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VIOLENCE IN ENGLAND AND WALES IN 2017

An Accident and Emergency Perspective

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Executive Summary

- Serious violence levels and trends in England and Wales were studied based on data from a structured sample of 94 Emergency Departments (EDs), Minor Injury Units (MIUs) and Walk-in Centres. All are certified members of the National Violence Surveillance Network (NVSN).
- Overall, an estimated 190,747 people attended EDs in England and Wales for treatment following violence in 2017, 1942 more than in 2016; a 1% increase. Falls or no change in overall violence levels in England and Wales according to this public health measure over the past decade were maintained in 2017.
- In 2017, males (4.6 per 1,000 residents) were more than twice as likely as females (1.9 per 1,000 residents) to be treated in EDs following injury in violence.
- Increases in violent injury among those aged 0-10 years (11%), 31-50 years (4.6%) and those aged 51 years and over (2.1%) were offset by the 1.8% decrease in violence among those aged 18-30 years. Due to small numbers, NVSN is unable to provide reliable violence trends for those aged 0-10 years.
- Implementation of the new Emergency Care Data Set (ECDS) in Type 1 EDs in England led to increases in violence recording in the three months, October to December 2017.
- Those most at risk of violence-related injury were males and those aged 18 to 30. Violence-related ED attendance was most frequent on Saturdays and Sundays.

The methods used here and findings in previous years have all been subject to peer review and have been published¹.

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Introduction

Study of community violence in England and Wales continues to be a priority. During the first week of April when this report was written six people were killed in shootings in London¹. But reliable information on regional and national violence levels and trends is crucial if policy makers and practitioners are to focus resources and deliver effective violence prevention strategies.

Over the past two decades the National Violence Surveillance Network (NVSN) of Emergency Departments (ED), minor injury units (MIUs) and walk-in centres in England and Wales has provided consistent information on violence from a public health perspective². This harm-based violence measure complements measures derived from other national data sources: the Crime Survey for England and Wales (CSEW; which measures experiences of violence with and without injury) and police records³. According to NVSN data, violence in England and Wales has fallen substantially since 2010; an estimated 188,803 violence-related hospital attendances were recorded in England and Wales in 2016, a reduction of 39%⁴. The latest CSEW violence data, for the 12 months ending September 2017, showed no significant change from the previous year - an apparent 11% decrease was not statistically significant³. Comparison of NVSN and CSEW with police records is not justified because police records largely reflect the extent to which incidents are reported and changes in categorisation of offences as violent. Large numbers of incidents are not reported to the police for a variety of reasons, including fear of reprisals, inability to identify assailants, lack of benefit for the injured and unwillingness of the injured to have their conduct scrutinised. Since 2015, tens of thousands of public order offences, such as harassment, have been categorised as violent further undermining police records as a reliable measure of violence.

In October 2017, Type 1 EDs (with consultant led 24-hour services which include resuscitation facilities) in England implemented the new Emergency Care Data Set (ECDS)⁵. This allowed recording of more detailed information about violence in which people are injured. The new information includes precise violence location, weapon or other injury mechanism, numbers of assailants and incident time and day. This violence dataset is the foundation of the Cardiff Model for violence prevention which is the basis of the national data standard (ISB 1594), Information to Tackle Violence (ISTV)⁶. As hospitals adjust and comply with the new data requirements, more EDs are expected to be recruited into NVSN, increasing the current 50% coverage in England and Wales. Early signs are that NHS Trusts are complying with the new dataset. Work to incorporate ECDS

in unscheduled care settings including minor injury units and walk-in centres is also underway in Wales. Although ECDS is expected to provide more relevant information on violence, especially data crucial for violence prevention, its application is still evolving.

The aim of this report is to describe overall gender and age specific violence-related injury rates and violence trends according to NVSN data in England and Wales over the twelve month period ending 31st December 2017.

Methods

Emergency Departments

As in previous years, information relating to violence-related attendances including date of attendance, age and gender of patients were retrieved from 169 NVSN EDs in all nine regions of England (East of England, East Midlands, London, North East, North West, South East, South West, West Midlands, Yorkshire and Humberside) and Wales for the twelve month period ending 31st December 2017 (Figure 1). The sample included Type 1, 3 and 4 EDs (Type 1 = consultant led 24 h service with resuscitation capabilities; Type 3 = other ED/minor injury units; Type 4 = National Health Service walk-in centres). All 169 EDs were certified members of NVSN and complied with the provisions of the 1998 Data Protection Act and Caldecott guidance. It was not possible to identify individuals from the data, which are all anonymised by NHS Trusts/Health Boards prior to sharing. Data were mostly collected under the provisions of the Freedom of Information Act.

Datasets in use in EDs for the past two decades, and ECDS, make provision for the recording of violence-related attendances. A new record is created for each individual attendance. ED attendances were categorised by gender and five age groups: 0–10, 11–17, 18–30, 31–50 and 51+ years. Attendance data were weighted using a Coverage Ratio (CR) representing the proportion of EDs sampled in England and Wales in 2017, so that comparison can be made with previous NVSN findings. Essentially, CR is equal to total annual all-cause ED attendances sampled divided by the total annual all-cause ED attendances for all EDs (including those sampled) in England and Wales. Total annual all-cause ED attendances were retrieved separately from NHS England and Information and Statistics, Wales. A CR equal to 1 indicates full national coverage. The detailed method for calculating appropriate weights has been published². Using national census data, resident populations in England and Wales were estimated separately by gender and by age groups. Annual violence injury rates (numbers of injured per 1,000 resident population)

were computed separately for both genders and the five age groups. Injury rates for 2017 were compared to injury rates in previous years. It was assumed in these calculations that the CR was the same for both genders and all age groups.

Data retrieved for the last three months (October to December) in 2017 from Type 1 EDs in England recorded using the newly mandated ECDS were not used in violence rate or trend calculations in this study, but analysed separately. The number of assaults for the nine first months in 2017 was multiplied by a factor of 4/3 in order to estimate a figure for the entire year. This approach is equivalent to a fixed-value, missing-data imputation method, where the data from October to December 2017 was treated as "missing" and replaced by the mean value for January to September 2017. The coverage ratio was then applied as in previous years in order to form estimates of assault rates for both England and Wales based on sample attendances. Data from October to December 2017 could not be disentangled from data from January to September 2017 in any data available only in aggregate form (i.e., from hospitals providing only total numbers in 2017) and hence aggregate data were not used in this report.

Results

Violence-related ED attendances[†]

In total, 65,145 violence-related attendances were recorded in the 94 EDs, MIUs and walk-in centres in England and Wales over the twelve month period ending 31st December 2017 (Table 1). Data from 75 hospitals were provided in aggregate form and incomplete data were received from nine other hospitals; data on age and gender were not available from these EDs.

Analyses by gender and age group (Table 1) showed that most patients reporting injury in violence at EDs in England and Wales in 2017 were males (n = 45,787; 70%) and aged between 18 and 30 years (n = 28,904; 43%).

Violence injury rates[†]

In 2017, 3.24 per 1,000 residents were treated in EDs in England and Wales following violence-related injury. Similar to previous years, males (4.6 per 1,000 residents) were

[†] Refers to sample non-aggregated data, Jan. to Sept. only. All values inflated by a factor of 4/3.

more than twice as likely as females (1.91 per 1,000 residents) to have been treated following violent injury (Table 1).

Analyses of violence injury rate by age group and gender showed higher rates of violence among males across all five age groups studied; those aged 18-30 years experienced the highest injury rates per 1,000 population (males 12.37; females 4.99), followed by those aged 11-17 years (males 6.21; females 2.75), 31-50 year (males 5.56; females 2.44), 51 year and over (males 1.31; females 0.55) and those aged 10 years and under (males 0.31; females 0.19).

Trends in serious violence

Violence-related ED attendances in England and Wales remained at similar levels to those in 2016; an estimated 1,942 (1%) more attendances were recorded in 2017 (Table 2, Table 3 and Figure 2). Violence affecting males and females also remained unchanged in 2017 compared to 2016. All age groups, except 0-10 years, showed small changes in violence; numbers of adolescents (aged 11-17 years) up 0.5%, those aged 18-30 years down 1.8%, those aged 31-50 years up 4.6% and those aged 51 years and over up 2.1%. Serious violence affecting boys and girls aged 10 years and under increased by 11%. Violence peaked in July and on Saturdays and Sundays in 2017 (Figures 3a and 3b).

Implementation of ECDS resulted in an increase in violence recording in EDs in England in the three months October, November and December – there was, on average, a 58% increase in records of violence-related attendances during these three months compared to the previous nine months (January to September 2017). Disaggregation of violence data by month in England and Wales showed that the increase recording in the last three months of the study was only seen in EDs in England; in Wales, where ECDS was not implemented, there was an average *reduction* in recording of 2% per month between October and December 2017. However, since ECDS use is in its infancy, this measure is likely to reflect anomalies in its application. It is quite possible that some attendances not relating to violence are being recorded as violence-related. At this early stage, ED data recorders are still learning about the new dataset. In summary, the reliability and validity of ECDS as a violence measure has yet to be established.

Discussion

Now in its 18th year, NVSN has recruited approximately half of all EDs in England and Wales which are able to share anonymised data on violence-related attendances. This

England and Wales study, based on a sample of 94 EDs, MIUs and Walk-in Centres, showed no significant change in overall violence in the 12 months ending 31st December 2017 compared to the previous year. An estimated 190,747 people attended EDs in 2017, up 1% from 2016. Violence affecting males, females and all age groups showed no significant change. This plateau follows a 10% fall in violence reported for 2016 and annual falls since 2008 (when an increase in violence of 8% was reported)⁴. The findings of this study are similar to those derived from national crime survey data. These CSEW data show an 11% (non-significant) decrease in rates of violence in the year ending September 2017 compared to the previous 12 months. CSEW measures of “violence with injury” and “violence without injury” also showed no significant change³.

Long term NVSN and CSEW violence trends have consistently been similar. According to NVSN, 122,286 fewer people attended EDs in England and Wales in 2017 compared to 2010, a reduction of 39%. Although CSEW includes incidents with and without injury, the cumulative effect of year-on-year decreases in violence has meant that CSEW violence fell by 29% since March 31st 2013. Police-recorded violence offences against the person increased (by 20%) over the 12 months ending September 2017.

Likelihood of sustaining injury in violence differed by gender and age group. Males had higher violence injury rates than females across all age groups, similar to previous NVSN findings. To put this into context, males aged 11 years and over were twice as likely to be treated for injuries sustained in violence compared to females of the same age. Violence levels among males and females aged 0-10 years were similar however. Studies of violence in criminology and public health consistently show that males are overrepresented as both victims and perpetrators of violence compared to females⁷. Similar to NVSN findings in 2016, young adults and adolescents were most at risk of violent injury.

Although overall levels of serious violence affecting males and females according to this measure showed no substantial change since 2016, there were small variations in injury rates among age groups. Increases in violence among those aged 31 years and above were offset by decreases in violence among those aged 18-30 years. The apparent increase of 11% among children aged 0-10 years in this study should be treated with caution given the low numbers identified.

In England and Wales, the majority of violent injuries are not inflicted using weapons but result from hitting, kicking and shoving. Although NVSN is currently unable to provide the context in which injury was inflicted, for example precise violence location and whether injury was caused by a weapon or by more than one assailant – a signal of

gang violence; this will be possible in future years as ECDS beds down. ED-derived intelligence on the circumstances of violent injury and the use of this information by agencies tasked with preventing community violence has already reduced violence to a greater extent than is possible on the basis of limited, single agency (police) data, including violence in which weapons are used to inflict injury⁸. The use of this new ED data set, across England and Wales will allow cities and communities to prevent violence more effectively than previously. The 2018 Serious Violence Strategy, incorporates this collaborative police-ED approach⁹.

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Table 1: ‡Violence-related attendances and injury rates by age and gender 2017: patients who attended NVSN EDs in England and Wales for treatment following violence-related injury.

Gender	N	%
Male	45,787	70
Female	19,359	30
Total	65,146	100

Age group (years)	N	%
0 to 10	671	1.02
11 to 17	7,269	11.16
18 to 30	28,904	44.38
31 to 50	22,003	33.77
51+	6,299	9.67
Total	65,146	100

	Annual violence injury rate (per 1,000 residents)
Males	4.6
Females	1.91
Total	3.24
0 to 10	0.25
11 to 17	4.51
18 to 30	8.71
31 to 50	4
51+	0.91

‡ Violence-related ED attendances by age and gender were provided by 94 EDs. Attendances were adjusted to account for missing data between October and December 2017 (i.e., sample non-aggregate data, Jan. to Sept. only, all values inflated by a factor of 4/3).

**Table 2: Percentage change in serious violence in England and Wales.
Emergency Department (ED) and Minor Injury Unit (MIU) data.**

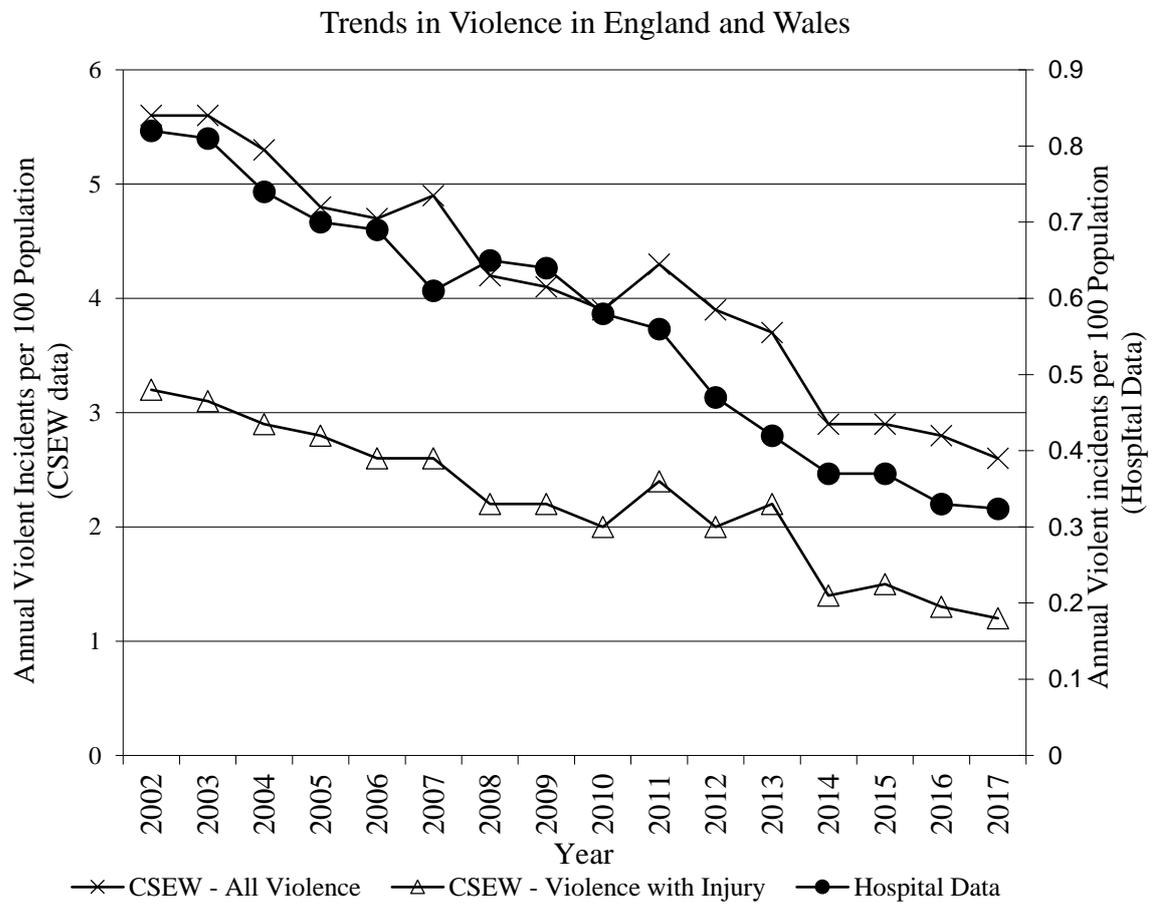
	Males	Females	Total
2007 - 2008	5	10	6
2008 - 2009	-0.3	-1.8	-1.3
2009 - 2010	-9.5	-5.7	-9
2010 - 2011	-5.3	-1	-4
2011 - 2012	-14	-14	-14
2012 - 2013	-12	-12	-12
2013 - 2014	-9.9	-9.5	-9.9
2014 - 2015	-2	1.5	0
2015 - 2016	-11	-9	-10
2016 - 2017	0.5	2.4	1

Table 3: Estimated violence-related ED and MIU attendances by age and gender in England and Wales. §

Age Groups	2016		2017	
	Males	Females	Males	Females
0 to 10	1,158	609	1,261	703
11 to 17	15,033	6,157	14,909	6,375
18 to 30	62,305	23,887	60,571	24,060
31 to 50	42,522	19,061	44,650	19,774
51+	12,414	5,657	12,672	5,770
Total	133,432	55,371	134,064	56,683

§ Violence-related ED attendances by age and gender were provided by 94 and 103 EDs in 2017 and 2016 respectively.

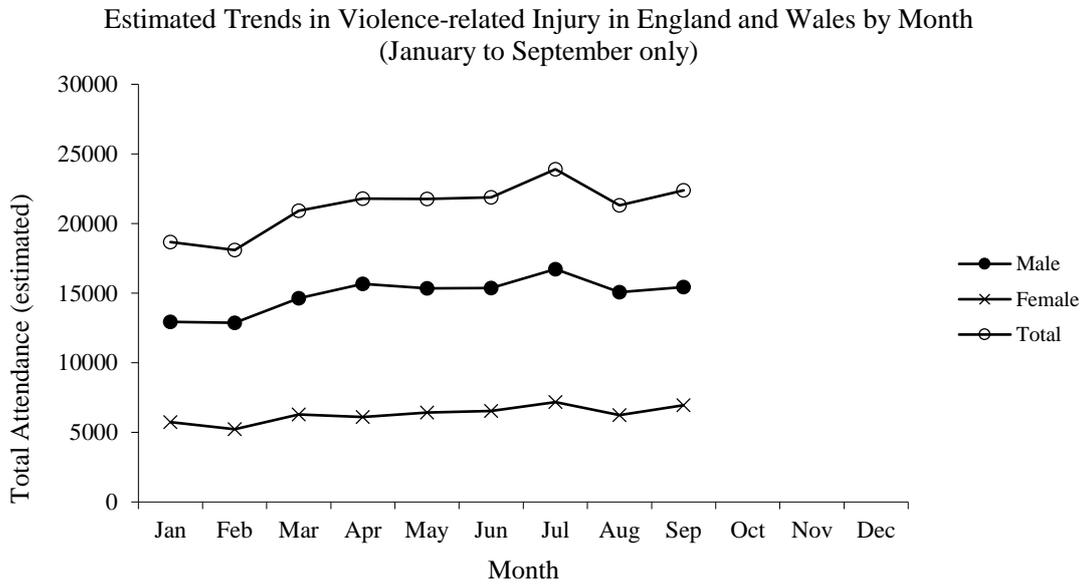
Figure 2



Note: CSEW annual violence data for years 2013 to 2017 are for twelve month periods ending 30th September. Before 2013, CSEW violence data are for twelve month periods ending 31st March.

Figure 3a and 3b

3a



3b

