

TIIG Greater Manchester Themed Report

Situational Analysis of Injuries and Violence across Greater Manchester
April 2012 to March 2015

November 2015

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In England, in 2012/13 there were between 18.3 and 21.7 million Emergency Department (ED) attendances.¹ Between April 2012 and March 2015 there were over 1.2 million ED attendances across Greater Manchester (Table 3 of this report). It has been suggested that, from a clinical need perspective, one in four attendees don't need to be there. Across the North West the cost of these unnecessary ED attendances has been estimated at £79.25m.²

Age, gender and social inequality can predict the risk of attending an ED.³ However, many of the immediate conditions that lead an individual to present to an ED are associated with longer-lasting and wider-reaching physical and mental health 'risk factors'.⁴ Such factors include:

- ❖ Domestic violence;
- ❖ Substance misuse; and,
- ❖ Deliberate self-harm.

With growing use of EDs as a first port of call for many requiring medical attention there is an increased need to understand the role of these services and how best to ensure they meet the needs of their local populations within the context of wider healthcare provision.⁵

By understanding the people who attend, their presenting condition and the context of their wider health needs, Greater Manchester ED services can be better targeted to serve their population more effectively and efficiently. Such increased understanding can also be used to educate that same population with regard to the proper use of the various health services (i.e. when to use EDs and when to seek advice from a GP, pharmacy or other community-based services). This report provides valuable intelligence that can help Greater Manchester EDs achieve these objectives.



Tom Maloney

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¹ HSCIC. (2014). Hospital Episode Statistics: Accident and Emergency Attendances in England – 2012-13. Available at: <http://www.hscic.gov.uk/catalogue/PUB13464/acci-emer-atte-eng-2012-2013-rep.pdf> [Accessed 21/10/2015]

² Wrightington, Wigan and Leigh NHS Foundation Trust. (2010). Unnecessary Visits to A&E Cost Region's Hospitals £79.25 million a Year. Available at: http://www.wvl.nhs.uk/News/2010/October/unnecessary_visits_to_a&e_costs_millions.aspx [Accessed 21/10/2015]

³ World Health Organisation. (2014). Adolescents: Health risks and solutions. Available at: <http://www.who.int/mediacentre/factsheets/fs345/en/> [Accessed 21/10/2015]

⁴ Bellis, M.A. et al. (2012). Protecting people promoting health: A public health approach to violence prevention for England. Department of Health. Available at: <https://www.gov.uk/government/publications/a-public-health-approach-to-violence-prevention-in-england> [Accessed 21/10/2015]

⁵ The Kings Fund. (2013). Are Accident and Emergency Attendances Increasing? Available at: <http://www.kingsfund.org.uk/blog/2013/04/are-accident-and-emergency-attendances-increasing> [Accessed 21/10/2015]



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GREATER MANCHESTER EMERGENCY DEPARTMENT DATA

- There were 1,232,071 attendances for intentional and unintentional injuries to Greater Manchester Emergency Departments (EDs) between April 2012 and March 2015; 90% (1,112,312) were made by Greater Manchester residents. The highest numbers of attendances were made to Tameside General Hospital (235,934), Trafford General Hospital (154,064) and The Royal Bolton Hospital (129,663).
- The largest number of attendances (201,506) came from residents of Tameside local authority, followed by Trafford residents (146,556) and Manchester residents (131,132).
- Of the attendances made by Greater Manchester residents there were slightly more male attendances (578,663; 52%), compared to 48% (533,590) by females. The age group with the largest proportion of attendees was adults aged 30 to 59 years (327,070; 29%). In terms of ethnicity, 79% (880,352) of attendances were made by people of white ethnicity.
- Forty per cent of attendees arrived at Greater Manchester EDs by 'other' means (446,788), such as arriving by transfer, followed by arrival by ambulance (223,055; 20%). Forty-five per cent (499,537) of attendees were discharged with no follow up treatment required, while 38% (417,697) were referred for follow up treatment.
- The majority of attendances involved incidents which took place in the home (477,219; 43%), followed by incidents in locations categorised as 'other' (293,025; 26%). The majority (73%; 806,820) of attendees presenting to Greater Manchester EDs during this period were self-referred.
- Injury and trauma attendances to Greater Manchester EDs were comprised of five injury groups: assaults, deliberate self-harm, falls, road traffic collisions and sports injuries, which accounted for 25% of all attendances. Falls comprised the majority with 12% (136,026), followed road traffic collisions (5%; 52,793). The remaining 75% of attendances were recorded as other injury (810,516).
- Almost a third (32%) of assault attendances made by Greater Manchester residents were males aged 15 to 29 years of age (11,291). Twenty per cent of this group were resident in Manchester local authority (2,296).
- Almost one quarter (24%) of deliberate self-harm (DSH) attendees were females aged 15 to 29 years of age (3,372). Almost half (49%) of deliberate self-harm incidents occurred in the home (6,953).
- One quarter of fall victims were females aged 60 years or over (33,954; 25%); within this high risk group 58% (19,593) of victims were aged between 77 and 92 years.
- Over four in ten (21,423; 41%) road traffic collisions involved males aged 15 to 59 years. Within this group 65% (13,931) were discharged with no further treatment.
- Over four in ten (41%) sport injury attendances were made by males aged 15 to 29 years (14,265). Over three in ten (31%) sports injury attendances were made by residents of Stockport local authority (10,885).

NORTH WEST AMBULANCE SERVICE DATA

- There were 233,452 ambulance call outs by Greater Manchester residents between April 2012 and March 2015. During this period there was a 13% decrease in the number of total call outs, from 82,920 in 2012/13 to 72,023 in 2014/15.
- The highest number of call outs was made by Manchester residents (49,599; 21%), followed by Wigan residents (26,662; 11%) and Stockport residents (23,635; 10%).

- Almost half (48%) of all call outs were made by fall victims (112,432), followed by psychiatric/suicide attempt victims (34,634; 15%) and overdose/poisoning victims (25,573; 11%).
- Four in ten (40%) call outs were made by people aged 60 years or over (93,435), followed by those aged 30 to 59 years (65,151; 28%).

Injuries can be intentional or unintentional; intentional injuries can be self-directed (i.e. self-harm or suicide) or the result of inter-personal violence, while unintentional injuries are accidental and can occur through various means, including road traffic collisions, falls, and playing sports (Kirkwood, Parekh and Pollock, 2010). Intentional and unintentional injuries are the leading cause of death among people aged between 5 and 44 years in the UK and across Europe (Parekh, Mitis and Sethi, 2015). Intentional injuries, suffered through violence, affect an estimated 2.5 million people annually in England and Wales (Bellis et al., 2012), while self-directed violence has increased substantially over the last decade. In terms of unintentional injuries, road traffic collisions, followed by falls, are the primary cause of unintentional death and injury globally (World Health Organisation, 2012), and unintentional injuries are a prominent cause of death and ill health for people aged less than 40 years in the UK (Alexandrescu, O'Brien and Lecky, 2009). Though it remains essential to recognise significant distinctions between intentional and unintentional injuries, both sub fields share connections in contributing factors, behavioural norms and research methodologies that can benefit from integrated public health approaches to prevention and intervention. Cohen et al (2003) argue that research methods in data collection and common risk factors such as alcohol and substance abuse, mental health and economic disparity intersect both injury categories, signifying the potential for practitioners to reduce injury through skill sharing and unified methodologies enabling a collaborative approach for injury prevention and harm reduction. While injury attendances to Emergency Departments (EDs) place a burden on health services and social resources, EDs can play a leading role in guiding and informing targeted prevention strategies.

In terms of predictive risk factors, early life experiences are often associated with the level of risk for intentional and unintentional injuries, primarily by shaping behavioural cycles which affect many aspects of health. Factors including social inequality, the built environment, the prevalence of alcohol and drug abuse, and the absence of community support services increase the risk and intensify the likelihood of incidents and injuries (Cohen et al., 2003). Age and gender are key risk factors in the prevalence of injury incidents, for example road traffic accidents are the leading cause of death amongst children and adolescents globally (World Health Organisation, 2014), while falls are the leading cause of death among the elderly (over 65s; World Health Organisation, 2012). Road traffic accidents and fall fatalities are more frequent in males up to the age of 65 years, while females are more likely to experience non-fatal injuries from incidents in the same age group (World Health Organisation, 2012). After the age of 65 years females become the most frequent victims of injury and fatalities (Alexandrescu, O'Brien, Lecky, 2009); however this may be explained in part by a higher proportion of females in the population among older age groups. The consequences of unintentional injuries, especially among older people, can be bone fractures, dislocations and even disability, which can severely impact the ongoing wellbeing of an individual, and place further strains on community and health resources. Further risk factors such as alcohol and drug abuse and mental health issues severely elevate the risk of injury. There also remains an inverse relationship between unintentional injuries and social inequality (Dowswell and Towner, 2002); unintentional injuries and related deaths from incidents, such as road traffic collisions, are estimated to be three times higher in children and adolescents from areas of low income than those in areas of high income (Kirkwood, Parekh and Pollock, 2010).

Violence is widely acknowledged to mirror the spread of disease between individuals, family generations and within communities. Exposure to violence, especially at an early age, affects long term physical health through injury or disability, while further affecting ongoing emotional and social wellbeing (Bellis et al., 2012). Age and Gender are significant factors in incidents of violence; victims aged between 18 and 30 years account for almost half of all violence-related attendances to EDs in the United Kingdom (UK); and males are three times more likely to be the victims of violence across all ages (Sivarajasingam et al.,

2013). Victims of all forms of violence are more likely to experience social isolation and increased alcohol and substance abuse which further reduce their ability to obtain employment opportunities and stable careers. Violence is estimated to account for 300,000 attendances to emergency departments each year throughout the United Kingdom, with approximately 35,000 being admitted into hospital. The estimated cost to healthcare services across the UK is £2.9 billion (Bellis et al., 2012).

High levels of poverty and inequality increase the prevalence of violence in the community with hospital admissions approximately five times higher in deprived regions (Bellis et al., 2012). The North West of England, which is one of the most deprived regions in the UK, displays higher rates of violence compared to the East of England or the South East (Sivarajasingam et al., 2013). Despite this structural disparity, the North West and specifically Greater Manchester have shown a decline in violence-related attendances since 2006 (Sivarajasingam et al., 2013). Such declines are unlikely to be attributable to structural changes in socio-economic deprivation in such short time periods and thus highlight the potential effects of locally targeted prevention strategies. Data sharing between EDs and projects such as TIIG are a central component in the prevention process emphasised by the correlation between the declines in incidents in areas where data sharing is highly developed (Sivarajasingam et al., 2013).

The prevention of injuries for at-risk groups is made possible through the implementation of evidence based local and national policies, enhanced through effective regional surveillance (Brack and Castillo, 2015). EDs play a significant role in this process as a primary source of referral for victims and the source of regional injury and violence data. Prevention strategies such as the Violence Indicator Profiles for England Resource (VIPER) highlight the importance of data sharing processes that underpin injury and violence prevention (Bellis et al., 2012). Local ED injury intelligence is obtained on a regular basis directly from NHS trusts in order to collate and analyse data for injury prevention recommendations. Data collected by the EDs can provide a wealth of information for local partners, including information that is not captured by other means. ED data provides a reliable and objective source of violence-related and other injury attendance information compared to previously utilised sources such as home office records and police statistics, with the acknowledgment that a proportion of both intentional and unintentional injuries are not reported to the police, yet the victims still present to EDs.

This report intends to provide an overview of the Trauma and Injury Intelligence Group (TIIG) to public health practitioners in Greater Manchester and those involved with injury prevention. This report will present data from 12 EDs across ten local authorities in Greater Manchester between April 2012 and March 2015. ED data in collaboration with North West Ambulance Service (NWAS) data will also be contextualised before recommendations are suggested which relate to various public health issues. Monitoring and examining specific injury groups in relation to demographic and community variables provide evidence of the range and causes of injury and violence, which enables this data to be used to inform preventative strategies, inform policy development processes, and enhance the efficiency of public health resource management.

GREATER MANCHESTER AREA PROFILE

AREA DESCRIPTION

Greater Manchester is a metropolitan county within the North West of England and has a population of around 2.7 million people (mid-2013 population estimates; ONS 2014). Table 1 shows a breakdown of the Greater Manchester population by LA; Manchester (514,417) has the largest population, followed by Wigan (319,690) and Stockport (285,032).

TABLE 1. Greater Manchester resident population estimates (mid-2013 estimates)

Local authority	Population estimate
Bolton	280,057
Bury	186,527
Manchester	514,417
Oldham	227,312
Rochdale	212,120
Salford	239,013
Stockport	285,032
Tameside	220,597
Trafford	230,179
Wigan	319,690

Source: Office for National Statistics (2014).

LEVELS OF DEPRIVATION IN GREATER MANCHESTER

In terms of deprivation, LAs within Greater Manchester are generally more deprived than the UK average. In the Indices of Multiple Deprivation (IMD, 2010), seven out of 10 LAs within Greater Manchester are ranked in the most deprived quintile, these being; Bolton, Manchester, Oldham, Rochdale, Salford, Tameside and Wigan. Bury is ranked in the 2nd most deprived quintile, and Stockport and Trafford are ranked in the 3rd most deprived quintile.

ACCIDENT AND EMERGENCY DEPARTMENT DATA

EMERGENCY DEPARTMENTS IN GREATER MANCHESTER

Within Greater Manchester there are twelve EDs which primarily serve residents of Greater Manchester. These are: Manchester Royal Infirmary (MRI); Royal Albert Edward Hospital (RAE); Salford Royal Hospital; Stepping Hill Hospital; Tameside General Hospital; Royal Bolton Hospital; Trafford General Hospital;⁶ Wythenshawe Hospital; Fairfield General Hospital; North Manchester General Hospital; Royal Oldham Hospital and Rochdale Infirmary¹.

⁶ Urgent Care Centre.

TABLE OF INJURY GROUPS COLLECTED

Table 2 shows which injury groups are collected by each ED. There are varying levels of data collected across different trusts with Fairfield General Hospital, Rochdale Infirmary, The Royal Bolton Hospital and Salford Royal being the only EDs that collect data for all injury groups.

TABLE 2. Greater Manchester ED injury group data items

Injury group	Pennine Acute Trust ⁷	Manchester Royal Infirmary	Royal Albert Edward infirmary	Salford Royal	Stepping Hill Hospital	Tameside General Hospital	Royal Bolton	Trafford General Hospital	Wythenshawe Hospital
Assault	Y	Y	Y	Y	Y	Y	Y	Y	Y
Other injury	Y	Y	Y	Y	Y	Y	Y	Y	Y
Road traffic collisions	Y	Y	Y	Y	Y	Y	Y	Y	Y
Sports injuries	Y*	Y	-	Y	Y	Y	Y	Y	Y
Deliberate self-harm	Y	Y	Y	Y	-	Y	Y	Y	Y
Falls	Y	-	-	Y	Y	Y	Y	-	Y
Burns & scalds	Y	-	-	Y	Y	-	Y	-	Y
Bites & stings	Y	-	-	Y	Y	-	Y	-	-

*Collected by Fairfield General and Rochdale Infirmary only

ALL INJURIES AND VIOLENCE GREATER MANCHESTER: ANALYSIS OF ED DATA

This section of the report examines the burden of injury and violence across Greater Manchester using ED data between April 2012 and March 2015. In order to support local work, this report describes data at both LA and ED level to assist local partners in their work towards the Public Health Outcomes Framework (PHOF).

ALL INJURY AND VIOLENCE TRENDS ACROSS GREATER MANCHESTER (2012/13 TO 2014/15)

TIIG has stored and collated data from all EDs across Greater Manchester throughout the period covered by this report, from April 2012 to March 2015. Table 3 shows the total injury and violence attendances to Greater Manchester EDs during this period. The majority of EDs have reported a decline in overall attendances, with a total average decrease of 11%; for example Manchester Royal Infirmary has shown the largest decline in injury and violence attendances with a decrease of 42%. Similarly, Trafford General Hospital had a decrease of 17% in attendances, Salford Royal had a decrease of 9% and Fairfield General Hospital had a decrease of 8% in attendances during this period. Conversely two EDs had increases in attendances, with a total average increase of 4%; Tameside General Hospital had a 6% increase, and Stepping Hill Hospital had a 2% increase during the period covered in this report.⁸

⁷ Pennine Acute Trust incorporates Fairfield General Hospital, North Manchester General Hospital, Royal Oldham Hospital and Rochdale Infirmary.

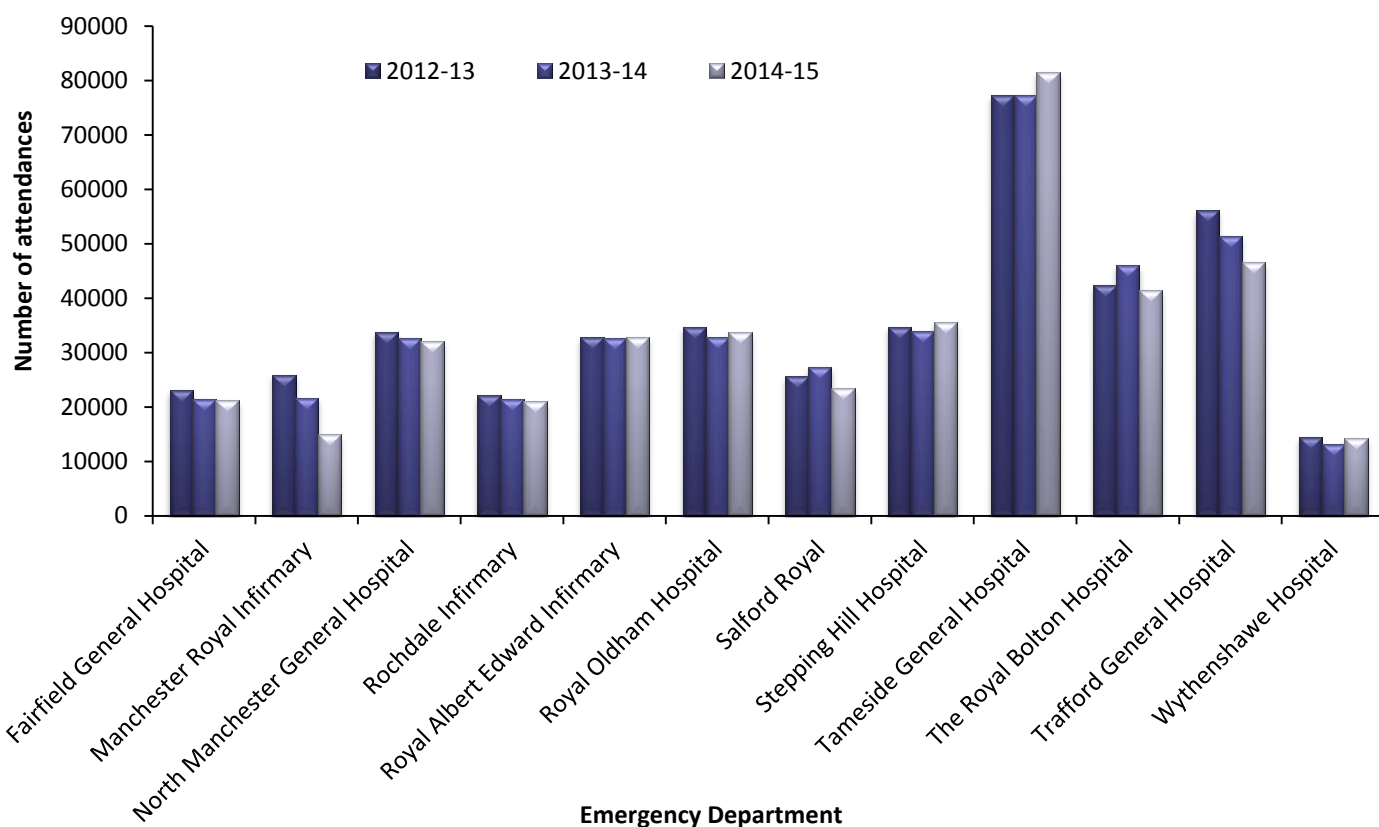
⁸ The changes witnessed across this time period are not necessarily reflective of injury increases and decreases at community level, and are effected by developments in the data recorded at EDs and changes to the IT systems used in this process.

TABLE 3. All injury and violence attendances to Greater Manchester EDs by financial year, April 2012 to March 2015

Hospital	2012-13	2013-14	2014-15	Increase/decrease between 2012/13 and 2014/15
Fairfield General Hospital	23047	21451	21195	-8%
Manchester Royal Infirmary	25891	21517	14930	-42%
North Manchester General Hospital	33771	32647	32119	-5%
Rochdale Infirmary	22033	21427	20958	-5%
Royal Albert Edward Infirmary	32771	32586	32824	0%
Royal Oldham Hospital	34658	32792	33737	-3%
Salford Royal	25589	27311	23367	-9%
Stepping Hill Hospital	34659	33887	35455	2%
Tameside General Hospital	77153	77361	81420	6%
The Royal Bolton Hospital	42267	45919	41477	-2%
Trafford General Hospital	56139	51409	46516	-17%
Wythenshawe Hospital	14405	13096	14287	-1%
Total Greater Manchester EDs	422383	411403	398285	-6%

Figure 1 displays injury and violence trends for each ED across Greater Manchester between April 2012 and March 2015. During this period only Royal Albert Edward Infirmary, Stepping Hill Hospital and Tameside General Hospital saw increases in injury and violence attendances.

FIGURE 1. All injury and violence attendances to Greater Manchester EDs by financial year, April 2012 to March 2015



DEMOGRAPHICS

This section of the report will consider injury and violence attendances to Greater Manchester EDs between April 2012 and March 2015. During this time a total of 1,232,071 attendances were recorded. Table 4 shows that the highest proportion of attendances came during the financial year 2012-13 with 422,383 presentations (34%). During this three year period there was a 6% decrease in attendances overall. Of the 1,232,071 injury and violence attendances, 1,112,312 (90%) were made by Greater Manchester residents.

TABLE 4. All injury and violence attendances by patient demographic and financial year, April 2012 to March 2015

	2012-13	2013-14	2014-15	Total
All injury attendances	422383	411403	398285	1232071
Greater Manchester residents	381012	377640	353660	1112312

Geography

Of the 1,232,071 total attendances, the highest out of region attendances came from High Peak (11,581; 1%), Cheshire East (9,762; 1%), and Rossendale (5,574; <1%). It was not possible to attribute an LA area to 70,412 attendances (6%) due to the absence of post codes and/or LSOA codes. Table 5 shows the number of attendances made by Greater Manchester residents to Greater Manchester EDs by financial year from April 2012 to March 2015.⁹ Across the three year period, the month with the highest number of injury and violence attendances was July (105,788; 10%), followed by May (98,647; 9%) and June (97,799; 9%), while February (81,607; 7%) had the fewest number of attendances. During the three year period, injury and violence attendances made by Greater Manchester residents decreased by 7% from 381,012 in 2012/13 to 353,660 in 2014/15.

TABLE 5. All injury and violence attendances to Greater Manchester EDs by Greater Manchester residents, April 2012 to March 2015

Years	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
2012-13	28547	32010	30118	35031	33109	32821	33775	31198	30557	31784	29483	32579	381012
2013-14	32616	33693	33884	36422	31694	31148	31279	29480	28139	28864	27133	33288	377640
2014-15	30246	32944	33797	34335	28299	31750	30187	22857	27929	25715	24991	30610	353660
Total	91409	98647	97799	105788	93102	95719	95241	83535	86625	86363	81607	96477	1112312

⁹ Please note the remainder of this section will look at Greater Manchester residents only.

Table 6 shows the percentage of injury and violence attendances at Greater Manchester EDs by LA of residence. The highest number of attendances were to Tameside General Hospital (203,870; 18%), followed by Trafford General Hospital (144,406; 13%) and The Royal Bolton Hospital (114,415; 10%). Wythenshawe Hospital saw the fewest number of attendances (36,845; 3%). The majority of ED patient attendances were comprised of local residents; e.g. 98% of Royal Albert Edward Infirmary attendances were made by Wigan residents and 94% of Tameside General Hospital attendances were made by Tameside residents.

TABLE 6. All injury and violence attendances to Greater Manchester EDs as percentages of Local Authority of residence, April 2012 to March 2015¹⁰

Hospital	Bolton	Bury	Manchester	Oldham	Rochdale	Salford	Stockport	Tameside	Trafford	Wigan	Total
The Royal Bolton Hospital	78%	3%	0%	0%	0%	8%	0%	0%	0%	10%	10%
Fairfield General Hospital	1%	59%	4%	5%	29%	1%	0%	0%	0%	0%	6%
Manchester Royal Infirmary North	1%	1%	74%	2%	1%	4%	4%	5%	7%	1%	5%
Manchester General	0%	18%	49%	7%	18%	6%	0%	1%	0%	0%	8%
Royal Oldham Hospital	0%	4%	4%	72%	19%	0%	0%	1%	0%	0%	9%
Royal Albert Edward Infirmary	1%	0%	0%	0%	0%	0%	0%	0%	0%	98%	8%
Rochdale Infirmary	0%	4%	4%	6%	85%	0%	0%	0%	0%	0%	5%
Salford Royal Hospital	2%	2%	3%	1%	1%	85%	1%	1%	3%	3%	7%
Stepping Hill Hospital	0%	0%	2%	0%	0%	0%	93%	4%	0%	0%	8%
Tameside General Hospital	0%	0%	2%	2%	0%	0%	1%	94%	0%	0%	18%
Trafford General Hospital	0%	0%	5%	0%	0%	4%	1%	0%	89%	0%	13%
Wythenshawe Hospital	0%	0%	51%	0%	0%	1%	14%	1%	32%	0%	3%

¹⁰ Please note that due to rounding some percentages may not total to 100%.

Table 7 shows that the highest number of attendances came from the Lower Super Output Area (LSOA) Tameside 013D (3,120) followed by Tameside 004C (2,775) and Tameside 013A (2,630). The highest rate of attendance was from the Lower Super Output Area (LSOA) Tameside 006C (169,993 per 100,000 population) followed by Tameside 004E (152,445) and Tameside 004C (141,798).

TABLE 7. Top 20 LSOAs for all Greater Manchester ED injury and violence attendances, April 2012 to March 2015¹¹

LSOA code	LSOA name	Number of attendances	Population	Rate (per 100,000)
E01005935	Tameside 006C	2,572	1,513	169,993
E01005947	Tameside 004E	2,462	1,615	152,446
E01005945	Tameside 004C	2,775	1,957	141,799
E01005952	Tameside 013D	3,120	2,228	140,036
E01005941	Tameside 007A	2,310	1,696	136,203
E01005948	Tameside 013A	2,630	1,949	134,941
E01006064	Tameside 008B	2,074	1,593	130,195
E01006019	Tameside 018D	1,978	1,521	130,046
E01005946	Tameside 004D	2,062	1,605	128,474
E01006016	Tameside 017E	2,237	1,817	123,115
E01005959	Tameside 005E	2,126	1,731	122,819
E01005953	Tameside 013E	2,324	2,095	110,931
E01006034	Tameside 020D	2,155	2,172	99,217
E01006061	Tameside 003B	2,343	2,395	97,829
E01006126	Trafford 007B	1,606	1,695	94,749
E01006107	Trafford 017D	1,467	1,614	90,892
E01006028	Tameside 028A	1,502	1,748	85,927
E01006108	Trafford 017E	1,388	1,695	81,888
E01006040	Tameside 028E	1,453	1,775	81,859
E01006189	Trafford 003D	1,442	2,297	62,778

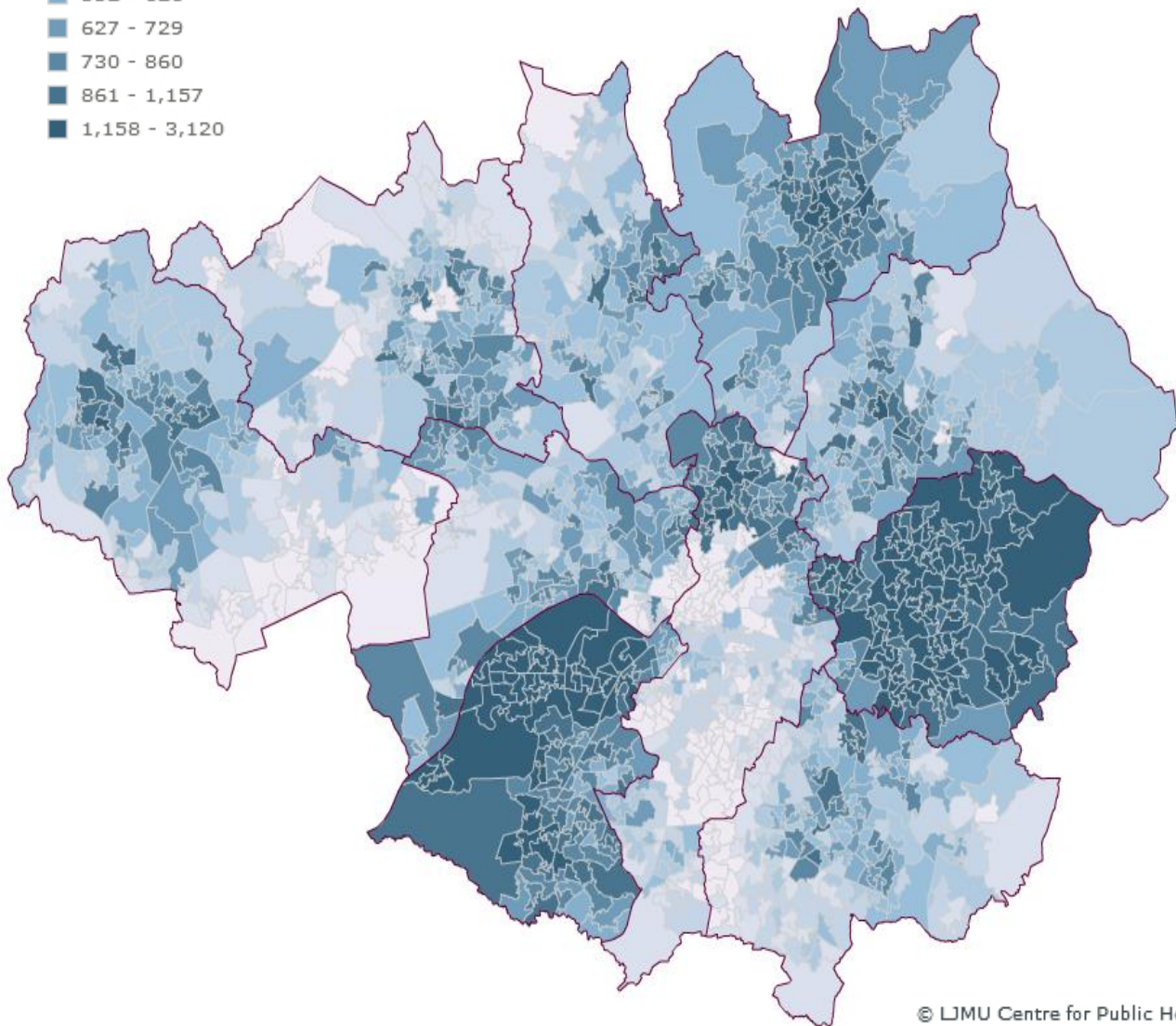
¹¹ Please note that rates included in this report relate to attendances not individuals and therefore could include repeat attendances.

FIGURE 2. Number of Injury and violence ED attendances by LSOA with Local Authority boundaries, April 2012 to March 2015

Figure 2 displays an overview of the geographical spread of attendees to EDs by Greater Manchester residents within LA boundaries. This map was produced using InstantAtlas software and populated using the total number of attendances for each LSOA, as partially shown in Table 7.

Number of attendances

- 56 - 292
- 293 - 372
- 373 - 433
- 434 - 494
- 495 - 551
- 552 - 626
- 627 - 729
- 730 - 860
- 861 - 1,157
- 1,158 - 3,120



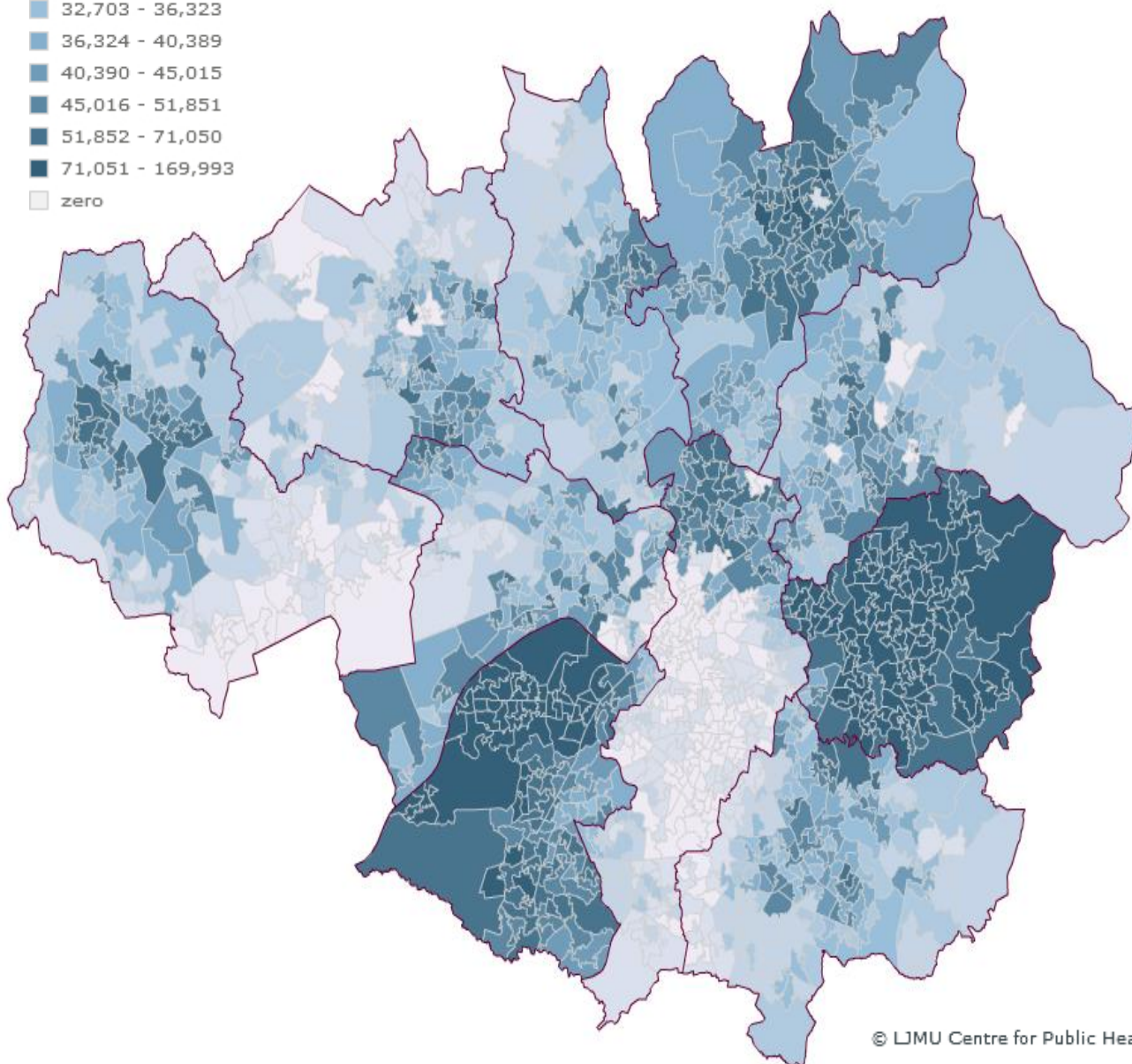
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FIGURE 3. Crude rate of Injury and violence ED attendances by LSOA with Local Authority boundaries, April 2012 to March 2015

Figure 3 displays an overview of the geographical spread of attendees to EDs by Greater Manchester residents within LA boundaries. The map is populated using the crude rate of total attendances per 100,000 population for each LSOA. This map was produced using InstantAtlas software and populated using the total number of attendances for each LSOA, as partially shown in Table 7.

Crude rate of attendances

- 3,599 - 18,434
- 18,435 - 23,723
- 23,724 - 28,536
- 28,537 - 32,702
- 32,703 - 36,323
- 36,324 - 40,389
- 40,390 - 45,015
- 45,016 - 51,851
- 51,852 - 71,050
- 71,051 - 169,993
- zero



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INJURY GROUPS

Table 8 shows the injury and violence attendances between April 2012 and March 2015 by injury group. There were a total of 49,028 (4%) intentional injuries and 1,063,284 (96%) unintentional injuries during this period. Almost three quarters (73%) of all injury and violence attendances were categorised as other injuries (810,516), while it was not possible to attribute an injury group to 1,614 (<1%) recorded attendances. The injury group with the most attendances was falls which accounted for 12% (136,026) of total attendances, followed by road traffic collisions with 5% (52,793), assaults (34,881) and sports injuries (35,042) each with 3% of attendances. Both intentional and unintentional injury attendances declined overall during this period, with intentional injuries decreasing by 15%, and unintentional injuries decreasing by 7%. Despite this overall decrease in attendances, presentations for certain injury groups increased. The largest increase in this period was for bites and stings which increased by 19%. Similarly, attendances for falls increased by 4%, deliberate self-harm increased by 3% and burns and scalds increased by 2%.

TABLE 8. Injury and violence attendances to Greater Manchester EDs by year and injury, April 2012 to March 2015

Injury group	2012-13	2013-14	2014-15	Total	%	%		
Intentional injuries	Assault	12,884	11,888	10,109	34,881	3	4	
	Deliberate Self Harm	4,641	4,705	4,801	14,147	1		
	Total	17,525	16,593	14,910	49,028	-		
Unintentional injuries	Other injury	279,842	277,592	253,082	810,516	73	96	
	Falls	44,817	44,511	46,698	136,026	12		
	Road traffic collision	18,676	17,285	16,832	52,793	5		
	Sports injury	11,472	12,180	11,390	35,042	3		
	Burns & Scalds	4,512	4,760	4,623	13,895	1		
	Bites & Stings	4,050	4,524	4,824	13,398	1		
	Unknown	118	195	1,301	1,614	0		
	Total	363,487	361,047	338,750	1,063,284	-		
	Total injuries	381,012	377,640	353,660	1,112,312			100

GENDER AND AGE

Over the three year period, the majority (52%) of attendances were made by males (578,663) and 48% were by females (533,590). There were 59 attendances where the gender was unknown (<1%) which have been omitted from these analyses. Figure 4 shows the number of injury and violence attendances by gender over the three year period. There have been consistent peaks and troughs for male attendances with the lowest attendances in November 2014 (11,927), and the highest number during July 2013 (19,365). Similarly, female attendances have followed similar undulations throughout this period; the lowest period for injury and violence attendances was November 2014 (10,930), and the highest peaks were in July 2013 (17,056). Female injury attendances exceeded male attendances once during this period in January 2013, with 15,916 female attendances compared to 15,868 for males.

FIGURE 4. All injury and violence attendances to Greater Manchester EDs by gender, April 2012 to March 2015¹²

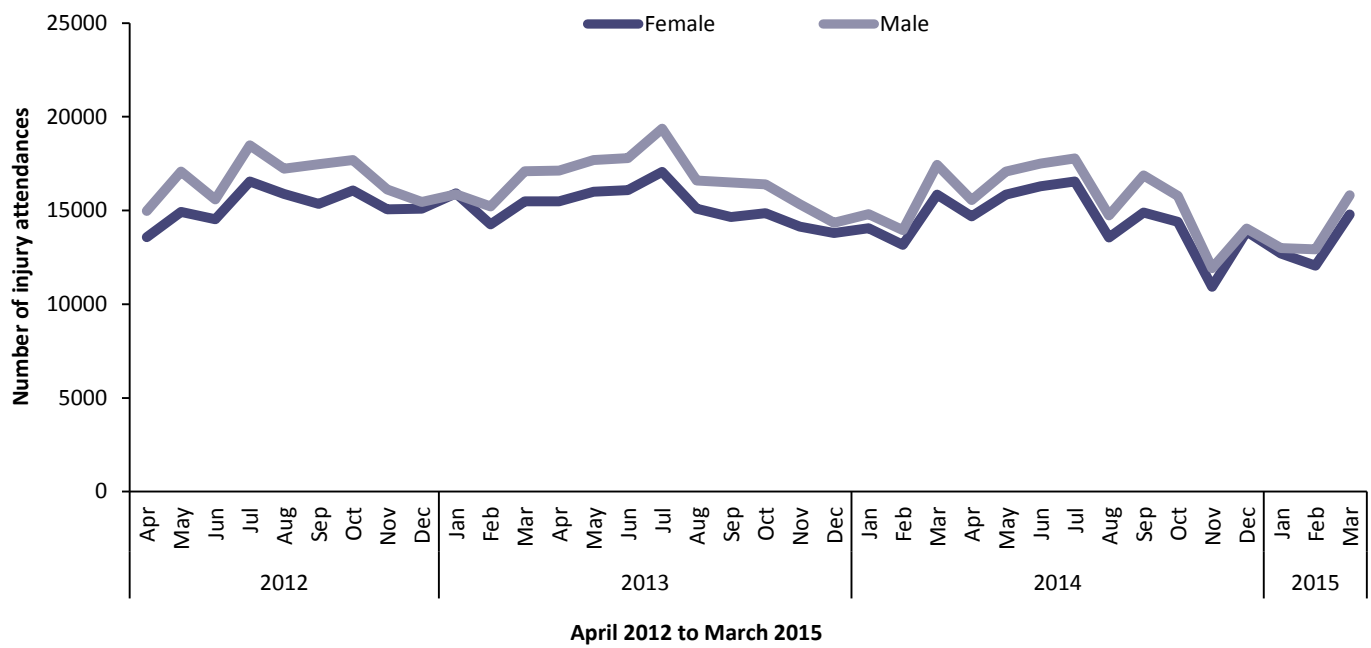
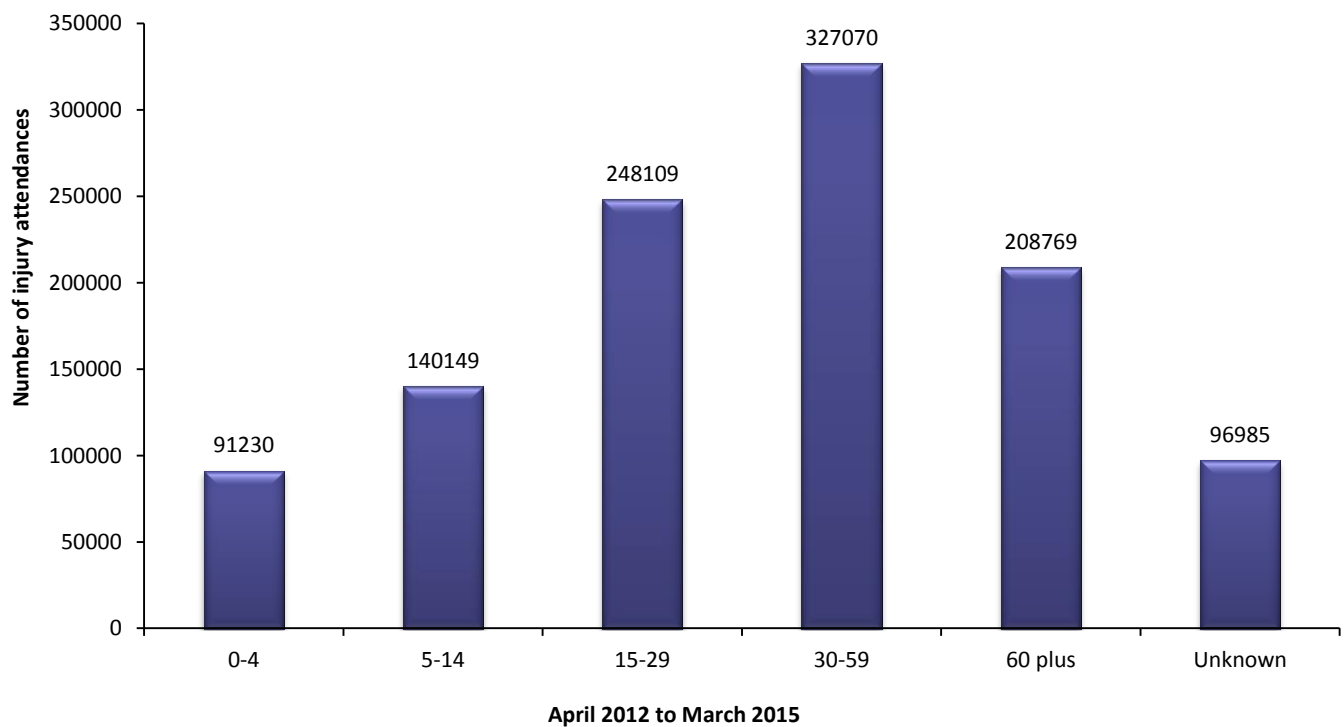


Figure 5 shows that the highest proportion of injury and violence attendances came from those aged between 30 and 59 years (29%), followed by those aged 15 to 29 years (22%). Almost one fifth (19%) of attendances were aged 60 years and above, 13% were aged between 5 and 14 years, and 8% were aged between 0 and 4 years. Age was unknown in 9% (96,985) of attendances. Despite comprising the largest proportion of attendances (29%), those aged 30 to 59 years represented a disproportionately low proportion of attendances compared to the percentage for this age group in the Greater Manchester population as a whole (41%).

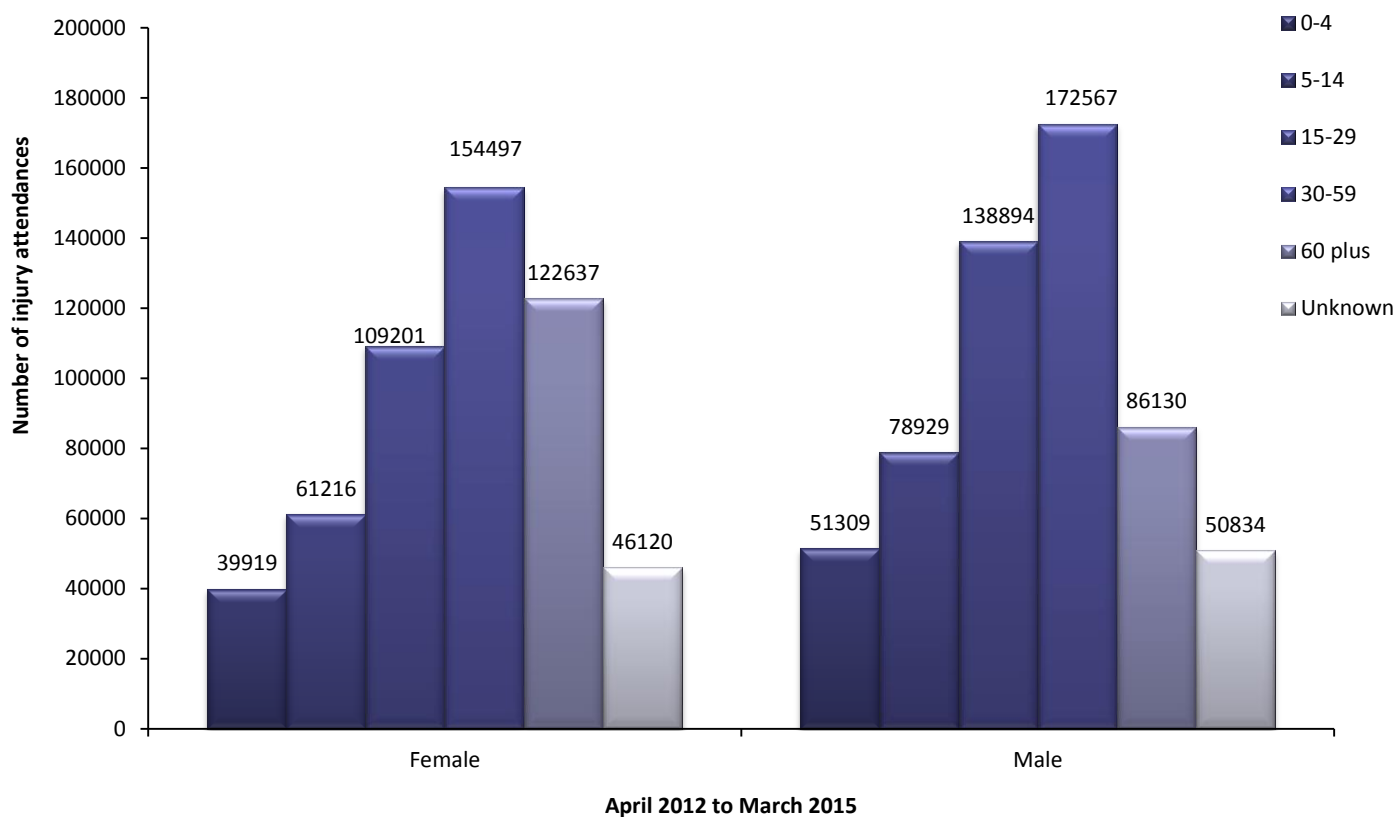
FIGURE 5. All injury and violence attendances to Greater Manchester EDs by age group, April 2012 to March 2015



¹² There were 59 records where the gender was unknown, which have been omitted from this figure.

As displayed in figure 6, the largest proportion of attendances for females were aged between 30 and 59 years (154,497; 14%), similarly the largest proportion of male attendees were also aged between 30 and 59 years (172,567; 16%).

FIGURE 6. All injury and violence attendances to Greater Manchester EDs by gender and age group, April 2012 to March 2015¹³



ETHNICITY

Table 9 shows a breakdown of injury and violence attendances by ethnicity for each ED. Manchester Royal Infirmary received the highest number of attendances from individuals of Black (4,302; 8%) and Chinese (610; 1%) ethnicity. Rochdale Infirmary had the largest number of attendances from individuals of Pakistani ethnicity (11,109; 19%), and Royal Albert Edward infirmary had the biggest proportion of attendances from individuals of white ethnicity (82,924; 97%).

¹³ There were 59 attendances that did not have a gender recorded; these attendances have been omitted from this figure.

TABLE 9. All injury and violence attendances to Greater Manchester EDs as percentages of ethnic composition, April 2012 to March 2015

Hospital	Other Asian background	Other ethnic background	Bangladeshi	Black	Chinese	Indian	Mixed	Not known	Pakistani	White
The Royal Bolton Hospital	1%	1%	0%	1%	0%	3%	1%	19%	3%	72%
Fairfield General Hospital	1%	2%	1%	1%	0%	0%	1%	3%	7%	85%
Manchester Royal Infirmary	3%	8%	1%	8%	1%	2%	3%	9%	9%	56%
North Manchester General	1%	4%	0%	4%	0%	1%	2%	4%	8%	76%
Royal Oldham Hospital	0%	1%	5%	1%	0%	0%	1%	6%	10%	76%
Royal Albert Edward Infirmary	0%	0%	0%	0%	0%	0%	0%	2%	0%	97%
Rochdale Infirmary	1%	1%	2%	1%	0%	0%	1%	2%	19%	71%
Salford Royal Hospital	1%	2%	0%	1%	0%	0%	1%	6%	1%	88%
Stepping Hill Hospital	0%	0%	0%	0%	0%	0%	1%	10%	1%	88%
Tameside General Hospital	0%	1%	1%	0%	0%	1%	1%	22%	2%	72%
Trafford General Hospital	1%	2%	0%	2%	0%	2%	2%	3%	3%	86%
Wythenshawe Hospital	1%	1%	0%	1%	0%	1%	2%	3%	2%	88%
Total	1%	2%	1%	2%	0%	1%	1%	9%	4%	79%

Table 10 shows a percentage breakdown of Greater Manchester LAs by ethnicity. Manchester LA has the greatest ethnic diversity within Greater Manchester (67% white), Oldham has the largest percentage of Bangladeshi residents (7%), and Rochdale has the largest percentage of Pakistani residents (11%). The ethnic compositions of ED attendance proportions generally conform to their local authority populations.

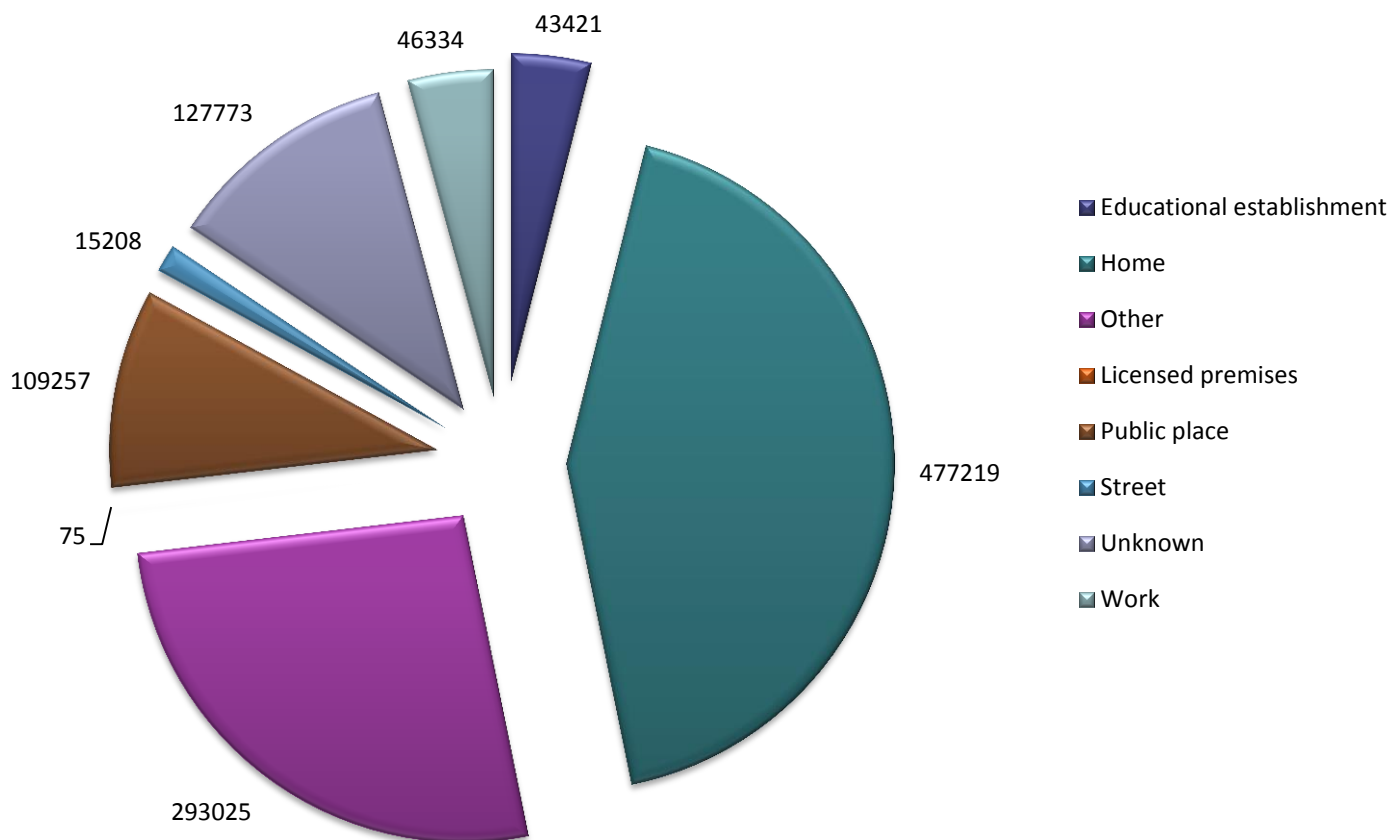
TABLE 10. Greater Manchester Local Authorities as percentages of ethnic composition

Local authority	Other Asian background	Other ethnic background	Bangladeshi	Black	Chinese	Indian	Mixed	Pakistani	White
Bolton	1%	1%	0%	2%	1%	8%	2%	4%	82%
Bury	1%	1%	0%	1%	1%	1%	2%	5%	89%
Manchester	2%	3%	1%	9%	3%	2%	5%	9%	67%
Oldham	1%	0%	7%	1%	0%	1%	2%	10%	77%
Rochdale	1%	0%	2%	1%	0%	1%	2%	11%	82%
Salford	1%	1%	0%	3%	1%	1%	2%	1%	90%
Stockport	1%	1%	0%	1%	1%	1%	2%	2%	92%
Tameside	0%	0%	2%	1%	0%	2%	1%	2%	91%
Trafford	1%	1%	0%	3%	1%	3%	3%	3%	86%
Wigan	0%	0%	0%	1%	0%	0%	1%	0%	97%
Greater Manchester Total	1%	1%	1%	3%	1%	2%	2%	5%	84%

LOCATION

Figure 7 shows the location of injury and violence for Greater Manchester residents. Over four in ten (43%) incidents of injury and violence took place in the home (477,219) and 26% (293,025) had the location recorded as other. There were a large number of attendances where the location was unknown (127,773; 11%), which is partially due to some EDs not collecting this information to an appropriate standard.

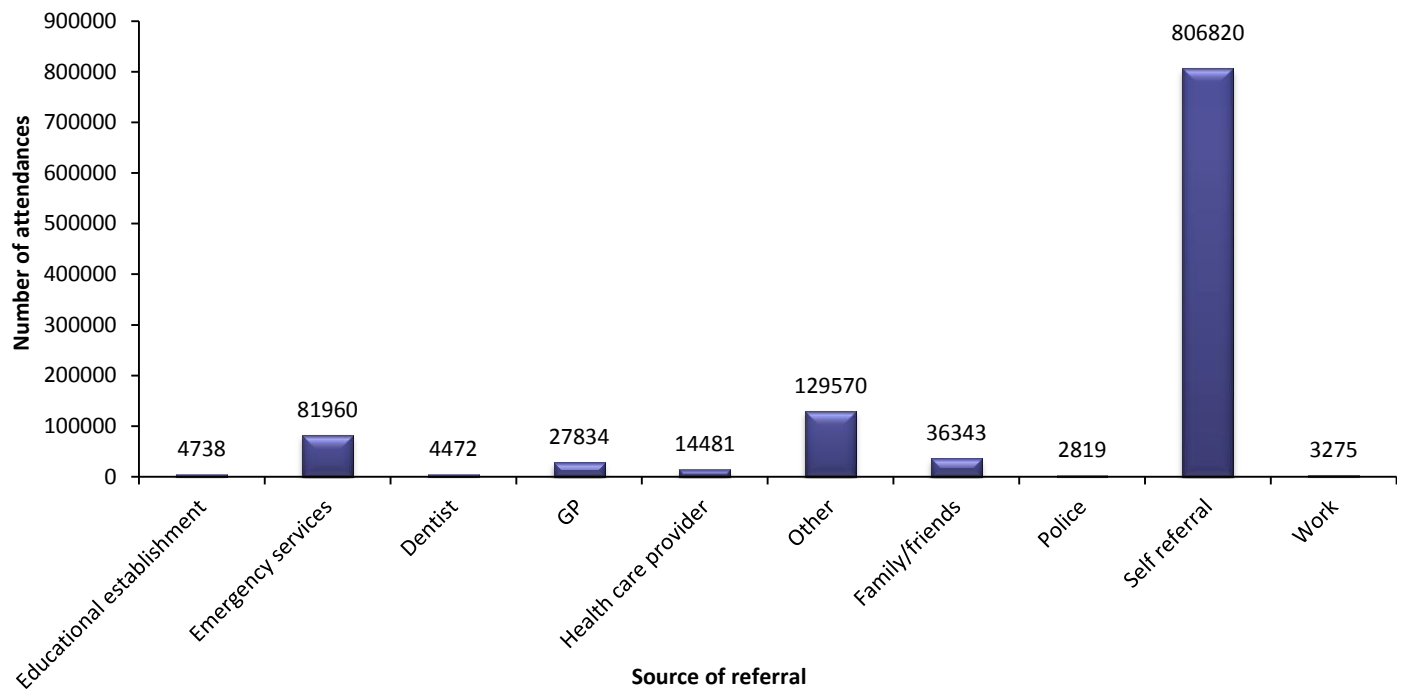
FIGURE 7. All injury and violence attendances to Greater Manchester EDs by location of incident, April 2012 to March 2015



SOURCE OF REFERRAL

Figure 8 shows referral method to Greater Manchester EDs. Almost three quarters (73%) of all attendees were self-referred (806,820), while 7% (81,960) were referred by the emergency services.

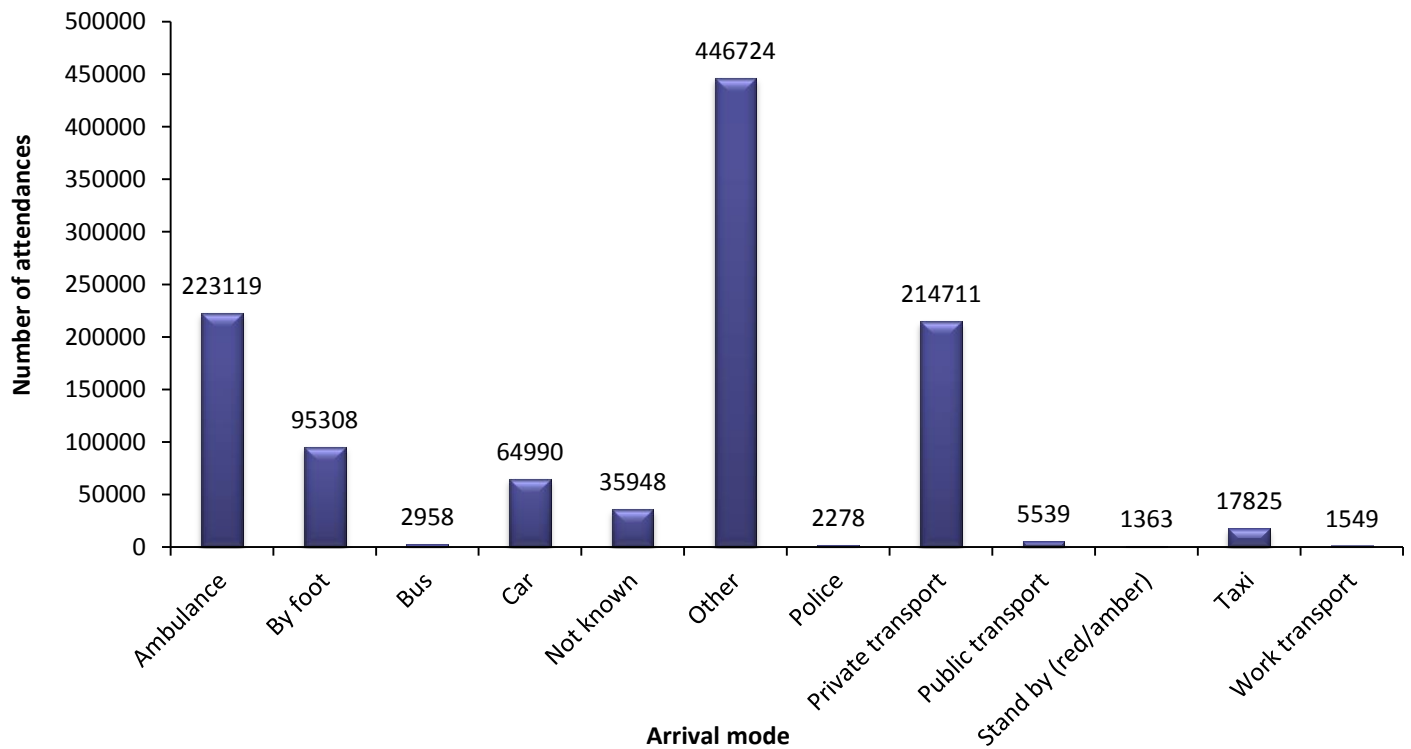
FIGURE 8. All injury and violence attendances to Greater Manchester EDs by source of referral, April 2012 to March 2015



ARRIVAL MODE

Figure 9 shows how patients arrived at the ED. One fifth (223,119; 20%) arrived by ambulance and 19% (214,711) arrived by private transport; less than one in ten (9%) attendees arrived at the EDs on foot (95,308). A substantial number of arrivals recorded as other were likely to be due to this information being unknown or incorrectly categorised.

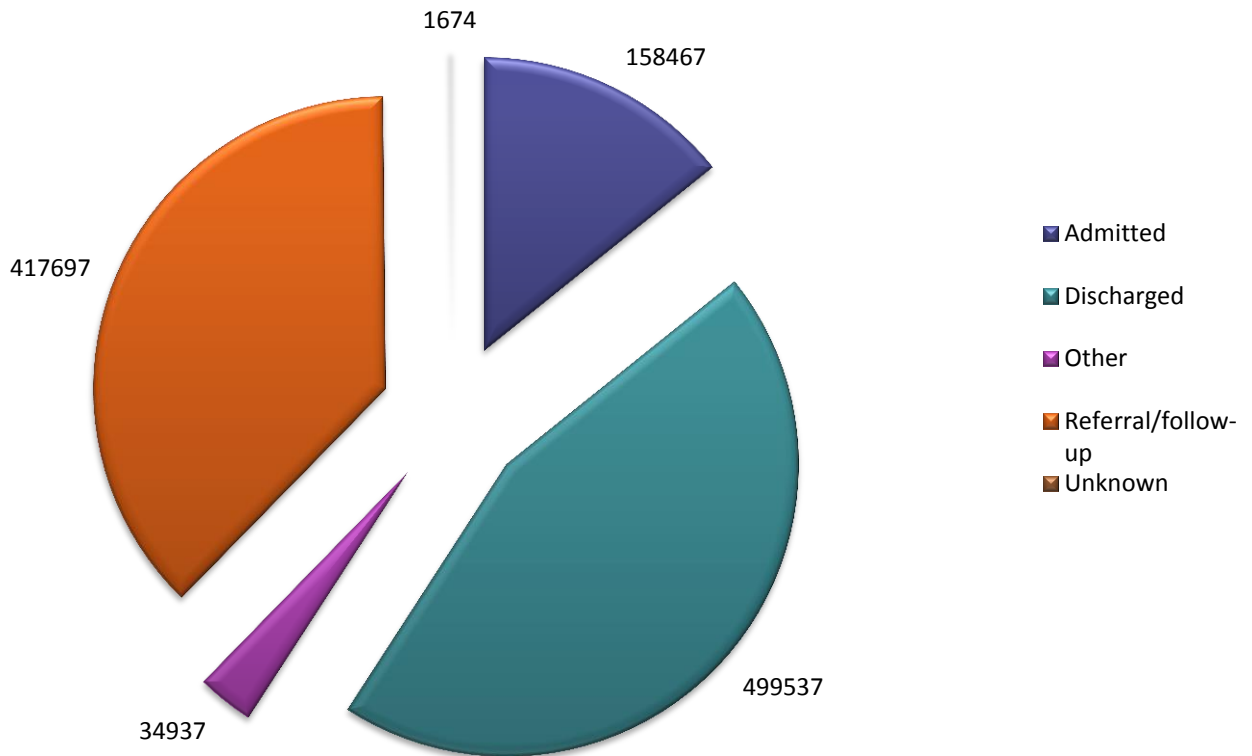
FIGURE 9. All injury and violence attendances to Greater Manchester EDs by arrival mode, April 2012 to March 2015



DISPOSAL METHOD

Figure 10 shows the disposal method of patient attendances. Almost half of attendances (45%) were discharged (499,537), 38% (417,697) were referred and 14% (158,467) were admitted.

FIGURE 10. All injury and violence attendances to Greater Manchester EDs by disposal method, April 2012 to March 2015



A FOCUS ON INJURY GROUPS

This section of the report will further examine key injury groups for Greater Manchester residents attending Greater Manchester EDs between April 2012 and March 2015. The groups included are assault, deliberate self-harm, falls, road traffic collisions and sports injuries. The injury groups will be analysed by local authority, patient demographics and specific groups at elevated risk.

ASSAULTS

This section displays the trends and demographics for assault attendances to Greater Manchester EDs between April 2012 and March 2015. During this period there were a total of 38,771 assault attendances to Greater Manchester EDs. Table 11 shows that the highest number of assaults came during the financial year 2012-13 with 14,357 attendances. Over this three year period there was a 20% reduction in all assault attendances. Of the 38,771 total assault attendances, 34,881 (90%) were made by Greater Manchester residents. Across the three year period there was a 22% decrease in assault attendances made by Greater Manchester residents.

TABLE 11. All assault attendances to Greater Manchester EDs by financial year, April 2012 to March 2015

	2012-13	2013-14	2014-15	Total
All attendances	14,357	12,994	11,420	38,771
Greater Manchester residents	12,884	11,888	10,109	34,881

Table 12 shows assault attendances to Greater Manchester EDs by local authority of residence with crude rates. The highest rate of attendances were made by Manchester residents (7,230; 21%), followed by Rochdale residents (4,033; 12%) and Salford residents (3,870; 11%). Trafford residents made the fewest number of assault attendances (1,897; 5%).

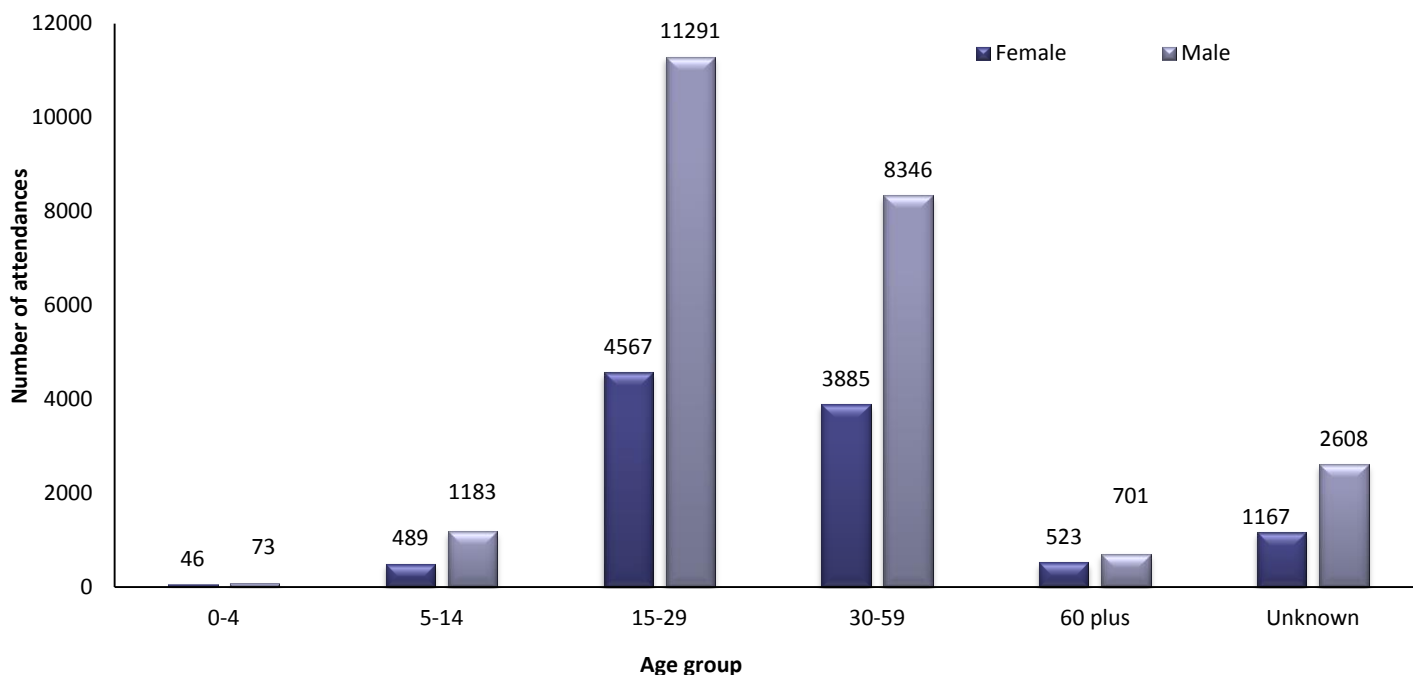
TABLE 12. Assault attendances by Greater Manchester residents by Local Authority with rates, April 2012 to March 2015⁶

Local authority	Number of attendances	Population	Rate (per 100,000)
Rochdale	4,033	212,120	1,901
Oldham	3,829	227,312	1,685
Salford	3,870	239,013	1,619
Manchester	7,230	514,417	1,406
Bury	2,481	186,527	1,330
Tameside	2,735	220,597	1,240
Stockport	3,095	285,032	1,086
Wigan	3,251	319,690	1,017
Bolton	2,460	280,057	878
Trafford	1,897	230,179	824
Total	34,881	2,714,944	1,285

GENDER AND AGE

Between April 2012 and March 2015 the majority of assault attendances by Greater Manchester residents were made by males (24,202; 69%), with females accounting for 31% (10,677). Figure 11 shows assault attendances to Greater Manchester EDs by gender and age group. The largest proportion of attendances for each gender group was aged between 15 and 29 years, with 47% (11,291) of males and 43% (4,567) of females.

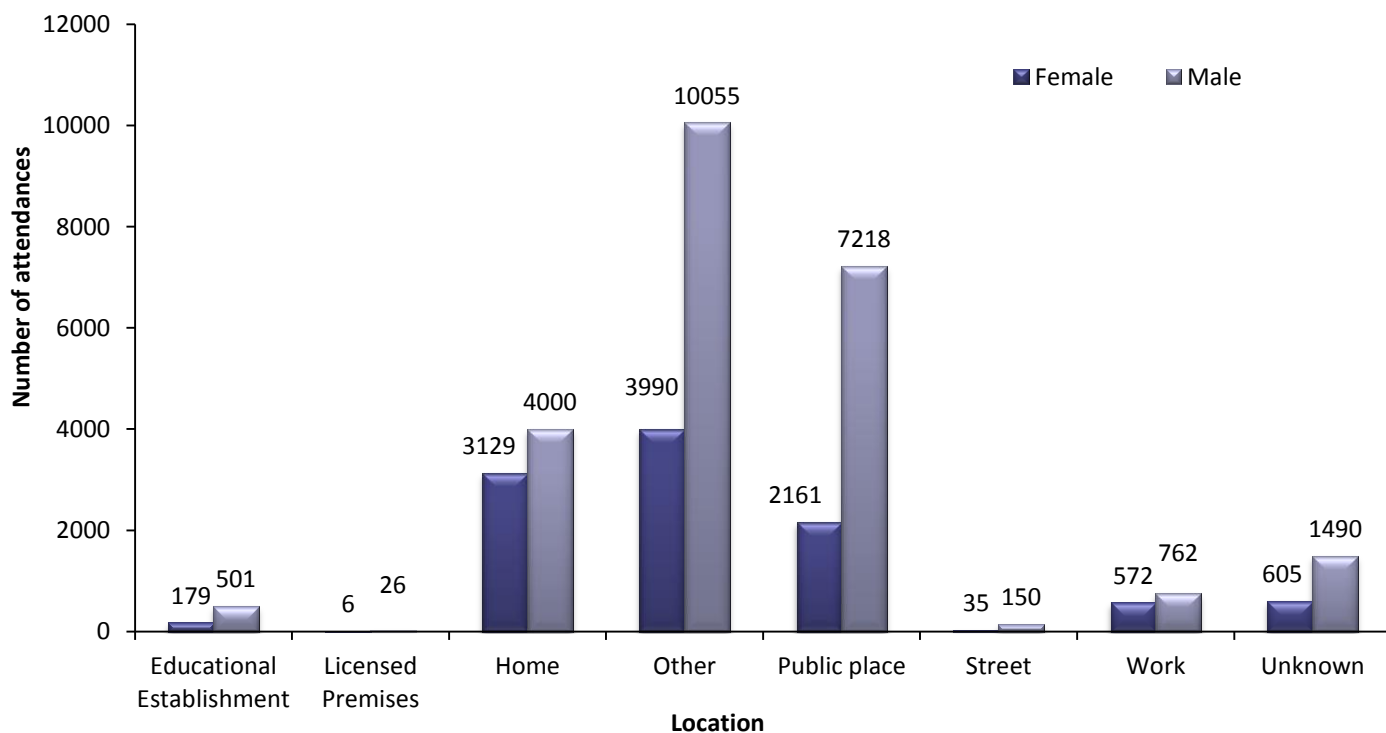
FIGURE 11. Assault attendances to Greater Manchester EDs by age group, April 2012 to March 2015¹⁴



LOCATION

Figure 12 displays the location of assaults for attendances to Greater Manchester EDs by gender. Forty per cent had a location stated as other (14,045), followed by a public place (9,379; 27%) and a home (7,129; 20%). Almost a third (29%) of female assaults took place in the home (3,129), while three in ten (30%) male assaults took place in a public place (7,218).

FIGURE 12. Assault attendances to Greater Manchester EDs by location of incident and gender, April 2012 to March 2015⁹



¹⁴ Less than five records where the gender was unknown have been omitted from this figure.

Figure 13 displays whether attendees had been consuming alcohol prior to the assault incident. Of those patients who were able to answer, six in ten (60%) attendees had consumed alcohol prior to an assault (4,230).

FIGURE 13. Assault attendances to Greater Manchester EDs by the presence of alcohol, April 2012 to March 2015¹⁵

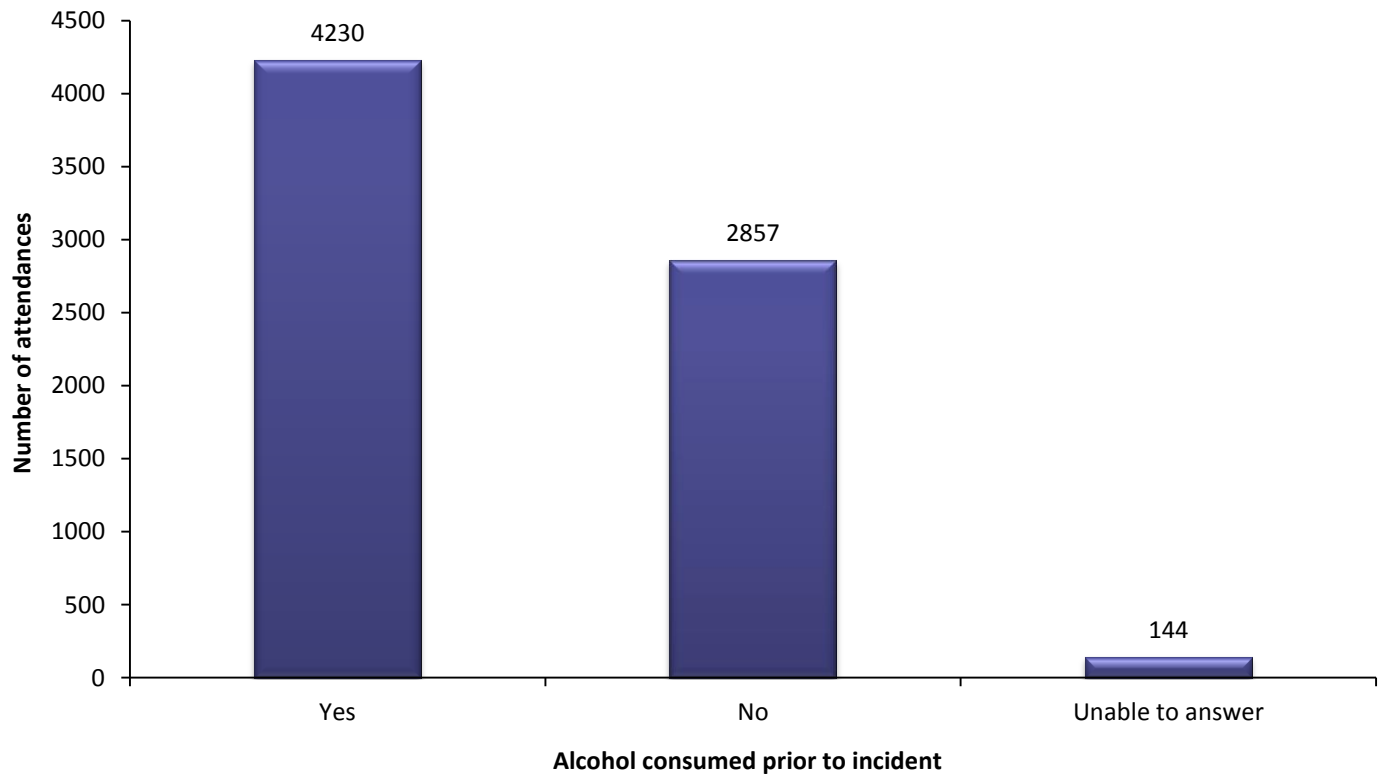


Table 13 shows the location of the last drink consumed for assault attendees. For attendees who admitted to drinking prior to the assault incident, 76% had consumed alcohol in licensed premises.

TABLE 13. Location of the last alcoholic drink for assault attendances, April 2012 to March 2015¹⁶

Alcohol location	Number of attendances	%
Pub/Bar	1259	46
Restaurant	596	22
Other	309	11
Nightclub	228	8
Street/Town	160	6
Home	157	6
Total	2709	100

¹⁵ The majority of responses were recorded as unknown (27,650) which have been omitted.

¹⁶ The majority of responses were recorded as unknown (32,172) which have been omitted.

Figure 14 shows the assault weapon involved for assault attendances to Greater Manchester EDs. Where the weapon involved was known, a body part was used in 18% (6,114) of assault incidents.

FIGURE 14. Assault attendances to Greater Manchester EDs by assault weapon, April 2012 to March 2015¹⁷

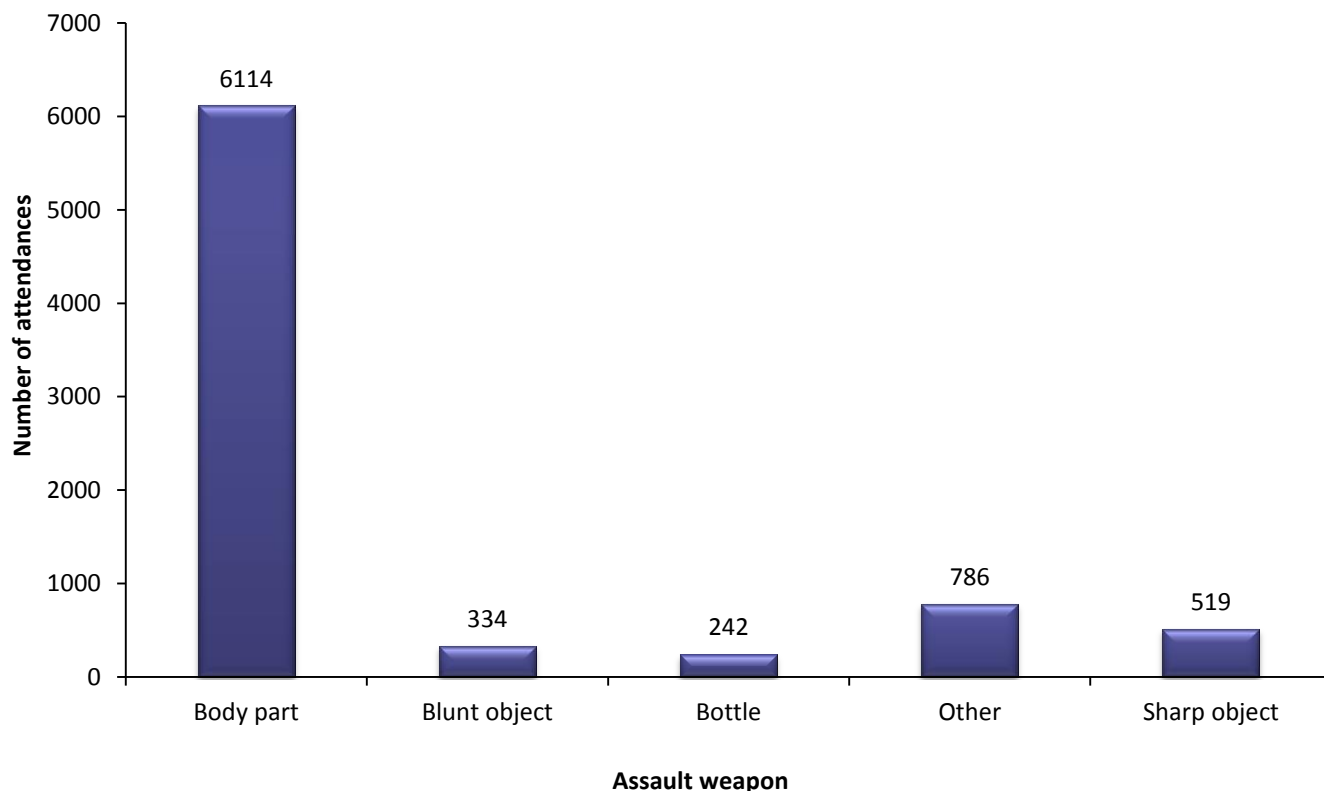


Table 14 shows whether the attendees for incidents of assault knew their attacker. Where the attacker could be identified, 54% (1,040) stated the assault was made by a stranger, while 11% of assaults were committed by an acquaintance of the attendee.

TABLE 14. Attacker known to victim for assault attendances to Greater Manchester EDs, April 2012 to March 2015¹⁸

Attacker	Number of attendances	%
Stranger	1040	54
Other	403	21
Acquaintance	209	11
Partner/Spouse	131	7
Relative	82	4
Friend	64	3
Total	1,929	100

¹⁷ The majority of responses were recorded as unknown (26,886) which have been omitted.

¹⁸ The majority of responses were recorded as unknown (32,952) which have been omitted.

AT RISK GROUP – MALES AGED 15-29

The data received from Greater Manchester EDs doesn't sufficiently distinguish between differing forms of violence e.g. sexual violence and domestic abuse, with all attendances grouped under the category 'assaults'. Nationally, violent incidents most frequently involve those aged between 18 and 30 years with almost half of all attendances occurring within this age demographic, which is reflected by the data from Greater Manchester EDs. The ratio between national gender attendances is 3:1 males to females and a similar ratio is reflected in Greater Manchester ED data. Females account for 40% of attendances made by those aged between 18 and 30 years to Greater Manchester EDs which is higher than the national trend. Nationally, almost half of all male attendances are aged between 18 and 30 years, this is higher than witnessed in ED data where just under a third of all male attendances are from this age range.

Males aged between 15 and 29 years of age accounted for almost one third (11,291; 32%) of all assault attendances to Greater Manchester EDs by Greater Manchester residents.

Figure 15 displays the attendances by age within the age group 15-29 years. The majority of assault attendances occurred among people aged between 19 and 23 years, with 42% (4,802) of all attendances aged between 15 and 29 years. The highest number of attendances were made by males aged 20 (1,012; 9%).

FIGURE 15. Assault attendances by males aged 15-29 years to Greater Manchester EDs by age, April 2012 to March 2015

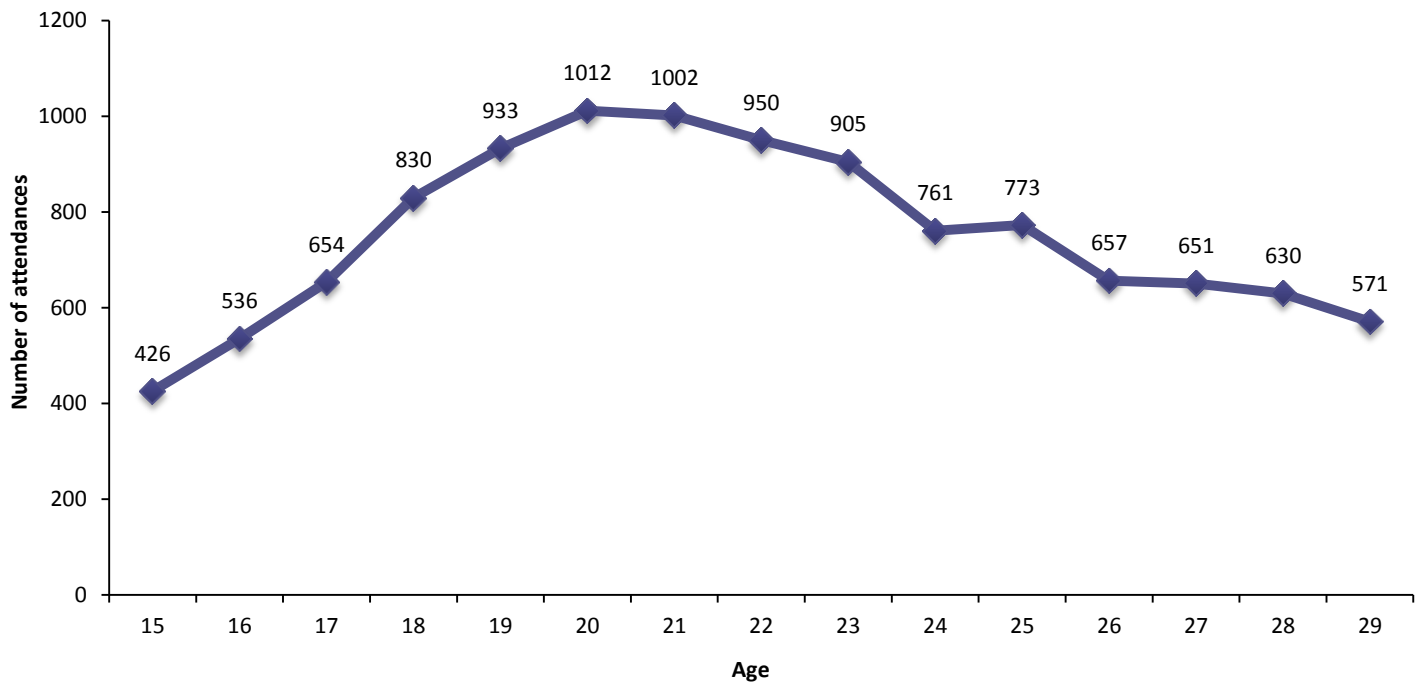


Table 15 shows assault attendances for males aged between 15 and 29 years of age by local authority. The highest number of attendances were made by Manchester residents, with 20% of attendances (2,296), followed by Salford with 12% (1,341); the fewest assault attendances came from Bury with 5% (587) of attendances.

TABLE 15. Assault attendances for males aged between 15 and 29 years to Greater Manchester EDs by local authority with rates, April 2012 to March 2015⁶

Local authority	Number of attendances	Population	Rate (per 100,000)
Oldham	1,124	22,498	4,996
Stockport	1,185	23,963	4,945
Salford	1,341	27,853	4,815
Rochdale	986	20,619	4,782
Tameside	922	20,507	4,496
Wigan	1,215	29,169	4,165
Trafford	728	19,779	3,681
Bury	587	16,836	3,487
Bolton	907	27,967	3,243
Manchester	2,296	81,586	2,814
Total	11,291	290,777	3,883

Figure 16 displays the location of assaults for males aged between 15 and 29 years. The largest proportion of assaults took place in a location stated as other (5,061; 45%), followed by a public place (3,499; 31%), and 14% (1,625) in the home; the fewest number of assaults occurred in licensed premises (14; <1%).

FIGURE 16. Assault attendances by males aged between 15 and 29 years to Greater Manchester EDs by location of incident, April 2012 to March 2015

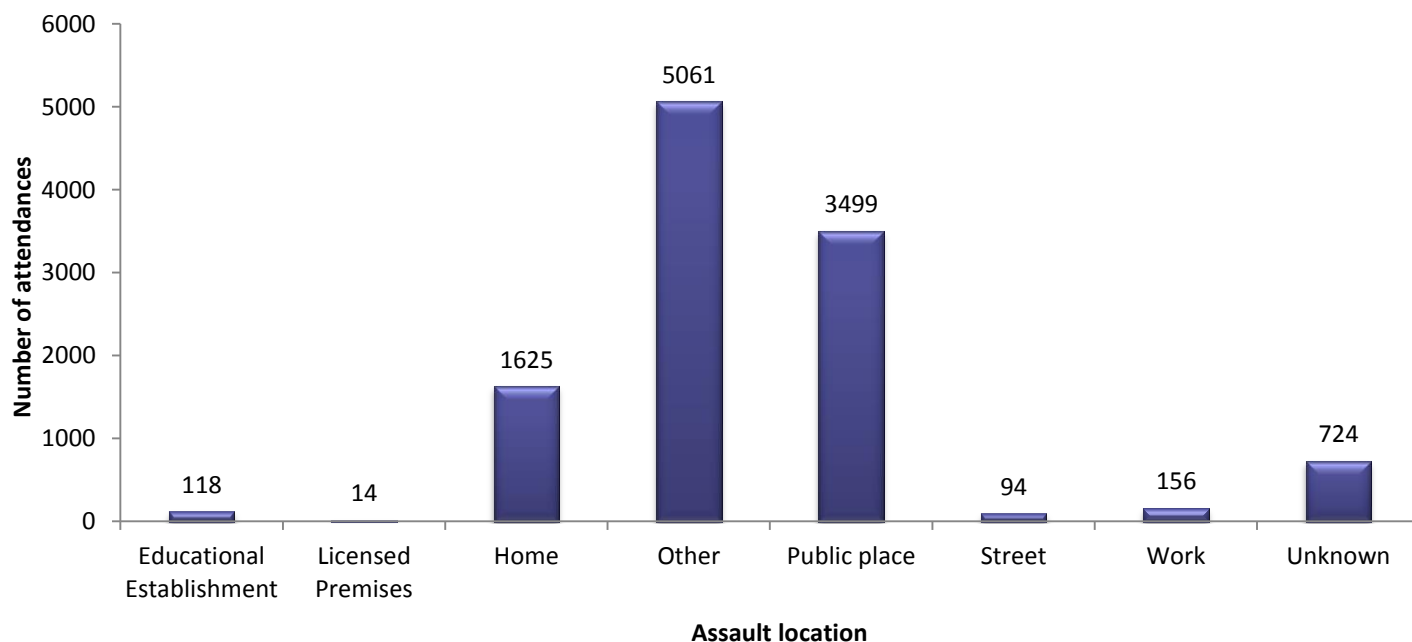


Table 16 shows the top LSOAs for the three local authorities with the highest assault attendances for males aged 15 to 29 years. The LSOAs with the highest numbers of attendances came from residents of Manchester 032B (32) and Wigan 026E (32).

TABLE 16. Top LSOAs by local authority for highest assault attendances by males aged between 15 and 29 years with rates, April 2012 to March 2015⁶

Local authority	LSOA name	LSOA code	Number of attendances	Population	Rate (per 100,000)
Manchester	Manchester 009B	E01005203	23	2,006	1,147
	Manchester 018D	E01005065	23	2,317	993
	Manchester 057A	E01005212	22	2,236	984
	Manchester 019A	E01005208	23	2,541	905
	Manchester 032B	E01005185	32	3,719	860
Salford	Salford 024D	E01005682	25	1,496	1,671
	Salford 017C	E01005683	25	1,599	1,564
	Salford 012E	E01005698	25	1,676	1,492
	Salford 028B	E01005667	24	1,959	1,225
	Salford 021D	E01005720	26	2,708	960
Wigan	Wigan 026E	E01006329	32	1,227	2,608
	Wigan 006A	E01006370	18	1,565	1,150
	Wigan 005B	E01006254	18	1,615	1,115
	Wigan 012C	E01006309	18	1,616	1,114
	Wigan 012A	E01006305	19	1,834	1,036
	Wigan 010B	E01006351	19	2,146	885

Figure 17 shows whether alcohol was consumed prior to incidents of assault by males aged between 15 and 29 years of age. Attendees had consumed alcohol in 16% (1,801) of attendances.

FIGURE 17. Assault attendances by males aged 15-29 years to Greater Manchester EDs by alcohol consumption, April 2012 to March 2015

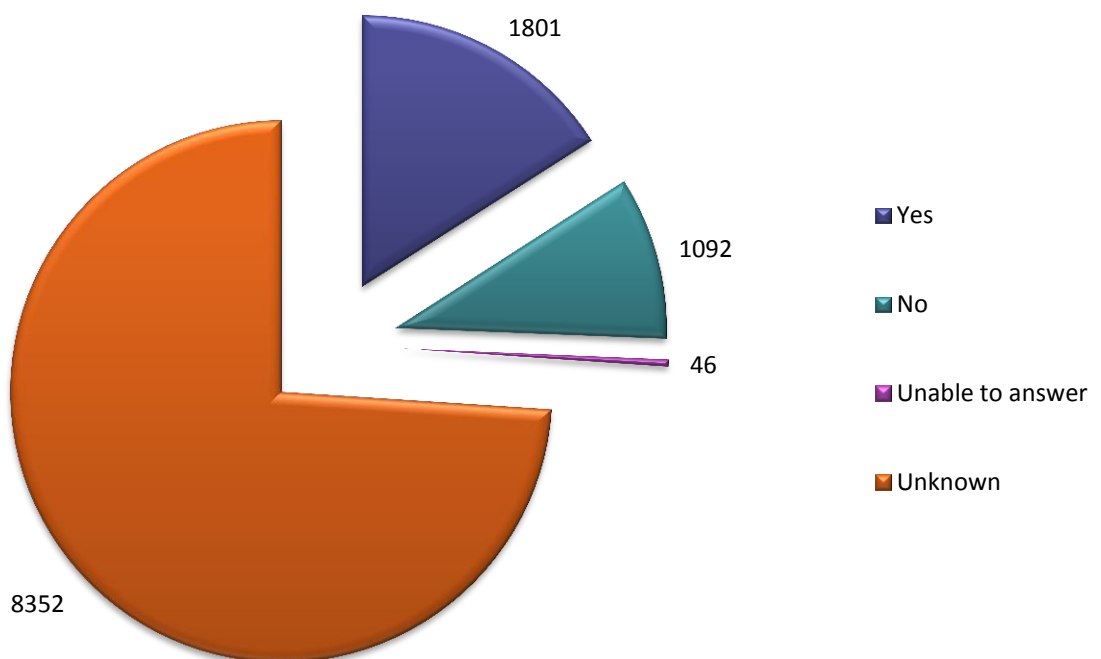


Table 17 shows the last drink location for assault attendees aged between 15 and 29 years. Almost one in ten (8%) of attendees who had consumed alcohol prior to an incident of assault did so in licensed premises.

TABLE 17. Location of last alcoholic drink by male assault attendees aged 15-29 years, April 2012 to March 2015

Location	Number of attendances	%
Unknown	10103	89
Pub/Bar	581	5
Restaurant	218	2
Other	142	1
Nightclub	122	1
Street/Town	88	1
Home	37	0
Total	11291	100

DELIBERATE SELF-HARM

This section displays the trends and demographics for deliberate self-harm attendances to Greater Manchester EDs between April 2012 and March 2015. During this period there were a total of 15,778 deliberate self-harm attendances to Greater Manchester EDs. Table 18 shows that the highest number of deliberate self-harm attendances came during the financial year 2014-15 with 5,434 presentations. Over this three year period there was a 6% increase in all deliberate self-harm attendances. Of the 15,778 total deliberate self-harm attendances 14,147 (90%) were made by Greater Manchester residents. Across the three year period there was a 3% increase in deliberate self-harm attendances by Greater Manchester residents.

TABLE 18. Deliberate self-harm attendances to Greater Manchester EDs by financial year, April 2012 to March 2015

	2012-13	2013-14	2014-15	Total
All attendances	5,125	5,219	5,434	15,778
Greater Manchester residents ¹⁹	4,641	4,705	4,801	14,147

Table 19 shows deliberate self-harm attendances at Greater Manchester EDs by local authority of residence. The highest number of attendances were made by Manchester residents (2,543; 18%), followed by Salford residents (2,243; 16%) and Tameside residents (2,240; 16%); Stockport residents made the fewest number of attendances (181; 1%).

¹⁹ There is a slight difference to previous reports for DSH attendances by Greater Manchester residents due to the data being refreshed.

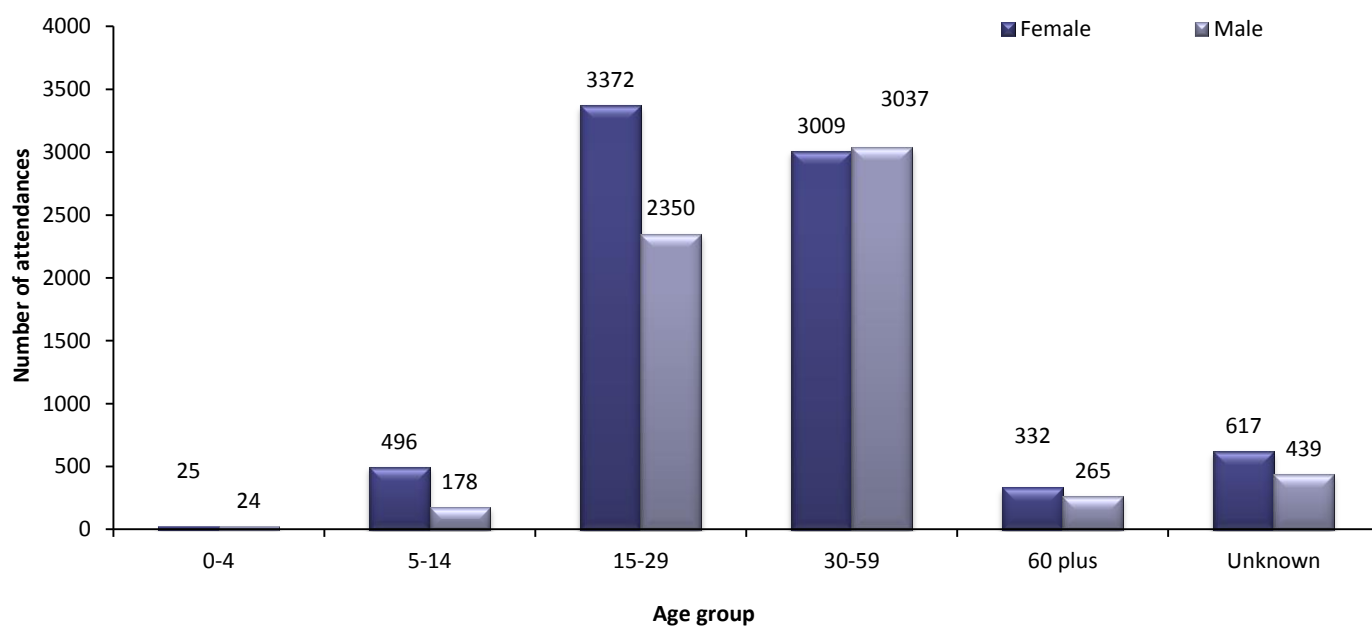
TABLE 19. Deliberate self-harm attendances to Greater Manchester EDs by local authority with rates, April 2012 to March 2015⁶

Local authority	Number of attendances	Population	Rate (per 100,000)
Tameside	2,240	220,597	1,015
Salford	2,243	239,013	938
Trafford	1,605	230,179	697
Wigan	1,623	319,690	508
Manchester	2,543	514,417	494
Oldham	1,024	227,312	451
Rochdale	925	212,120	436
Bury	793	186,527	425
Bolton	970	280,057	346
Stockport	181	285,032	64
Total	14,147	2,714,944	521

GENDER AND AGE

Between April 2012 and March 2015 the majority of deliberate self-harm attendances were made by females (7,851; 55%), with males accounting for 44% (6,293) of attendances by Greater Manchester residents. Figure 18 shows deliberate self-harm attendances to Greater Manchester EDs by gender and age group. The largest proportion of female attendees were aged between 15 and 29 years with 43% (3,372) of all female attendances, while 48% of all male attendees were aged between 30 and 59 years of age (3,037).

FIGURE 18. Deliberate self-harm attendances to Greater Manchester EDs by gender and age group, April 2012 to March 2015²⁰

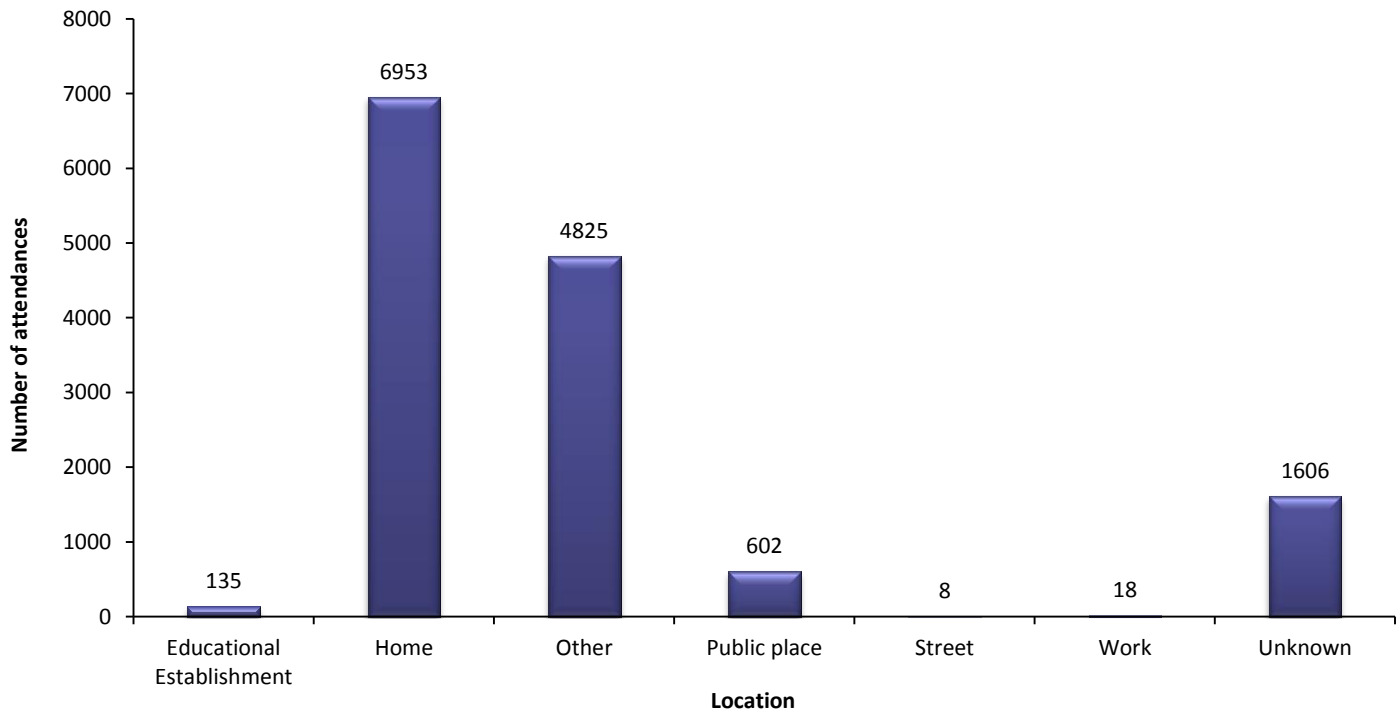


²⁰ Less than five records where the gender was unknown have been omitted from this figure.

LOCATION

Figure 19 displays the location of deliberate self-harm incidents for attendances to Greater Manchester EDs. The majority of incidents occurred in the home (6,953; 49%), followed by other (4,825; 34%). Over one in ten (11%) attendances had the location recorded as unknown (1,606).

FIGURE 19. Deliberate self-harm attendances to Greater Manchester EDs by location of incident, April 2012 to March 2015



AT RISK GROUPS – FEMALES AGED 15-29

Females aged between 15 and 29 years comprised almost a quarter (3,372; 24%) of all deliberate self-harm attendances to Greater Manchester EDs by Greater Manchester residents between April 2012 and March 2015.

Figure 20 displays the attendances by age within the age group 15-29 years. The highest proportion of deliberate self-harm attendances between the ages of 15 and 29 years occurred in those aged between 15 and 18 years (1,179; 35%). The highest attendances were made by females aged 18 (326; 10%).

FIGURE 20. Deliberate self-harm attendances by females aged 15-29 years to Greater Manchester EDs by age, April 2012 to March 2015

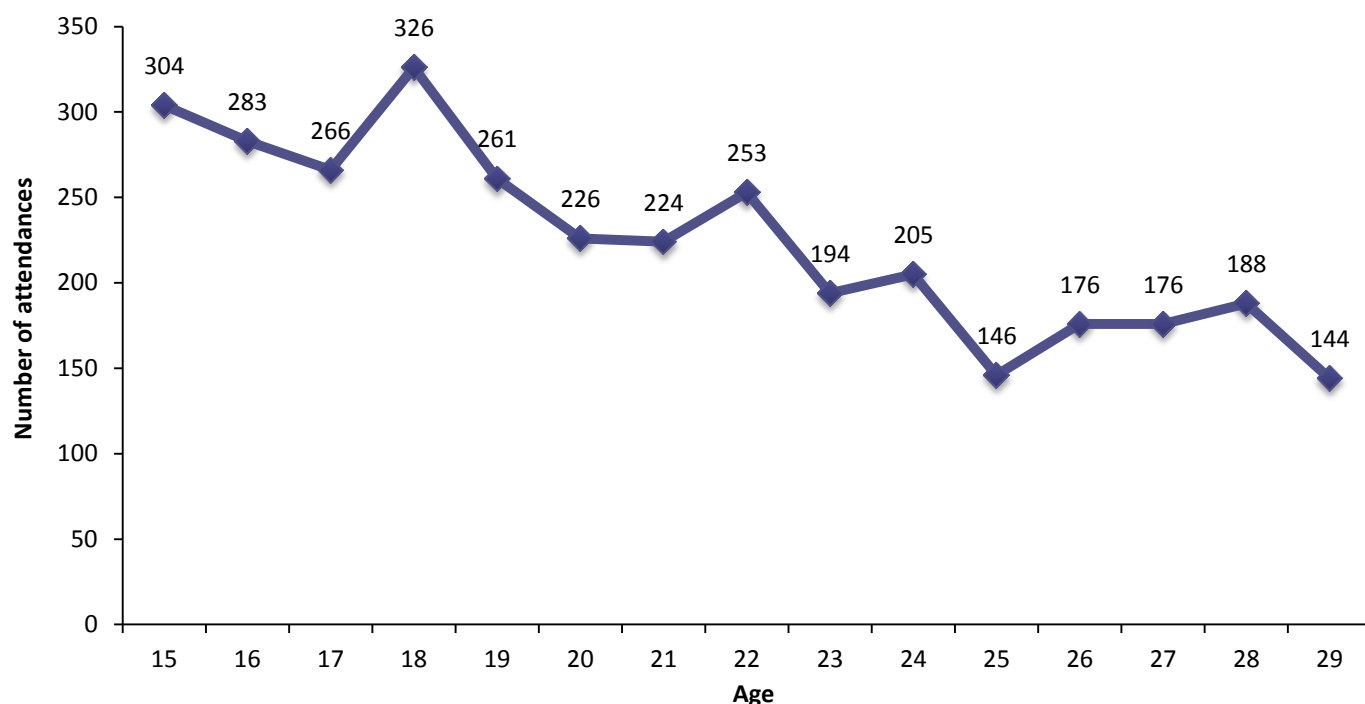


Table 20 shows the ethnicity of female attendees aged between 15 and 29 years for incidents of deliberate self-harm. White females accounted for 83% (2,787) of attendances. Attendees with an ethnicity categorised as other (67), mixed (67) and Pakistani (53) each accounted for 2% of attendances by females aged 15 to 29 years.

TABLE 20. Ethnicity of female deliberate self-harm attendees aged 15-29 years, April 2012 to March 2015

Ethnicity	Number of attendances	%
White	2,787	83
Not known	319	9
Other ethnic group	67	2
Mixed	67	2
Pakistani	53	2
Black	36	1
Indian	21	1
Bangladeshi	12	0
Chinese	<10	0
Other Asian background	***	0
Total	3,372	100

Table 21 shows the local authority of residence for females aged between 15 and 29 years for deliberate self-harm. The highest attendances came from Manchester residents (615; 18%), followed by Salford residents (562; 17%) and Tameside residents (513; 15%). The lowest attendances were made by residents of Stockport local authority (56; 2%).

TABLE 21. Female deliberate self-harm attendees aged 15-29 years by local authority with rates, April 2012 to March 2015⁶

Local authority	Number of attendances	Population	Rate (per 100,000)
Tameside	513	20,844	2,461
Salford	562	27,164	2,069
Trafford	382	18,825	2,029
Wigan	461	29,079	1,585
Oldham	234	22,308	1,049
Bolton	251	26,876	934
Bury	143	16,600	861
Manchester	615	78,153	787
Rochdale	155	20,862	743
Stockport	56	23,703	236
Total	3,372	284,414	1,186

Figure 21 displays the location of deliberate self-harm incidents for females aged between 15 and 29 years to Greater Manchester EDs. The majority of deliberate self-harm incidents occurred in the home (1,536; 46%), followed by locations stated as other (1,274; 38%).

FIGURE 21. Deliberate self-harm attendances by females aged 15-29 years to Greater Manchester EDs by location of incident, April 2012 to March 2015

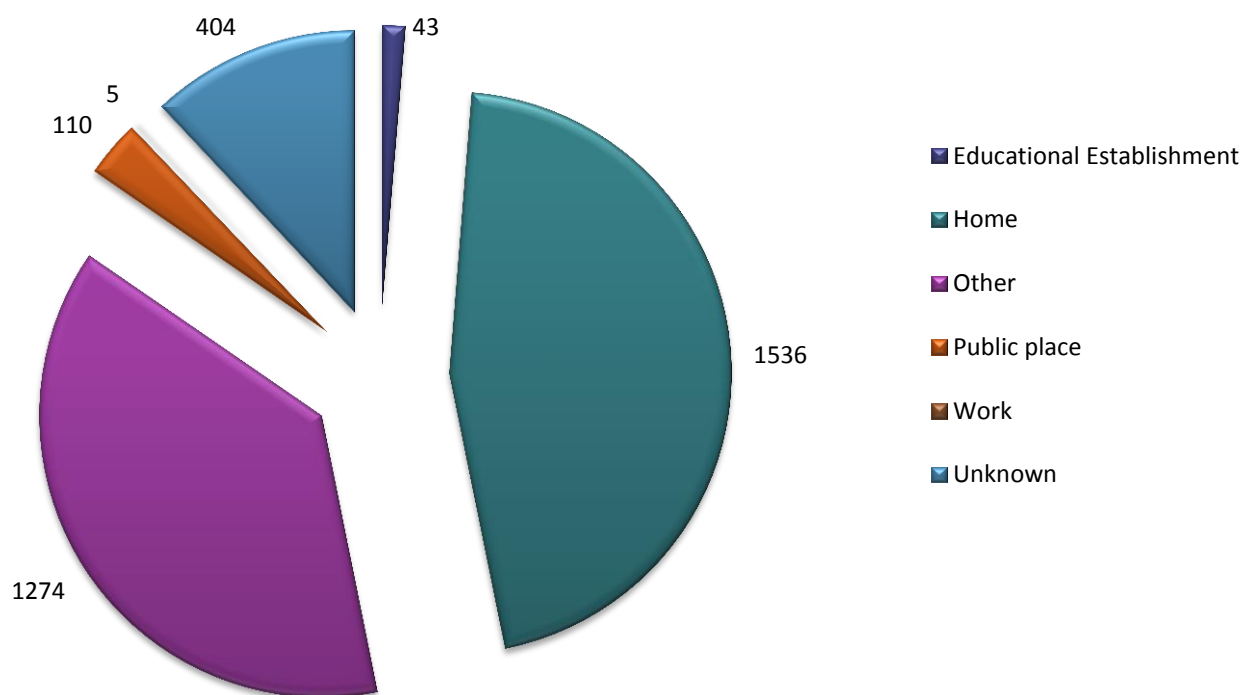


Figure 22 displays the source of referral for female deliberate self-harm attendees aged between 15 and 29 years to Greater Manchester EDs. The majority (61%) self-referred (2,060), while 23% of referrals were made by the emergency services (787).

FIGURE 22. Deliberate self-harm attendances by females aged 15-29 years to Greater Manchester EDs by source of referral, April 2012 to March 2015

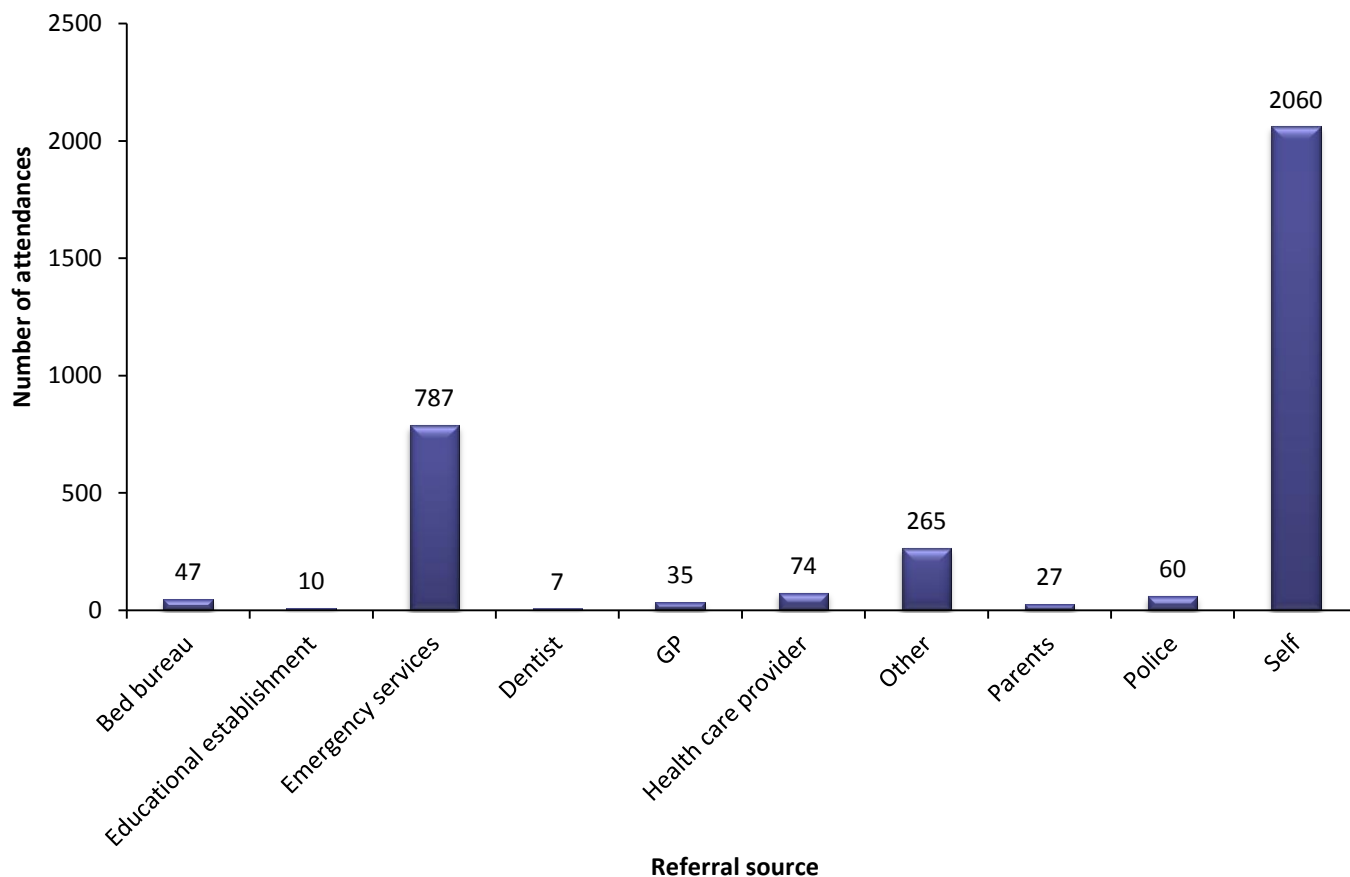


Figure 23 displays the disposal method of female deliberate self-harm attendees aged between 15 and 29 years to Greater Manchester EDs. The majority of deliberate self-harm attendees were admitted (1,194; 35%), followed by referrals for further treatment (1,007; 30%).

FIGURE 23. Deliberate self-harm attendances by females aged 15-29 years to Greater Manchester EDs by disposal method, April 2012 to March 2015

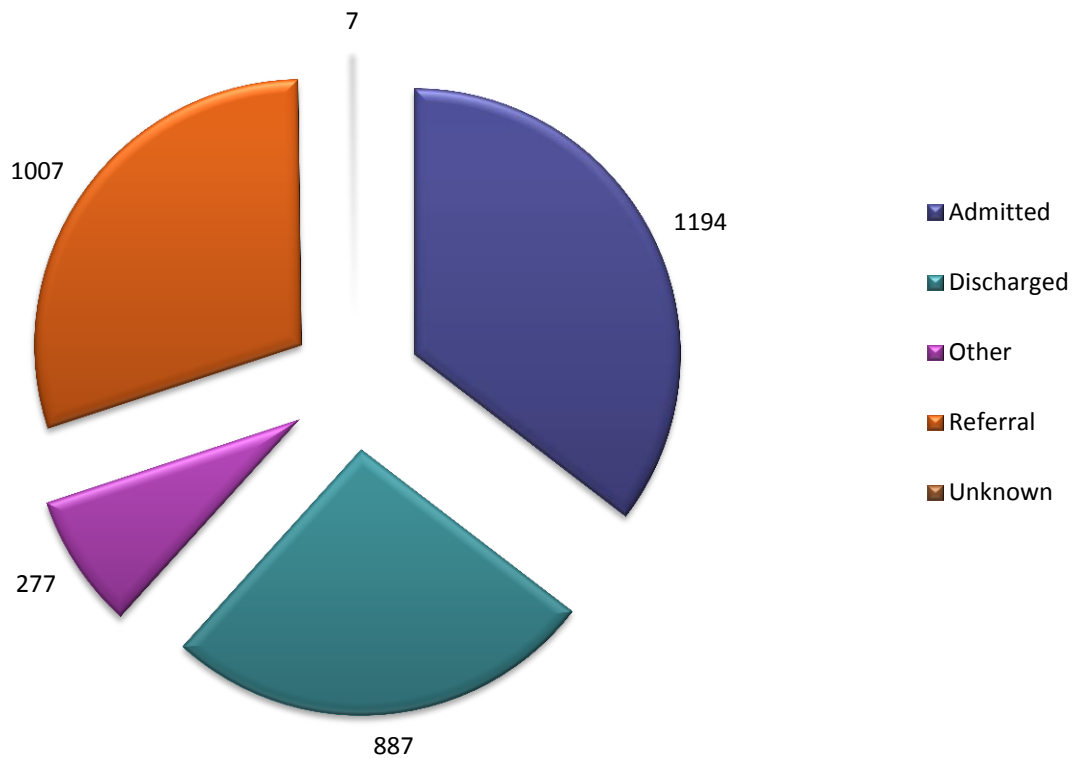


Table 22 shows the top three LSOA's for the local authorities with the highest deliberate self-harm attendances for females aged 15 to 29 years. The LSOAs with the highest attendances came from residents of Salford 007B (35) and Salford 004B (34).

TABLE 22. Top LSOAs by local authority with highest female deliberate self-harm attendees aged 15-29 years with rates, April 2012 to March 2015⁶

Local authority	LSOA name	LSOA code	Number of attendances	Population	Rate (per 100,000)
Manchester	Manchester 029A	E01005150	15	1,494	870
	Manchester 018B	E01005062	13	1,796	835
	Manchester 052B	E01005292	13	2,889	450
Salford	Salford 004B	E01005662	34	1,579	2,153
	Salford 007B	E01005712	35	1,653	2,117
	Salford 019A	E01005725	28	1,343	2,085
Tameside	Tameside 018B	E01006013	16	1,254	1,276
	Tameside 017E	E01006016	21	1,817	1,156
	Tameside 013D	E01005952	24	2,228	1,077

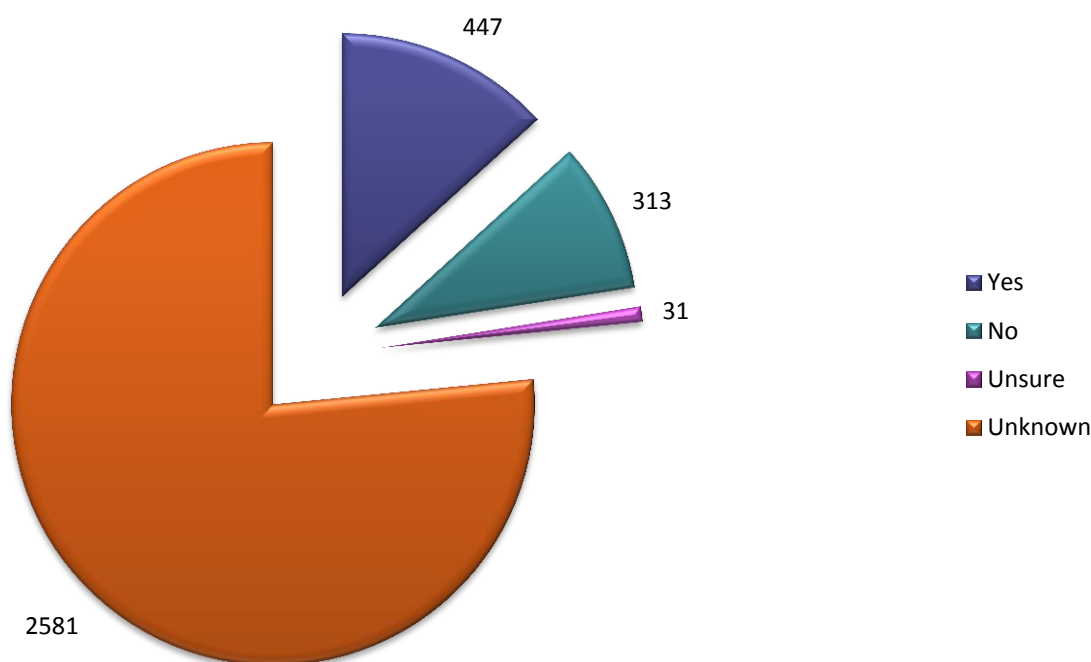
Table 23 shows the weapon involved for deliberate self-harm attendances by females aged 15 to 29 years of age to Greater Manchester Eds. Where the weapon involved was known, a blade or knife was used in 43% (35) of incidents.

TABLE 23. Weapon used by female deliberate self-harm attendees aged 15-29 years, April 2012 to March 2015

Weapon	Number of attendances	%
Unknown	3,291	98
Blade/knife	35	1
Other	34	1
Glass	6	0
Metal	6	0
Total	3,372	100

Figure 24 shows whether alcohol was consumed prior incidents of deliberate self-harm by females aged between 15 and 29 years of age. Alcohol was consumed in 13% (447) of attendances.

FIGURE 24. Deliberate self-harm attendances by females aged 15-29 years to Greater Manchester EDs by alcohol consumption, April 2012 to March 2015



FALLS

This section of the report displays the trends and demographics for fall attendances to Greater Manchester EDs between April 2012 and March 2015. During this period there were a total of 148,031 fall attendances to Greater Manchester EDs. Table 24 shows that the highest number of fall attendances came during the financial year 2014-15 with 51,576 presentations. Over this three year period there was a 6% increase in all fall attendances. Of the 148,031 total fall attendances, 136,026 (92%) were made by Greater Manchester residents. Across the three year period there was a 4% increase in fall attendances made by Greater Manchester residents.

TABLE 24. Fall attendances to Greater Manchester EDs by financial year, April 2012 to March 2015

	2012-13	2013-14	2014-15	Total
All attendances	48,739	47,716	51,576	148,031
Greater Manchester residents	44,817	44,511	46,698	136,026

Table 25 shows fall attendances to Greater Manchester EDs by local authority of residence. The highest number of attendances were made by Manchester residents (21,724; 16%), followed by Rochdale residents (20,038; 15%) and Oldham residents (18,867; 14%). Wigan residents made the fewest number of fall attendances (2,679; 2%).

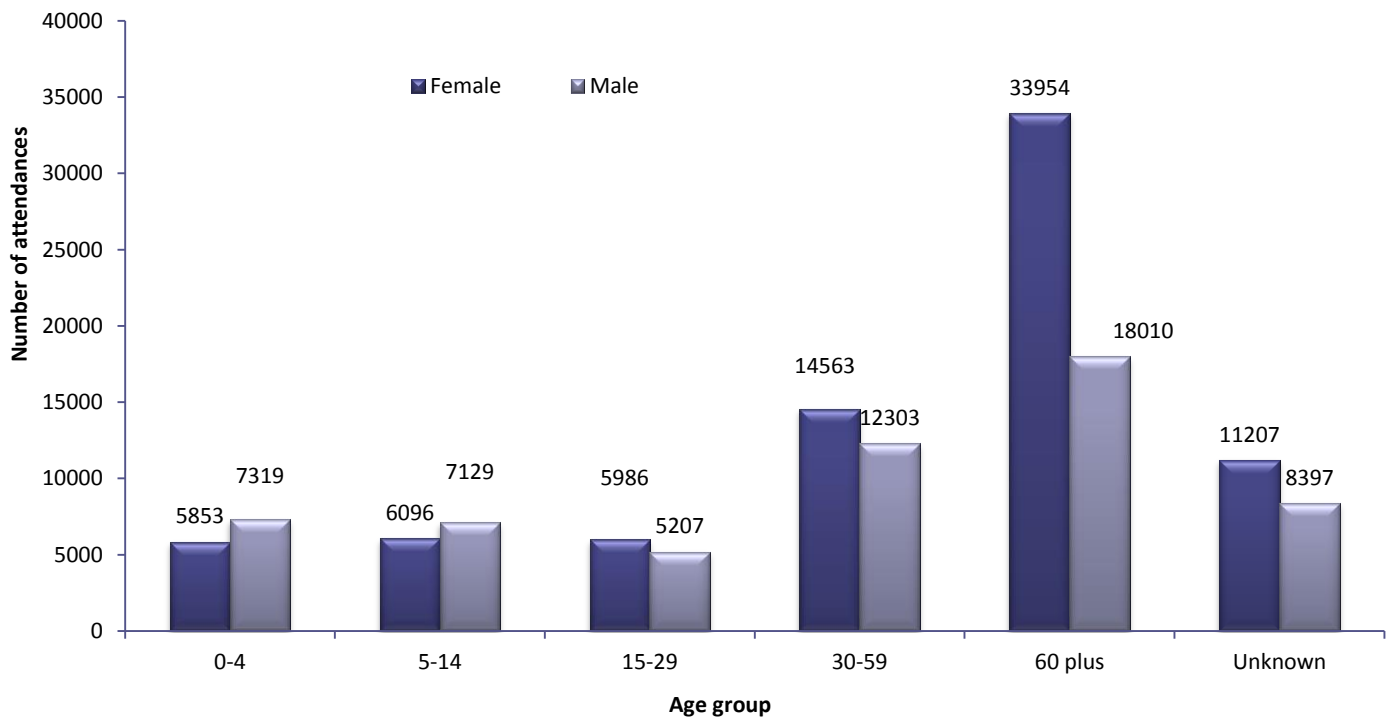
TABLE 25. Fall attendances to Greater Manchester EDs by local authority with rates, April 2012 to March 2015⁶

Local authority	Number of attendances	Population	Rate (per 100,000)
Rochdale	20,038	212,120	9,447
Oldham	18,867	227,312	8,300
Salford	16,598	239,013	6,944
Bury	12,335	186,527	6,613
Tameside	12,789	220,597	5,797
Stockport	14,928	285,032	5,237
Manchester	21,724	514,417	4,223
Trafford	7,664	230,179	3,330
Bolton	8,404	280,057	3,001
Wigan	2,679	319,690	838
Total	136,026	2,714,944	5,010

GENDER AND AGE

Between April 2012 and March 2015 the majority of fall attendances by Greater Manchester residents were made by females (77,659; 57%), with males accounting for 43% (58,365). Figure 25 shows fall attendances to Greater Manchester EDs by gender and age group. The highest proportion of attendees for both genders were aged 60 years or over, with 44% (33,954) of all female attendances, and 31% of all male attendances (18,010).

FIGURE 25. Fall attendances to Greater Manchester EDs by gender and age group, April 2012 to March 2015²¹

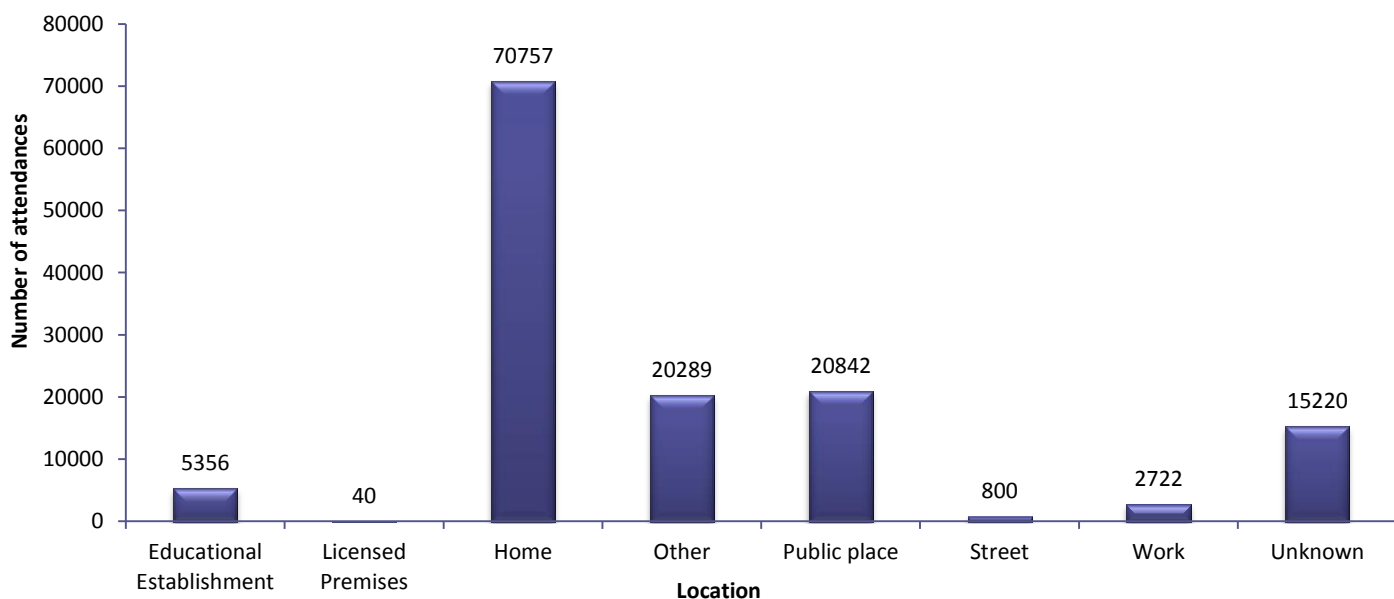


LOCATION

Figure 26 displays the location of falls for attendances to Greater Manchester EDs. Over half of all falls occurred in the home (70,757; 52%), followed by 15% of falls which in a public place (20,842), and 15% in a location categorised as other (20,289). Over one in ten (11%) attendances had the location recorded as unknown (15,220).

²¹ Less than five records where the gender was unknown which have been omitted from this figure.

FIGURE 26. Fall attendances to Greater Manchester EDs by location, April 2012 to March 2015



AT RISK GROUPS – FEMALES AGED 60 PLUS

Females aged 60 years and over comprised one quarter (33,954; 25%) of all fall attendances to Greater Manchester EDs by Greater Manchester residents between April 2012 and March 2015.

Figure 27 displays fall attendances by age for females aged 60 years plus. Almost six in ten (58%) fall attendances for females aged 60 years and over occurred between 77 and 92 years of age, with (19,593). The highest number of attendances were made by females aged 84 (1,436; 4%).

FIGURE 27. Fall attendances by females aged 60 years and over to Greater Manchester EDs by age, April 2012 to March 2015

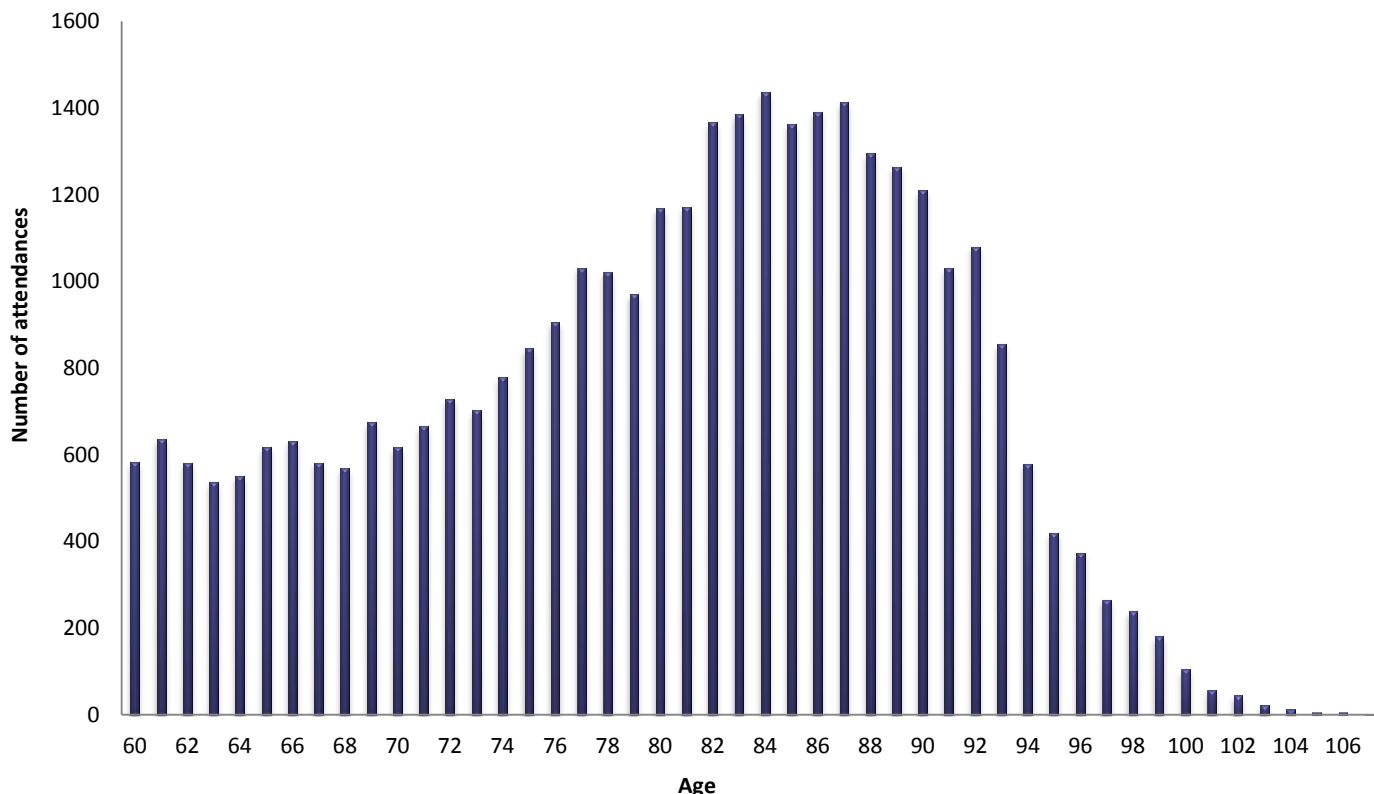


Table 26 shows the local authority of residence for female fall attendees aged 60 years and over. The highest number of attendances came from Stockport residents (5,419; 16%), followed by Salford residents (5,148; 15%) and Oldham residents (4,088; 12%). The lowest number of attendances was made by residents of Wigan local authority (969; 3%).

TABLE 26. Fall attendances by females aged 60 plus to Greater Manchester EDs by local authority with rates, April 2012 to March 2015⁶

Local authority	Number of attendances	Population	Rate (per 100,000)
Salford	5,148	24,819	20,742
Oldham	4,088	25,757	15,871
Stockport	5,419	38,430	14,101
Tameside	3,714	26,457	14,038
Rochdale	3,149	24,079	13,078
Manchester	3,749	36,365	10,309
Bury	2,256	22,951	9,830
Bolton	3,029	32,559	9,303
Trafford	2,433	27,539	8,835
Wigan	969	39,619	2,446
Total	33,954	298,575	11,372

Figure 28 displays the location of fall incidents for female attendees aged 60 years and over to Greater Manchester EDs. Over six in ten (61%) falls occurred in the home (20,564), followed by locations stated as other (5,744; 17%).

FIGURE 28. Fall attendances by females aged 60 years and over to Greater Manchester EDs by location of incident, April 2012 to March 2015

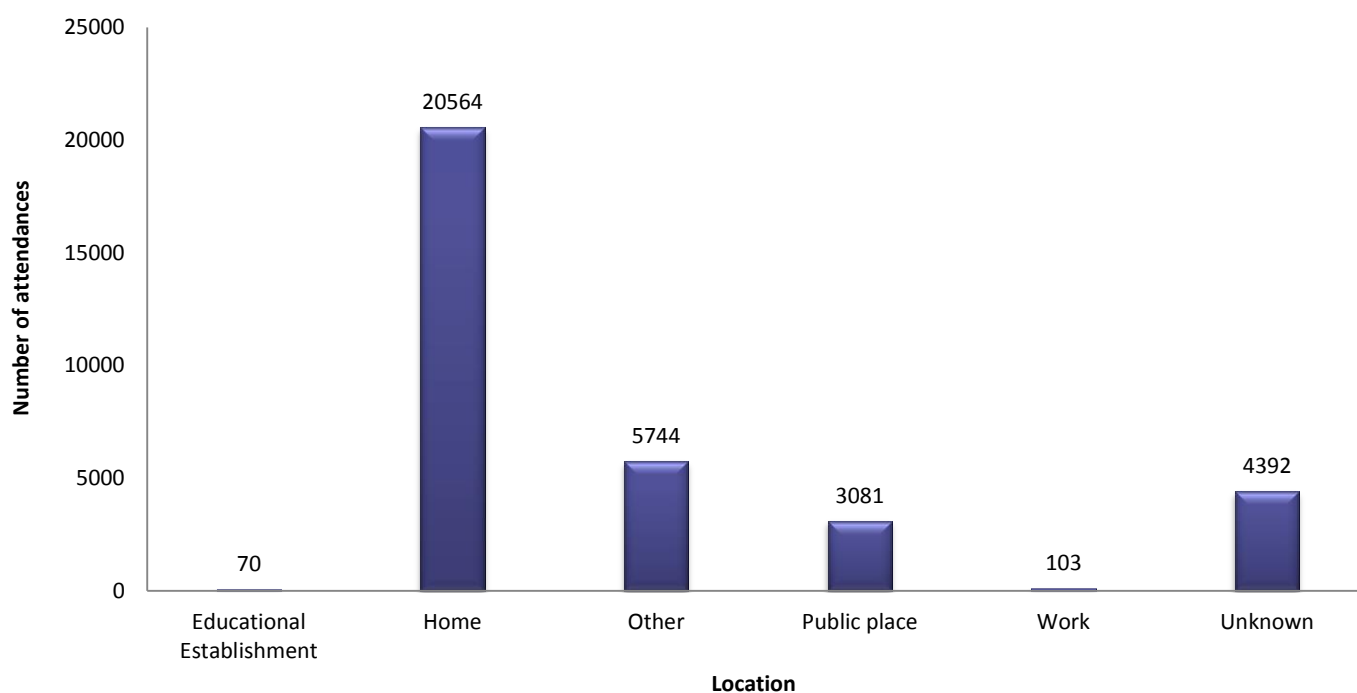


Table 27 shows the top three LSOAs for the three local authorities with the highest fall attendances for females aged 60 years plus. The LSOAs with the highest attendances came from residents of Salford 020AB (161) and Salford 021G (150).

TABLE 27. Top LSOAs for local authorities with highest fall attendances by females aged 60 and over with rates, April 2012 to March 2015⁶

Local authority	LSOA name	LSOA code	Number of attendances	Population	Rate (per 100,000)
Oldham	Oldham 003D	E01005447	133	1,633	8,145
	Oldham 009B	E01005398	106	1,582	6,700
	Oldham 011A	E01005421	106	1,771	5,985
Salford	Salford 020A	E01005631	161	1,455	11,065
	Salford 021G	E01005724	150	1,452	10,331
	Salford 016F	E01005615	125	2,076	6,021
Stockport	Stockport 004A	E01005753	141	1,781	7,917
	Stockport 012B	E01005899	129	1,632	7,904
	Stockport 027A	E01005798	105	1,591	6,600

Figure 29 displays the arrival mode for female fall attendees aged 60 years and over to Greater Manchester EDs. Almost seven in ten (68%) attendees arrived at the ED by ambulance (23,188).

FIGURE 29. Fall attendances by females aged 60 years plus to Greater Manchester EDs by arrival mode, April 2012 to March 2015

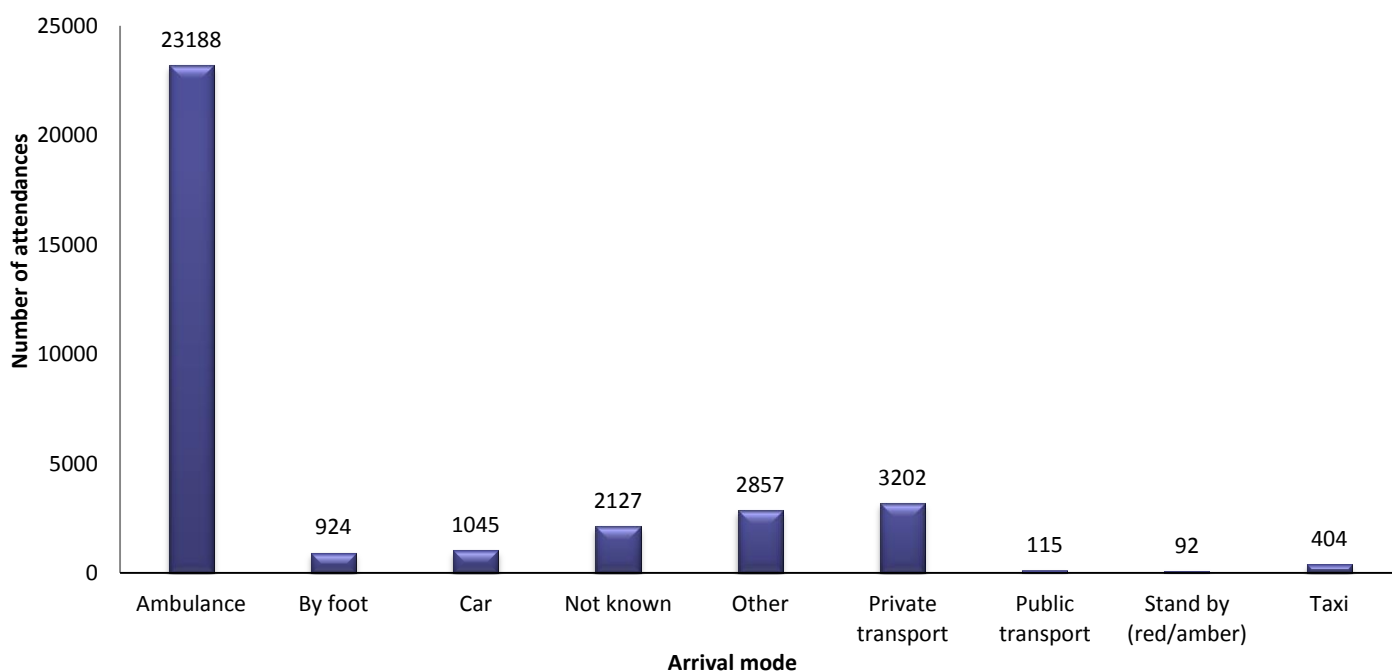
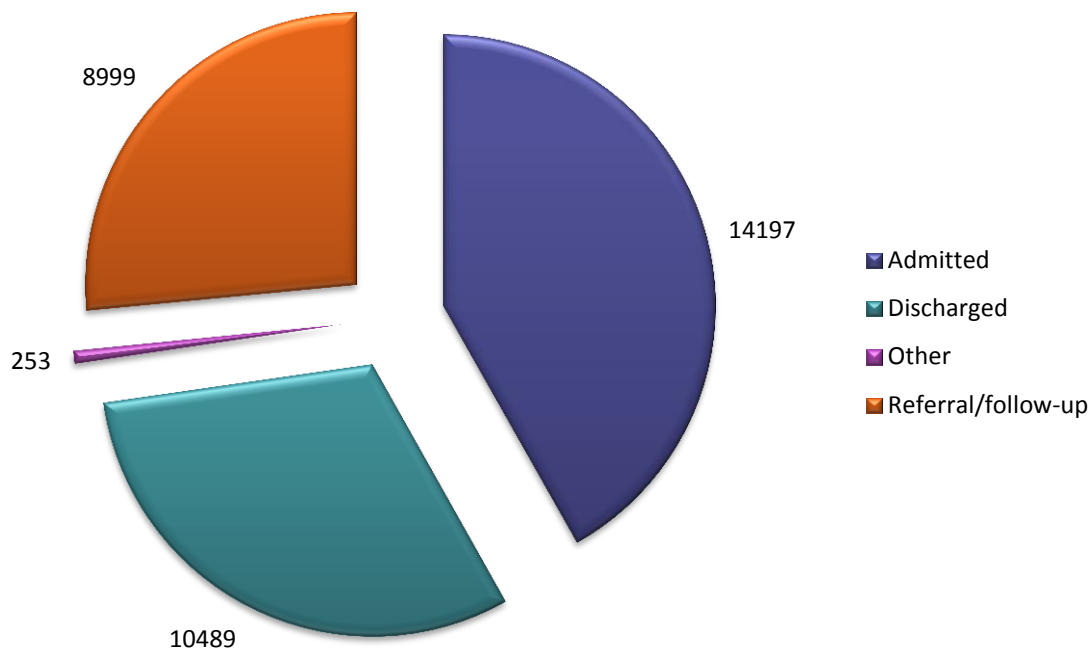


Figure 30 displays the disposal method for female fall attendees aged 60 years and over to Greater Manchester EDs. Over four in ten (42%) attendees were admitted to hospital (14,197), while 31% were discharged (10,489) and 27% were referred for follow up treatment (8,999).

FIGURE 30. Fall attendances by females aged 60 years and over to Greater Manchester EDs by disposal method, April 2012 to March 2015²²



ROAD TRAFFIC COLLISIONS

This section of the report displays the trends and demographics for road traffic collision attendances to Greater Manchester EDs between April 2012 and March 2015. During this period there were a total of 59,072 road traffic collision attendances to Greater Manchester EDs. Table 28 shows that the highest number of attendances came during the financial year 2012-13 with 20,921 presentations. Over this three year period there was a 9% reduction in all road traffic collision attendances. Of the 59,072 total road traffic collision attendances 52,793 (89%) were made by Greater Manchester residents. Across the three year period there was a 10% decrease in attendances made by Greater Manchester residents.

TABLE 28. Road traffic collision attendances to Greater Manchester EDs by financial year, April 2012 to March 2015

	2012-13	2013-14	2014-15	Total
All attendances	20,921	19,088	19,063	59,072
Greater Manchester residents	18,676	17,285	16,832	52,793

Table 29 shows road traffic collision attendances at Greater Manchester EDs by local authority of residence. The highest number of attendances were by Manchester residents (12,234; 23%), followed by Oldham residents (6,267; 12%) and Rochdale residents (6,112; 12%). Wigan residents made the fewest number of road traffic collision attendances (3,043; 6%) during this period.

²² There are 16 records where the disposal method was unknown, which have been omitted from this figure.

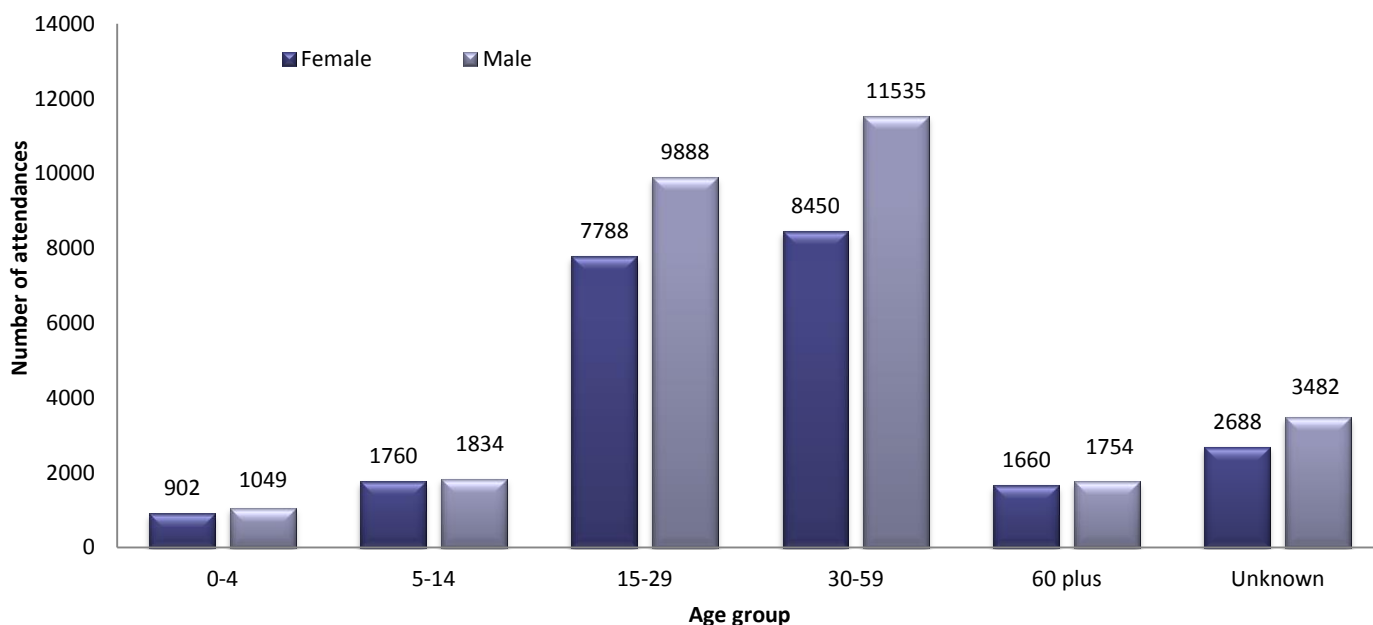
TABLE 29. Road traffic collision attendances to Greater Manchester EDs by local authority with rates, April 2012 to March 2015⁶

Local authority	Number of attendances	Population	Rate (per 100,000)
Rochdale	6,112	212,120	2,881
Oldham	6,267	227,312	2,757
Manchester	12,234	514,417	2,378
Stockport	5,602	285,032	1,965
Tameside	4,294	220,597	1,947
Trafford	4,410	230,179	1,916
Bury	3,552	186,527	1,904
Salford	3,944	239,013	1,650
Bolton	3,335	280,057	1,191
Wigan	3,043	319,690	952
Total	52,793	2,714,944	1,945

GENDER AND AGE

Between April 2012 and March 2015 the majority (56%) of road traffic collision attendances were made by males (29,542), with females accounting for 44% (23,248) of attendances by Greater Manchester residents. Figure 31 shows road traffic collision attendances to Greater Manchester EDs by gender and age group. The majority of attendees for both genders were aged between 30 and 59 years, with 39% (11,535) of all male attendances, and 36% of all female attendances (8,450).

FIGURE 31. Road traffic collision attendances to Greater Manchester EDs by gender and age group, April 2012 to March 2015²³

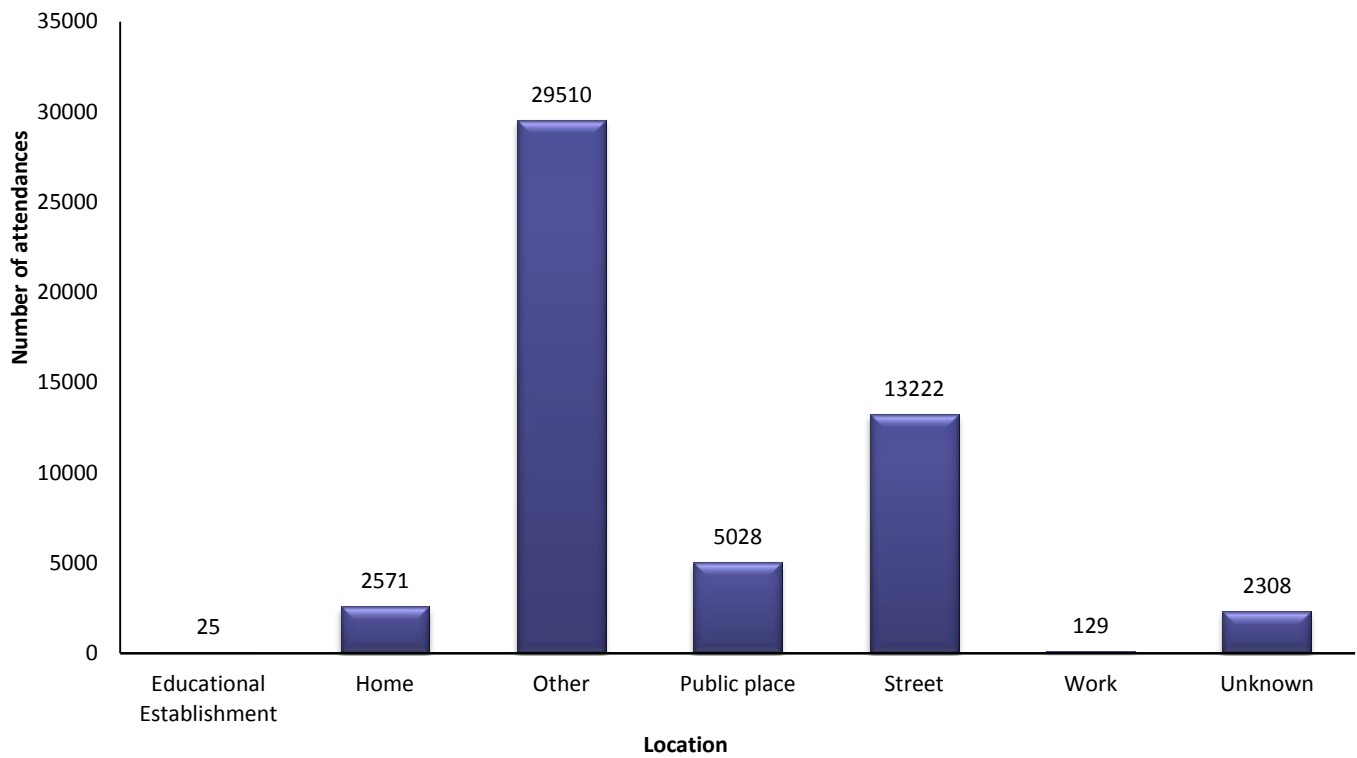


²³ Less than five records where the gender was unknown which have been omitted from this figure.

LOCATION

Figure 32 displays the location of road traffic collisions for attendances to Greater Manchester EDs. Almost six in ten (56%) road traffic collisions occurred in a location categorised as other (29,510), followed by 25% on a street (13,222).

FIGURE 32. Road traffic collision attendances to Greater Manchester EDs by location of incident, April 2012 to March 2015



AT RISK GROUPS – MALES AGED 15-59

Males aged between 15 and 59 years of age accounted for over four in ten (21,423; 41%) road traffic collision attendances to Greater Manchester EDs by Greater Manchester residents from April 2012 to March 2015.

Figure 33 displays road traffic collision attendances for males aged between 15 and 59 years. Almost one quarter of road traffic collision attendances for males aged between 15 and 59 years occurred between 20 and 25 years of age (4,886; 23%). The highest number of attendances were made by males aged 21 (841; 4%).

FIGURE 33. Road traffic collision attendances by males aged 15-59 years to Greater Manchester EDs by age, April 2012 to March 2015

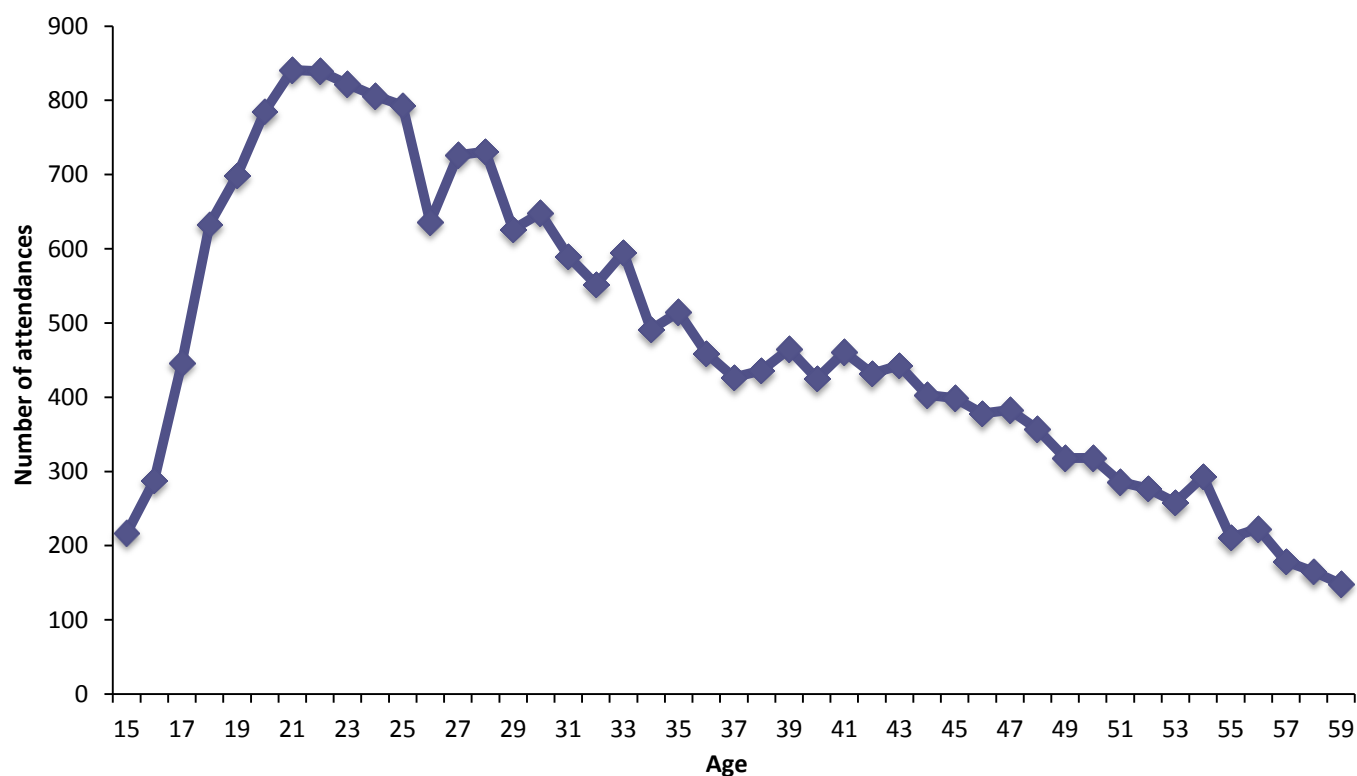


Table 30 shows road traffic collision attendances for males aged between 15 and 59 years by local authority of residence. The highest attendances came from residents of Manchester local authority (5,297; 25%), followed by residents of Stockport (2,481; 12%) and Oldham residents (2,409; 11%).

TABLE 30. Road traffic collision attendances by males aged 15-59 years by local authority with rates, April 2012 to March 2015⁶

Local authority	Number of attendances	Population	Rate (per 100,000)
Oldham	2,409	65,902	3,655
Stockport	2,481	80,867	3,068
Tameside	1,981	64,874	3,054
Manchester	5,297	180,426	2,936
Trafford	1,972	67,045	2,941
Rochdale	1,793	61,895	2,897
Salford	1,779	75,921	2,343
Bury	931	53,475	1,741
Bolton	1,395	82,092	1,699
Wigan	1,385	94,228	1,470
Total	21,423	822,348	2,605

Figure 34 displays the disposal method for male road traffic collision attendees aged between 15 and 59 years to Greater Manchester EDs. Almost two thirds (65%) of attendees were discharged (13,931), while 26% were referred for follow up treatment (5,553) and 5% were admitted (1,158) following an attendance for a road traffic collision.

FIGURE 34. Road traffic collision attendances by males aged 15-59 years to Greater Manchester EDs by disposal method, April 2012 to March 2015

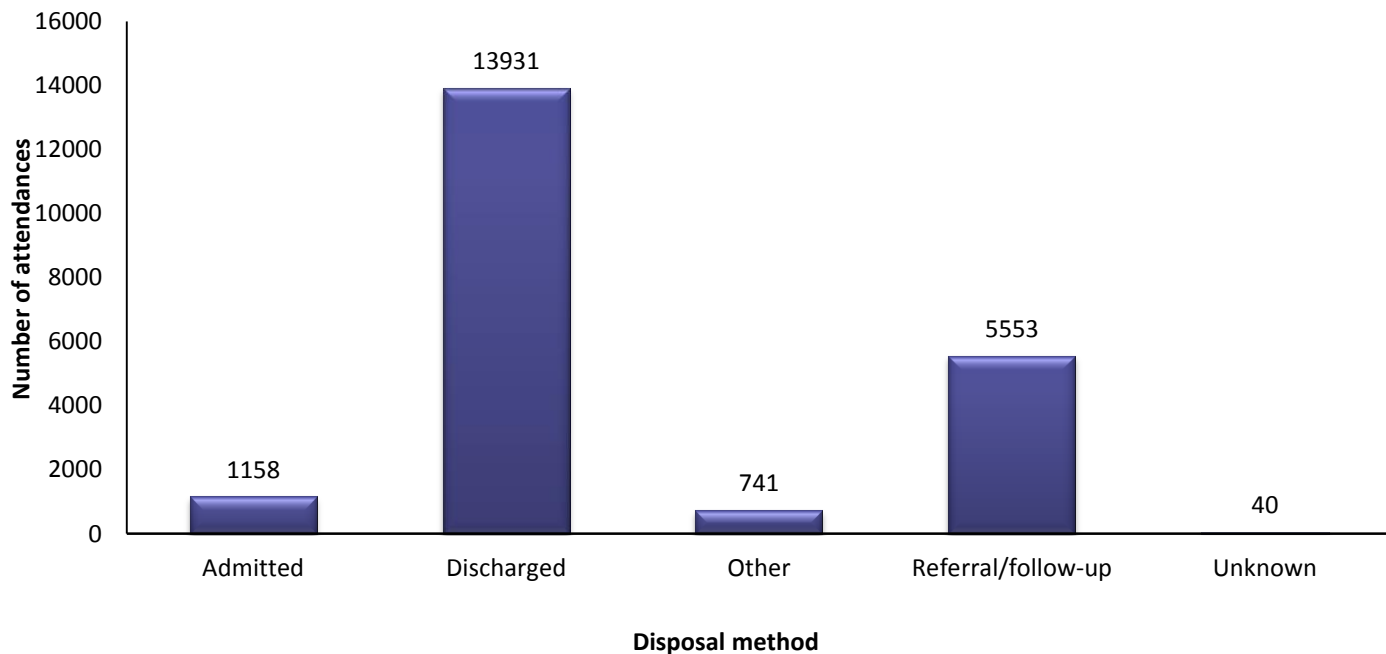
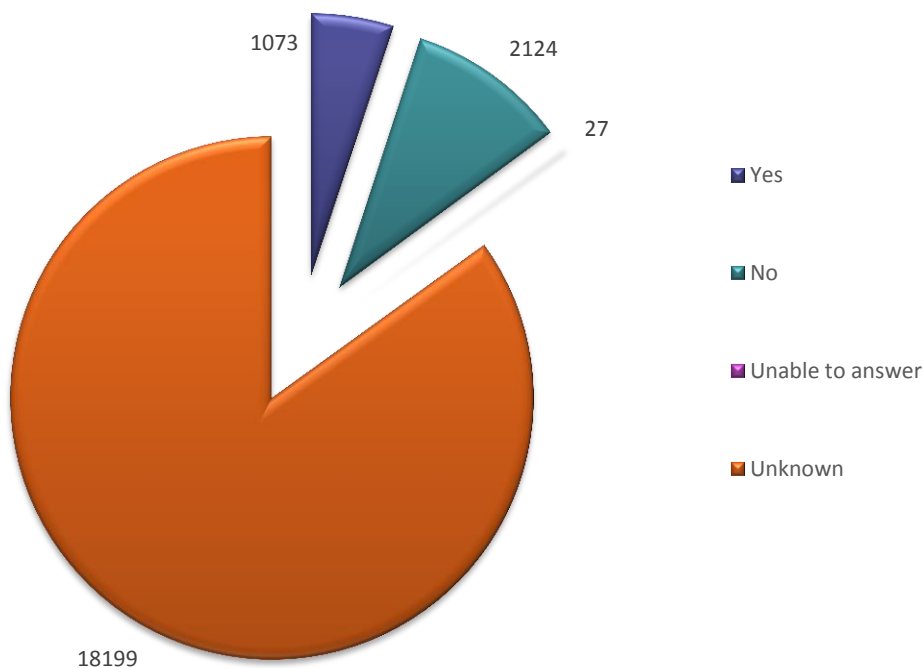


Figure 35 shows whether alcohol was involved in road traffic collision attendances by males aged between 15 and 59 years; attendees had consumed alcohol in 5% (1,073) of road traffic collisions.

FIGURE 35. Road traffic collision attendances by males aged 15-59 years to Greater Manchester EDs by alcohol consumption, April 2012 to March 2015



SPORT INJURIES

This section displays the trends and demographics for sport injury attendances to Greater Manchester EDs between April 2012 and March 2015. During this period there were a total of 40,098 sport injury attendances to Greater Manchester EDs. Table 31 shows that the highest number of attendances came during the financial year 2013-14 with 13,822 presentations. Over this three year period there was a 2% reduction in all sport injury attendances. Of the 40,098 total attendances 35,042 (87%) were made by Greater Manchester residents. Across the three year period there was a 1% decrease in attendances made by Greater Manchester residents.

TABLE 31. Sport injury attendances to Greater Manchester EDs by financial year, April 2012 to March 2015

	2012-13	2013-14	2014-15	Total
All attendances	13,257	13,822	13,019	40,098
Greater Manchester residents	11,472	12,180	11,390	35,042

Table 32 shows sport injury attendances at Greater Manchester EDs by local authority of residence. The highest number of attendances were by Stockport residents (10,885; 31%), followed by Manchester residents (7,694; 22%) and Trafford residents (6,090; 17%). Rochdale residents made the fewest number of sport injury attendances (124; <1%) during this period.

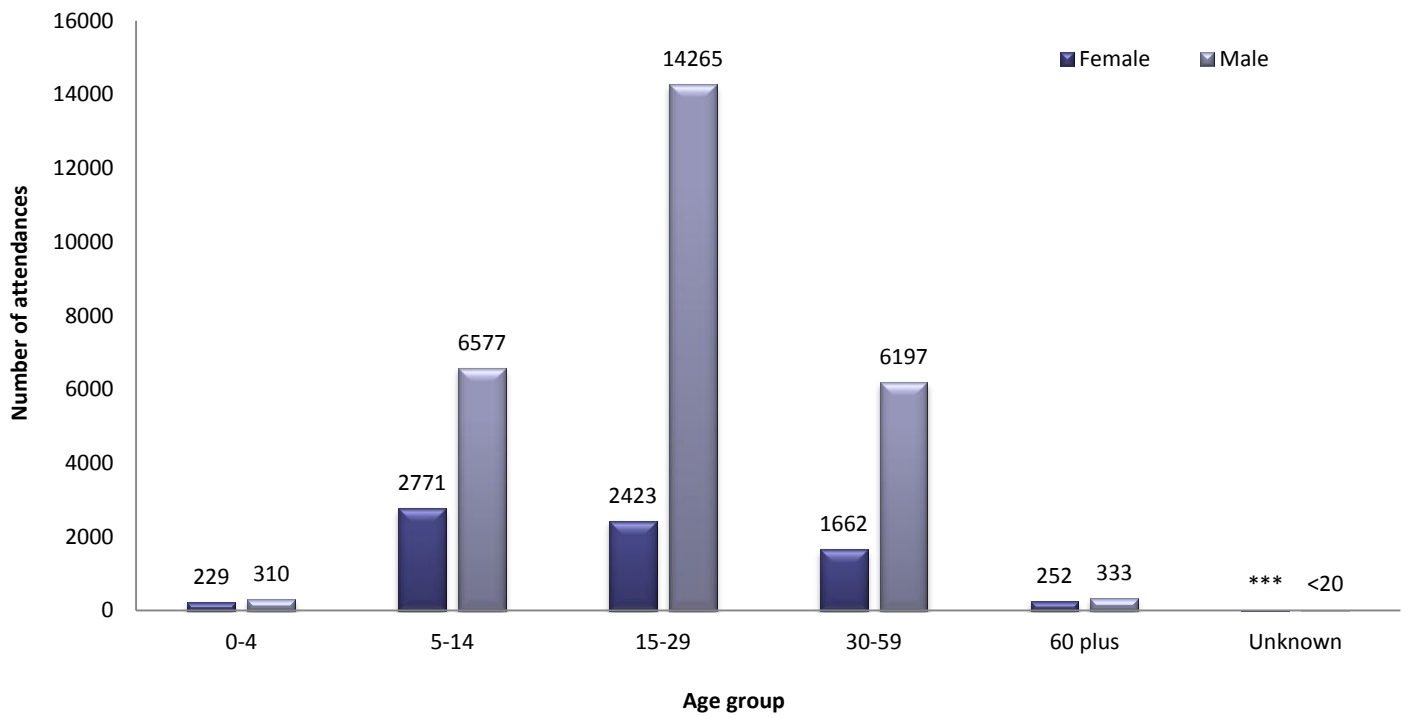
TABLE 32. Sport injury attendances to Greater Manchester EDs by local authority with rates, April 2012 to March 2015⁶

Local authority	Number of attendances	Population	Rate (per 100,000)
Stockport	10,885	285,032	3,819
Trafford	6,090	230,179	2,646
Tameside	3,476	220,597	1,576
Manchester	7,694	514,417	1,496
Salford	3,437	239,013	1,438
Bolton	2,359	280,057	842
Bury	281	186,527	151
Wigan	479	319,690	150
Oldham	217	227,312	96
Rochdale	124	212,120	59
Total	35,042	2,714,944	1,291

GENDER AND AGE

Between April 2012 and March 2015 the majority of sport injury attendances were made by males (27,700; 79%), with females accounting for 21% (7,341) of attendances by Greater Manchester residents. Figure 36 shows sport injury attendances to Greater Manchester EDs by gender and age group. Over half (51%) of male attendees were aged between 15 and 29 years (14,265), while almost four in ten (38%) of all female attendances (2,771) were aged between 5 and 14 years of age.

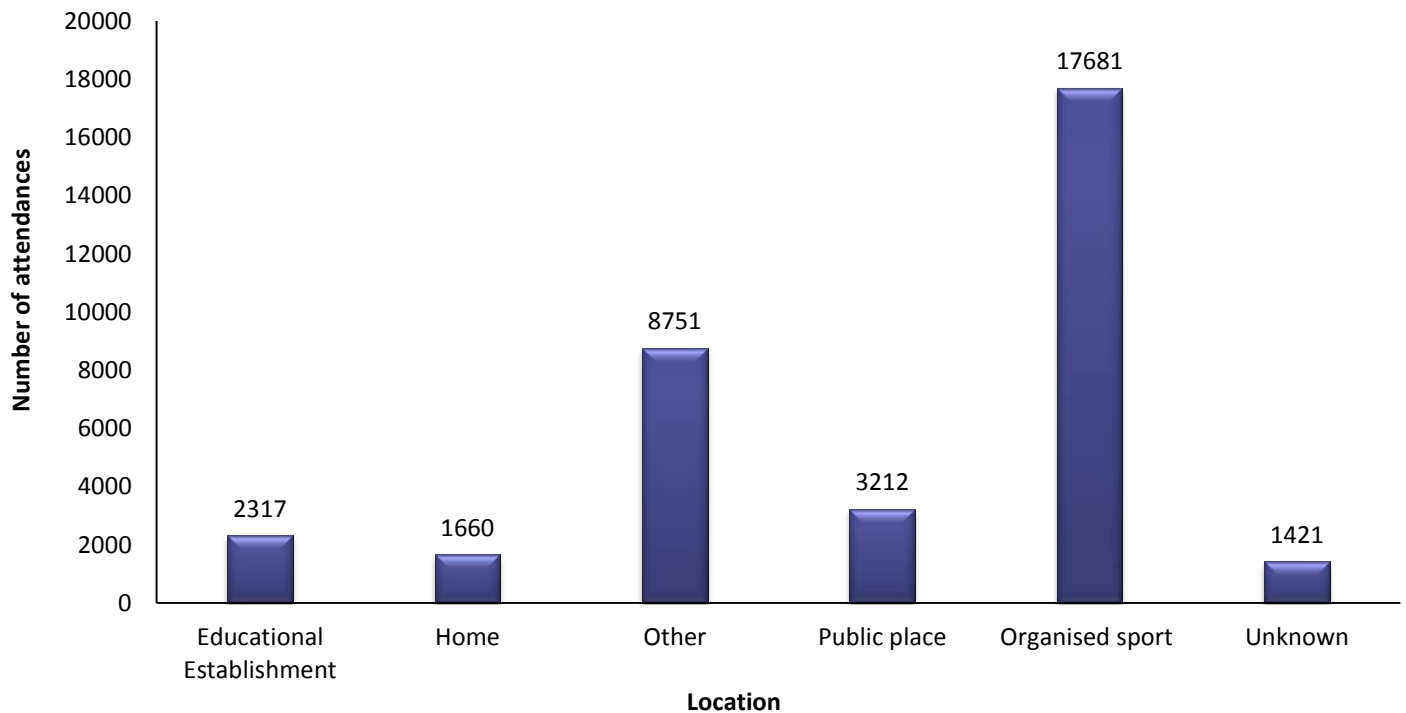
FIGURE 36. Sport injury attendances to Greater Manchester EDs by gender and age group, April 2012 to March 2015²⁴



LOCATION

Figure 37 displays the location of sports injury incidents for attendances to Greater Manchester EDs. Half of all sport injuries occurred in a location categorised as organised sport (17,681; 50%).

FIGURE 37. Sport injury attendances to Greater Manchester EDs by location of incident, April 2012 to March 2015



²⁴ Less than five records where the gender was unknown which has been omitted from this figure.

AT RISK GROUPS – MALES AGED 15-29

Males aged between 15 and 29 years of age account for over four in ten (14,265; 41%) of all sports injury attendances to Greater Manchester EDs by Greater Manchester residents.

Figure 38 displays sport injury attendances by age for males aged between 15 and 29 years old. Almost one fifth of male sports injuries were comprised of those aged 15 and 16 years old (2,714; 19%). The highest attendances were made by males aged 15 (1,462; 10%).

FIGURE 38. Sport injury attendances by males aged 15-29 years to Greater Manchester EDs by age, April 2012 to March 2015

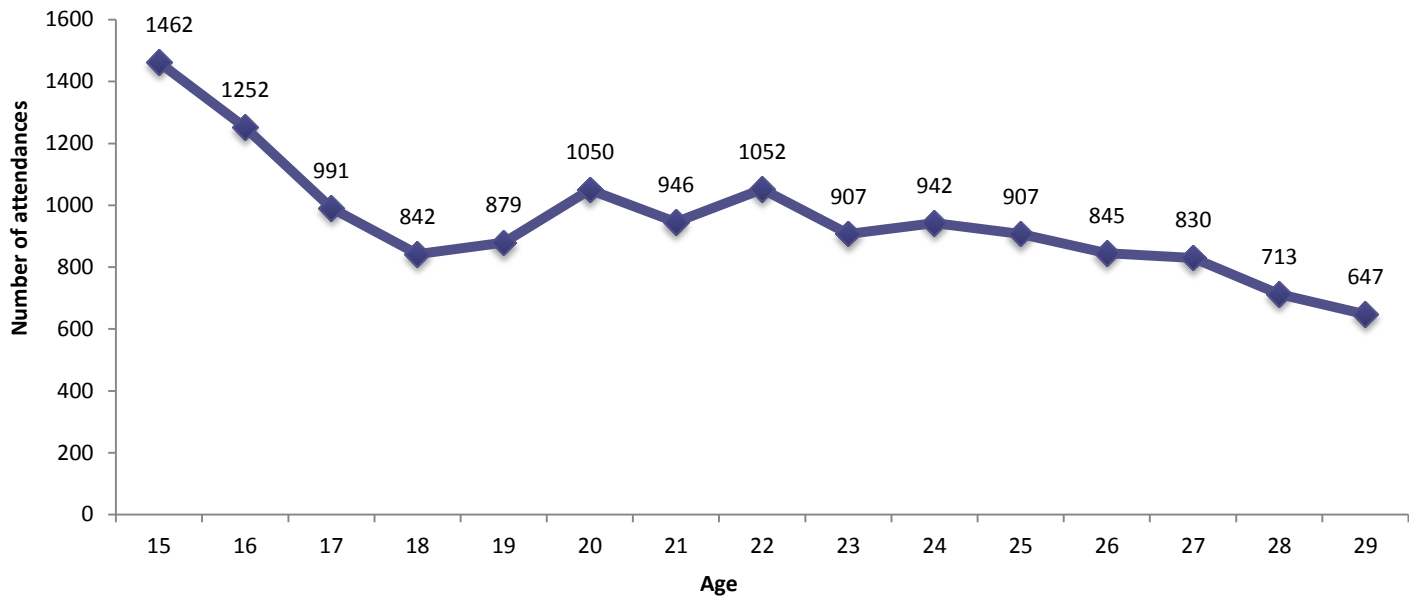


Table 33 shows the local authority of residence for male sport injury attendees aged between 15 and 29 years. The highest attendances came from Stockport (4,049; 28%), and Manchester residents (4,045; 28%); the lowest attendances were made by residents of Rochdale local authority (55; <1%).

TABLE 33. Sport injury attendances by males aged 15-29 to Greater Manchester EDs by local authority and crude rates, April 2012 to March 2015⁶

Local authority	Number of attendances	Population	Rate (per 100,000)
Stockport	4,049	23,963	16,897
Trafford	2,253	19,779	11,391
Tameside	1,488	20,507	7,256
Salford	1,394	27,853	5,005
Manchester	4,045	81,586	4,958
Bolton	638	27,967	2,281
Bury	100	16,836	594
Wigan	161	29,169	552
Oldham	82	22,498	365
Rochdale	55	20,619	267
Total	14,265	290,777	4,906

Figure 39 displays the arrival mode for male sport injury attendees aged between 15 and 29 years to Greater Manchester EDs. Half of attendees arrived at the ED by a mode categorised as other (7,097; 50%), while almost a quarter arrived at EDs by car (3,471; 24%).

FIGURE 39. Sport injury attendances by males aged 15-29 years to Greater Manchester EDs by arrival mode, April 2012 to March 2015

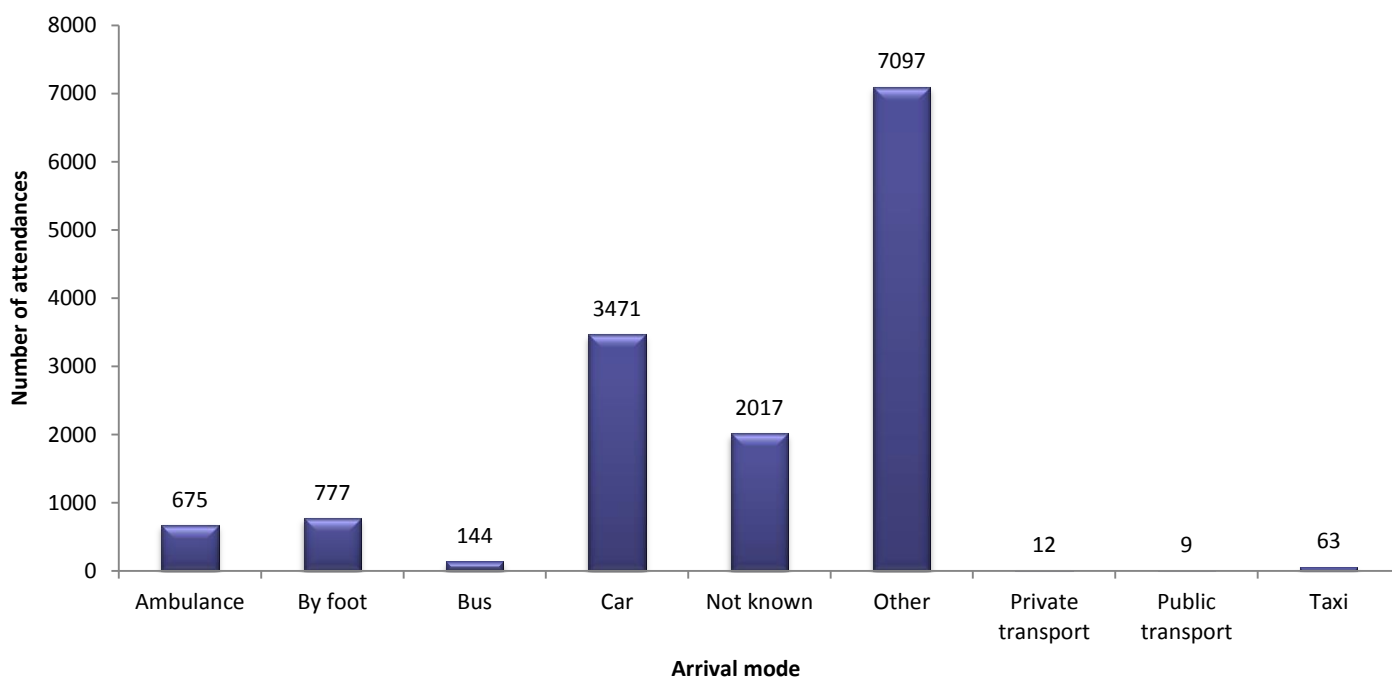
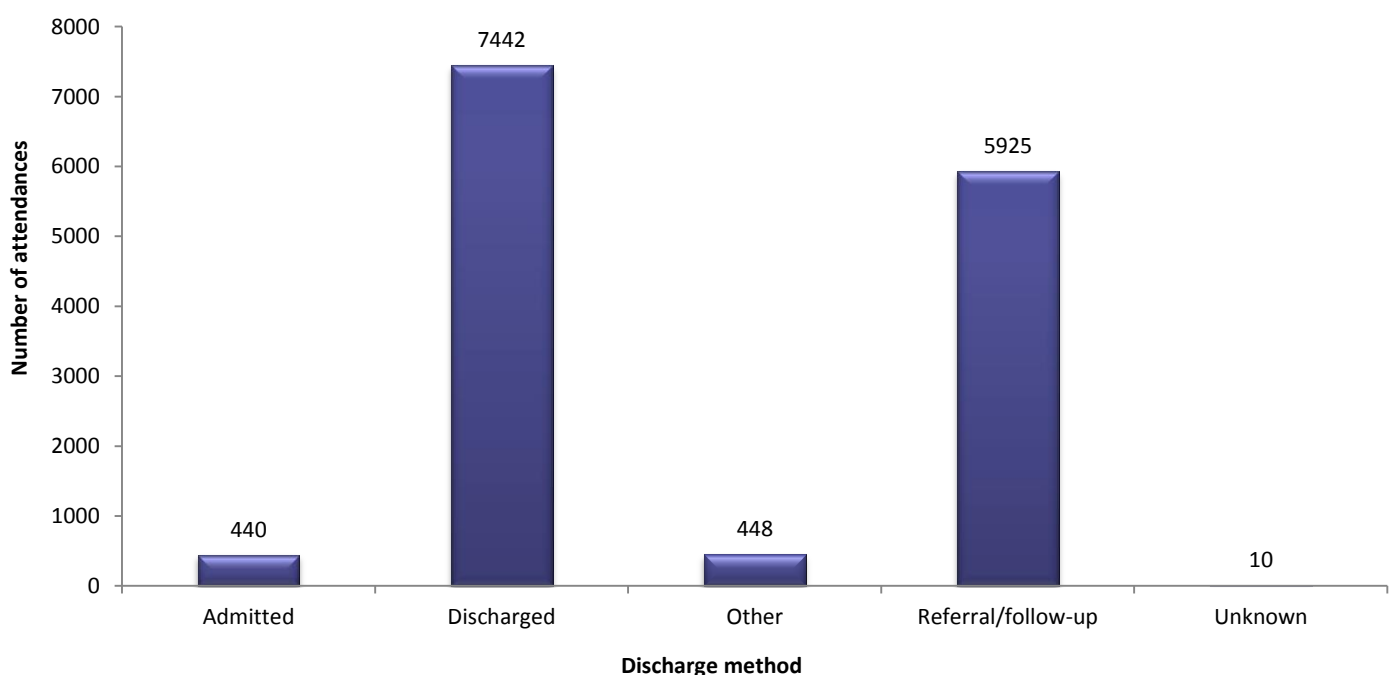


Figure 40 displays the disposal method for male sport injury attendees aged between 15 and 29 years to Greater Manchester EDs. Over half of attendees were discharged (7,442; 52%), while 42% were referred for follow up treatment (5,925) and only 3% were admitted (440) following attendance for a sports injury.

FIGURE 40. Sport injury attendances by males aged 15-29 years to Greater Manchester EDs by disposal method, April 2012 to March 2015



DEMOGRAPHICS

This section of the report examines all injury and violence across Greater Manchester using North West Ambulance Service (NWS) call out data between April 2012 and March 2015. Between April 2012 and March 2015 there were 233,452 ambulance call outs for injury and violence in Greater Manchester. Table 34 shows that in the financial year 2012/13 there were 82,920 call outs, 78,509 in 2013/14 and 72,023 in 2014/15, displaying a 13% decrease over this three year period. The highest month for call outs was July 2012 with 7,401; July also had the highest number of call outs across the three year period with 20,738.

TABLE 34. All ambulance call outs by Greater Manchester residents by financial year and month, April 2012 to March 2015

Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
2012-13	6784	7385	7009	7401	7400	7066	6682	6703	7110	6646	6155	6579	82920
2013-14	6177	6669	7070	7099	6975	6347	6732	6255	6593	6194	5786	6612	78509
2014-15	6103	6219	6062	6238	6347	6075	5945	5866	5690	5783	5306	6389	72023
Total	19064	20273	20141	20738	20722	19488	19359	18824	19393	18623	17247	19580	233452

Table 35 shows all ambulance call outs for Greater Manchester residents by injury group. Almost half (48%) of all call outs were for falls (112,432), followed by psychiatric/suicide attempts (which includes incidents of deliberate self-harm) with 15% (34,634), and overdose/poisoning with 11% (25,573). The lowest number of call outs was for bites and stings with less than 1% of all call outs during this period (738). All injury groups had a reduction in call out numbers during this period apart from psychiatric/suicide attempts which had a 12% increase.

TABLE 35. All ambulance call outs by Greater Manchester residents by financial year and injury group, April 2012 to March 2015

Injury group	2012-13	2013-14	2014-15	Total
Falls	40,832	37,749	33,851	112,432
Psychiatric/Suicide attempt	10,711	11,952	11,971	34,634
Overdose/Poisoning	9,233	8,671	7,669	25,573
Other	8,788	8,624	7,618	25,030
Road traffic accidents	6,972	6,860	6,924	20,756
Assault	5,029	3,343	2,900	11,272
Burns & Scalds	1,103	1,050	864	3,017
Bites & Stings	252	260	226	738
Total	82,920	78,509	72,023	233,452

Figure 41 shows all ambulance call outs by gender across the three year period. The majority of call outs were for females (113,446; 49%), males comprised 48% (111,225) of call outs and there were 8,781 call outs (4%) where a gender was not recorded. The highest number of male call outs occurred in May 2012 (3,630) and the lowest in February 2015 (2,504),

compared with female call outs where the peak number occurred in July 2012 (3,627), and the lowest was in also in February 2015 (2,566).

FIGURE 41. All injury and violence ambulance call outs in Greater Manchester by gender, April 2012 to March 2015

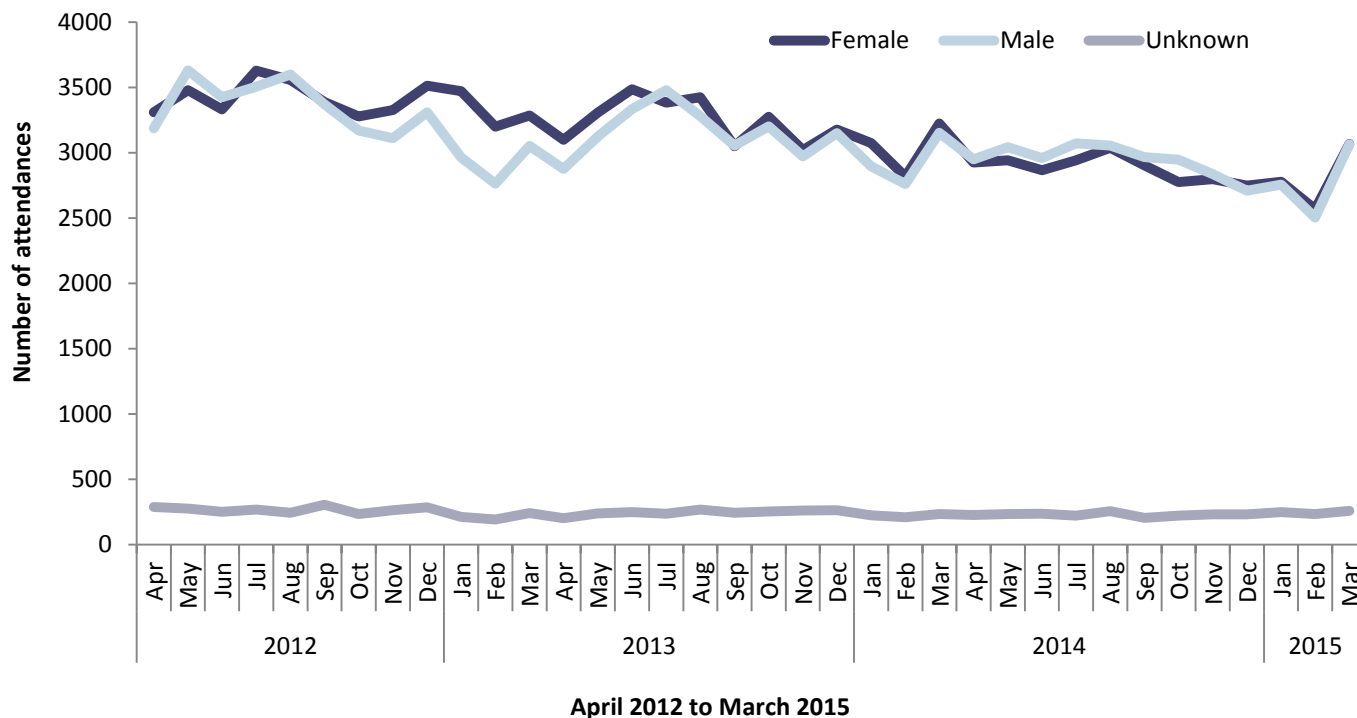
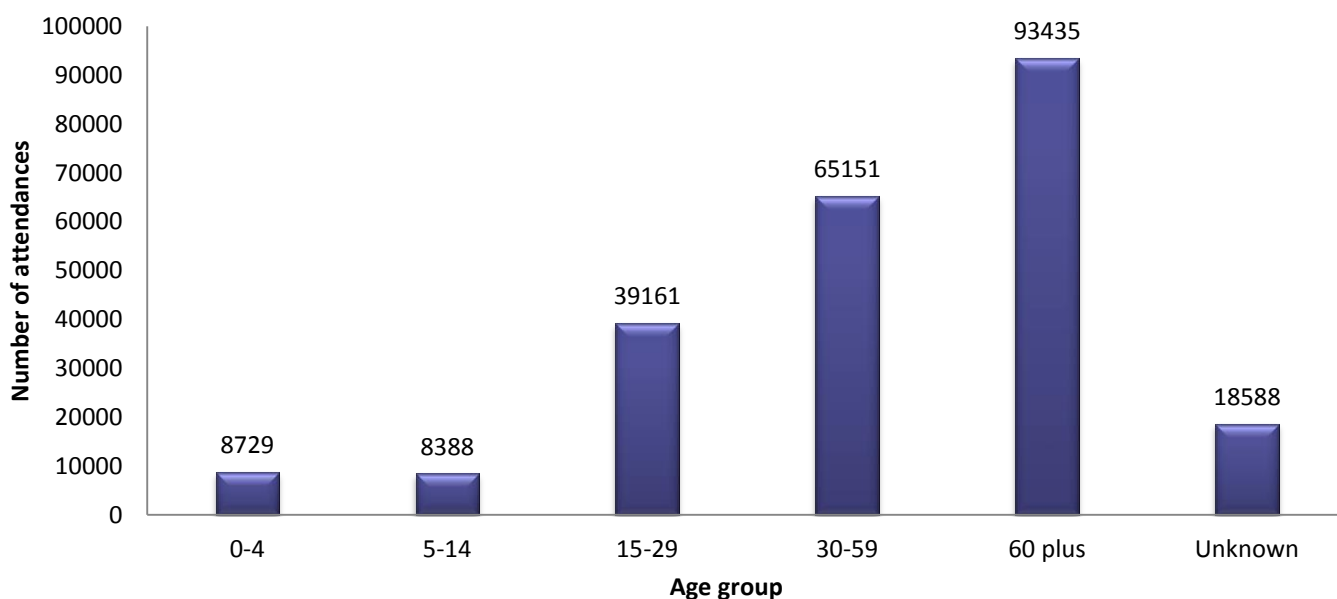


Figure 42 shows that the highest proportion of call outs came from people aged 60 years and over (93,435; 40%), followed by those aged between 30 and 59 years (65,151; 28%) and those aged between 15 and 29 years (39,161; 17%). There were a high number of call outs where an age was not recorded (18,588; 8%).

FIGURE 42. All injury and violence ambulance call outs in Greater Manchester by age group, April 2012 to March 2015



Geography

Table 36 shows that the largest proportion of call outs were in Manchester LA (49,599; 21%), followed by Wigan (26,662; 11%) and Stockport (23,635; 10%). Seven percent (15,601) of injury and violence related call outs were in Bury.

TABLE 36. All ambulance call outs by Greater Manchester residents by local authority, April 2012 to March 2015

Local authority	Number of attendances	Population	Rate (per 100,000)
Manchester	49,599	514,417	9,642
Tameside	19,599	220,597	8,885
Rochdale	18,520	212,120	8,731
Salford	20,266	239,013	8,479
Bury	15,601	186,527	8,364
Wigan	26,662	319,690	8,340
Oldham	18,904	227,312	8,316
Stockport	23,635	285,032	8,292
Trafford	18,369	230,179	7,980
Bolton	22,297	280,057	7,962
Total	233,452	2,714,944	8,599

Table 37 shows that the highest number of call outs were from LSOA Stockport 014B (1,277) followed by Manchester 055B (1,221) and Manchester 054C (1,163).

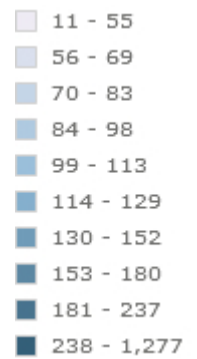
TABLE 37. Top LSOAs for ambulance call outs by Greater Manchester residents, April 2012 to March 2015

LSOA name	LSOA	Number of attendances	Population	Rate (per 100,000)
Manchester 054C	E01033658	1163	1,312	88,643
Stockport 014B	E01005758	1277	1,800	70,944
Manchester 055B	E01033653	1221	1,822	67,014
Wigan 008C	E01006369	1042	1,690	61,657
Bolton 022E	E01004817	798	1,589	50,220
Tameside 013A	E01005948	970	1,949	49,769
Rochdale 010C	E01005482	930	1,927	48,262
Trafford 002E	E01006121	711	1,529	46,501
Oldham 014B	E01005350	790	1,936	40,806
Oldham 024B	E01005434	585	1,435	40,767
Bury 008E	E01005024	544	1,542	35,279
Salford 020A	E01005631	511	1,455	35,120
Bury 011B	E01005027	592	1,771	33,427
Stockport 016D	E01005822	523	1,577	33,164
Bolton 016D	E01004848	523	1,654	31,620
Rochdale 017F	E01005481	499	1,737	28,728
Wigan 030B	E01006333	511	1,796	28,452
Manchester 008D	E01005165	512	2,128	24,060

FIGURE 43. Number of injury and violence call outs by LSOA with Local Authority boundaries, April 2012 to March 2015

Figure 43 displays an overview of the geographical spread of call outs using NWAS data across LA boundaries in Greater Manchester. This map was produced using InstantAtlas software and populated using the total number of attendances for each LSOA, as partially shown in Table 37.

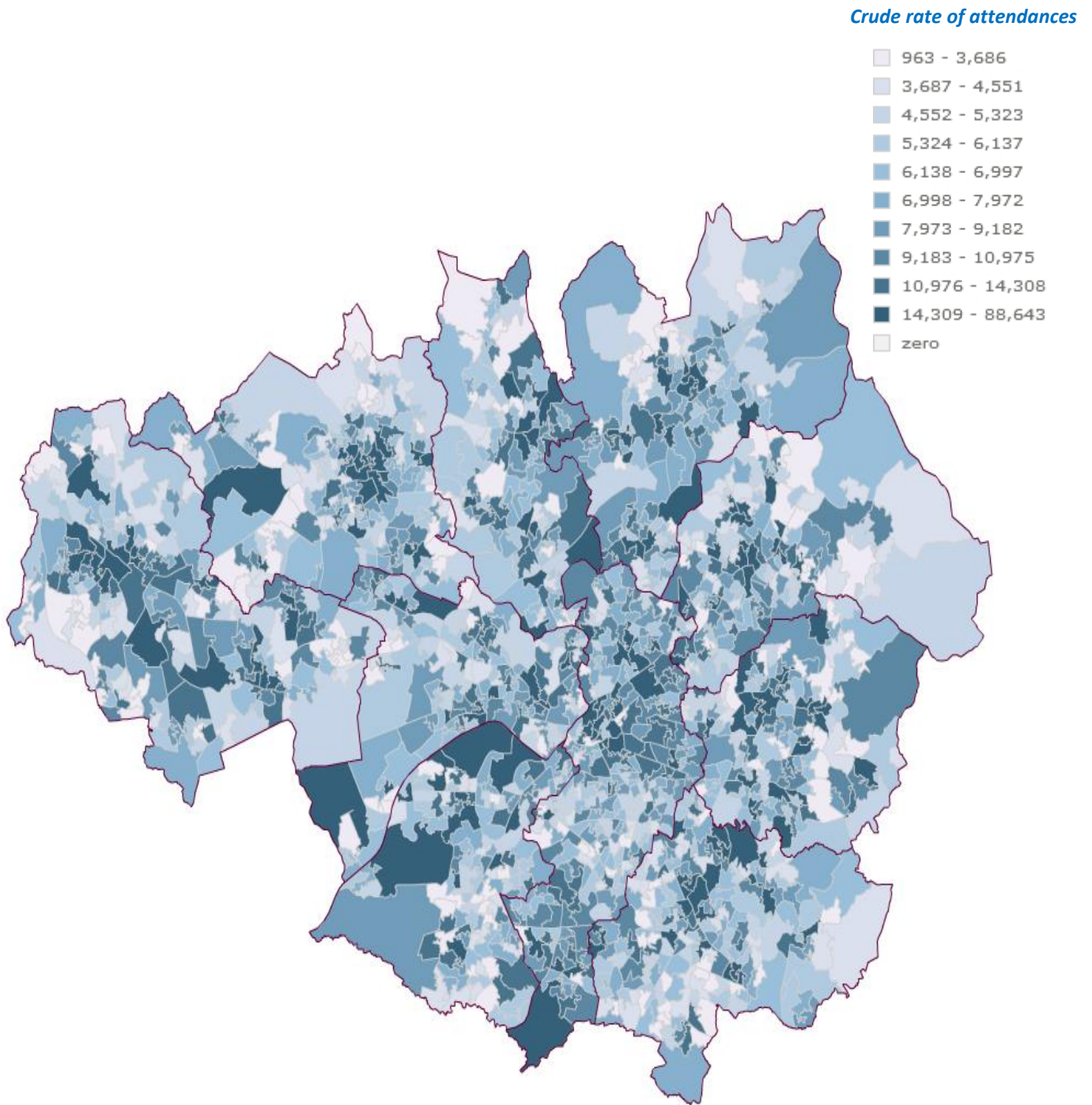
Number of attendances



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FIGURE 44. Crude rate of injury and violence call outs by LSOA with Local Authority boundaries, April 2012 to March 2015

Figure 44 displays an overview of the geographical spread of call outs using NWS data across LA boundaries in Greater Manchester. This map is populated with the crude rate of attendances for each LSOA. This map was produced using InstantAtlas software and populated using the total number of attendances for each LSOA, as partially shown in Table 37.



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RECOMMENDATIONS

Recommendations presented here are derived from evidence reported in the literature and information presented in this report, including TIIG, ONS and NWS data. The recommendations have been presented in the following categories: data collection and quality; demographic variance; and, prevention and intervention.

DATA COLLECTION AND QUALITY

- There is a disparity between assault location and alcohol location in assault records, where the low number of records for licensed premises in the original location is contradicted by the higher percentage in alcohol location. This is attributable to assault record locations being categorised initially as other and further details of the location either missing or entered in free text fields. Alternatively, the data suggest that assaults are occurring after alcohol had been consumed, but not necessarily in licensed premises. This is supported by the large percentage of assault locations as other or public place. Greater accuracy with location categorisation would allow the suggested trends to be substantiated.
- Consider ways that assaults may be categorised to distinguish between sexual assault and assault as they affect different demographics and require varied responses. This is already done by certain EDs (such as Tameside) to distinguish whether it is a case of domestic violence or whether the attackers are known, yet the data are often poorly completed.
- Consider platforms for distinguishing road traffic collisions by driver, passenger and pedestrian. Certain information is infrequently provided in free text fields but this is poorly completed. Pedestrian collisions have different causes, locations and risk factors in comparison to driver collisions; therefore prevention strategies would benefit from this distinction.
- Consider mechanisms for categorising whether victims of DSH have had an assessment prior to leaving emergency departments, as they have a significant role in initiating further psychiatric treatment and aftercare which are significant in reducing episodes of DSH.
- Consider ways to record whether attendances for assaults and deliberate self-harm are repeat attendances as this would enable a more robust analysis of the trends and causal factors in cases; such a mechanism would also further distinguish between isolated or repetitive behaviours.
- Consider mechanisms to incorporate details of alcohol and substance use across all injury attendances. This is currently only completed for assaults and data quality varies between EDs. Alcohol and substance use is a risk factor and contributor to all forms of injury and significantly increases the risk of harm for potential victims.

DEMOGRAPHIC VARIANCE

- Consider further study into the low attendances of male victims specifically in incidents of violence such as assault or DSH, as both high risk age groups (18-29 years for assault and 30-59 years for DSH) are under represented in ED attendances when compared to national trends. This may reflect issues surrounding male engagement with health and treatment services.
- One quarter of all fall attendances were aged 60 years and over (58% were aged between 77 and 92 years); 61% of these falls occurred in the home and 68% arrived at EDs via ambulance. This suggests isolation of elderly citizens which

increases the risk of repeat incidents and worsens the consequences of injuries when they do occur. In addition to medical treatment for injuries, patients may also require: mental health assessments to identify feelings of social isolation or depression; rehabilitation or counselling to reduce the fear of falling again; regular eye tests to maximize vision; and, enrolment on exercise programs to increase leg strength and improve balance.

- Consider ways in which sport related injury for young adolescents may be reduced. Over half (51%) of all sports injuries were aged between 15 and 29 years. Within this demographic 19% were aged either 15 or 16 years of age and had incidents occur in organised sport locations. This highlights the need for collaborative engagement with schools, sport clubs and parents to reduce the risk for this group.

PREVENTION AND INTERVENTION

Reducing incidents of violence and injury have a significant impact on further areas of community health and individual well-being. ED data provided to TIIG can play a key role in informing preventative interventions.

- Consider ways in which EDs can support specialist domestic violence services for victims presenting to EDs. EDs in other areas have offered one on one or group sessions within the hospital facilitated by a community violence specialist. In one example, blank appointment cards are given out to ensure discretion for victims of domestic violence.
- Consider incorporating attendance data with alcohol and drug treatment services. Alcohol and drug abuse significantly increase the presence of violence in the community; therefore integrating the results of ED data with treatment services may enhance their efficacy in reducing community violence, especially among younger drinkers (18-25 years).
- Improve data sharing networks with community organisations and the police to reinforce neighbourhood safety perceptions, especially among older people and in areas with high rates of violence.
- A central feature of fall attendances is an increased social isolation in elderly populations, especially in more deprived areas. Therefore consider how TIIG data can support community organisations in reducing hazards in areas of high population density, which is a characteristic of the most deprived urban areas in the UK. Also consider how community interventions could seek to make homes safer, including reducing tripping hazards, adding grab bars or railings at strategic points, and improving lighting within the home
- Engage with schools, sports clubs and parents to encourage the improved supervision of child sports programmes, encouraging an open network of information sharing between all parties to reduce sports injury incidents. This could be enhanced through a more specific collection of the type of sports played and involved in accidents leading to ED attendances.

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Appendix 1. Assault attendances by males aged 15 – 29 years and crude rates, April 2012 to March 2015

Local authority	n	Population	Rate (per 100,000)	95% CI (lower)	95% CI (higher)
Bolton	907	27,967	3,243.1	3,035.5	3,461.2
Bury	587	16,836	3,486.6	3,210.2	3,780.4
Manchester	2296	81,586	2814.2	2,700.3	2,931.7
Oldham	1124	22,498	4996	4,708.2	5,296.8
Rochdale	986	20,619	4782	4,488.1	5,090.0
Salford	1341	27,853	4814.6	4,560.3	5,079.3
Stockport	1185	23,963	4945.1	4,667.5	5,234.9
Tameside	922	20,507	4496	4,210.5	4,795.9
Trafford	728	19,779	3680.7	3,418.1	3,958.0
Wigan	1215	29,169	4165.4	3,934.4	4,406.4
Total	11291	290,777	3883	3,811.7	3,955.3

Appendix 2. Deliberate self-harm attendances by females aged 15 – 29 years and crude rates, April 2012 to March 2015

Local authority	n	Population	Rate (per 100,000)	95% CI (lower)	95% CI (higher)
Bolton	251	26,876	933.9	821.9	1,056.9
Bury	143	16,600	861.4	726.0	1,014.8
Manchester	615	78,153	786.9	725.9	851.6
Oldham	234	22,308	1,049.0	918.8	1,192.3
Rochdale	155	20,862	743.0	630.6	869.6
Salford	562	27,164	2,068.9	1,901.4	2,247.3
Stockport	56	23,703	236.3	178.5	306.8
Tameside	513	20,844	2,461.1	2,252.7	2,683.6
Trafford	382	18,825	2,029.2	1,830.8	2,243.3
Wigan	461	29,079	1,585.3	1,443.9	1,736.9
Total	3372	284,414	1,185.6	1,145.9	1,226.3

Appendix 3. Fall attendances by females aged 60 years plus and crude rates, April 2012 to March 2015

Local authority	n	Population	Rate (per 100,000)	95% CI (lower)	95% CI (higher)
Bolton	3029	32,559	9,303.1	8,974.7	9,640.4
Bury	2256	22,951	9,829.6	9,428.2	10,243.8
Manchester	3749	36,365	10,309.4	9,982.0	10,644.8
Oldham	4088	25,757	15,871.4	15,388.6	16,365.6
Rochdale	3149	24,079	13,077.8	12,625.0	13,542.7
Salford	5148	24,819	20,742.2	20,179.4	21,316.7
Stockport	5419	38,430	14,101.0	13,728.0	14,481.5
Tameside	3714	26,457	14,037.9	13,590.0	14,496.8
Trafford	2433	27,539	8,834.7	8,487.1	9,192.9
Wigan	969	39,619	2,445.8	2,294.2	2,604.8
Total	33954	298,575	11,372.0	11,251.4	11,493.6

Appendix 4. Road traffic collision attendances by males aged 15 – 59 years and crude rates, April 2012 to March 2015

Local authority	n	Population	Rate (per 100,000)	95% CI (lower)	95% CI (higher)
Bolton	1395	82092	1699.3	1,611.3	1,790.9
Bury	931	53475	1741	1,630.9	1,856.5
Manchester	5297	180426	2935.8	2,857.3	3,016.0
Oldham	2409	65902	3655.4	3,510.9	3,804.4
Rochdale	1793	61895	2896.8	2,764.3	3,034.1
Salford	1779	75921	2343.2	2,235.6	2,454.7
Stockport	2481	80867	3068.0	2,948.5	3,191.2
Tameside	1981	64874	3053.6	2,920.6	3,191.1
Trafford	1972	67045	2941.3	2,812.9	3,074.1
Wigan	1385	94228	1469.8	1,393.4	1,549.3
total	21423	826725	2591.3	2,556.7	2,626.2

Appendix 5. Sports injury attendances by males aged 15 – 29 years and crude rates, April 2012 to March 2015

Local authority	n	Population	Rate (per 100,000)	95% CI (lower)	95% CI (higher)
Bolton	638	27,967	2,281.3	2,107.7	2,465.4
Bury	100	16,836	594.0	483.3	722.4
Manchester	4045	81,586	4,958.0	4,806.3	5,113.1
Oldham	82	22,498	364.5	289.9	452.4
Rochdale	55	20,619	266.7	200.9	347.2
Salford	1394	27,853	5,004.8	4,745.5	5,274.6
Stockport	4049	23,963	16,896.9	16,380.4	17,425.5
Tameside	1488	20,507	7,256.1	6,892.0	7,634.5
Trafford	2253	19,779	11,390.9	10,925.3	11,871.2
Wigan	161	29,169	552.0	470.0	644.1
Total	14265	290,777	4,905.8	4,825.6	4,987.0

