



# Violence in England and Wales in 2018

An Accident and Emergency Perspective

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## An Accident and Emergency Perspective

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### Executive Summary

- 126 Emergency Departments (EDs), Minor Injury Units (MIUs) and walk-in centres in England and Wales, all certified members of the National Violence Surveillance Network (NVSN), took part in this study of trends in serious violence.
- Anonymised data relating to age, gender and attendance date of those treated for violence-related injuries were retrieved from these EDs, MIUs and walk-in centres.
- In 2018, an estimated 187,584 people injured in violence attended EDs in England and Wales for medical treatment, 3,162 less than in 2017; a 1.7% decrease. According to this reliable public health measure, after no change in 2017, overall violence levels in England and Wales did not change significantly in 2018. In contrast, knife related serious violence increased. Since 2010, overall violence according to ED data decreased by 41%.
- In 2018, violent injury of males declined by 2.5% (3,297), but violence affecting females did not change significantly (up 0.24%; 134) compared to 2017.
- According to this measure, serious violence affecting those aged 0-30 years decreased in 2018 compared to 2017; decreases among children were largest (0-10 years, down 9.3%; 11-17 years, down 7.4%). Violence affecting those aged 51 years and over increased (up 5.2%) relative to 2017.
- Those most at risk of violence-related injury in 2018 were males and those aged 18 to 30. Violence-related ED attendance was most frequent in July and on Saturdays and Sundays.

The methods used here and findings in previous years have all been subject to peer review and have been published<sup>1</sup>.

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## Introduction

Understanding violence levels in England and Wales is far from straightforward – increases in youth-related, ‘high-harm’ knife and gun violence over the past two years against the background of long term falls in overall violence has been difficult to explain. Homicide levels in London in 2018 were at their highest in a decade; there are signs that this trend is continuing – in the first three months of 2019, reports of stabbings and homicides were almost a daily occurrence, heightening public anxiety, claims of a ‘public health emergency’ and resulting in policy makers scrambling for answers<sup>2</sup>.

The National Violence Surveillance Network (NVSN) of Emergency Departments (ED), minor injury units (MIUs) and walk-in centres in England and Wales continues to collect and analyse violence-related ED attendances<sup>3</sup>. Violence is an established category in NVSN hospital ED software packages and a new record is created for each individual attendance. NVSN is concerned with the serious, injury-related end of the violence harm spectrum and is a reliable and objective measure<sup>1</sup>; NVSN does not provide a measure of violence that does not result in hospital treatment. Over the last two decades, this nationally representative violence measure has complemented both the Crime Survey for England and Wales (CSEW, based on interviews of a large representative sample of the population) and police records which reflect violence reporting but are subject to many measurement errors, for example because of changed recording rules and recategorisation of high volume public order offences as violent.

According to NVSN, an estimated 190,747 people sought treatment at EDs in 2017 for injury sustained in violence, a 1% increase relative to 2016<sup>3</sup>. Consistent with this, violence levels derived from the CSEW were also stable among adults aged 16 years and over. In contrast, although much lower in number, homicides increased by eight percent (to 739 in the 12 months to September 2018)<sup>4</sup>.

Implementation of the new Emergency Care Data Set (ECDS) in all Type 1 EDs (with consultant led 24-hour services which include resuscitation facilities) in England in October 2017 allowed recording of more detailed information about violence including violence location, weapon type or other injury mechanism, numbers of assailants and incident time and day<sup>5</sup>. Access to this detailed dataset, now owned by NHS Digital, has been challenging. Once fully accessible these data are expected to facilitate improved violence measurement and, used locally by multiagency violence prevention boards to identify and target concentrations of violence (“hotspots”), more effective and efficient violence prevention. This is the classic public health approach known as the Cardiff Model,

which, underpinned by NHS Digital's Information Standard to Tackle Violence (ISTV; ISB 1594) depends on the facility in EDs to record precise violence locations<sup>6, 7</sup>. This approach has been adopted by the Centres for Disease Control and Prevention for implementation in the United States<sup>7</sup>.

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 31<sup>st</sup> December 2018.

## **Methods**

### **Emergency Departments**

NVSN has retained the same methodology since its introduction, namely, the collection and weighted analysis of ED records of violent-injury. Data relating to attendance date, age and gender of patients reporting injury in violence to EDs in England and Wales over a twelve month period ending 31<sup>st</sup> December 2018 were retrieved and analysed. Altogether, 126 NVSN EDs (Type 1 = consultant led 24 hour service with resuscitation capabilities; Type 3 = other ED/minor injury units; Type 4 = National Health Service walk-in centres) in all nine regions of England (East England, East Midlands, London, North East, North West, South East, South West, West Midlands, Yorkshire and Humberside) and Wales (Figure 1) provided anonymised violence data. All EDs are certified members of NVSN and complied with the provisions of the 1998 Data Protection Act and Caldecott guidance. Data were collected mostly under the provisions of the Freedom of Information Act and individuals were anonymised by NHS Trusts/Health Boards prior to sharing.

### **Data analyses**

In this report, ED attendances were categorised by gender and five age groups: 0–10, 11–17, 18–30, 31–50 and 51+ years. To control for potential sample bias and to allow comparison with previous NVSN publications, attendances were weighted using a national Coverage Ratio (CR); where CR is equal to the total annual all-cause attendance in sampled EDs divided by the total annual all-cause attendance for all EDs (including those sampled) in England and Wales – the latter was computed from publicly available sources (retrieved separately from NHS England and Information and Statistics, Wales). Essentially, a CR equal to 1 indicates full national coverage of EDs, MIUs, and walk-in centres. Consistent with previous NVSN reports, the same CR was applied to both genders and all age groups. Annual rates of violent injury (numbers of injured per 1,000 resident population) were

calculated by gender and age groups using national population estimates computed by the authors. Injury rates for 2018 were compared to injury rates in previous years.

## **Results**

### **Violence-related ED attendances**

Overall, 40,242 violence-related attendances were identified from 81 EDs, MIUs and walk-in centres in England and Wales which provided data for the twelve month period ending 31<sup>st</sup> December 2018 by age and gender (Table 1). Data from 45 hospitals were provided only in aggregate form and were omitted from the substantive analysis. Age group and gender analyses showed that most patients reporting injury in violence were males (n = 28,053; 70%) and aged between 18 and 30 years (n = 17,619; 43%).

### **Violence injury rates<sup>3</sup>**

In England and Wales, the overall estimated annual injury rate was 3.18 per 1,000 resident population in 2018. Males (4.5 per 1,000 residents) were almost two and a half times as likely as females (1.9 per 1,000 residents) to have been treated following violent injury (Table 1). Analyses 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 11.92; females 4.9), followed by those aged 11-17 years (males 5.68; females 2.57), 31-50 years (males 5.47; females 2.52), 51 years and over (males 1.35; females 0.58) and those aged 10 years and under (males 0.3; females 0.15)

### **Trends in serious violence**

According to this measure, violence decreased by 1.7% in England and Wales between 2017 and 2018; an estimated 3,163 fewer violence related attendances were recorded in 2018 (Figure 2; Tables 2 and 3). This fall was entirely due to decreases in violence affecting males (down 2.45%; 3,297); violence affecting females remained the same as in 2017 (up 0.24%; 134). All age groups, except those aged 31 years and over, showed decreases in violence; children (aged 0 – 10 years) down 9.3%, adolescents (aged 11 - 17 years) down 7.4%, young adults (aged 18 – 30 years) down 2.9%. Violence affecting those aged 51 years and over increased by 5.2% from 2017. As in 2017, violence peaked in July and on Saturdays and Sundays in 2018 (Figures 3a and 3b).

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<sup>3</sup> Refers to sample non-aggregate data, Jan to Dec 2018

## Discussion

This national study, based on a sample of 126 NVSN EDs, MIUs and walk-in centres in England and Wales, showed a small decrease in overall violence in the 12 months ending 31<sup>st</sup> December 2018, compared to the previous year - an estimated 187,584 people attended EDs in 2018, down 1.7% from 2017. This follows a small increase (1%) in annual NVSN violence recorded in 2017 compared with 2016<sup>3</sup>. Violence affecting males and those aged 0-30 years decreased. This is the first NVSN report based on the new ECDS which was implemented in all Type 1 EDs in England in October 2017. Although ECDS includes information on violence location, weapon use, number of assailants and incident time and day, it was not possible to retrieve this more detailed information (compared with basic counts of violence related attendances) in a consistent manner from NVSN hospitals - only two hospitals were able to provide any information on assault locations and weapon use. Reasons for this are unclear but early signs are, 18 months on, that ECDS implementation in NHS hospitals is still evolving<sup>5</sup>.

According to NVSN data, injury levels caused by violence in England and Wales declined by 41% between 2010 and 2018. NVSN and CSEW violence trends have consistently and reassuringly similar. For example, overall CSEW violence declined by 26% between 2009 and 2018 (CSEW “violence with injury” decreased by 32% and “violence without injury” decreased by 20% during this period)<sup>4</sup>. NVSN and CSEW provide valid and reliable measures of violence and have used consistent methods since their introduction. Both cover violence not reported to or recorded by the police and unlike the latter, NVSN and CSEW are not affected by changes in recording practices, categorisation of offences as violent, and police activity – factors which led the Office for National Statistics to withdraw recognition of police records as a National Statistic.

However, police records are a much more accurate measure of high harm violence. There were 739 homicides in England and Wales in the twelve months ending September 2018, an 8% rise over the previous year. In addition, there was an 8% rise (to 42,957) in police recorded offences involving a knife or sharp instrument over the same period – the highest number recorded since the year ending March 2011<sup>4</sup>. This is very consistent with the 7% increase in violence related admissions to NHS hospitals in England for the year ending March 2018, compared to the previous year<sup>8</sup>. A multitude of factors may be responsible for increases in weapon-related violence including gang-related activity, increased weapon carrying and drug use compounded by changes in police stop and search strategy and low detection rates.

Similar to previous NVSN reports, age and gender distribution of violence-related injury were consistent with broader cross-societal findings that most violence victims are males and those belonging to younger age groups (between 11 and 30 years). In particular, males aged 18-30 years were almost two and a half times more likely than females of the same age to sustain violence-related injury which resulted in ED treatment. Younger age groups (those aged 0-30 years) showed overall decreases in violence resulting in emergency hospital treatment – contrary to current public perceptions fuelled by media portrayals of a violence epidemic. Daily and seasonal variations identified in this study, comprising peaks in violence over the weekends and in the summer, are consistent with NVSN findings in previous years.

Greater local effort to embed and utilise the new emergency care data set and consistently apply the local information standard ISB 1594 for violence measurement and prevention is a priority. Senior ED clinicians are in a prime position to lead NHS engagement with local authorities and the police in their joint, statutory responsibilities to reduce violence in the towns, cities and rural areas which their EDs serve.

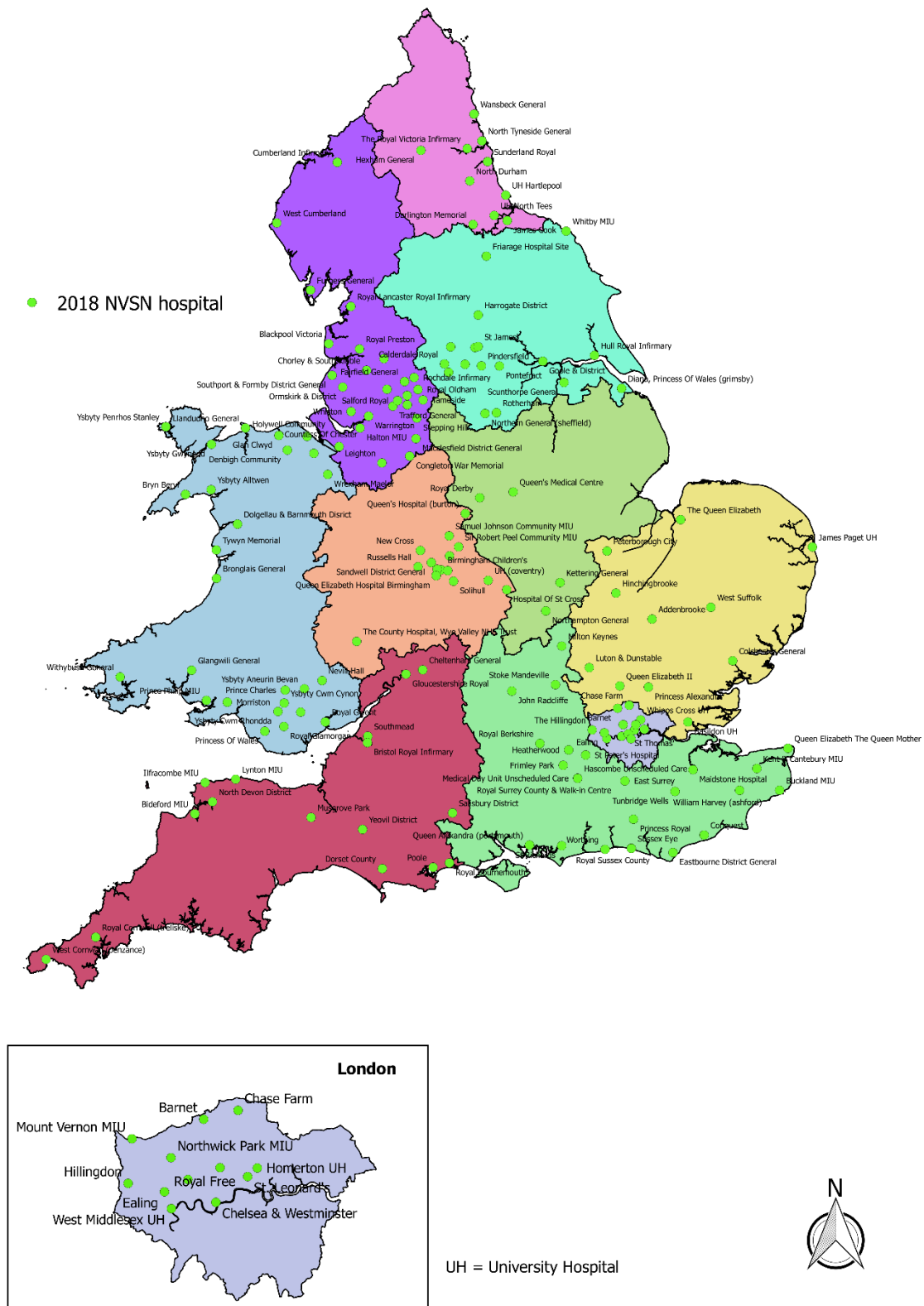
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**Figure 1 – National Violence Surveillance Network (NVSN) Hospitals (n = 126)**



**Table 1: <sup>4</sup>Violence-related attendances and injury rates by age and gender 2018: patients who attended NVSN EDs in England and Wales for treatment following violence-related injury.**

<b>Gender</b>	<b>N</b>	<b>%</b>
<b>Male</b>	28,053	70
<b>Female</b>	12,189	30
<b>Total</b>	40,242	100

<b>Age group (years)</b>	<b>N</b>	<b>%</b>
<b>0 to 10</b>	382	0.95
<b>11 to 17</b>	4,228	10.51
<b>18 to 30</b>	17,619	43.78
<b>31 to 50</b>	13,852	34.42
<b>51+</b>	4,161	10.34
<b>Total</b>	40,242	100

	<b>Annual violence injury rate (per 1,000 residents)</b>
<b>Males</b>	4.47
<b>Females</b>	1.91
<b>Total</b>	3.18
<b>0 to 10</b>	0.22
<b>11 to 17</b>	4.15
<b>18 to 30</b>	8.44
<b>31 to 50</b>	3.99
<b>51+</b>	0.95

<sup>4</sup> Violence-related ED attendances by age and gender from 81 EDs

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

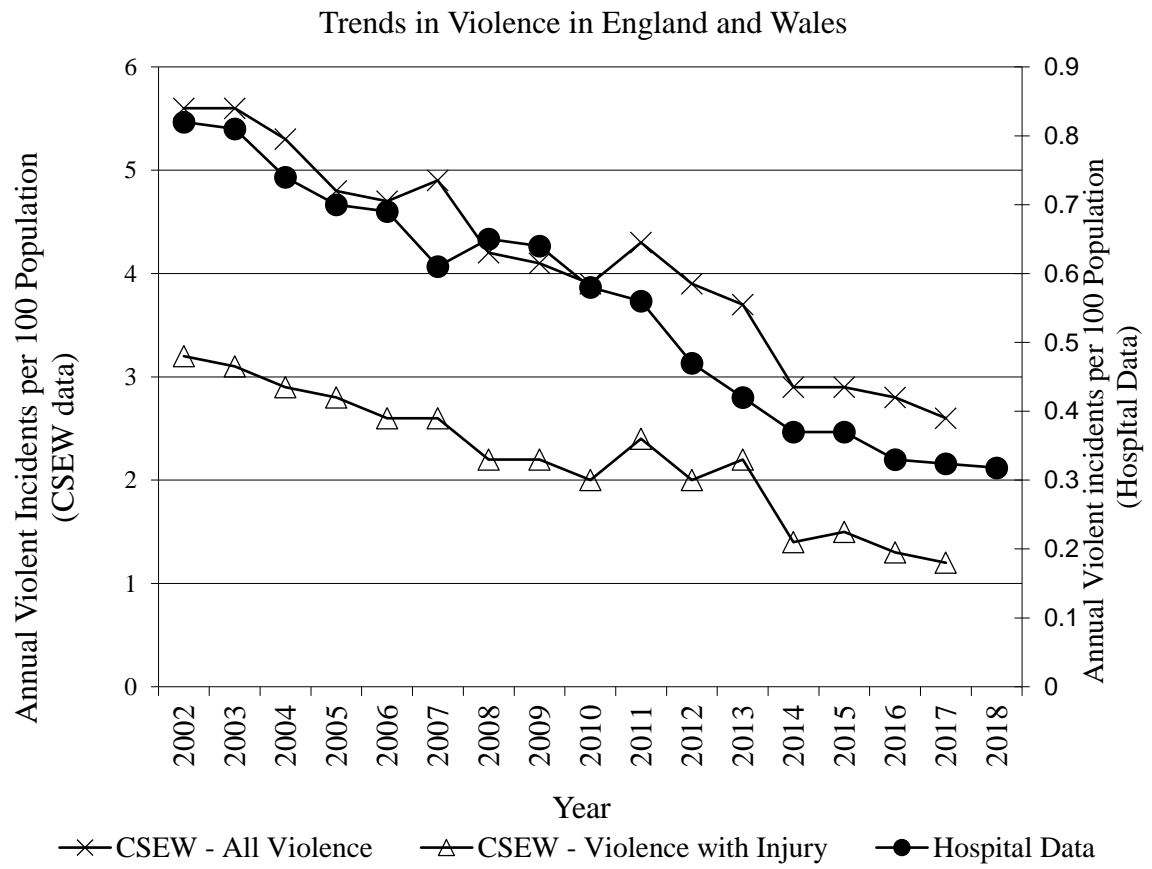
	<b>Males</b>	<b>Females</b>	<b>Total</b>
<b>2008 – 2009</b>	-0.3	-1.8	-1.3
<b>2009 – 2010</b>	-9.5	-5.7	-9
<b>2010 – 2011</b>	-5.3	-1	-4
<b>2011 – 2012</b>	-14	-14	-14
<b>2012 – 2013</b>	-12	-12	-12
<b>2013 – 2014</b>	-9.9	-9.5	-9.9
<b>2014 – 2015</b>	-2	1.5	0
<b>2015 – 2016</b>	-11	-9	-10
<b>2016-2017</b>	0.5	2.4	1
<b>2017-2018</b>	-2.5	0.2	-1.7

**Table 3: <sup>5</sup>Estimated violence-related ED and MIU attendances by age and gender in England and Wales.**

Age Groups	2017		2018	
	Males	Females	Males	Females
<b>0 to 10</b>	1,261	703	1,212	569
<b>11 to 17</b>	14,909	6,375	13,723	5,985
<b>18 to 30</b>	60,571	24,060	58,468	23,661
<b>31 to 50</b>	44,650	19,774	44,116	20,454
<b>51+</b>	12,672	5,770	13,248	6,148
<b>Total</b>	<b>134,064</b>	<b>56,683</b>	<b>130,767</b>	<b>56,817</b>

<sup>5</sup> Violence-related ED attendances by age and gender were provided by 81 and 94 EDs in 2018 and 2017 respectively.

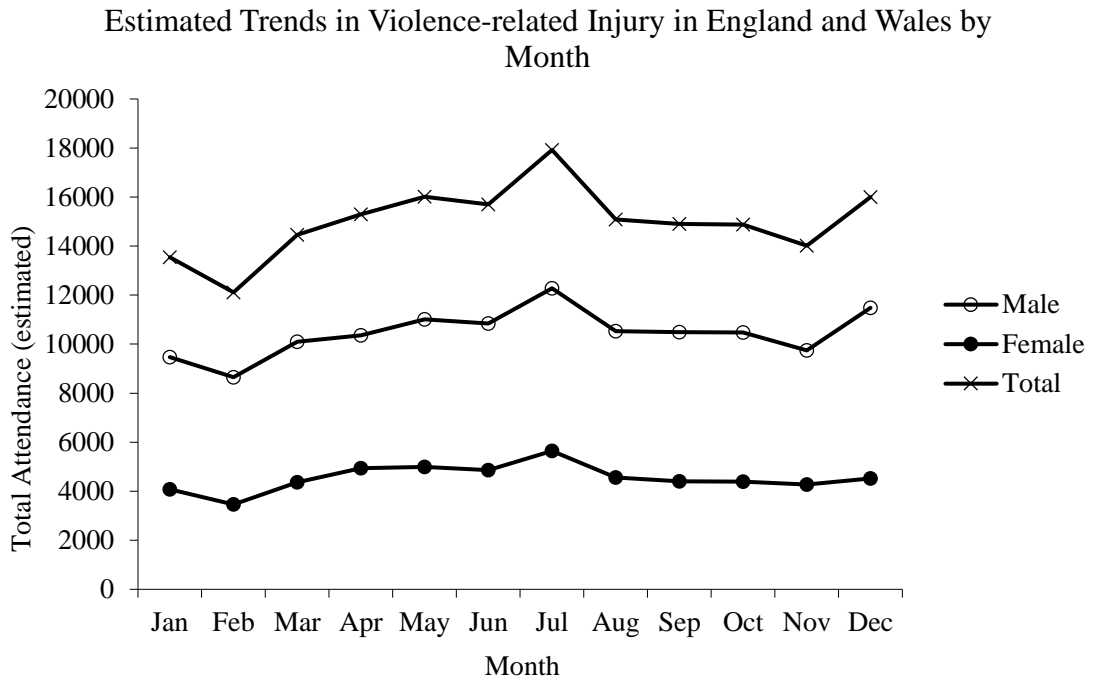
Figure 2



Note: Due to methodological change to the handling of repeat victimisation in the CSEW, 2018 CSEW violence data is not presented in the graph.

**Figure 3a and 3b**

**3a**



**3b**

