties for Hampshire in 2011. [http://www3.hants.gov.uk/roadsafety/road-casualty\\_statistics.htm](http://www3.hants.gov.uk/roadsafety/road-casualty_statistics.htm)

<sup>14</sup> Department for Transport. 2012. Reported road casualties in Great Britain 2011. <https://www.gov.uk/government/organisations/department-for-transport/series/road-accidents-and-safety-statistics>

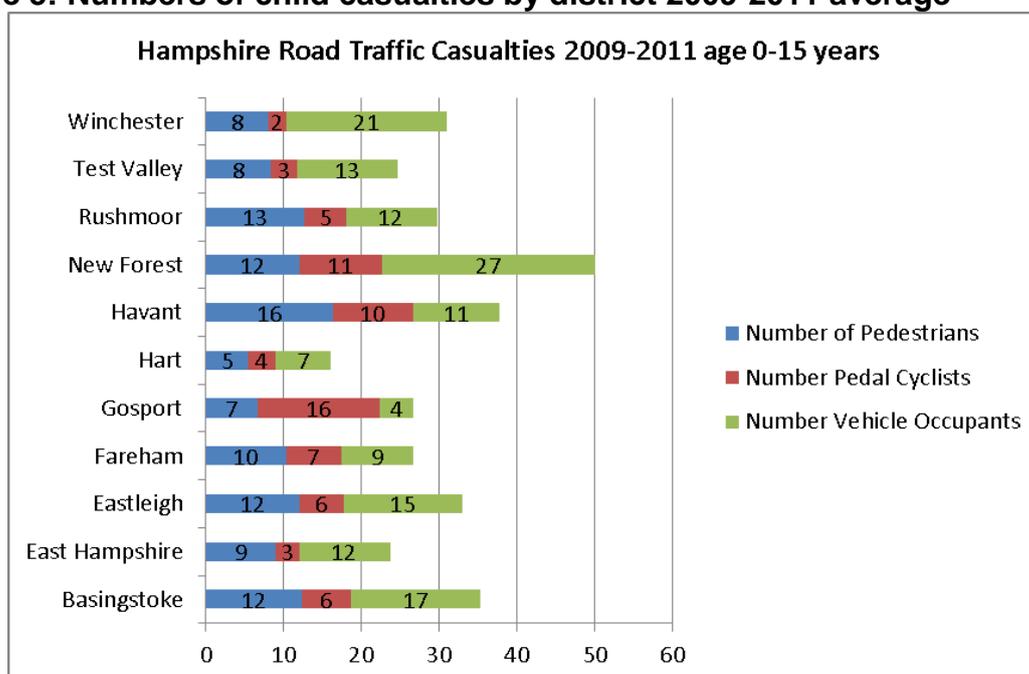
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years. There were a total of 43 road traffic fatalities, across all ages, in Hampshire in 2011.

### 3.3.1 Casualties aged 0-15 years

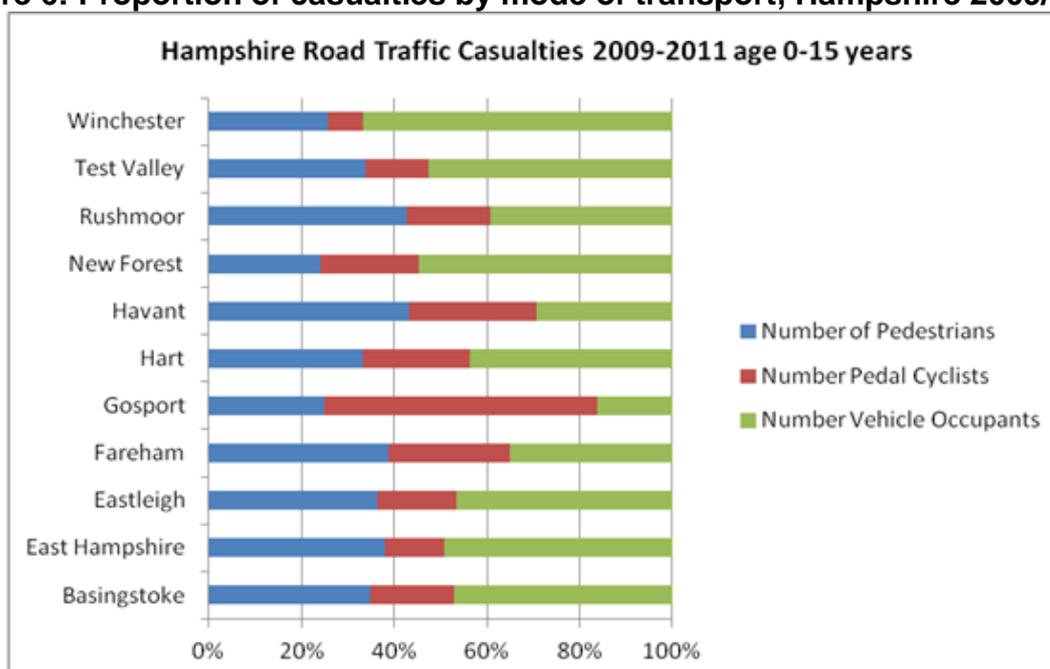
Figure 5 shows the average numbers of road traffic casualties in children reported by Hampshire district over a three year period. The highest overall casualties were in the New Forest.

**Figure 5: Numbers of child casualties by district 2009-2011 average**



Source: Hampshire County Council/Department for Transport

**Figure 6: Proportion of casualties by mode of transport, Hampshire 2009/11**



Source: Hampshire County Council

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Given that the population of children varies between local authorities, differences between districts can be compared using rates of casualties per 100,000 children. Incidents are recorded by location and so casualties are not necessarily resident where the injury occurs. For example, an influx of holiday makers in some areas may inflate figures. Figure 7 provides a useful indicator of the relative importance of casualty type in each district.

**Figure 7: Numbers and rates of child casualties: cyclists, pedestrians and vehicle occupants in Hampshire by district**

	Number of Cyclists	Cyclists - rate per 100,000 population 8-15 years	Number of Pedestrians	Pedestrian Rate per 100,000 0-15 yr olds	Number of Vehicle Occupants	Vehicle occupant rate per 100,000 0-15 yr olds
Basingstoke	8	50	14	42	10	30
East Hampshire	3	26	11	49	8	36
Eastleigh	5	42	15	63	18	75
Fareham	9	88	13	67	10	51
Gosport	17	226	7	44	5	31
Hart	3	34	2	11	5	27
Havant	9	84	16	75	6	28
New Forest	11	73	18	62	23	80
Rushmoor	3	32	11	54	16	78
Test Valley	2	18	6	27	12	55
Winchester	2	18	3	14	19	87

Comparing rates shows that the rate of cycling casualties in Gosport is 3 times higher than the New Forest. Fareham and Havant have lower numbers of cyclist casualties than the New Forest but both have higher rates.

Similar patterns can be seen with pedestrians and vehicle occupants. The New Forest has the highest number of vehicle occupant casualties but given the rates in Winchester and Rushmoor, these areas are also a priority. The New Forest also has the highest numbers of pedestrian casualties, but rates in Havant, Fareham and Eastleigh suggest that this may be an issue of concern in these areas.

### 3.3.2 Young Drivers

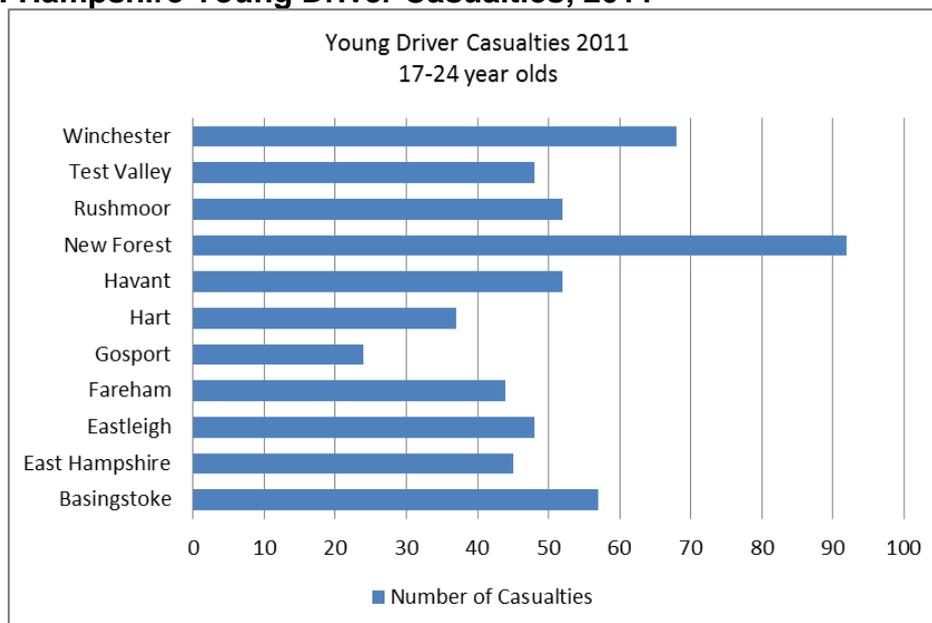
Drivers aged 17-24 are those most likely to have road traffic accidents of any age group. Young men are especially at risk and 27% of 17-19 year old males are involved in a road collision within the first year of passing their test<sup>15</sup>.

Motorcyclists make up 1% of road traffic but they account for one in five road deaths and serious injuries. In 2011, the New Forest had the highest number of motorcycle and moped injuries (figure 9) and most injuries in Hampshire were in the 15-19 year age group.

<sup>15</sup> HM Government Select Committee on Transport. Second Report on Road Safety. 2012. <http://www.publications.parliament.uk/pa/cm201213/cmselect/cmtran/506/50602.htm>

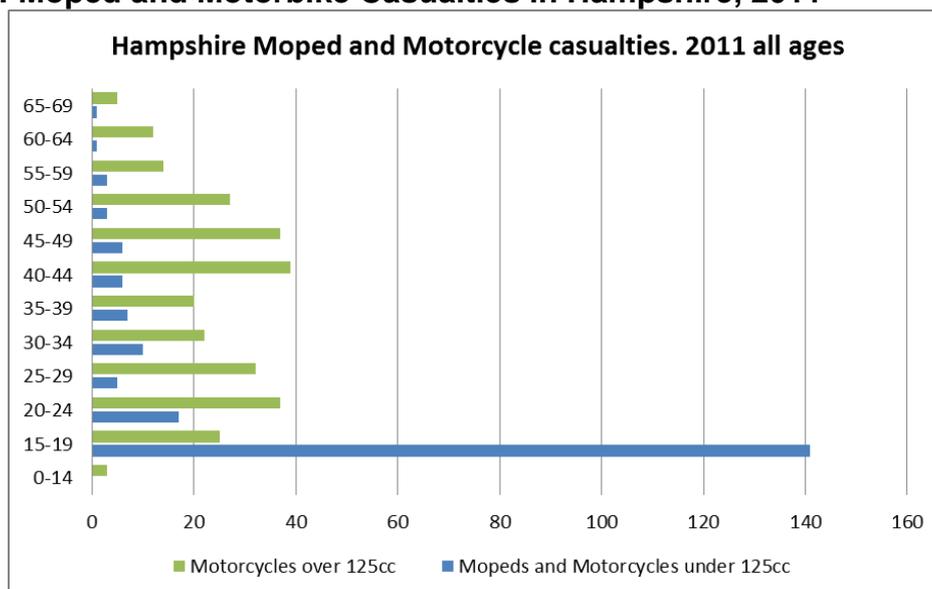
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**Figure 8: Hampshire Young Driver Casualties, 2011**



Source: Hampshire County Council

**Figure 9: Moped and Motorbike Casualties in Hampshire, 2011**



Source: Hampshire County Council

## 3.4 Fire

Non-fatal casualties are routinely reported by fire service, for all ages. In 2010-11, 9.4 casualties per 100,000 population were reported by Hampshire Fire and Rescue Service (includes Portsmouth and Southampton).<sup>16</sup> The greatest concentration of primary and secondary fires was in Southampton and Portsmouth with smaller clusters around Andover, Basingstoke and Rushmoor.<sup>17</sup>

<sup>16</sup> Child and Maternal Health Observatory. 2013. Accident Prevention Reports. [www.chimat.org.uk](http://www.chimat.org.uk)

<sup>17</sup> Hampshire Fire and Rescue Service <http://www.hantsfire.gov.uk/theservice/plan/hfrsplan-riskmaps.htm>

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**Figure 10: Hampshire Fire and Rescue Service: Non-fatal casualties per 100,000 population (all ages) 2011/12**

	Hampshire	England
Rate of non-fatal casualties reported	9.4	17.5
Rate of non-fatal casualties excluding those where precautionary checks were recommended	6.1	13.8
Rate of non-fatal casualties referred to hospital with slight injuries	4.6	6.6
Rate of non-fatal casualties referred to hospital with severe injuries	1.4	1.4
Rate of non-fatal casualties requiring first aid	2.8	5.8

Source: ChiMat Accident Prevention Report and Fire Statistics Monitor data

Between 2009 and 2012 there were 12 fire incidents involving 20 children in Hampshire (County) that resulted in a fire service call out and injuries to children aged 0-16 years. There was no clear pattern in terms of location of incidents<sup>18</sup>.

### 3.5 Violence related injuries

Data on violence and violence with injury are available at national level from the Crime Survey for England and Wales and include children over the age of 10 years. Injuries include minor bruising and marks on the skin as well as serious injuries such as broken bones and head injuries<sup>19</sup>. Reported violence with injury was reported by 6.4% of 10 – 15 year old boys and 3.1% of girls of the same age in 2010/11<sup>20</sup>.

### 3.6 Poisoning

There is no routine surveillance of poisoning in children in Hampshire. Local cases of poisoning may be reported to the Health Protection Agency. National data are available through the National Poisons Information Centre<sup>21</sup>. Any poisonings resulting in a hospital admission will be captured in routine hospital data.

### 3.7 Drowning

Local data on injuries related to water sports are not routinely available. The number of boys who drown each year is consistently higher than girls in all age groups and deaths will be notified to the Child Death Overview Panel (CDOP) as part of safeguarding processes. 41 boys and 6 girls aged 0-19 years drowned in the UK in 2011. The most common drowning locations were a river (23%), swimming pool (19%) and lakes (15%). 27 men aged 20-24 years and 6 women in the same age group drowned in 2011<sup>22</sup>.

<sup>18</sup> Hampshire County Council. 2013. Unintentional injuries in children in Hampshire (unpublished)

<sup>19</sup> Office for National Statistics. 2012. 2010/11 Crime survey for England and Wales.

<http://www.ons.gov.uk/ons/guide-method/surveys/list-of-surveys/survey.html?survey=%27Crime+Survey+for+England+and+Wales%27>

<sup>20</sup> Child and Maternal Health Observatory. 2013. Accident Prevention Reports. [www.chimat.org.uk](http://www.chimat.org.uk)

<sup>21</sup> Health Protection Agency, National Poisons Information Service

<http://www.hpa.org.uk/ProductsServices/ChemicalsPoisons/PoisonsInformationService/NationalPoisonsInformationService/>

<sup>22</sup> National Water Safety Forum. 2012. WAID fatal incident report.

<http://www.nationalwatersafety.org.uk/waid/reports.asp>

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## 4. Projected service use and outcome in 3-5 years and 5-10 years

There is no evidence to suggest that the rate of unintentional injuries in children is likely to increase over the coming decade. Nonetheless, the burden on health and social care services is significant. Approximately 2 million children in England attend Emergency Departments each year as a result of injury costing the NHS an estimated £146 million, with hospital admissions due to child injuries costing a further £131 million. Medical, educational and social costs for just one child with a severe traumatic brain injury costs an estimated £4.89 million over the child's life<sup>23</sup>.

## 5. Current Injury Prevention Initiatives in Hampshire

A range of service providers in Hampshire is engaged in injury prevention initiatives for young people. Home safety advice is offered to new parents as routine by health visitors and the Personal Social and Health Education (PHSE) curriculum for schools includes modules on learning to keep safe, making safer choices and coping with emergency situations. Hampshire Fire and Rescue Service and Hampshire Police offer education and advice to schools and communities and have dynamic programmes in place to promote safety working in partnership with Hampshire County Council and other statutory and third sector bodies.<sup>24,25,26</sup> Council Trading Standards, Planning, Housing and Environment all play a role in injury prevention from product safety to planning and design.

Hampshire County Council has a target to reduce the number of children killed or seriously injured (KSI) in road traffic accidents on Hampshire's roads by 20% from the 2004 to 2008 average by 2020 with an interim target to achieve 50% of the reduction by 2015. Working with partners to reduce the number of people KSI is also one of five strategic priorities for Hampshire Fire and Rescue service. 20mph speed limit zones will be trialled in ten locations across Hampshire during 2013 and reviewed in the autumn<sup>27</sup>.

### Evidence of what works

Guidance on preventing injuries in children aged under 15 years has been published by the National Institute for Health and Clinical Excellence (NICE):

1. Public Health Guidance 29 Strategies to prevent unintentional injuries among under-15s<sup>28</sup>

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<sup>23</sup> Child Accident Prevention Trust. <http://www.makingthelink.net/>

<sup>24</sup> Hampshire Fire and Rescue Service. 2013. <http://www.hantsfire.gov.uk/index>

<sup>25</sup> Hampshire Police. 2013. <http://www.hampshire.police.uk/internet/advice-and-information/road-safety/>

<sup>26</sup> Hampshire County Council. 2013. Road Safety. <http://www3.hants.gov.uk/roadsafety/>

<sup>27</sup> Hampshire County Council. 2012. Residential 20mph speed limits pilots. [http://www3.hants.gov.uk/councilmeetings/advsearchmeetings/meetingsitemdocuments.htm?sta=&pr ef=Y&item\\_ID=4210&tab=2](http://www3.hants.gov.uk/councilmeetings/advsearchmeetings/meetingsitemdocuments.htm?sta=&pr ef=Y&item_ID=4210&tab=2)

<sup>28</sup> NICE. 2010. NICE Public Health Guidance 29, Strategies to prevent unintentional injuries among children and young people aged under 15. <http://guidance.nice.org.uk/PH29>

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2. Public Health Guidance 30 Preventing unintentional injuries among under-15s in the home<sup>29</sup>
3. Public Health Guidance 31 Preventing unintentional road injuries among under-15s: road design<sup>30</sup>

### 6. Recommendations for Hampshire

- Develop a cross sector Hampshire Strategy for unintentional injuries in children (promoting 'making every contact count').
- Appoint an injury co-ordinator for Hampshire (as defined in NICE guidance).<sup>31</sup>
- Emphasise the importance of physical injury prevention in Hampshire's Children and Young People Plan.<sup>32</sup>
- Establish a performance monitoring process for unintentional injuries in children, aligned with national outcomes frameworks and best practice guidance and the Public Health Outcomes Framework<sup>33</sup>.
- Review current injury prevention strategies and activities against NICE guidance.
- Consider the relative importance of mode of transport in relation to casualties and casualty rates to target interventions for road traffic injuries.

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<sup>29</sup> Nice. 2010. Preventing unintentional injuries among under-15s in the home.

<http://guidance.nice.org.uk/PH30>

<sup>30</sup> NICE. 2010. Preventing unintentional road injuries among under 15s: road design.

<http://www.nice.org.uk/PH31>

<sup>31</sup> South West Public Health Observatory. 2012. Injury Profiles.

[http://www.apho.org.uk/default.aspx?QN=INJURY\\_DEFAULT](http://www.apho.org.uk/default.aspx?QN=INJURY_DEFAULT)

<sup>32</sup> Hampshire County Council. 2012. Hampshire's Children and Young People's Plan 2012-2015.

<http://www3.hants.gov.uk/childrens-services/childrenandyoungpeople/cypp.htm>

<sup>33</sup> Department of Health. 2012. Public Health Outcomes Framework.

<http://www.dh.gov.uk/health/2012/11/phof-technical-refresh/>