

Violence in England and Wales in 2012

An Accident and Emergency Perspective

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Executive Summary

- A structured sample of 54 Emergency Departments (EDs) and Minor Injury Units (MIUs) 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 prospective data relating to age, gender and attendance date of those treated for violence-related injuries were collected from these EDs and MIUs.
- Overall, an estimated 267,291 people attended EDs and MIUs in England and Wales for treatment following violence in 2012 – 40,706 fewer than in 2011.
- Overall in England and Wales, serious violence decreased by 14% in 2012 compared to the previous year. Apart from a 7% increase in 2008, levels of serious violence have fallen every year since 2001 according to this measure.
- Violent injury of both males and females declined by 14% in 2012, similar to the falls in 2007.
- Serious violence affecting all age groups decreased in 2012 compared to 2011; falls among young children and adolescents (down 24%) and young adults (down 13%) were largest.
- 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, April 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.¹⁶

Introduction

Interpersonal violence is a major contributor to premature death, disability and both psychological and physical injuries.¹ Recognition by medical practitioners and policy makers that information from patients treated in EDs following violent injury can be utilised to measure violence trends and for enhancing community safety has increased public health contributions to violence prevention both nationally and internationally. In the UK the coalition government has prioritised the collection and use of information from these patients for violence prevention purposes.² There are now plans to replicate this in the US, Holland and South Africa. Routine collection, analysis and use of ED derived information on violence has been endorsed by the WHO, and there is clear evidence that this has led to substantial and significant reductions in violence-related hospital admissions and serious violence recorded by the police.^{1, 3}

The Crime Survey for England and Wales (CSEW: formerly the British Crime Survey, BCS) is an established measure of violence which is not influenced by reporting and recording changes that can impact on police statistics, and since 2010 it has focused on violence experienced by adolescents (over the age of 10) as well as by adults. Police records tend to underestimate violence levels mainly because of lack of police ascertainment reflecting low reporting rates which in turn reflect fear of reprisals, inability to identify assailants, lack of benefit for the injured of reporting and unwillingness to have their own conduct scrutinised.⁴ ED injury records are more representative of serious community violence than police statistics. Data matching studies in other European Countries have shown consistency in the extent to which serious violence is not ascertained by police services.⁵

The aim of this report is to identify overall gender and age-specific violence-related injury rates and violence trends in England and Wales from ED injury records for the period ending 31st December 2012.

Methods

Injury data were collected from a structured sample of 54 Types 1, 3 and 4 EDs (Type 1 = Consultant led 24 hour service with full resuscitation facilities; Type 3 = other types of ED/minor injury units; Type 4 = NHS walk-in centres) in England and Wales for the 12 month period ending 31st December 2012 (Table 1). All 54 EDs are certified members of the National Violence Surveillance Network (NVSN) and were

recruited on the basis that they collect data prospectively and were willing to share electronic data. Information on attendance date, age and gender of patients who reported injury in violence were studied. All 54 EDs had implemented and continue to comply with the provisions of the 1998 Data Protection Act, Caldicott guidance and access to ED computer systems was restricted to a limited number of ED staff. For patients reporting injury in violence, the first point of contact was usually with the receptionist. Reason for attendance including violence-related injury, (which is an established category in all ED software packages) was entered by receptionists. For every new incident a new record was created and at all times during data retrieval patient confidentiality was maintained.

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 NVSN publications. To reduce biases in the sample due to inclusion criteria used to recruit EDs the sample population was weighted. 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 and was termed the coverage ratio (CR). Thus a CR equal to one indicates full coverage:

$$CR = A1 / B1$$

Comparative 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 following equation: $V = ((1/CR) \times n) / N$

where

V = likelihood of being injured in violence

n = number of injured persons attending A&E departments in the sample

N = total resident population

The methods used for deriving appropriate weights have been detailed in previous publications.¹⁶

Results

Violence-related ED attendances

Altogether, 44,825 people injured in violence were treated in the 54 EDs, MIUs and Walk-in-Centres in 2012 (Table 2). Male to female ratio was three to one (32,340 assaults among males; 12,485 assaults among females). Half of those injured were aged 18 to 30 years (22,465). Age and gender distribution of those seeking treatment following assault during 2012 were similar to previous years.

Violence injury rates

Overall, 6.9 per 1,000 males and 2.6 per 1,000 females were treated at EDs, MIUs and Walk-in-Centres in England and Wales during 2012 for injuries sustained in violence (Table 2). Overall, the estimated annual injury rate was 4.8 per 1,000 residents. Those at highest risk were aged 18 to 30 years (13.7 per 1,000 residents) followed by those aged 11 to 17 (6.3 per 1,000 residents), those aged 31 to 50 (5.2 per 1,000 residents), those aged 51 and over (1 per 1,000 residents) and those aged 0 to 10 (0.3 per 1,000 resident population).

Trends in serious violence

Serious violence affecting males and females decreased by 14% in 2012 compared to 2011; this equates to 40,706 fewer violence-related attendances in 2012 (Tables 3 and 4, Figure 1). Decreases in violence rates for males and females were the same (14%). Violence among all age groups showed decreases; the largest decreases were among those aged 0 to 10 years (26%), followed by those aged 11 to 17 years (24%), 18 to 30 years (13%), 31 to 50 years (12%) and 51 and over (10%). As in previous years, violence-related injury attendances at EDs were most frequent on Saturdays and Sundays and least frequent in February, April and November.

Discussion

This national study, based on a sample of 54 EDs, showed substantial decreases in violence-related attendances of both males and females; an estimated 267,291 people reported injury in violence in 2012, down by 40,706 (14%) compared to 2011. According to NVSN, apart from an increase in serious violence in 2008, violence-related hospital attendances have fallen every year since 2001.

All age groups studied showed decreases of 10% or more in violence-related ED attendances; greatest annual decreases in violence-related harm however, were found among children and adolescents aged 0 to 17 years (down 24%). The 13% decrease (3.8% decrease in 2011) among those aged 18-30 years is most encouraging perhaps, since violence related injury is most concentrated in this age group. As in previous years the relatively small number of cases in the 0 to 10 age group (376 in 2012) makes interpretation of trends difficult in this age group. Decreases in youth and young adult violence in 2012 accelerates trends in the same direction which were identified in 2011.

Overall, these ED findings corroborate BCS findings though BCS findings for 2012 are not yet known; overall BCS violence in England and Wales has been in decline since the mid 1990s.⁶ When compared to BCS levels of violence in 1995, the number of violent incidents in 2010/11 recorded by BCS was around half (47%) and at a similar level to 1981 – this amounts to two million fewer incidents in 2010/11 and around 750,000 fewer victims compared with the 1995 BCS. Since 1995, according to the BCS, violence with injury has fallen by 50% and violence without injury by 44%.

Comparison of ED findings with violence trends according to police records is more difficult however, as police records have been subject to significant changes in recording practices. For example, the introduction of National Crime Recording Standards (NCRS) in April 2002, led to a rise in recording in 2002/03, particularly in relation to less serious violent crime in the following years as forces continued to improve compliance with the new standard. This led to a considerable divergence in trends according to police records on one hand and according to BCS violence and ED injury records on the other hand – violence against the person recorded by the police increased between 2002/03 and 2005/06.⁶ Since 2005/06 however, following adaptation of NCRS counting rules by all police forces, violence trends have become more consistent across the three sources; numbers of offences against the person

recorded by the police decreased by 22 % between 2005/6 and 2010/11 during which period trend lines according to the three measures were similar. Triangulation of measurement with the addition of the ED measure has therefore brought clarity to national trends.

Although the reasons for decreases in violence nationally are not clear, there is increasing evidence to suggest that both public health and criminal justice interventions may be contributory. Information sharing partnerships between health services, police and local government have been shown to substantially reduce violent injury.³ Sharing patient derived, anonymised information on violence with other agencies, including the police, alters policing and violence prevention strategies. Such information sharing models have been implemented in all regions in England and Wales following the 1998 Crime and Disorder Act, particularly after the tackling knife crime strategy was implemented in 2008, which placed a legal obligation on police, local government and the National Health Service to collaborate to develop and implement joint crime reduction strategies.^{7,8} The Cardiff Model: a data sharing strategy that includes police, health practitioners, and local government officials, led to a 35% decrease in assault-related ED attendances between 2000 and 2005, as well as a 31% decrease in the prevalence of assaults occurring within licensed premises in Cardiff, relative to similar cities where this information was not shared.³ Applying the same method, the sharing of anonymised ED derived data for the purposes of violence prevention has also shown to be effective in the North West of England and in Cambridge.^{9, 10} A recent evaluation suggests that violence prevention has been most successful in health regions in England and Wales where information sharing has been implemented and championed most.¹¹

In this national study, risk of victimisation varied by age and gender as in previous years, with men, in particular young men (aged 18 to 30 years), being at greatest risk of victimisation according to BCS and ED data. This finding is not surprising as males and those aged 18 to 30 years demonstrate higher rates of delinquency, adult criminality and violent behaviour. Also, violence-related injury following alcohol consumption has been found to be five times greater than any other type of injury.¹² In England and Wales, it is reported that those aged between 18-24 years consume, on average, more units of alcohol per session than any other age group.¹³ The association between alcohol misuse and violence is well documented in epidemiology, criminology, psychology and public health literature. BCS estimates

indicate an upward trend in alcohol-related violence since 1995; with 50% of violent offences, 19% of all violent incidents, and 31% of stranger violence estimated to have taken place in or around a pub or club in 2009.¹⁴

Sustained decreases in overall violence in England and Wales are encouraging. However, these may mask regional differences in trends in serious violence, as has been reported previously in studies using hospital injury records.¹⁵ Policy makers should continue to focus on violence prevention measures such as information sharing by EDs with other local agencies, drawing on robust evidence of effectiveness in reducing community violence.

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Table 1 – NVSN hospitals (n=54)

Accrington Victoria MIU	Lynton MIU
Andover War Memorial MIU	North Devon District
Basildon	North Tyneside (Tyne and Wear)
Bideford MIU	Northern General (Sheffield)
Basingstoke and North Hampshire	Princess Royal (Farnborough)
Broomfield	Princess Royal (Sussex)
Burnley Urgent Care	Queen Elizabeth (Woolwich)
Calderdale Royal	Queens (Romford)
Cheltenham General	Royal Blackburn
Chesterfield Royal	Royal Blackburn Urgent Care
Colchester General	Royal Glamorgan
Conquest (St Leonards-on-sea)	Royal Hampshire County
Derbyshire Royal	Royal Preston
Ealing (Southall)	Royal Sussex County
Eastbourne District	Russell Hall (Dudley)
Friarage (Northallerton)	Scunthorpe General
Gloucestershire Royal	Southend University
Hexham	St Mary's (Isle of Wight)
High Wycombe	Stepping Hill (Stockport)
Hillingdon	Stoke Mandeville
Huddersfield Royal	Sunderland Royal
Ilfracombe MIU	University (Hartlepool)
Ipswich	University Hospital of Wales
James Cook (Middlesbrough)	Wansbeck
James Paget University (Great Yarmouth)	West Middlesex University
King George (Goodmayes)	West Suffolk
Kingston (Kingston-upon-Thames)	Wexham Park

Table 2: Violence injury rates by age and gender 2012: patients who attended 54 EDs in England and Wales for treatment following violence-related injury.

Gender	N	%
Male	32,340	72.1
Female	12,485	27.9
Total	44,825	100

Age group (years)	N	%
0 to 10	376	0.8
11 to 17	5,119	11.4
18 to 30	22,465	50.2
31 to 50	13,691	30.5
50+	3,174	7.1
Total	44,825	100

	Annual violence injury rate (per 1000 residents)
Males	6.99
Females	2.65
Total	4.8
0 to 10	0.31
11 to 17	6.36
18 to 30	13.78
31 to 50	5.27
50+	1.03

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

	Males	Females	Total
2000 – 2001	0	3.5	1
2001 – 2002	0	-7.7	-4.5
2002 – 2003	0.5	-2.3	-0.8
2003 – 2004	-9.6	-4.6	-8.8
2004 – 2005	-6.8	-11	-6.9
2005 – 2006	2	-8	-2
2006 – 2007	-13	-11	-12
2007 – 2008	4.3	9.6	6.6
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

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

Age Groups	2012		2011	
	Male	Female	Male	Female
0 to 10	1,557	686	2,030	1,005
11 to 17	21,905	8,606	28,057	11,366
18 to 30	99,774	34,190	113,858	38,857
31 to 50	56,904	24,738	64,378	27,524
51+	12,703	6,226	14,077	6,897

Figure 1

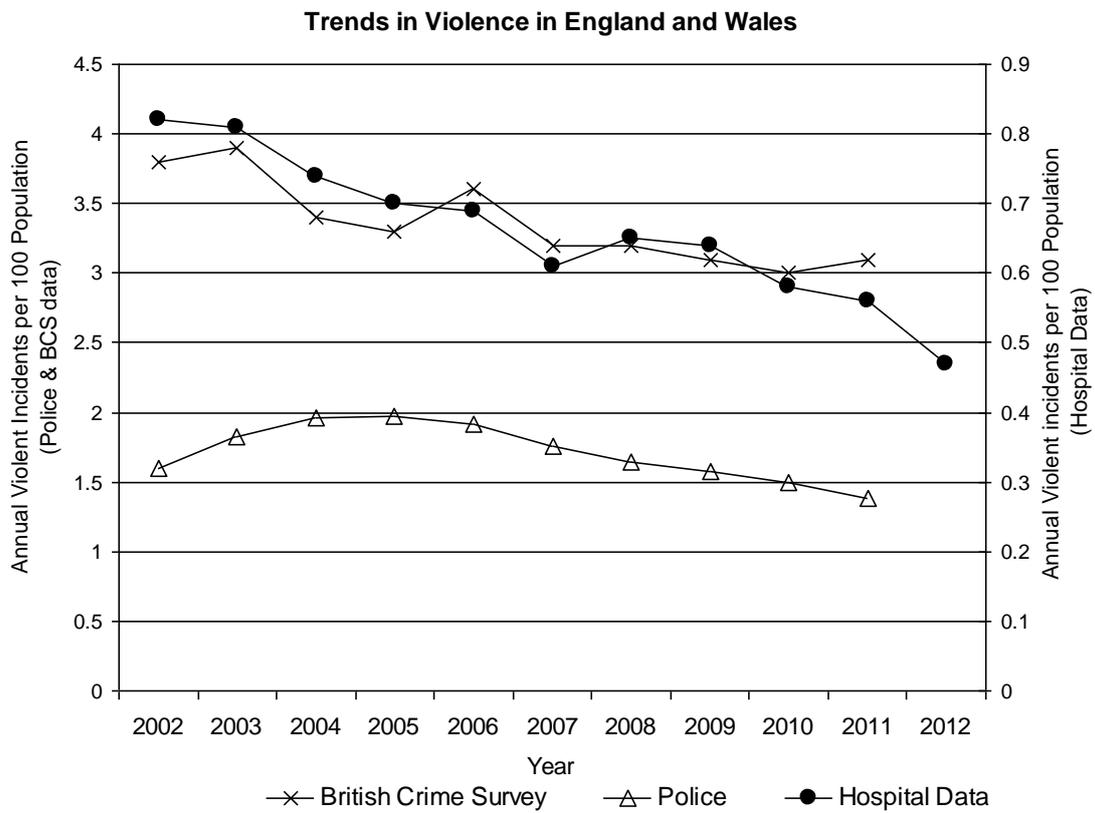
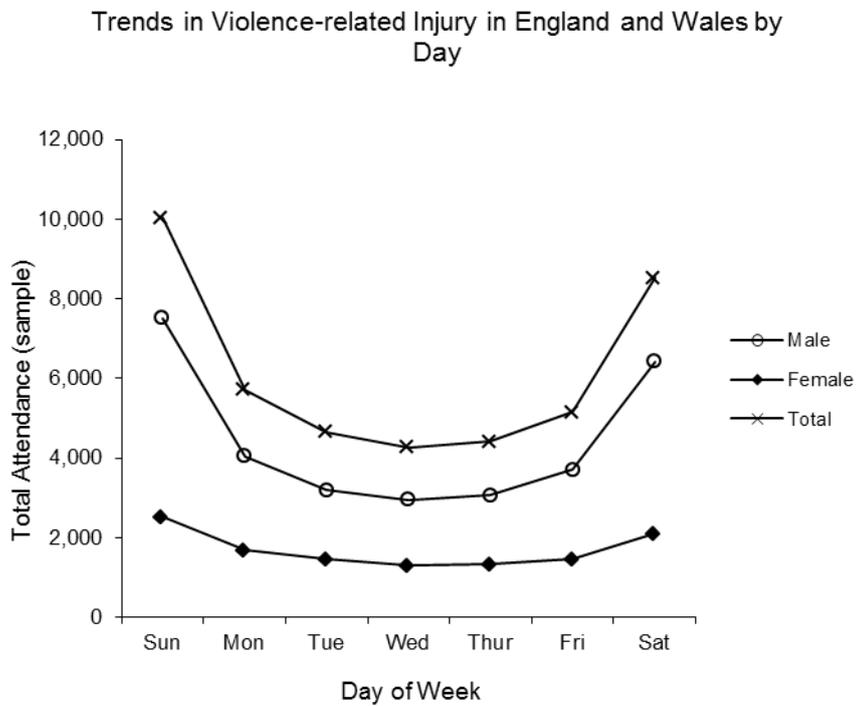


Figure 2a and 2b
 (year ending 31st December 22012)

2a



2b

