# Violence in England and Wales in 2013

# An Accident and Emergency Perspective

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## Executive Summary

- A structured sample of 117 Emergency Departments (EDs), Minor Injury Units (MIUs) and Walk-in Centres in England and Wales which are certified members of the National Violence Surveillance Network (NVSN) were included in this national study of trends in serious violence.
- Anonymous data relating to age, gender and attendance date of those treated for violence-related injuries were collected.
- Overall, an estimated 234,509 people attended EDs, MIUs and Walk-in Centres in England and Wales for treatment following violence in 2013 – 32,780 fewer than in 2012.
- Overall in England and Wales, serious violence decreased by 12% in 2013 compared to the previous year. Levels of serious violence have fallen every year since 2008 according to this measure.
- Violent injury of both males and females declined by 12% in 2013, similar to the falls in 2007 and 2012.
- Serious violence affecting all age groups decreased in 2013 compared to 2012; falls among youth (down 18%; males and females down 19.1% and 14.1% respectively) and young adults (down 14%; males and females down 14.3% and 13.3% respectively) were largest; falls among children aged 0-10 (down 5%; boys and girls down 2.4% and 11.1% respectively) and 51 and over (down 5%; men and women down 2.6% and 10.4% respectively) were smallest.
- Those at highest risk of violence-related injury were males and those aged 18 to 30. Violence-related ED attendance was most frequent on Saturday and Sunday and least frequent during the months of February and November.

[*] The methods used here and findings in previous years have all been subject to peer review and have been published in the Journal of Public Health and in the journal Injury[2].

## Introduction

Levels and trends in violence in England and Wales have traditionally been measured using two official sources of data, the Crime Survey for England and Wales (CSEW) and police records.[1] In addition to the official publications, injury records from Emergency Departments (EDs) have been studied over the last decade as part of the work of the National Violence Surveillance Network (NVSN) and provide information about violence levels and trends nationally.[2] In 2014 however, the UK Statistics Authority withdrew the gold standard "national statistics" status from police records because of accumulating evidence that the underlying data on crimes recorded by the police may be unreliable. Concerns were also raised by the House of Commons home affairs and public administration select committees.[3]

Following the discovery in the 1980s, that large numbers of violent incidents which result in hospital treatment are not known to the police – largely because they are not reported by those injured – ED data have been developed as a new measure of violence and also as a means to prevent violence. In 2010 the UK government prioritised the collection and use of ED-derived information for violence prevention purposes.[4] This harm based measure has been shown to be reliable and objective and is less prone to reporting and recording biases than police measures. It has been endorsed by the World Health Organisation (WHO). The use of these data for prevention has led to significant reductions in violence-related hospital admissions.[5] In the context that police and crime survey data have sometimes demonstrated opposite trends, ED data have brought clarity to national trends by triangulating measurement.

The aim of this report is to present overall gender and age-specific violence-related injury rates and violence trends in England and Wales from ED injury records for the twelve month period ending 31st December 2013.

## Methods

A recruitment drive to increase the number of NVSN certified EDs was undertaken in 2013. This gave a sample of 117 Types 1, 3 and 4 EDs (Type 1 = Consultant led 24 hour service with full resuscitation facilities; Type 3 = other types of ED/MIUs; Type 4 = NHS walk-in centres) in England and Wales, more than double the sample in 2012. Injury data were collected for the 12 month period ending 31st December 2013 (Table 1). Violence-related injury is an established category in most ED software packages and is routinely recorded electronically by reception staff. For every new incident a new record is created

and at all times during data retrieval patient confidentiality was maintained. All 117 EDs were recruited on the basis that they were willing to share electronic data and had implemented and continue to comply with the provisions of the 1998 Data Protection Act and Caldicott guidance.

ED attendances were categorised by gender and five age groups: 0-10, 11-17, 18-30, 31-50 and 51+ years; identical categorisation to that reported in previous years. To reduce biases in the sample due to inclusion criteria used to recruit EDs the sample population was weighted. In summary, the total annual attendance at all EDs (B1) was compared with the total annual attendance at EDs in the sample (A1). This gave the representation size of the sample nationally; the coverage ratio (CR). Thus, a CR equal to one indicates full coverage:

$$CR = A1 / B1$$

National violence statistics were obtained by multiplying the number of persons injured in the sample by 1/CR. As the total national resident population is known it was possible to estimate national violence-related injury rates by age and gender. A measure of the likelihood of being injured in violence is given by the equation: $V = ((1/CR) \times n)/ N$

*where*

V = likelihood of being injured in violence

n = number of injured persons attending EDs in the sample

N = total resident population

The methods used for deriving appropriate weights have been published. [2]

## Results

### Violence-related ED attendances

Altogether, 75,894 people injured in violence were treated in the 117 EDs, MIUs and Walk-in Centres in 2013 (Table 2). Male to female ratio was almost three to one (54,738 assaults among males; 21,156 assaults among females). Half of those injured were aged 18 to 30 years (37,280). Age and gender distribution of those seeking treatment following assault during 2013 were similar to previous years.

### Violence injury rates

Overall, 6.07 per 1,000 males and 2.3 per 1,000 females were treated at EDs, MIUs and Walk-in Centres in England and Wales during 2013 for injuries sustained in violence

(Table 2). Overall, the estimated annual injury rate was 4.16 per 1,000 residents. Those at highest risk were aged 18 to 30 years (11.84 per 1,000 residents) followed by those aged 11 to 17 (5.15 per 1,000 residents), those aged 31 to 50 (4.73 per 1,000 residents), those aged 51 and over (0.96 per 1,000 residents) and those aged 0 to 10 (0.29 per 1,000 resident population).

**Trends in serious violence**

Serious violence decreased by 12% in 2013 compared to 2012; this equates to 32,780 fewer violence-related attendances in 2013 (Tables 3 and 4, Figure 1). Decreases in violence rates for males and females were the same (12%). Violence among all age groups showed decreases; the largest decreases were among those aged 11 to 17 years (18%), followed by those aged 18 to 30 years (14%), 31 to 50 years (9%), 51 and over (5%) and children up to 10 years (5%). Decreases for females were four times those for males in the 0 to 10 (males 2.4%; females 11.1%) and 51 and over (males 2.6%; females 10.4%) groups. As in previous years, violence-related injury attendances at EDs were most frequent on Saturdays and Sundays and least frequent in February and November (figures 2a and 2b respectively).

## Discussion

This national study, based on a sample of 117 EDs, MIUs and Walk-in Centres showed substantial decreases in violence-related attendances of both males and females in 2013 compared to 2012; an estimated 234,509 people reported injury in violence in 2013, down by 32,780 (12%). According to NVSN, serious violence in England and Wales has declined every year since 2008.

Expansion in NVSN (to 117 EDs) in 2014 meant that approximately a third of EDs in England and Wales took part in this study. All age groups showed decreases in violence-related ED attendances; encouragingly the greatest annual decreases were among those most at risk of sustaining injury in violence, youth (down 18%) and young adults (down 14%). Both younger (0-10 years) and older (51 and over) age groups showed close to 5% reductions in violent injury in 2013 compared to 2012. However, the decreases for females were approximately four times those for males. The reasons for these gender differences are not clear. The increase in EDs included in the sample means that trends among age groups where violence is least likely to cause injury are more reliable – reflecting a greater sample size. Almost double the number of injured children

aged 0-10 years were included in 2013 compared to 2012. Hospital admissions data from Hospital Episode Statistics showed similar declines in serious violence in England; for example, admissions after assault with sharp instruments (which reflect levels of a category of serious violence) fell by 14% (641 admissions) to 3,849 between 2011/12 and 2012/13, continuing the downward trend in this serious violence measure between 2006/07 and 2011/12 from 5,720 to 4,490, a fall of 22% over this period.[6]

The decline in violence according to hospital data is similar to trends identified in CSEW; overall CSEW violence in England and Wales has been in decline since the mid-1990s and the latest data (year ending March 2013) showed a fall of 6% compared with the previous year – although data for the whole of 2013 is not yet available for comparison.[7]

Police records of offences of violence with injury fell by 8% between 2011/12 and 2012/13 and is the lowest figure since the introduction of the National Crime Recording Standards (NCRS) in 2002/03.[7] In February 2014, the UK Statistics Authority, following assessment of police crime records against the Code of Practice for Official Statistics, and in accordance with the Statistics and Registration Service Act 2007, found deficiencies substantial enough to withdraw its 'National Statistics' status.[3] Police records underestimate violence levels mainly because of lack of ascertainment reflecting low reporting rates which in turn, reflect fear of reprisals, inability to identify assailants, an unwillingness to have own conduct scrutinised and a perceived lack of benefit for the injured.[8]

Data matching studies in other European countries have shown consistency in the extent to which serious violence is not ascertained by police services.[9] The introduction of NCRS starting in 2012 led to considerable divergence in trends according to police records and both CSEW violence and ED injury records – for example, violence against the person recorded by the police increased between 2002/03 and 2005/06. More recently, growing divergence between police records and CSEW estimates has raised the possibility of a gradual erosion of compliance with the NCRS from 2007. This divergence is partially responsible for the current reclassification of police recorded crime by the UK Statistics Authority; any comparison with police recorded violence must take account of these factors.

Reasons for decreases in violence nationally are not clear, but are likely to be multi-factorial and complex. These could include changes in structural factors such as unemployment, poverty and inequality in addition to public health and criminal justice

interventions to prevent violence locally and more widely. In addition, since 2008, affordability of alcohol has decreased, the real price of alcohol in both the on-trade and off-trade has increased and UK alcohol consumption levels have decreased from 10.8 (in 2008) to 10 litres per capita (in 2011).[10, 11] These factors may partly explain the falls in serious violence in England and Wales.

Previous NVSN data (between 2005 and 2009) have shown that national, age and gender related decreases in violence masked regional differences in England and Wales. Of the ten Government Office Regions (GORs), there were violence decreases in five, increases in three and no change in two GORs.[12] Information sharing partnerships between health services, police and local government have been shown to substantially reduce violent injury.[5] Interestingly, decreases in violence occurred in regions where ED information sharing was most developed and it is therefore possible that information sharing and multiagency crime management explains the decreases in violence found in this study at least to some extent. However, a 2012 audit of information sharing for violence prevention in England, revealed that only one-third of partnerships complied fully with the information sharing standard recommended by the College of Emergency Medicine.[13]

According to this national study, annual injury rates for males were higher than females by a ratio of almost 3 to 1 and those aged 18 to 30 years had the highest risk of sustaining injury in violence – as in previous years. These findings are consistent with previous CSEW and international data on violent victimisation and medical records of assault injury.[14] Risk factors for violence victimisation in males and young adults are well documented and includes social, economic and demographic variables.[15] Violence is seasonal; violence-related ED attendances in 2013 were lowest in February and November, consistent with previous years.

These continuing and substantial decreases in serious violence are welcome for citizens, communities and in the context of fear of crime. They also decrease the costs of violence to health services and the criminal justice system.

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**Table 1 – NVSN hospitals (n=117)**

| | |
|---|---|
| Addenbrookes (Cambridge) | Kingston (Kingston Upon Thames) |
| Amersham | Lancaster Royal |
| Barnet | Leighton |
| Basildon University | Lister (Chelsea) |
| Blackpool Victoria | Llandudno General |
| Bristol Royal | Luton and Dunstable University |
| Bronglais General (Aberystwyth) | Maidstone |
| Broomfield (Chelmsford) | Mayday (Croydon) |
| Bryn Beryl (Pwllheli) | Milton Keynes |
| Calderdale Royal | Norfolk and Norwich University |
| Chase Farm (Enfield) | North Tyneside |
| Chesterfield Royal | Northampton General |
| Chorley & South Ribble | Ormskirk District General |
| City General (Stoke-on-Trent) | Pinderfield (Wakefield) |
| Colchester General | Pontefract |
| Conquest (Hastings) | Poole |
| Countess of Chester | Prince Charles (Merthyr Tydfill) |
| Croydon University | Prince Philip (Llanelli) |
| Cumberland Infirmary | Princess Royal (Telford) |
| Dewsbury & District | Princess Royal (Haywards Heath) |
| Dolgellau and Barmouth District | Queen Elizabeth II (Welwyn Garden City) |
| Dorset County | Queen Elizabeth (Birmingham) |
| Ealing | Queen Elizabeth The Queen Mother (Margate) |
| East Surrey | Queens Medical Centre (Nottingham) |
| Eastbourne District General | Rotherham |
| Friarage (Northallerton) | Royal Albert Edward Infirmary (Wigan) |
| Furness General | Royal Berkshire (Reading) |
| Glangwili General | Royal Derby |
| Hartlepool MIU | Royal Glamorgan (Llantrisant) |
| Heatherwood MIU | Royal Hampshire County (Guildford) |
| Hexham General | Royal Liverpool University |
| Hillingdon | Royal Manchester Children |
| Hinchingbrooke | Royal Preston |
| Halton MIU (Runcorn) | Royal Sussex County |
| Homerton University (London) | Royal Victoria Infirmary (Newcastle) |
| Huddersfield Royal | Salford Royal |
| Hull Royal | Scunthorpe General |
| Ipswich | South Tyneside District |
| James Cook (Middlesbrough) | Southampton General |
| James Paget (Great Yarmouth) | Southend University |
| Kettering General | Southport & Formby District General |

| | |
|---|---|
| St. Peter's (Surrey) | Watford General |
| Stafford | West Cumberland |
| Stepping Hill (Stockport) | West Middlesex University |
| The Royal Free (London) | West Suffolk |
| The Royal Surrey County | Weston Park (Sheffield) |
| Trafford General | Wexham Park (Slough) |
| Tunbridge Wells | Whiston (Warrington) |
| Tywyn & District War Memorial | William Harvey (Ashford) |
| University College (London) | Withybush General (Haverfordwest) |
| University Hospital (Cardiff) | Yeovil District |
| University Hospital (Coventry) | Ysbyty Alltwen (Porthmadog) |
| University Hospital Lewisham | Ysbyty Cwm Cynon (Mountain Ash) |
| University Hospital of North Tees | Ysbyty Cwm Rhondda (Tonypandy) |
| University Hospital of South Manchester | Ysbyty Glan Clwyd (Rhyl) |
| Victoria Infirmary (Newcastle) | Ysbyty Gwynedd (Bangor) |
| Walsall Manor | Ysbyty Maelor (Wrexham) |
| Wansbeck General | Ysbyty Penrhos Stanley (Holyhead) |
| Warrington | |

**Table 2: Violence injury rates by age and gender 2013: patients who attended 117 EDs in England and Wales for treatment following violence-related injury.**

| Gender | N | % |
|---|---|---|
| **Male** | 54,738 | 72 |
| **Female** | 21,156 | 28 |
| **Total** | 75,894 | 100 |

| Age group (years) | N | % |
|---|---|---|
| **0 to 10** | 689 | 0.91 |
| **11 to 17** | 8,119 | 10.7 |
| **18 to 30** | 37,280 | 49.12 |
| **31 to 50** | 23,979 | 31.6 |
| **50+** | 5,827 | 7.68 |
| **Total** | 75,894 | 100 |

| | Annual violence injury rate (per 1000 residents) |
|---|---|
| **Males** | 6.07 |
| **Females** | 2.3 |
| **Total** | 4.16 |
| **0 to 10** | 0.29 |
| **11 to 17** | 5.15 |
| **18 to 30** | 11.84 |
| **31 to 50** | 4.73 |
| **50+** | 0.96 |

**Table 3: Percentage change in serious violence in England and Wales (ED/MIU data).**

| | Males | Females | Total |
|---|---|---|---|
| **2008 – 2009** | -0.3 | -1.8 | -1.3 |
| **2009 – 2010** | -9.5 | -5.7 | -9 |
| **2010 – 2011** | -5.3 | -1 | -4 |
| **2011 – 2012** | -14 | -14 | -14 |
| **2012 - 2013** | -12 | -12 | -12 |

**Table 4: Estimated violence related ED attendances by age and gender in England and Wales**

| Age Groups | 2013 | | 2012 | |
|---|---|---|---|---|
| | **Males (*)** | **Females (*)** | **Males** | **Females** |
| **0 to 10** | 1,520 (2.4) | 610 (11.1) | 1,557 | 686 |
| **11 to 17** | 17,717 (19.1) | 7,391 (14.1) | 21,905 | 8,606 |
| **18 to 30** | 85,532 (14.3) | 29,650 (13.3) | 99,774 | 34,190 |
| **31 to 50** | 52,011 (8.6) | 22,133 (10.5) | 56,904 | 24,738 |
| **51+** | 12,367 (2.6) | 5,578 (10.4) | 12,703 | 6,226 |

* = % annual fall since 2012

**Figure 1**

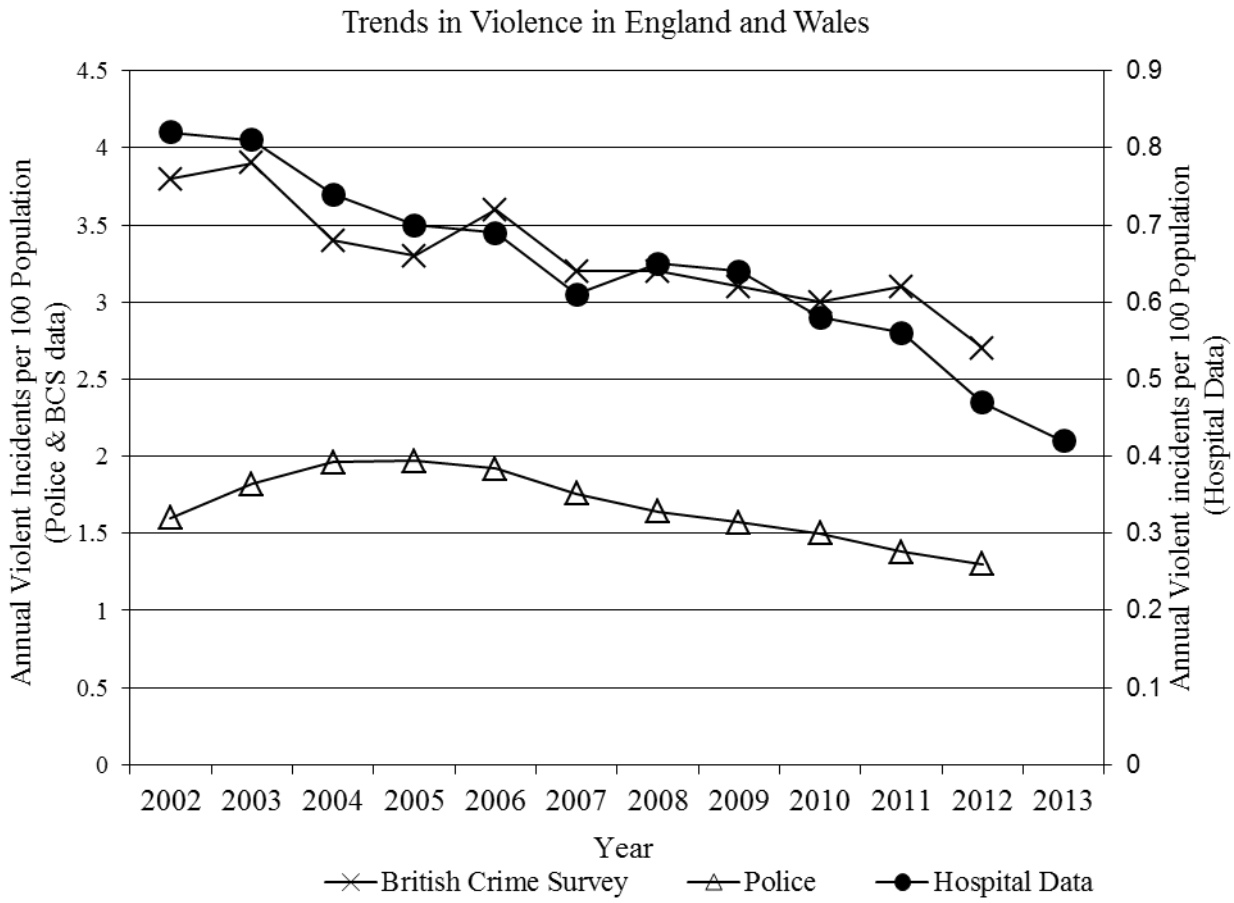
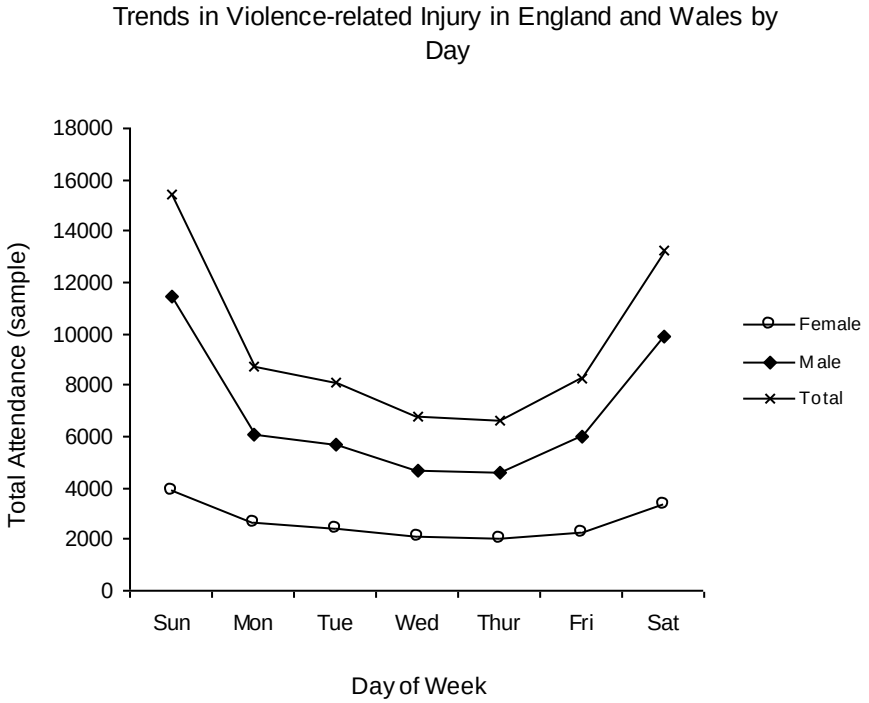

Trends in Violence in England and Wales
Annual Violent Incidents per 100 Population (Police & BCS data)
Annual Violent incidents per 100 Population (Hospital Data)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Year
British Crime Survey
Police
Hospital Data

**Figure 2a and 2b**

**(year ending 31st December 2013)**

**2a**




**2b**