

# TIIG Greater Manchester Themed Report

Injuries in older people in Greater Manchester  
April 2012 to March 2015

March 2016

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## KEY FINDINGS

### GREATER MANCHESTER EMERGENCY DEPARTMENT DATA

- Between April 2012 and March 2015 there were 191,970 total attendances to Greater Manchester Emergency Departments (EDs) by people aged 65 years and over; of these 174,842 (91%) were Greater Manchester residents.
- Total attendances declined during this period by 14%, from 69,284 in 2012/13 to 59,326 in 2014/15. There was a similar decline of 16% in attendances by Greater Manchester residents during this period, from 63,140 in 2012/13 to 52,884 in 2014/15.
- The highest number of attendances made by Greater Manchester residents were to Tameside General Hospital (44,371) followed by Trafford General Hospital (28,809) and The Royal Bolton Hospital (20,928).
- There were more females than males aged 65 years and over (105,618; 60%). Attendances peaked for both gender groups in 2012/13 with 38,513 for females and 24,627 for males.
- Thirty-seven per cent of attendances made by Greater Manchester residents were aged 75 to 84 years (64,769). Of which 60% were female. Similarly, female proportions increased in older age groups with females comprising 70% of those aged 85 years and over.
- The ethnicity of Greater Manchester residents was known in 91% of attendances; the vast majority were white (88%; 153,858).
- The majority of injury attendances made by Greater Manchester residents were recorded as 'other injury' (121,608; 70%), however, as falls were not categorised by Manchester Royal Infirmary, Trafford General Hospital and Royal Albert Edward Infirmary, 'other injury' includes records for fall attendances to these EDs. Fall injuries accounted for 27% (46,838) of attendances, road traffic collisions (RTCs) 1% (2,456), and assaults and deliberate self-harm (DSH) each accounted for less than 1% of attendances (852 and 419 respectively) by people aged 65 years and over.
- In terms of source of referral, the vast majority of attendees self-referred (127,047; 73%), 10% (17,201) were referred by emergency services and 3% (5,987) were referred by their GP.
- In terms of arrival mode, 51% (89,303) of patients arrived at the ED by ambulance (including arrival via helicopter), 12% arrived by private transport (20,340) and 5% arrived on foot (9,045).
- In terms of incident location, 54% (94,992) of injuries occurred in the home, 22% (37,781) occurred in a location defined as 'other', 16% of injuries had an unknown location, and 7% (11,811) occurred in a public place.
- In terms of disposal from the ED, 38% (65,948) were admitted, 33% (58,040) were referred for further treatment and 27% (46,510) were discharged.

### LOCAL AUTHORITY FOCUS

- The highest number of attendances were made by residents of Tameside (43,916), Trafford (31,670) and Bolton (17,181).

- The highest number of male attendees (28,979; 42%) were aged 65 to 74 years, of which 27% (7,903) were Tameside residents.
- The highest number of female attendees (38,689; 37%) were aged 75 to 84 years, of which 24% (9,254) were made by Tameside residents.
- Almost two-thirds (65%) of Tameside resident attendees, 58% of Bolton residents attendees and 55% of Salford resident attendees arrived by ambulance.
- Excluding other injuries, falls (46,838) and RTCs (2,456) were the leading causes of injuries suffered by attendees aged 65 years and over.
- Females aged between 75 and 90 years accounted for the largest proportion of fall attendees (41%), of which females from Salford had the highest rate per 100 population (32.1); 46% (8,702) of this group were admitted to hospital.
- People aged between 65 and 74 accounted for the largest proportion of people attending an ED following an RTC (56%), of which Manchester and Rochdale residents had the highest rate per 100 population (0.9); 66% (903) of this group were discharged from hospital.

#### NORTH WEST AMBULANCE SERVICE DATA

- There were 86,154 ambulance call outs within Greater Manchester for injuries between April 2012 and March 2015.
- The highest number of call outs occurred in 2012/13 (31,238); there was a 17% decline in the number of call outs during the three year period.
- The highest number of call outs were made by females (54,519; 63%), and by people aged 85 years and over (36,714; 43%).
- The vast majority of call outs made were for fall injuries (74,585; 87%), followed by other injuries (5,981; 7%), and psychiatric/suicide attempts (2,586; 3%).
- The highest number of call outs during this period were made by residents of Manchester local authority (LA) (11,985; 14%), followed by Stockport (10,446; 12%) and Wigan (10,278; 12%).



Ageing populations are a common phenomenon throughout the developed world owing to advancements in healthcare, improved working and living conditions, and effective education regarding regular exercise and enriched nutrition (United Nations Population Fund, 2015). Globally, the population aged 60 years and over is expected to double from 542 million estimated in 1995 to 1.26 billion by 2025 (World Health Organization, 2002). The United Kingdom (UK) population aged 65 years and over is 11.4 million which is expected to rise by 40% over the next 17 years to 16 million. Similarly, Greater Manchester's population aged 65 years and over is predicted to rise by 44% by 2028, with people aged 85 years and over expected to rise by 81% during the same period (New Economy, 2015). While such dramatic demographic shifts yield potential benefits for society, ageing populations present new socio-economic and medical challenges for public services to tackle (Allen, 2008).

The prevalence of injury, both intentional and unintentional, and ill health are significant contributing factors to overall well-being in older age. Falls and fall-related injuries are the most frequent type of injury for older people, with approximately one-third of people aged 65 years and over, and half of those aged 80 years and over falling each year (National Institute for Health and Care Excellence, 2013). Every five hours in England an older person dies as a result of a fall, and fall-related injuries are the leading cause of death among older people (Department of Health, 2009). Those aged 65 years and over spend four million days in hospital each year as a result of falls and fractures (Royal College of Physicians, 2011). Falls are estimated to cost the NHS over £2.3 billion each year and have severe long term consequences for patients' physical and mental health (National Institute for Health and Care Excellence, 2013). Severe falls can cause fractures and loss of mobility; those who suffer falls are twice as likely to experience repeated incidents. Equally, injuries sustained through falls impact the mental health of patients as a result of loss of mobility, a reduced sense of control, and depression. There are variations in the risk of falls between age and gender groups, with women aged 75 years and over twice as likely to sustain severe injury after falling (Donald and Bulpitt, 1999) compared with other age and gender groups. Contrastingly, males in this age range are 40% more likely to die as a result of a fall (National Center for Injury Prevention and Control, 2014). The majority of falls are preventable and effective prevention schemes which aim to build safer communities and make homes and public spaces more accessible, have the potential to eliminate much of the physical and financial cost of injury and have positive effects on older people's health and well-being.

Road traffic collisions (RTCs) are the second most common form of injury suffered by older people and are likely to increase in the future, with greater numbers of people aged 70 years and over continuing to drive compared with previous generations (IAM, 2010). Despite representing a small proportion of drivers in the UK, those aged 70 years and over are at greater risk of dying from an RTC compared to younger drivers, despite the total number of incidents being statistically lower (Rolison et al., 2012). Similarly, the risk of fatal injury for older age groups is heightened for pedestrians and passengers of vehicles, which is reflected in research that reports older people have concerns about traffic which supersede their fears of being victims of crime (Office for National Statistics, 2008). The consequences of injuries from RTCs are particularly damaging for older people's mobility (IAM, 2010). Negative experiences can lead to the avoidance of driving in peak times or on busy routes which has the potential to intensify their sense of social isolation (Rolison et al., 2012). Utilising the data gained through frontline services such as Emergency Departments (EDs), can successfully inform advanced driving schemes that seek to reassess and improve older drivers' skill and capabilities (IAM, 2010). Similarly, data can be further used to inform local preventative interventions which seek to create safer environments for passengers and pedestrians.

In terms of intentional injuries, the most prevalent among older people are elder abuse and deliberate self-harm (DSH). Abuse incorporates assaults, neglect and financial mistreatment, with neglect being the most typical type of abuse suffered. Females

are four times more likely to suffer abuse through neglect than males, with those aged 85 years and over at a particularly heightened risk, whereas males within the same age range are more likely to report financial abuse than females (O’Keeffe et al., 2007). There is a complex nature of neglect where the victim and perpetrator often share the same residence, are related or in carer-patient relationship, which presents significant challenges for diagnosis and intervention. The prevalence of neglect challenges commonly assumed notions of mistreatment as predominantly occurring as a result of physical assaults (O’Keeffe et al., 2007). Self-harm is the most important risk factor for suicide, especially within older age demographics (Murphy et al., 2012). Although not as prevalent as among younger age groups, such as females aged 30 years and under, the risk for eventual suicide after incidents of DSH is three times greater among older people; DSH for people aged 60 years and over more closely resembles suicide in the intent and severity of methods used (Murphy et al., 2012). Females are more likely to suffer incidents of self-harm, and people aged between 60 and 74 years most likely to repeatedly self-harm. Those who self-harm by violent means are at higher risk of suicide, with males aged 75 years and over at a particular risk of eventual suicide (Murphy et al., 2012).

Across both intentional and unintentional injuries, there are common contributing factors that increase the risk of harm for people aged 65 years and over; including mental and physical health problems, social isolation and loneliness, and economic inequality. Well-being is determined by multiple interconnected factors but health is the most important determinant for the happiness of people aged 55 years and over (Allen, 2008). The prevalence of chronic injury or disability has profound effects on the mental well-being of individuals and can trigger the onset of depression. Mental health issues such as depression further increase the risk of physical injury or disability and precipitate feelings of social isolation which can underlie incidents of abuse and DSH (Allen, 2008). Elderly males who experience loneliness within the past week are at an enhanced risk of self-harm (O’Keeffe, 2007), while depression is a significant risk factor for the prevalence of neglect for both victim and perpetrator and is widely undiagnosed across the UK (Murphy et al., 2012). As reflected in childhood, poverty in older age considerably increases the risk of poor health and emotional well-being, with those living in poor quality housing more likely to experience injury through falls and RTCs, become victims of crime, and develop depression and feelings of isolation (Allen, 2008). The ability for older people to maintain social contacts and participate in community life is hugely important to prevent isolation, maintain a sense of self-worth and the concomitant effects on well-being (Cattan et al., 2005). Effective interventions through group participation have been shown to reduce individual loneliness, raise self-esteem and result in enhanced levels of control and independence for individuals in later life which has positive implications for informing prevention strategies (Cattan et al., 2005). Local data sharing projects such as the Trauma and Injury Intelligence Group (TIIG) are a central component in providing evidence-based assessments and recommendations that shape prevention and intervention schemes and therefore play a vital role in ensuring well-being for individuals in later life.

This TIIG Themed Report presents injuries suffered by older people across Greater Manchester primarily using ED recorded data between April 2012 and March 2015. This report will contextualise ED data by providing an overview of the population, highlighting who is at increased risk of injury and describing the specific level of need in Greater Manchester. This report provides detailed recommendations for local government and commissioners in terms of the efficient use of resources, and to health and social care providers in terms of delivering improved outcomes, with the overarching aim of enabling older people to live happy, healthy and independent lives.

## 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-2014 population estimates; Office for National Statistics 2015). Table 1 shows that the proportion of people aged 65 years and over was 15.5% in 2013, which was slightly lower than the proportions for the North West and England and Wales.

**TABLE 1. Number and proportion of population aged 65 years and over for Greater Manchester, North West and England and Wales**

Area	65+ population	Total population	Proportion of population 65+
Greater Manchester	424,763	2,732,854	15.5
North West	1,280,752	7,132,991	18.0
England and Wales	10,152,455	57,408,654	17.7

Table 2 displays the population of Greater Manchester local authorities (LAs) by age group. Manchester and Wigan have the highest total populations; Stockport and Wigan have the largest proportion of people aged 65 years and over (19.4% and 18.1% respectively).

**TABLE 2. Greater Manchester residents aged 65 years and over by LA and age group, with total population and proportion of total population**

LA	65-74	75-84	85+	65+ population	Total population	Proportion of population 65+
Bolton	26,771	14,603	5,419	46,793	280,439	16.7
Bury	18,568	10,378	3,903	32,849	187,474	17.5
Manchester	26,589	16,287	6,478	49,354	520,215	9.5
Oldham	20,352	11,383	4,272	36,007	228,765	15.7
Rochdale	18,874	10,744	4,123	33,741	212,962	15.8
Salford	19,238	11,454	4,645	35,337	242,040	14.6
Stockport	29,492	18,735	7,397	55,624	286,755	19.4
Tameside	21,704	11,853	4,233	37,790	220,771	16.8
Trafford	20,167	13,435	5,627	39,229	232,458	17.1
Wigan	34,750	17,460	5,829	58,039	320,975	18.1
<b>Total</b>	<b>236,505</b>	<b>136,332</b>	<b>51,926</b>	<b>424,763</b>	<b>2,732,854</b>	<b>15.5</b>

## 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; Department for Communities and Local Government, 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 second most deprived quintile, and Stockport and Trafford are ranked in the third most deprived quintile.

**TABLE 3. Deprivation score ranges and means for LAs in Greater Manchester (where higher scores indicate increasing levels of deprivation)**

LA	Population	IMD score range	IMD score average	LSOAs (N)
<b>Bolton</b>	280,439	4.8 - 77.3	30.2	175
<b>Bury</b>	187,474	2.2 - 68.5	22.2	120
<b>Manchester</b>	520,215	6.4 - 81.6	41.5	259
<b>Oldham</b>	228,765	5.1 - 77.1	30.0	144
<b>Rochdale</b>	212,962	5.4 - 81.6	33.6	135
<b>Salford</b>	242,040	4.0 - 79.7	35.0	144
<b>Stockport</b>	286,755	1.7 - 72.5	18.7	190
<b>Tameside</b>	220,771	5.2 - 66.1	29.6	141
<b>Trafford</b>	232,458	2.6 - 65.8	17.0	138
<b>Wigan</b>	320,975	4.4 - 73.1	26.2	200
<b>Total/average</b>	<b>2,732,854</b>	<b>1.7 - 81.6</b>	<b>28.4</b>	<b>1,646</b>

## 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; Royal Albert Edward Hospital; Salford Royal Hospital; Stepping Hill Hospital; Tameside General Hospital; The Royal Bolton Hospital; Trafford General Hospital<sup>1</sup>; Wythenshawe Hospital; Fairfield General Hospital; North Manchester General Hospital; Royal Oldham Hospital; and Rochdale Infirmary<sup>1</sup>.

### DATA ITEMS

Table 4 shows which injury groups are collected by each ED. There are varying levels of data collection across different trusts with Fairfield General Hospital, Rochdale Infirmary, The Royal Bolton Hospital and Salford Royal Hospital being the only EDs that categorise all injury groups.

<sup>1</sup> Urgent Care Centre.

**TABLE 4. Greater Manchester ED injury group data items**

Injury group	Pennine Acute Trust <sup>2</sup>	Manchester Royal Infirmary	Royal Albert Edward Infirmary	Salford Royal Hospital	Stepping Hill Hospital	Tameside General Hospital	The Royal Bolton Hospital	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
RTCs	Y	Y	Y	Y	Y	Y	Y	Y	Y
Sports injuries	Y	Y	-	Y	Y	Y	Y	Y	Y
DSH	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	-	-

**DATA OVERVIEW**

Between April 2012 and March 2015, a total of 191,970 injury attendances by people aged 65 years and over were recorded across Greater Manchester EDs (table 5). During this period there was a 14.4% decrease in injury attendances by people aged 65 years and over. Across the three year period, calculated as a daily average, August was the month with the highest number of injury attendances (17,248; 185 per day), followed by July (17,178; 185 per day) and May (16,745; 180 per day). February had the lowest number of attendances during this period (13,622; 162 per day).

**TABLE 5. All attendances by people aged 65 years and over by month and financial year, April 2012 to March 2015**

Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
2012/13	5,523	5,845	5,564.0	5,798	5,806	5,586	5,802	5,583	6,299	6,059	5,410	6,009	69,284
2013/14	5,980	5,887	5,697.0	6,217	6,065	5,562	4,832	4,767	4,914	4,628	4,160	4,651	63,360
2014/15	4,825	5,013	5,001.0	5,163	5,377	5,428	4,475	4,351	5,193	4,612	4,052	5,836	59,326
<b>Total</b>	<b>16,328</b>	<b>16,745</b>	<b>16,262.0</b>	<b>17,178</b>	<b>17,248</b>	<b>16,576</b>	<b>15,109</b>	<b>14,701</b>	<b>16,406</b>	<b>15,299</b>	<b>13,622</b>	<b>16,496</b>	<b>191,970</b>

Table 6 shows all injury attendances of those aged 65 years and over by ED and financial year. During this three year period half of Greater Manchester EDs reported a decline in attendances. Rochdale Infirmary displayed the largest decline in injury attendances with a decrease of 78.8%, followed by North Manchester General Hospital (78.1%), and Fairfield General Hospital with a decrease of 76.3%. Conversely, Royal Albert Edward Infirmary reported the largest increase in attendances with 29.6%, followed by Stepping Hill Hospital with 15.0% and Wythenshawe with 10.6%.

<sup>2</sup> Pennine Acute Trust incorporates Fairfield General Hospital, North Manchester General Hospital, Royal Oldham Hospital and Rochdale Infirmary.

**TABLE 6. All attendances by people aged 65 years and over by ED and financial year, April 2012 to March 2015**

ED	2012/13	2013/14	2014/15	% increase/decrease in attendances
Fairfield General Hospital	3,654	1,490	865	-76.3
Manchester Royal Infirmary	1,589	1,364	812	-48.9
North Manchester General Hospital	4,619	2,347	1,010	-78.1
Rochdale Infirmary	2,032	1,553	430	-78.8
Royal Albert Edward Infirmary	3,976	4,173	5,153	29.6
Royal Oldham Hospital	5,312	4,701	3,092	-41.7
Salford Royal Hospital	3,716	4,082	4,085	9.9
Stepping Hill Hospital	5,872	5,862	6,754	15.0
Tameside General Hospital	16,469	16,849	18,129	10.1
The Royal Bolton Hospital	7,502	8,047	7,694	2.6
Trafford General Hospital	11,662	10,188	8,115	-30.4
Wythenshawe Hospital	2,881	2,704	3,187	10.6
<b>Total</b>	<b>69,284</b>	<b>63,360</b>	<b>59,326</b>	<b>-14.4</b>

Figure 1 displays the injury attendance trends for each Greater Manchester ED by those aged 65 years and over between April 2012 and March 2015.

**FIGURE 1. All attendances made by people aged 65 years and over by ED and financial year, April 2012 to March 2015**

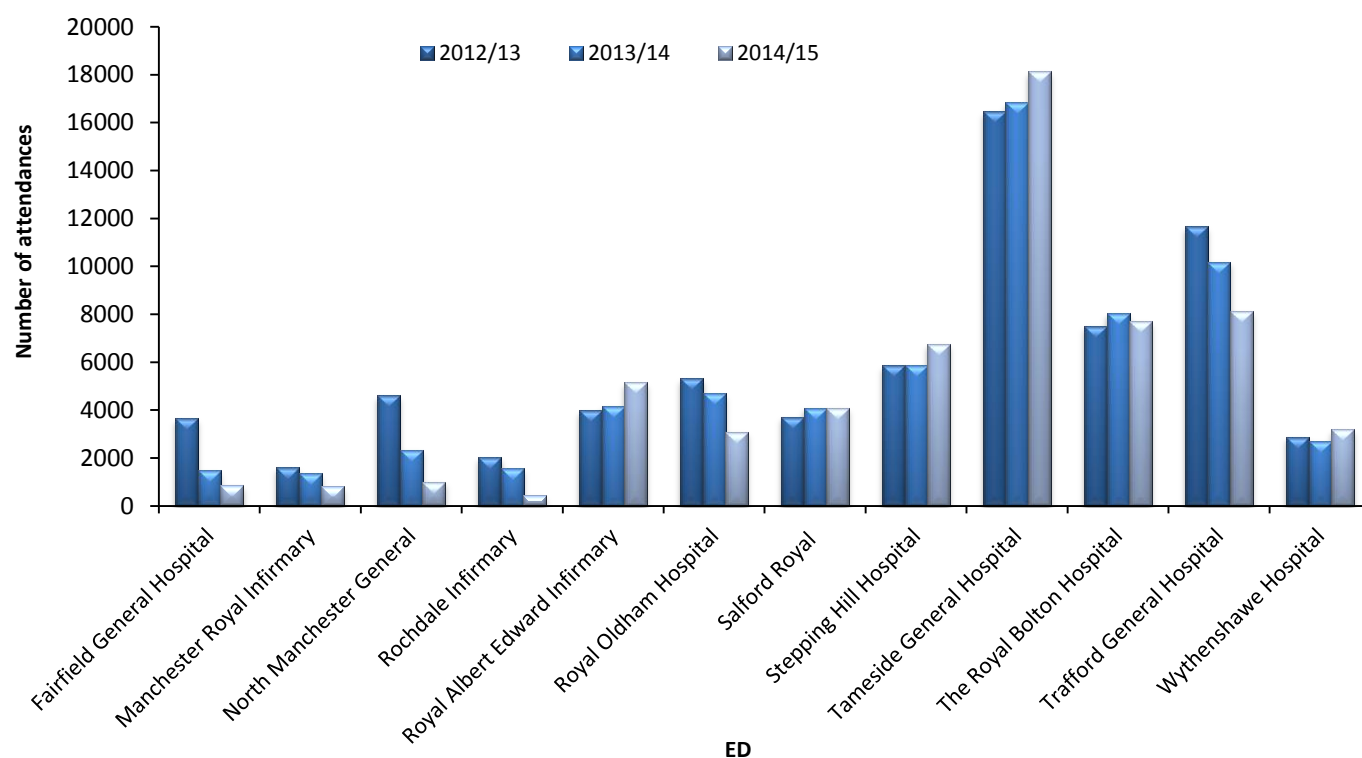


Table 7 shows the attendances made by people aged 65 years and over to Greater Manchester EDs by injury group and financial year. Attendances declined during this period for most injury groups. The largest decline in injury attendances was reported for burns and scalds with a 45.1% reduction, followed by assaults with 32.0% and RTCs with 20.5%. Attendances increased during this period for DSH which increased by 48.9%.

**TABLE 7. All attendances made by people aged 65 years and over by injury group and financial year, April 2012 to March 2015**

Injury group	2012/13	2013/14	2014/15	% increase/decrease in attendances	Total
Assault	228	512	155	-32.0	895
Bites & stings	429	449	367	-14.5	1,245
Burns & scalds	304	342	167	-45.1	813
DSH	98	200	146	48.9	444
Fall	19,602	14,176	16,956	-13.5	50,734
Other injury	47,594	46,247	40,260	-15.4	134,101
RTCs	854	1,225	679	-20.5	2,758
Sports injury	145	168	140	-3.4	453
Unknown	30	41	456 <sup>3</sup>	1,420.0	527
<b>Total</b>	<b>69,284</b>	<b>63,360</b>	<b>59,326</b>	<b>-14.4</b>	<b>191,970</b>

## DEMOGRAPHICS

Between April 2012 and March 2015 a total of 191,970 injury attendances were recorded. Table 8 shows that the highest proportion of attendances occurred during the financial year 2012/13 with 69,284 presentations (36.1%). Of the 191,970 injury and violence attendances, 174,842 (91.1%)<sup>4</sup> were made by Greater Manchester residents.

**TABLE 8. All attendances made by people aged 65 years and over by patient demographic and financial year, April 2012 to March 2015**

	2012/13	2013/14	2014/15	Total
All injury attendances	69,284	63,360	59,326	191,970
Greater Manchester residents	63,140	58,818	52,884	174,842

Table 9 shows the number of injury attendances to Greater Manchester EDs by LA of residence. The highest number of attendances were made to Tameside General Hospital (44,371; 25.4%), followed by Trafford General Hospital (28,809; 16.5%) and The Royal Bolton Hospital (20,928; 12%). Manchester Royal Infirmary saw the fewest number of attendances made by those aged 65 years and over (3,536; 2%). The majority of elderly patients attended a local ED; e.g. 98.2% of Tameside residents presented to Tameside General Hospital and 98.1% of Bolton residents presented to The Royal Bolton Hospital.

<sup>3</sup> Unknown injury includes records where the injury group was left blank or not specified. There was huge increase in non-specified records which is likely to be due to the incorrect categorisation of attendances.

<sup>4</sup> The remainder of this report will focus on attendances made by Greater Manchester residents.

**TABLE 9. Attendances made by Greater Manchester residents aged 65 years and over by ED and LA of residence, April 2012 to March 2015<sup>5</sup>**

Hospital	Bolton	Bury	Manchester	Oldham	Rochdale	Salford	Stockport	Tameside	Trafford	Wigan	Total
The Royal Bolton Hospital	16,861	408	<10	***	***	1,442	***	<10	12	2,180	20,928
Fairfield General Hospital	22	3,177	215	422	1,808	36	5	7	***	***	5,696
Manchester Royal Infirmary	11	32	2,750	27	23	41	147	234	259	12	3,536
North Manchester General Hospital	6	1,907	3,052	765	1,614	384	9	23	<10	***	7,769
Royal Oldham Hospital	10	553	431	8,808	2,798	42	6	52	***	***	12,705
Royal Albert Edward Infirmary	102	***	***	***	0	12	0	***	5	11,768	11,897
Rochdale Infirmary	***	351	240	434	2,683	24	***	6	***	***	3,746
Salford Royal Hospital	110	224	128	42	44	10,270	43	54	434	274	11,623
Stepping Hill Hospital	8	<10	106	9	***	8	15,187	353	22	***	15,703
Tameside General Hospital	6	9	489	405	23	15	259	43,140	19	6	44,371
Trafford General Hospital	28	20	770	11	18	343	76	13	27,509	21	28,809
Wythenshawe Hospital	<15	15	3,344	15	9	16	1,220	26	3,398	***	8,059
<b>Total</b>	<b>17,181</b>	<b>6,704</b>	<b>11,538</b>	<b>10,944</b>	<b>9,025</b>	<b>12,633</b>	<b>16,958</b>	<b>43,916</b>	<b>31,670</b>	<b>14,273</b>	<b>174,842</b>

<sup>5</sup> Please note that for all tables, all numbers less than five have been suppressed (\*\*\*) in line with patient confidentiality. If there is only one number less than five in a category then two numbers will be suppressed to prevent back calculation from totals.



As displayed in figure 2, the majority of attendances by those aged 65 years and over were female (60.4%).

**FIGURE 2. Attendances made by Greater Manchester residents aged 65 years and over by gender, April 2012 to March 2015<sup>6</sup>**

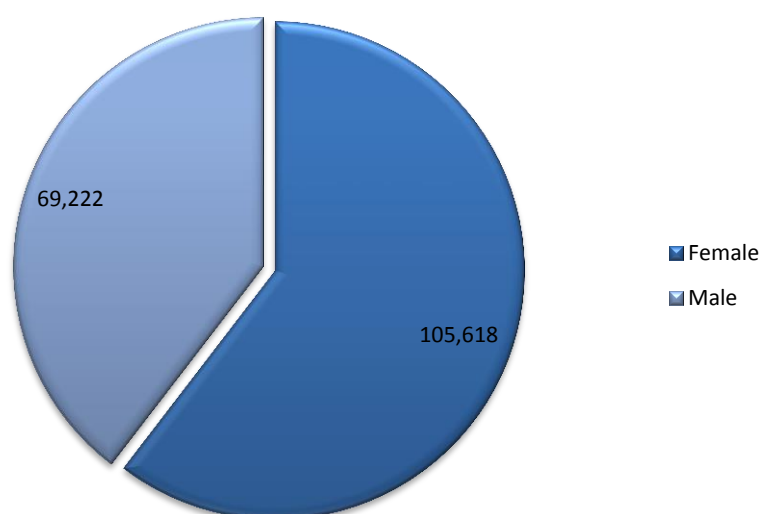


Figure 3 shows attendances by Greater Manchester residents aged 65 years and over by gender and financial year; there were substantially more female than male attendances in each financial year.

**FIGURE 3. Attendances made by Greater Manchester residents aged 65 years and over by financial year and gender, April 2012 to March 2015<sup>6</sup>**

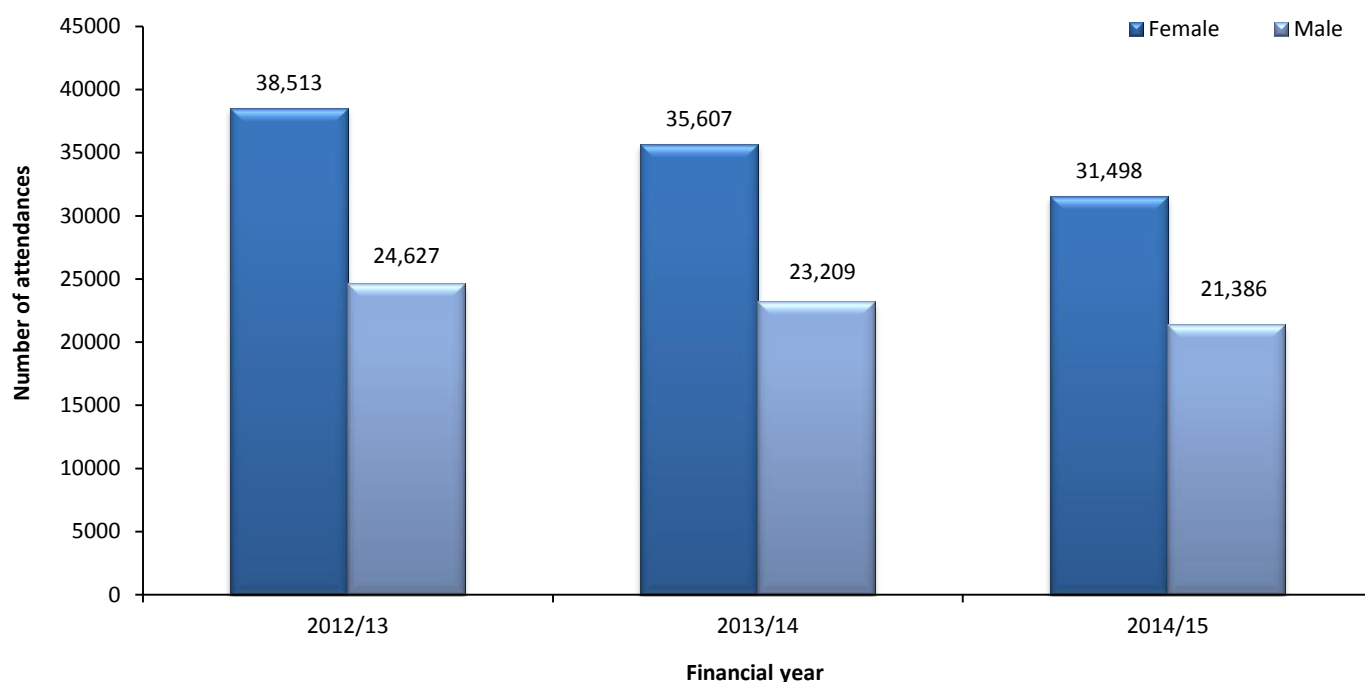
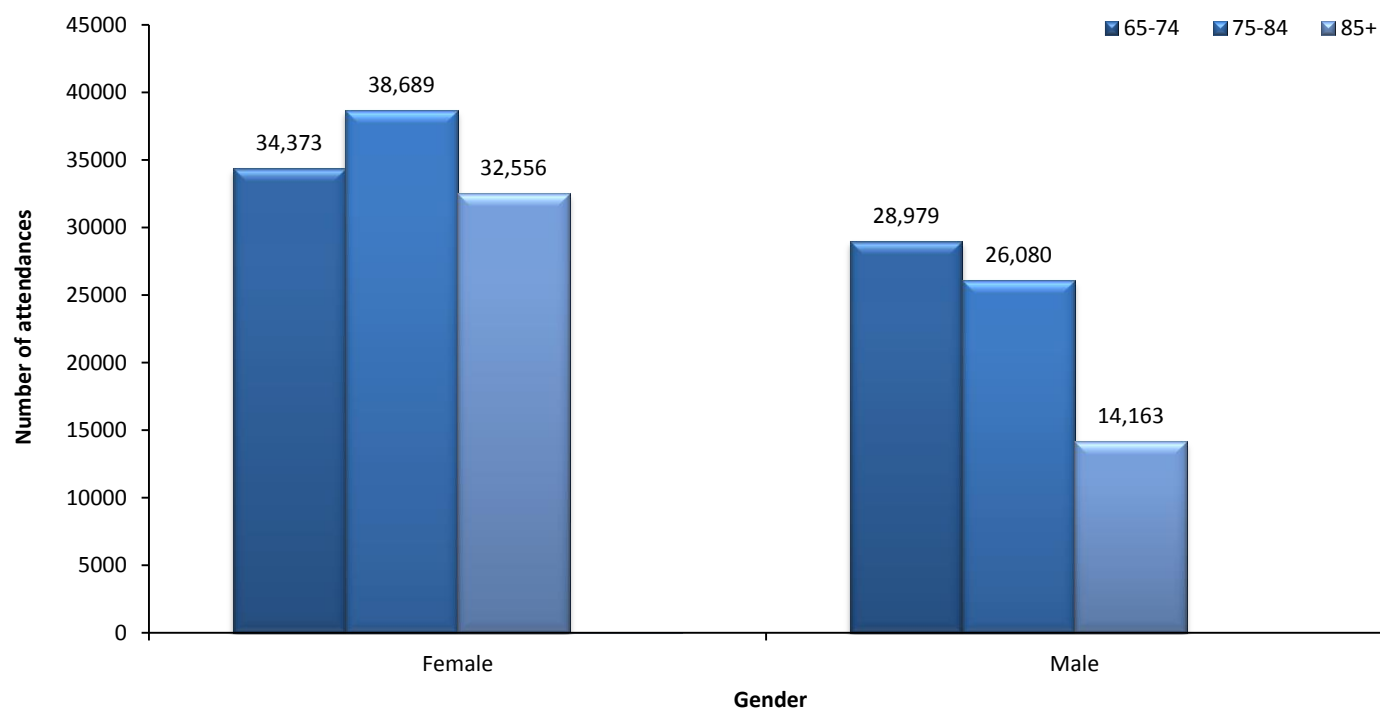


Figure 4 shows that the largest proportion of attendances for females were aged between 75 and 84 years (38,689; 36.6%), in contrast the largest proportion of attendances for males were aged between 65 and 74 years (28,979; 41.9%).

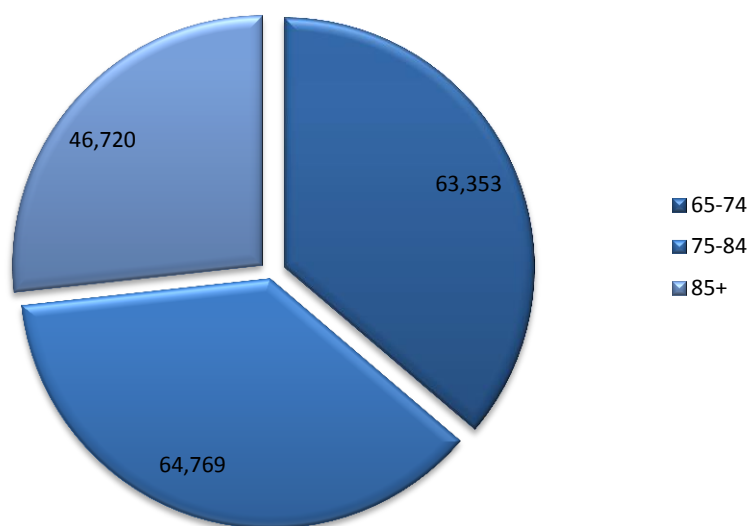
<sup>6</sup> There were less than five records where the gender was unknown; these have been omitted from the chart.

**FIGURE 4. All attendances made by people aged 65 years and over by gender and age group, April 2012 to March 2015<sup>7</sup>**



The largest proportion of injury attendances by people aged 65 years and over were aged between 75 and 84 years (64,769; 37.0%), followed by people aged between 65 and 74 years (63,353; 36.2%).

**FIGURE 5. Attendances made by Greater Manchester residents aged 65 years and over by age group, April 2012 to March 2015**



Where ethnicity was recorded, the vast majority of attendees aged 65 years and over were of White ethnicity (153,858; 88.0%), followed by those of Pakistani ethnicity (1,750; 1.0%; figure 6). There were a relatively high number of attendees for whom the ethnicity was not recorded (15,243; 8.7%).

<sup>7</sup> There were less than five records where gender was unknown.

**FIGURE 6. Attendances made by Greater Manchester residents aged 65 years and over by ethnicity, April 2012 to March 2015**

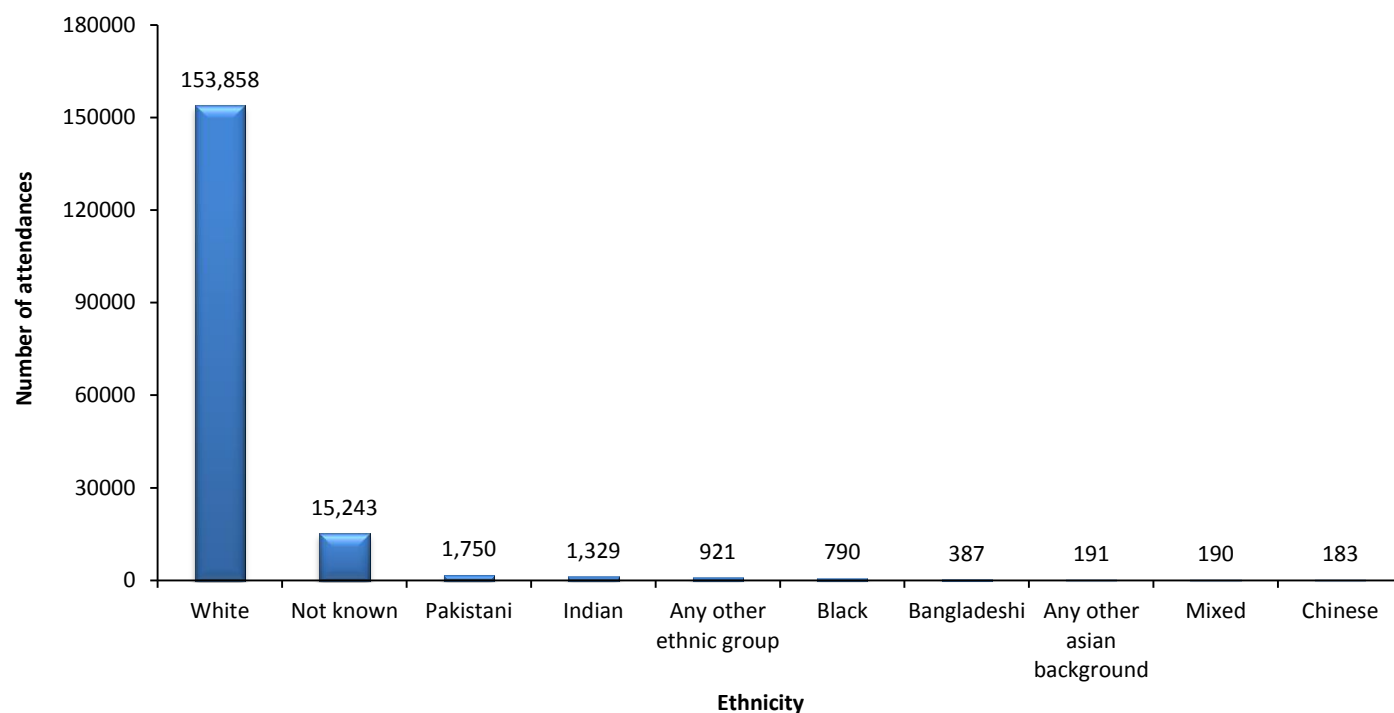


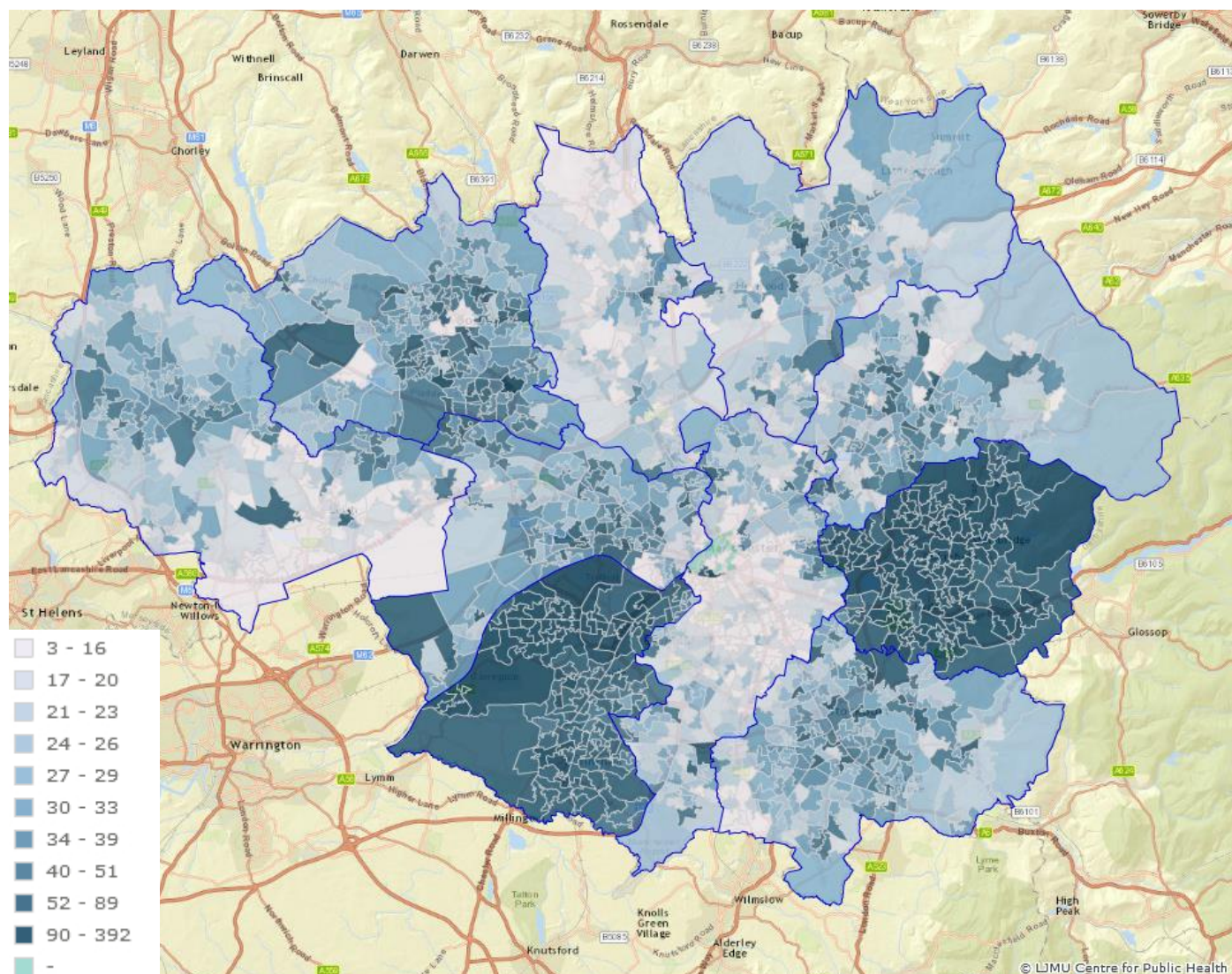
Table 10 shows the ten lower super output areas (LSOAs) with the highest rates of attendances per 100 population. The highest rates of attendances were made by people from Tameside 028E (391.9), Tameside 004D (239.5) and Tameside 006C (238.7).

**TABLE 10. Top 10 LSOAs for attendance rates made by people aged 65 years and over per 100 population, April 2012 to March 2015**

LSOA name	LSOA code	65+ population	Number of attendances	Rate (per 100)
Tameside 028E	E01006040	160	627	391.9
Tameside 004D	E01005946	233	558	239.5
Tameside 006C	E01005935	284	678	238.7
Tameside 008D	E01006066	244	543	222.5
Tameside 018D	E01006019	352	722	205.1
Tameside 019C	E01005965	259	505	195.0
Trafford 009A	E01006198	275	526	191.3
Trafford 007B	E01006126	305	574	188.2
Trafford 009C	E01006200	452	836	185.0
Tameside 009B	E01006068	290	528	182.1

Figure 7 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 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 10.

**FIGURE 7. Crude rate of all injury ED attendances per 100 population by LSOA with Local Authority boundaries, April 2012 to March 2015**



## Case Study 1: Violence in older people

Abuse of the elderly has previously been an overlooked topic of concern for research, yet is an increasingly significant area of study, in view of a rapidly ageing population worldwide and in the UK (World Health Organization, 2002). In 2007 the National Centre for Social Research (needs referencing – only reference is for 2014, not 2007), in collaboration with King's College London, published a report which examined the prevalence of abuse of older people in the UK. This study combined surveys with over 2,100 people and face to face interviews with over 2,000 individuals aged 66 years and over across the UK in 2006. Researchers analysed the prevalence of abuse by distinguishing between the types of abuse: psychological, interpersonal and financial, suffered in conjunction with significant risk factors for the prevalence of abuse and demographic variations. The study established that:

- Approximately 227,000 (2.6%) people aged 66 years and over living in private households suffered mistreatment by a partner, friend or primary caregiver within a 12 month period.
- This proportion increased to 4% (342,000) when including neighbours and acquaintances as the source of elder abuse.
- Neglect was the predominant type of mistreatment, followed by financial abuse.
- Risk factors for elder abuse had significant variations based on gender, age and social isolation. Females were almost 4 times more likely to suffer abuse than males.
- The likelihood of neglect was enhanced for females, people aged 85 years and over, experiencing ill health and having had previous treatment by mental health services. Financial abuse was increased through social isolation, ill health, older males and women living alone.
- The risk of interpersonal abuse was especially prevalent in women aged between 66 and 74 years, men experiencing loneliness within the past week, women living in isolation and people who exhibited three or more symptoms of depression.
- Perpetrators of interpersonal abuse were living in the same household as victims in two-thirds of cases and were primary carers in two-fifths of cases. 80% were male, 20% were female.
- Across all types of elder abuse, a central factor was the prevalence of depression in both victims and perpetrators.

Recommendations from this study included the need to develop more accurate definitions to measure elderly mistreatment, to capture differences between neglect and types of abuse. Equally, those with conditions such as dementia and those living in care homes are not represented, and thus the results from the research are likely to be underestimated of the reality of elderly abuse. The study suggests that much of the mistreatment is highly preventable through early intervention schemes through local health care and support services. EDs are therefore potentially crucial as local information sources well positioned to provide robust profiles of factors contributing to repeated incidents, and examining evidence for the type of responses that reduce the likelihood of repeated abuse.

TIIG data shows that between April 2012 and March 2015: (figures in report are to 1 decimal place but these aren't)

- Fifty per cent of assault attendances to Greater Manchester EDs by Greater Manchester residents aged 65 years and over were aged between 65 and 74 years; of which 61% were male.
- Fifty-one per cent of total assaults attendees were male.
- Over one-third (34%) occurred in the home.
- Fifty per cent were discharged, 26% were referred for further treatment and 18% were admitted into hospital.

The current level of information collected across Greater Manchester EDs is insufficient to allow wider analysis of the type of abuse, with different forms of abuse broadly categorised between assault and other injury. Similarly there are insufficient data collected on the relationship of the perpetrator and repeated incidents of abuse. Improving such information would provide the basis for the accurate management of resources to target specific types of abuse among identified demographic groups.

*Source: O'Keefe, M. et al (2007)*

Figure 8 shows the referral sources to Greater Manchester EDs for residents aged 65 years and above. Almost three-quarters (127,047; 72.7%) self-referred, while 9.8% (17,201) were referred by the emergency services.

**FIGURE 8. Attendances made by Greater Manchester residents aged 65 years and over by referral source, April 2012 to March 2015**

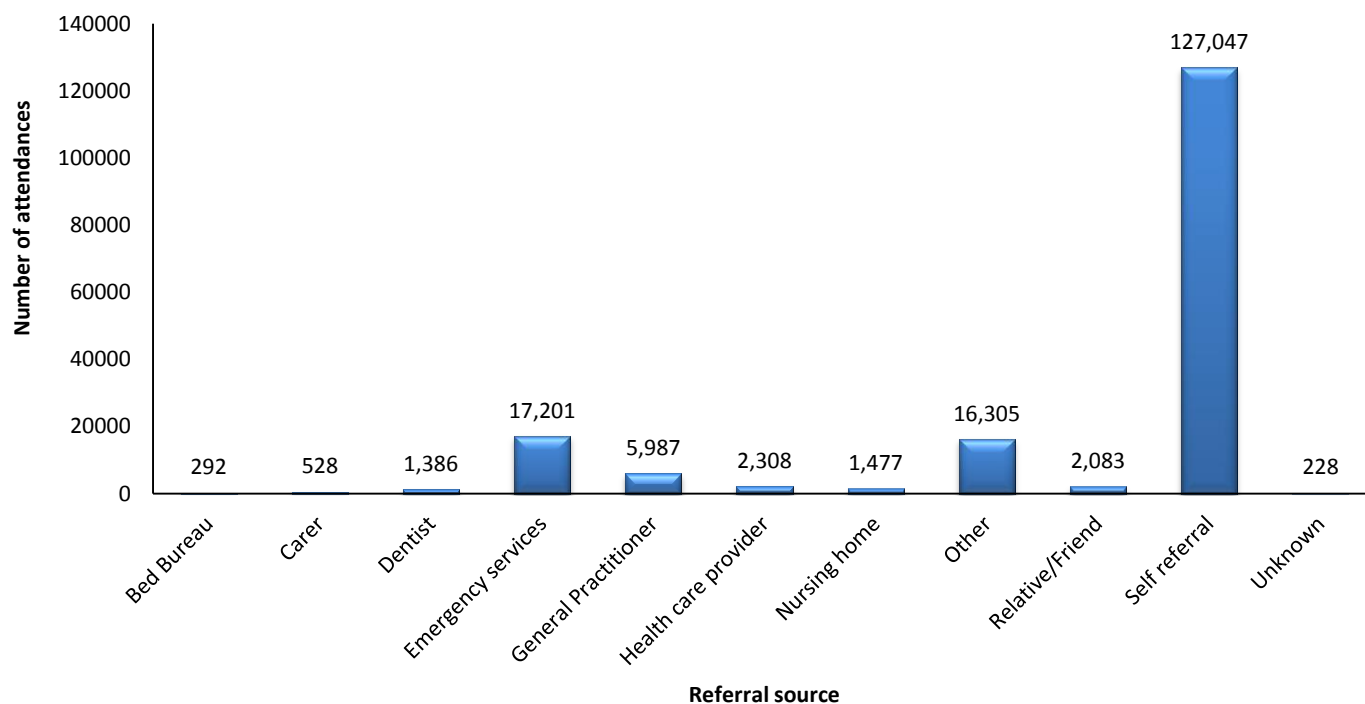


Figure 9 displays the arrival mode to Greater Manchester EDs by Greater Manchester residents aged 65 years and over. Just over half (89,303; 51.1%) of attendees arrived by ambulance, almost three in ten (49,826; 28.5%) arrived by other means and over one in ten (20,340; 11.6%) arrived by private transport.



**FIGURE 9. Attendances made by Greater Manchester residents aged 65 years and over by arrival mode, April 2012 to March 2015**

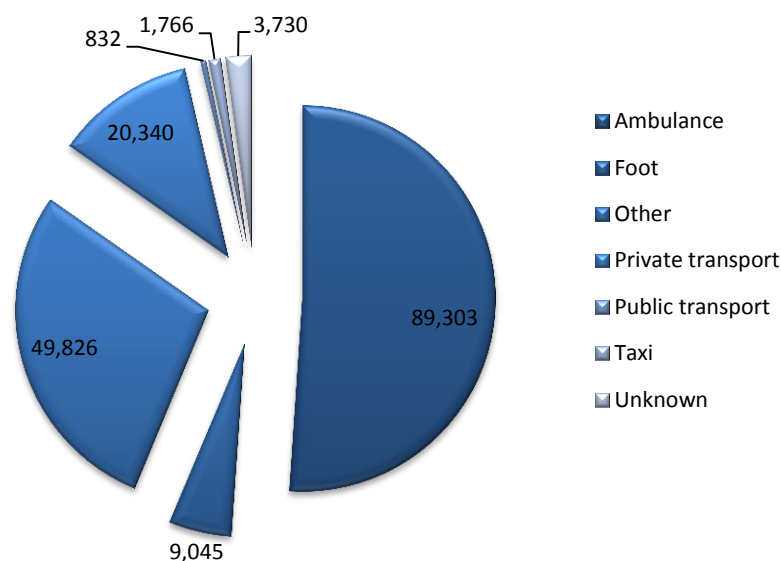


Figure 10 displays the incident location for injury attendances by Greater Manchester residents aged 65 years and over. Over half (94,992; 54.3%) of all injuries occurred in the home, while 6.8% (11,811) occurred in a public place. Incidents recorded as occurring in the home increased with age; 50.9% for those aged 65 to 74 years increasing to 58.4 percent for those aged 85 years and over. The opposite is true of incidents occurring in a public place, with 8.6% of incidents occurring in a public place for those aged 65 to 74 years, which decreased to 4.2% for those aged 85 years and over.

**FIGURE 10. Attendances made by Greater Manchester residents aged 65 years and over by incident location, April 2012 to March 2015**

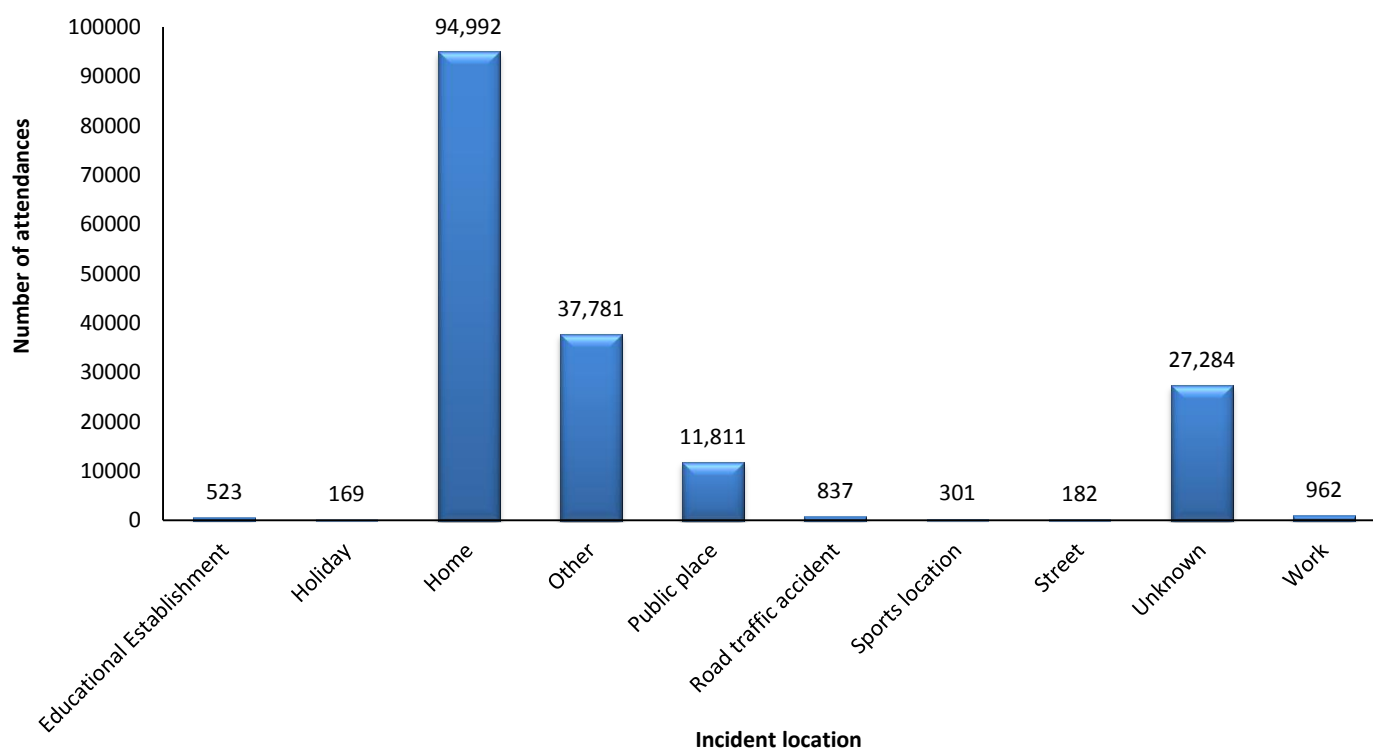


Figure 11 displays the disposal method of Greater Manchester residents aged 65 years and over from Greater Manchester EDs. Almost four in ten (37.7%) were admitted while one-third (33.2%) were referred for follow-up treatment.

**FIGURE 11. Attendances made by Greater Manchester residents aged 65 years and over by disposal method, April 2012 to March 2015**

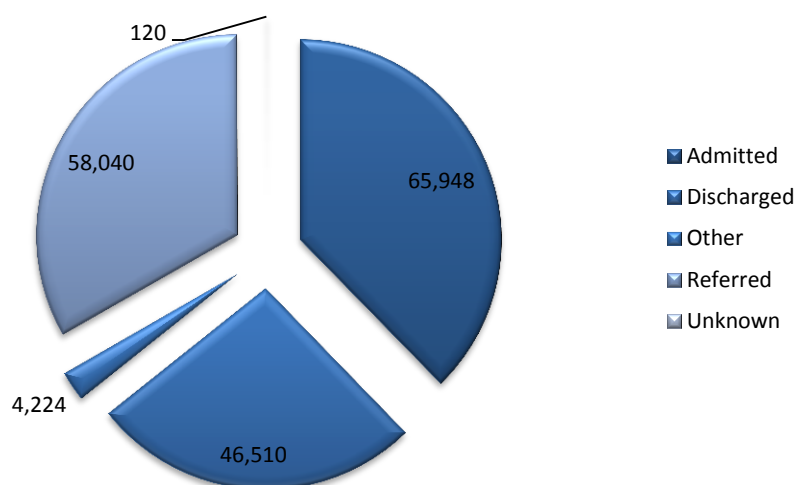


Table 11 shows the patient disposal method by injury group, which can be used to indicate the variation in outcomes for each injury type and the consequences injuries have for older people and healthcare services. Half (425; 49.9%) of all assault patients and over six in ten (1,528; 62.2%) RTC patients were discharged without further treatment. Over four in ten (20,735; 44.3%) fall patients and DSH patients (173; 41.3%) were admitted into hospital, while over half (406; 53.7%) of burns and scalds patients were referred for further treatment.

**TABLE 11. Attendances made by Greater Manchester residents aged 65 years and over by injury group and disposal method, April 2012 to March 2015<sup>5</sup>**

Injury group		Admitted	Discharged	Other	Referred	Unknown	Total
Assault	N	154	425	<55	221	***	852
	%	18	50	5.9	26	0	100
Bites & stings	N	85	685	12.0	352	0	1,134
	%	8	60	1.1	31	0	100
Burns & scalds	N	75	260	<15	406	***	756
	%	10	34	1.7	54	0	100
DSH	N	173	103	<45	101	***	419
	%	41	25	9.8	24	0	100
Fall	N	20,735	13,933	404.0	11,750	16	46,838
	%	44	30	0.9	25	0	100
Other injury	N	44,086	29,397	3,637	44,407	81	121,608
	%	36	24	3	37	0	100
RTCs	N	333	1,528	<45	551	***	2,456
	%	14	62	2	22	0	100
Sports injury	N	84	146	13	130	0	373
	%	23	39	4	35	0	100
Unknown injury	N	223	33	12	122	16	406
	%	55	8	3	30	4	1
Total	N	65,948	46,510	4,224	58,040	120	174,842
	%	37.7	26.6	2.4	33.2	0.1	100



## Case Study 2: Self-harm in older people

In 2012 a multi-centre cohort for suicide prevention published a study analysing self-harm as the most significant risk factor for suicide, focusing on self-harm in older people in response to the limited presence of population-based studies for this demographic. The study collected DSH attendance data from six hospitals across three cities; Derby and Oxford between 2000 and 2007, and Manchester between 2002 and 2007. This study investigated the characteristics of attendances based on variations in gender, age, well-being, and method of harm, while further considering the social and clinical factors that precipitated repeated incidents of DSH. In total 1,177 individuals aged 60 years and over were included in this study, with repeat attendances connected through data linkage processes at each ED. This study established that:

- Over half (56%) of DSH attendees were female.
- Of the 1,177 attendees examined, 196 (16.7%) repeated self-harm within the study period and 12.8% repeated self-harm within 12 months.
- Repetition of DSH was lower compared to all adult and younger age groups, however, self-harm in this older group involved a greater suicidal intent and more lethal methods.
- Risk factors for repetition include being aged 60 to 74 years, living in isolation, previous psychiatric treatment and history of substance abuse.
- The predominant method was self-poisoning (88%), followed by cutting (9%) and hanging/asphyxiation (3%). Women were most likely to self-poison (93%), while men were mostly like to self-injure (13%) or use violent methods (7%). Males aged 75 years and over were most likely to use violent methods (10%).
- The relative risk of suicide in this older age group was three times greater than younger victims of DSH. Of the 1,177 individuals within this study 24 (2%) died by suicide; of which 58% were male and 65% died within 12 months.
- Violent methods were used in 58% of suicides, with males aged 75 years and over having the highest risk of suicide.
- Violent methods of DSH are the most significant risk factor for suicide, yet the most prevalent method was self-poisoning (75%) indicating a change in method from initial incidents.

A recommendation from this report is that hospital EDs need to treat older DSH patients as particularly vulnerable to risk of suicide, especially men aged 75 years and over, and those using violent methods. This consideration is to be further aided by consistent psycho-social assessments. The specific characteristics of this age group show reversals from those exhibited by younger groups where females and substance dependency pose greater risks for suicide, which need to be assessed and substantiated using evidence based data. EDs are well positioned to provide information for older self-harm profiles and inform effective intervention schemes.

TIIG data shows that between April 2012 and March 2015: (figures in report are to one decimal place)

- 60% of self-harm attendees aged 65 years and over were female.
- 57% were aged between 65 and 74 years, of which 61% were female.
- 60% of incidents occurred in the home, 73% arrived by ambulance and 41% were admitted to hospital.

At present, information collected across Greater Manchester EDS on the method of self-harm, whether alcohol had been consumed and whether it was a repeat attendance is not to a sufficient standard to enable substantial analysis of contributing factors to incidents treated by EDs.

*Source: Murphy, E. et al (2012)*

This section of the report will focus on significant trends within LAs in Greater Manchester. ED attendance data will be examined in regards to at-risk groups, incident locations and outcomes for frequent injury types, and situate these trends in local contexts to provide utility for those aiming to reduce violence and injuries within local communities.

## INJURY ATTENDANCE TRENDS AND DEMOGRAPHICS

Figure 12 displays the attendances of people aged 65 years and over to Greater Manchester EDs by area of residency. One-quarter (25.1%) of attendees were Tameside residents, 18.1% were resident in Trafford and 9.8% were resident in Bolton. The remaining seven LAs accounted for less than 10% each of the total attendances, with Bury residents comprising the smallest proportion with 3.8% of total attendances.

**FIGURE 12. Attendances made by Greater Manchester residents aged 65 years and over by LA of residence, April 2012 to March 2015**

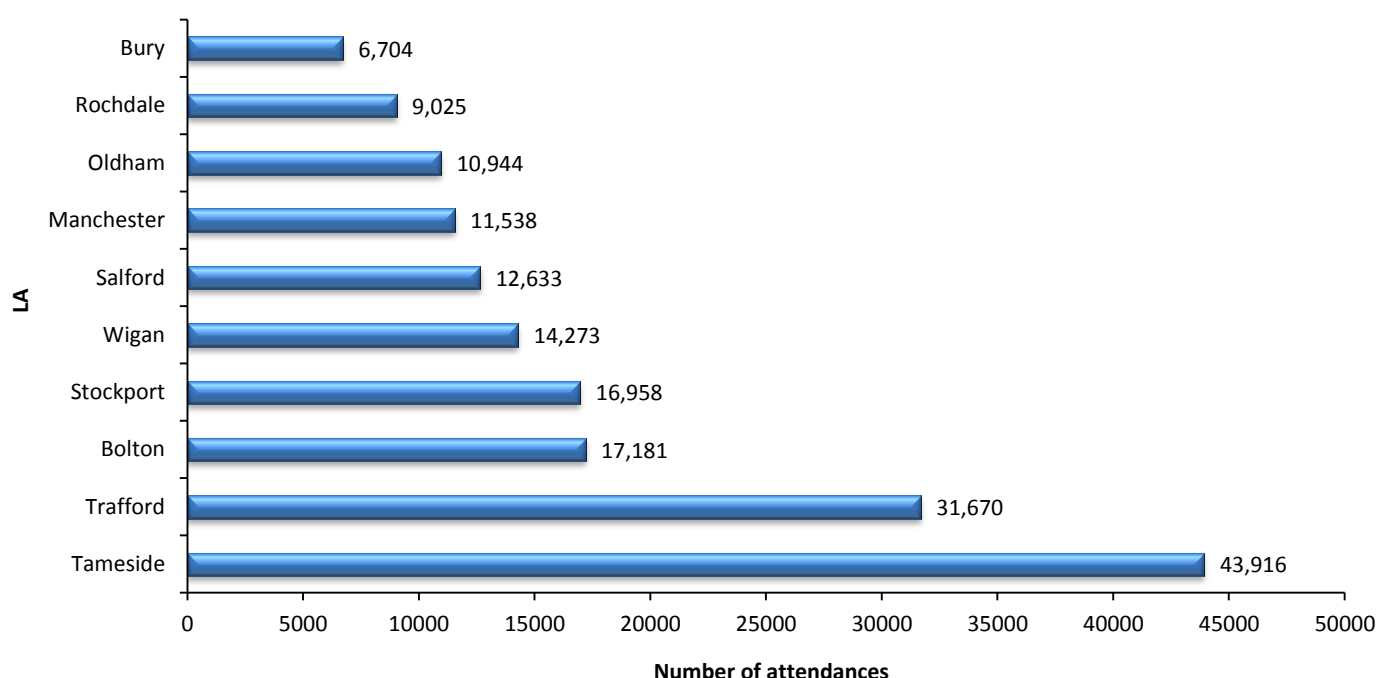


Table 12 shows the attendances for Greater Manchester residents by age group, gender and area of residency. Almost four in ten (37.0%) attendances were made by people aged between 75 and 84 years. Similarly, the largest proportion (36.6%) of female attendances was aged between 75 and 84 years; of this proportion almost one-quarter (23.9%) were resident in Tameside. Over four in ten (41.9%) male attendees were aged between 65 and 74 years; of this proportion over one-quarter (27.3%) were resident in Tameside.

**TABLE 12. Attendances made by Greater Manchester residents aged 65 years and over by age group, gender and LA of residence, April 2012 to March 2015<sup>8</sup>**

	65-74		75-84		85+	
	Female	Male	Female	Male	Female	Male
<b>Bolton</b>	3,416	3,088	3,593	2,634	3,082	1,368
<b>Bury</b>	1,358	1,007	1,594	883	1,341	521
<b>Manchester</b>	2,390	1,936	2,591	1,540	2,169	911
<b>Oldham</b>	2,191	1,702	2,502	1,349	2,346	854
<b>Rochdale</b>	1,972	1,419	2,065	1,269	1,684	616
<b>Salford</b>	2,245	1,879	2,779	1,857	2,765	1,108
<b>Stockport</b>	3,163	2,312	3,853	2,203	3,839	1,588
<b>Tameside</b>	8,153	7,903	9,254	7,321	7,636	3,648
<b>Trafford</b>	6,359	5,223	7,266	5,020	5,216	2,586
<b>Wigan</b>	3,126	2,510	3,192	2,004	2,478	963
<b>Total</b>	<b>34,373</b>	<b>28,979</b>	<b>38,689</b>	<b>26,080</b>	<b>32,556</b>	<b>14,163</b>

Figure 13 displays the arrival mode by ambulance and private transport for Greater Manchester residents aged 65 years and over by area of residency. Almost two-thirds (65.3%) of Tameside residents, 58.2% of Bolton residents and 54.8% of Salford residents arrived by ambulance. Almost half (47.5%) of Rochdale residents arrived by private transport, while 44.5% of Bury residents and 41.2% of Oldham residents arrived by private transport.

**FIGURE 13. Attendances made by Greater Manchester residents aged 65 years and over by arrival mode (ambulance vs private transport) and LA of residence, April 2012 to March 2015<sup>9</sup>**

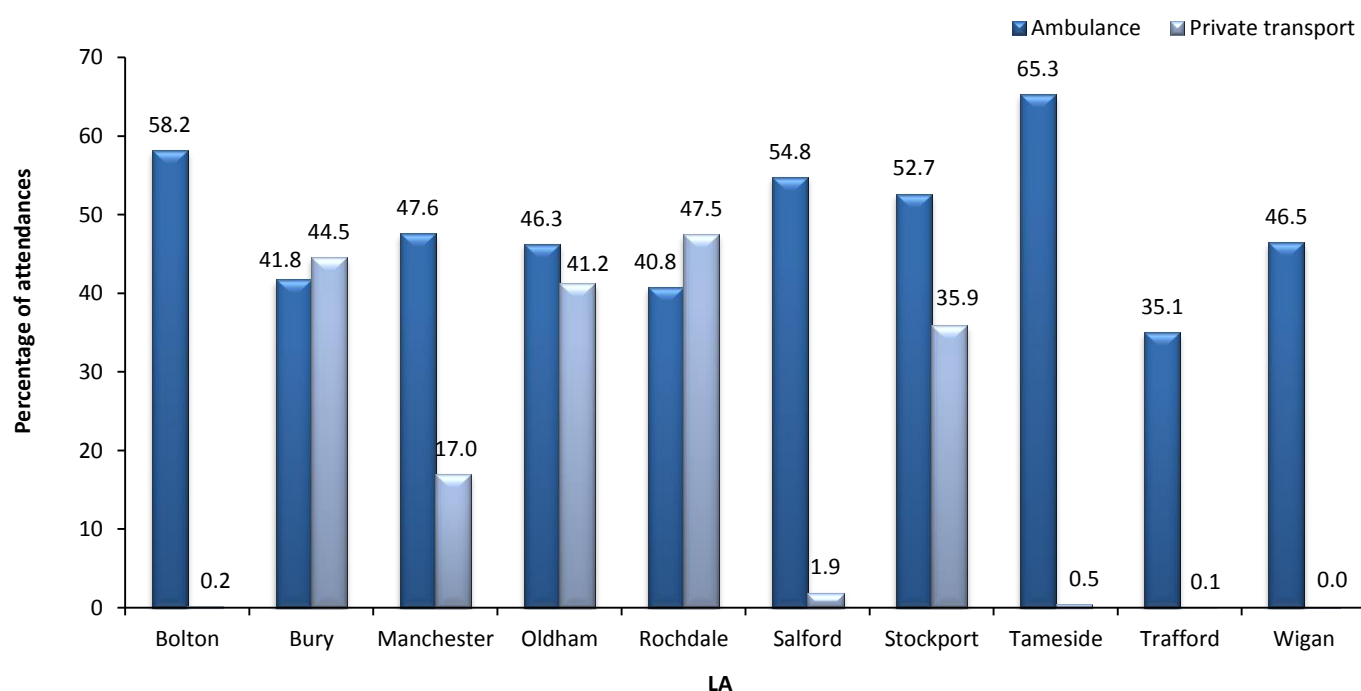


Table 13 displays the disposal method for attendances by Greater Manchester residents aged 65 years and over by area of residency. The highest proportion of attendees admitted to hospital during this period were Tameside residents (23,175; 35.1%),

<sup>8</sup> Please note that there are less than five records where the gender was unknown which have been omitted from this table.

<sup>9</sup> The large disparity in arrival methods is likely to be affected by the way EDs are categorising the data, with large numbers of those arriving by private transport being record as 'other'.

followed by Trafford residents (10,087; 15.3%). Almost one-fifth (8,814; 19.0%) of attendees discharged without further treatment were Trafford residents, with 12.2% residing in Stockport. Just over three in ten of patients referred for further treatment were from Tameside (17,792; 30.7%) and one-fifth were resident in Trafford (10,541; 18.2%).

**TABLE 13. Attendances made by Greater Manchester residents aged 65 years and over by LA of residence and disposal method, April 2012 to March 2015<sup>5</sup>**

LA	Admitted	Discharged	Other	Referred	Unknown	Total
<b>Bolton</b>	7,096	3,876	<275	5,937	***	17,181
<b>Bury</b>	1,456	3,396	56	1,789	7	6,704
<b>Manchester</b>	3,842	4,510	282	2,892	12	11,538
<b>Oldham</b>	3,045	5,026	106	2,759	8	10,944
<b>Rochdale</b>	2,150	4,508	73	2,286	8	9,025
<b>Salford</b>	5,470	3,855	131	3,164	13	12,633
<b>Stockport</b>	5,841	5,652	<135	5,330	***	16,958
<b>Tameside</b>	23,175	2,024	886	17,792	39	43,916
<b>Trafford</b>	10,087	8,814	2,221	10,541	7	31,670
<b>Wigan</b>	3,786	4,849	64	5,550	24	14,273
<b>Total</b>	<b>65,948</b>	<b>46,510</b>	<b>4,224</b>	<b>58,040</b>	<b>120</b>	<b>174,842</b>

Table 14 shows attendances by residents aged 65 years and over by injury group and area of residency. The highest number (142; 16.7%) of assault patients were residents of Manchester LA closely followed by Oldham residents (141; 16.6%), while one-fifth (84; 20.0%) of DSH patients were resident in Tameside. Stockport residents comprised the largest proportion (7,569; 16.2%) of fall patients, and Manchester residents comprised the largest proportion (384; 15.6%) of RTCs.

**TABLE 14. Attendances made by Greater Manchester residents aged 65 years and over by LA of residence and injury group, April 2012 to March 2015<sup>5</sup>**

LA	Assault	Bites & stings	Burns & scalds	DSH	Fall	Other injury	RTCs	Sports injury	Unknown	Total
<b>Bolton</b>	36	195	81	<20	4,164	12,483	140	<65	***	17,181
<b>Bury</b>	105	96	84	29	2,942	3,232	210	***	***	6,704
<b>Manchester</b>	142	118	123	60	5,105	5,540	384	59	7	11,538
<b>Oldham</b>	141	142	118	40	5,440	4,745	303	7	8	10,944
<b>Rochdale</b>	137	154	106	<45	4,167	4,083	333	0	***	9,025
<b>Salford</b>	64	127	69	35	7,402	4,680	177	17	62	12,633
<b>Stockport</b>	54	239	127	***	7,569	8,420	365	138	<45	16,958
<b>Tameside</b>	64	9	5	84	5,168	38,164	139	13	270	43,916
<b>Trafford</b>	35	34	37	70	3,499	27,666	258	65	6	31,670
<b>Wigan</b>	74	20	6	35	1,382	12,595	147	9	5	14,273
<b>Total</b>	<b>852</b>	<b>1,134</b>	<b>756</b>	<b>419</b>	<b>46,838</b>	<b>121,608</b>	<b>2,456</b>	<b>373</b>	<b>406</b>	<b>174,842</b>

Females aged 75 to 90 years accounted for more attendances to an ED for a fall injury compared to other age and gender groups. This group represented 61.8% of all female fall injury attendances, and accounted for 40.8% of all fall injury attendances for people aged 65 years and over. As shown in Figure 14, fall attendances for both genders follow similar undulations, peaking between 75 and 90 years. The substantial difference between female and male fall attendances may potentially be a consequence of the difference in population for each gender in this age range, which will be explored further in the recommendations.

**FIGURE 14. Fall attendances made by Greater Manchester residents aged 65 years and over by gender and age, April 2012 to March 2015**

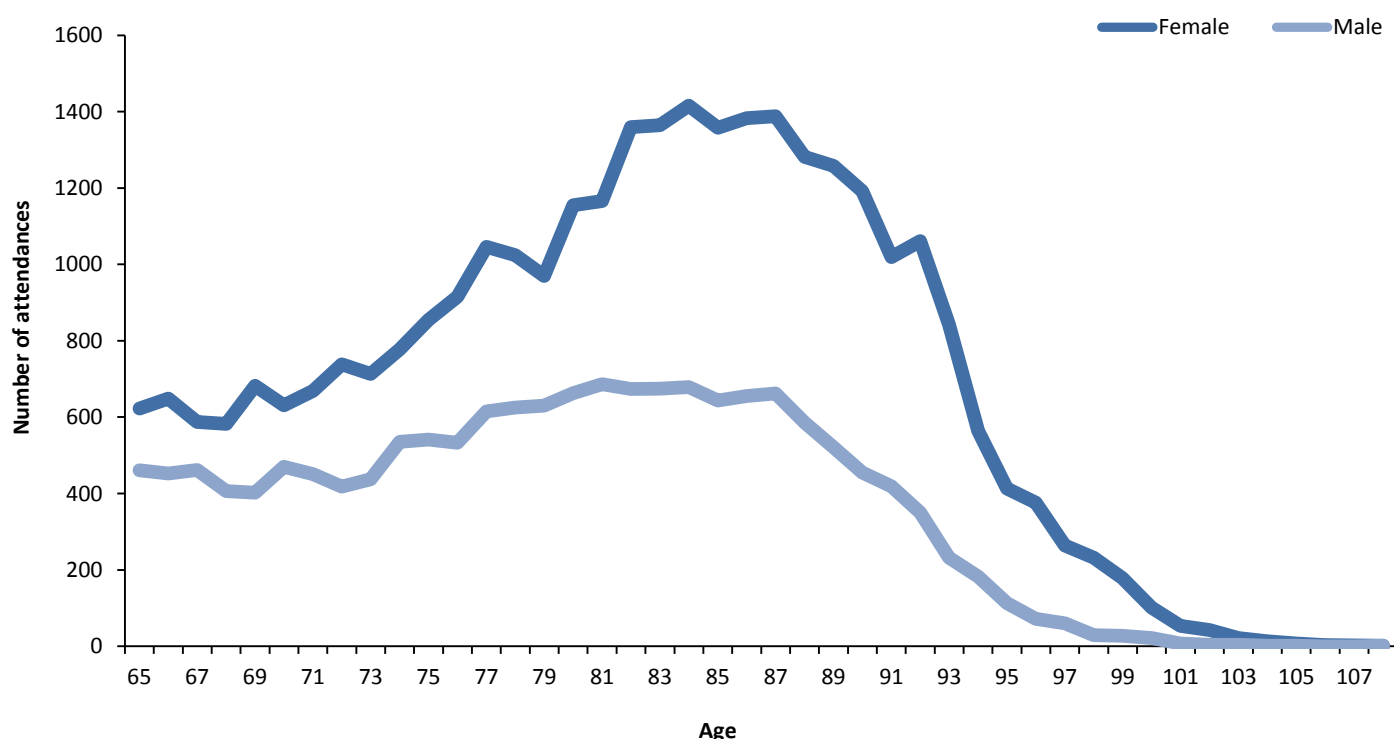


Table 15 displays female fall attendances and rates per 100 population for those aged 75 to 90 years compared to females aged 65 years and over. Overall those aged 75 to 90 years had a higher rate of attendances for fall injuries compared to females aged 65 years and over. Salford residents had the highest rate of attendance for female fall patients aged 75 to 90 years (32.1 per 100).

**TABLE 15. Number and rate of fall attendances made by females (aged 75 to 90 years vs 65 years and over) per 100 population, April 2012 to March 2015**

LA	75-90	75-90 population	Rate (per 100 population)	65+	65+ population	Rate (per 100 population)
Bolton	1,765	11,400	15.5	2,840	24,877	11.4
Bury	1,260	8,262	15.3	2,015	17,575	11.5
Manchester	1,966	13,960	14.1	3,313	27,624	12.0
Oldham	2,198	9,210	23.9	3,600	19,746	18.2
Rochdale	1,685	8,688	19.4	2,775	18,235	15.2
Salford	3,061	9,521	32.1	4,805	19,351	24.8
Stockport	3,130	15,060	20.8	5,054	30,142	16.8
Tameside	2,054	9,451	21.7	3,408	20,215	16.9
Trafford	1,448	11,063	13.1	2,270	21,499	10.6
Wigan	566	13,124	4.3	897	30,270	3.0
<b>Total</b>	<b>19,133</b>	<b>109,739</b>	<b>17.4</b>	<b>30,977</b>	<b>229,534</b>	<b>13.5</b>

Figure 15 shows the incident location for female fall attendees aged 75 to 90 years for the three LAs with the highest rate of fall attendance.

**FIGURE 15. Fall attendances made by females aged between 75 to 90 years by incident location, (LAs with highest rate of attendances), April 2012 to March 2015**

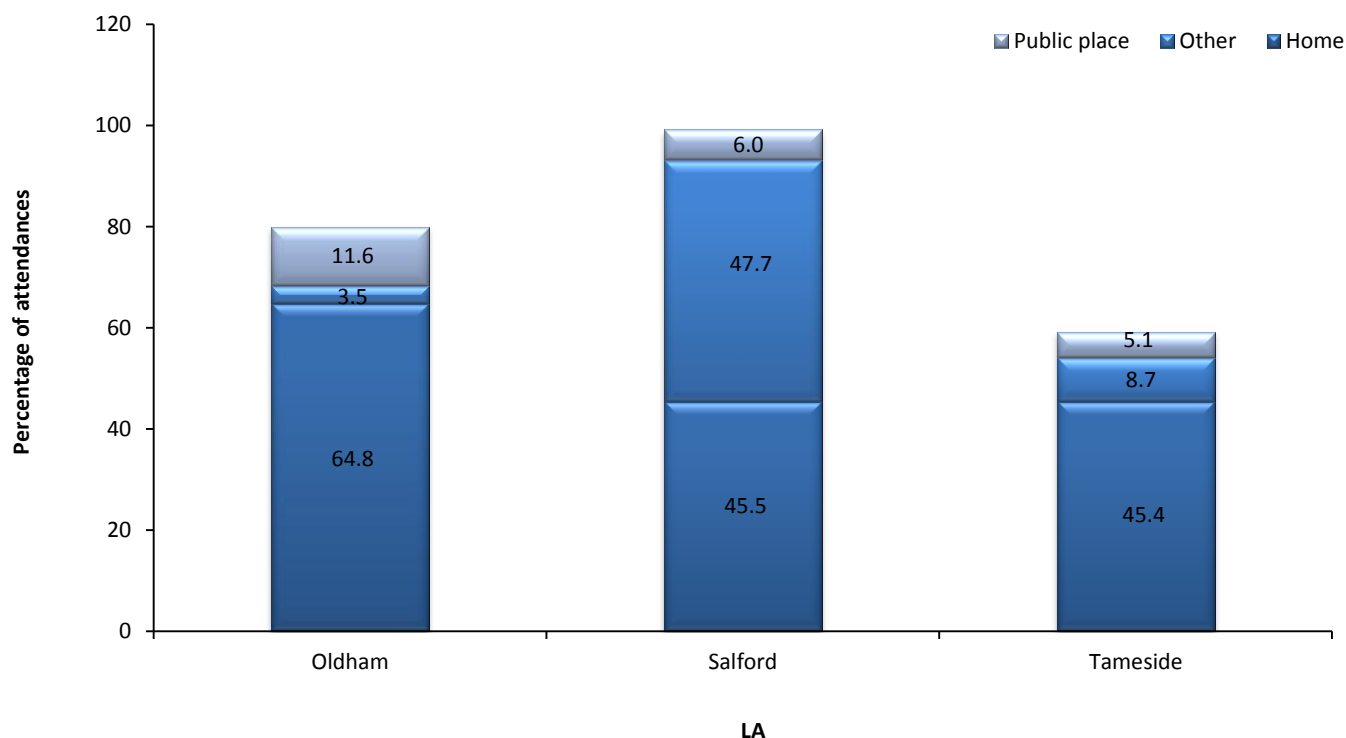


Table 16 displays the disposal method for female fall attendees aged 75 to 90 years compared to female attendees aged 65 years and over. Almost half of attendees aged 75 to 90 years were admitted, while almost three in ten (29.1%) were discharged and one-quarter (24.9%) were referred.

**TABLE 16. Fall attendances made by females (aged 75 to 90 years vs 65 years and over) by disposal method, April 2012 to March 2015**

Disposal method	75-90	%	65+	%
Admitted	8,702	46	13,465	44
Blank	10	0	15	0
Discharged	5,559	29	9,270	30
Other	104	1	216	1
Referred	4,758	25	8,011	26
<b>Total</b>	<b>19,133</b>	<b>100</b>	<b>30,977</b>	<b>100</b>

## ROAD TRAFFIC COLLISIONS – PEOPLE AGED 65 TO 74 YEARS

People aged 65 to 74 years were identified as being at a higher risk of presenting to an ED for RTC injuries compared to other age groups. This group accounted for 56.0% of all RTC injury attendances for people aged 65 years and over during this three year period. Figure 16 shows the number of attendances by gender and age, and highlights the steady decline in RTC attendances after the age of 65 years.

**FIGURE 16. RTC attendances made by people aged 65 years and over by gender and age, April 2012 to March 2015**

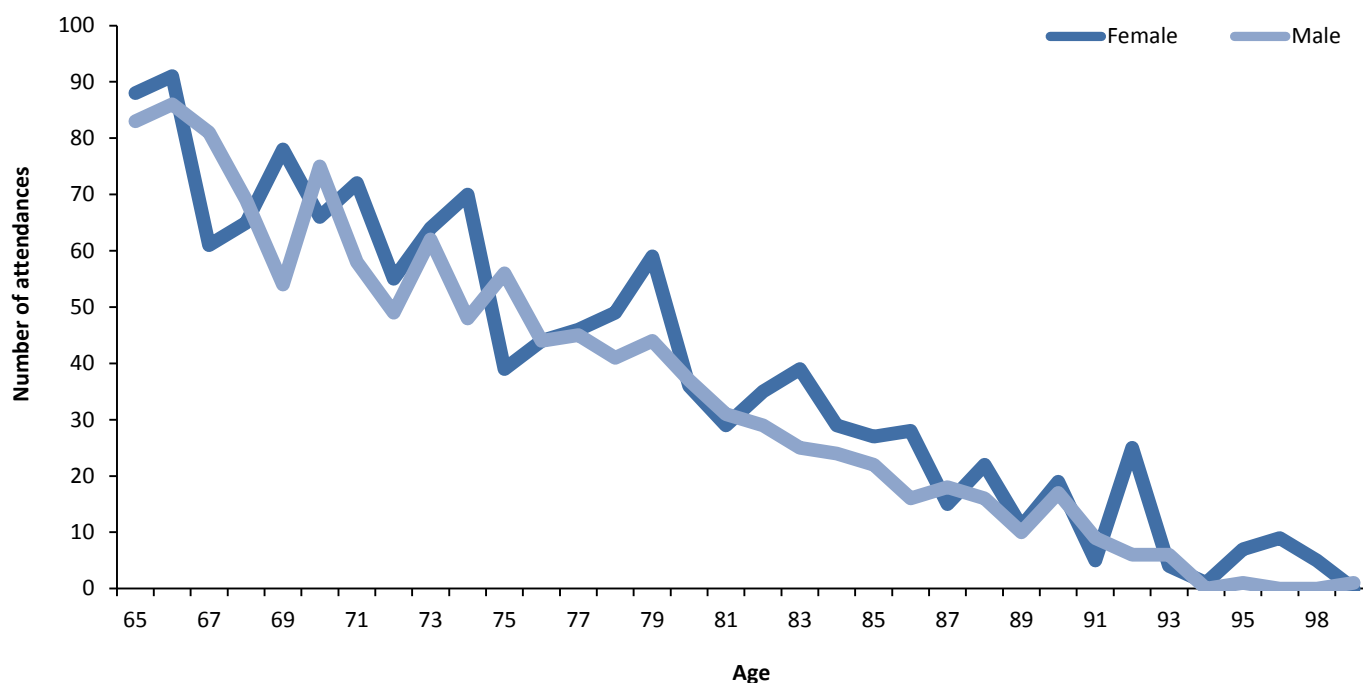


Table 17 displays RTC attendance numbers and rates per 100 population for those aged 65 to 74 years compared to all people aged 65 years and over. Manchester and Rochdale residents had the highest rate of attendances for patients aged 65 to 74 years (0.9 per 100), followed by Oldham residents (0.8 per 100).

**TABLE 17. Number and rate of RTC attendances made by people aged 65 to 74 years vs 65 years and over combined per 100 population, April 2012 to March 2015**

LA	65-74	Population	Rate (per 100)	65+	Population	Rate (per 100)
Bolton	87	26,178	0.3	140	45,661	0.3
Bury	104	18,052	0.6	210	31,922	0.7
Manchester	224	26,123	0.9	384	48,997	0.8
Oldham	152	20,006	0.8	303	35,357	0.9
Rochdale	174	18,448	0.9	333	33,038	1.0
Salford	117	18,973	0.6	177	34,897	0.5
Stockport	201	28,960	0.7	365	54,507	0.7
Tameside	88	21,125	0.4	139	37,024	0.4
Trafford	138	19,768	0.7	258	38,449	0.7
Wigan	90	33,768	0.3	147	56,266	0.3
<b>Total</b>	<b>1,375</b>	<b>231,401</b>	<b>0.6</b>	<b>2,456</b>	<b>416,118</b>	<b>0.6</b>

Table 18 displays the disposal method for RTC attendees aged 65 to 74 years by area of residency. Two-thirds of all attendees aged 65 to 74 years were discharged (65.7%), while almost one-quarter (316; 23%) of patients were referred and 10.2% were admitted.

**TABLE 18. RTC attendances made by people aged 65 to 74 years by disposal method, April 2012 to March 2015<sup>5</sup>**

LA	Admitted	Discharged	Other	Referred	Total
Bolton	7	45	0	35	87
Bury	<10	77	***	18	104
Manchester	28	148	9	39	224
Oldham	<15	117	***	19	152
Rochdale	7	140	0	27	174
Salford	11	73	0	33	117
Stockport	<35	124	***	45	201
Tameside <sup>10</sup>	12	23	0	52	88
Trafford	14	84	0	40	138
Wigan	10	72	0	8	90
<b>Total</b>	<b>140</b>	<b>903</b>	<b>15</b>	<b>316</b>	<b>1,375</b>

<sup>10</sup> There were less than five records where the disposal method was unknown for this age group, which has been omitted from the table but included in the total figures.



This section of the report examines all injury and violence in people aged 65 years and over across Greater Manchester using North West Ambulance Service (NWAS) call out data between April 2012 and March 2015. Data here are based on the location of where the ambulance was called out to rather than patient address and it may not necessarily be the location of where the incident took place. A number of records may relate to non-Greater Manchester residents and for this reason rates have not been calculated. It should also be noted that a large proportion of records are missing patients' age; therefore the number of call outs for those aged 65 years and over is inaccurate, though figures will still provide a useful resource to local partners working in injury prevention among older people.

## DATA OVERVIEW

Between April 2012 and March 2015 there were 86,154 ambulance call outs for injury and violence in Greater Manchester. Table 19 shows that the financial year 2012/13 had the highest number of call outs for people aged 65 years and over (31,238; 36.3%). December also had the highest number of call outs across the three years with 7,848 (a daily average of 253 call outs).

**TABLE 19. Ambulance call outs by Greater Manchester residents aged 65 years and over by financial year and month, April 2012 to March 2015**

Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
<b>2012/13</b>	2,496	2,655	2,516	2,589	2,593	2,449	2,570	2,573	2,876	2,809	2,496	2,616	31,238
<b>2013/14</b>	2,419	2,447	2,489	2,440	2,466	2,276	2,389	2,355	2,590	2,432	2,180	2,462	28,945
<b>2014/15</b>	2,065	2,106	2,058	2,184	2,274	2,076	2,084	2,130	2,382	2,350	1,984	2,278	25,971
<b>Total</b>	<b>6,980</b>	<b>7,208</b>	<b>7,063</b>	<b>7,213</b>	<b>7,333</b>	<b>6,801</b>	<b>7,043</b>	<b>7,058</b>	<b>7,848</b>	<b>7,591</b>	<b>6,660</b>	<b>7,356</b>	<b>86,154</b>

Figure 17 shows the ambulance call outs for people aged 65 years and over in Greater Manchester by financial year. Similar to ED attendance data, 2012/13 had the highest number of call outs. During the period covered in this report there was a 16.9% decline in ambulance call outs in Greater Manchester.

**FIGURE 17. Ambulance call outs to people aged 65 years and over by financial year, April 2012 to March 2015**

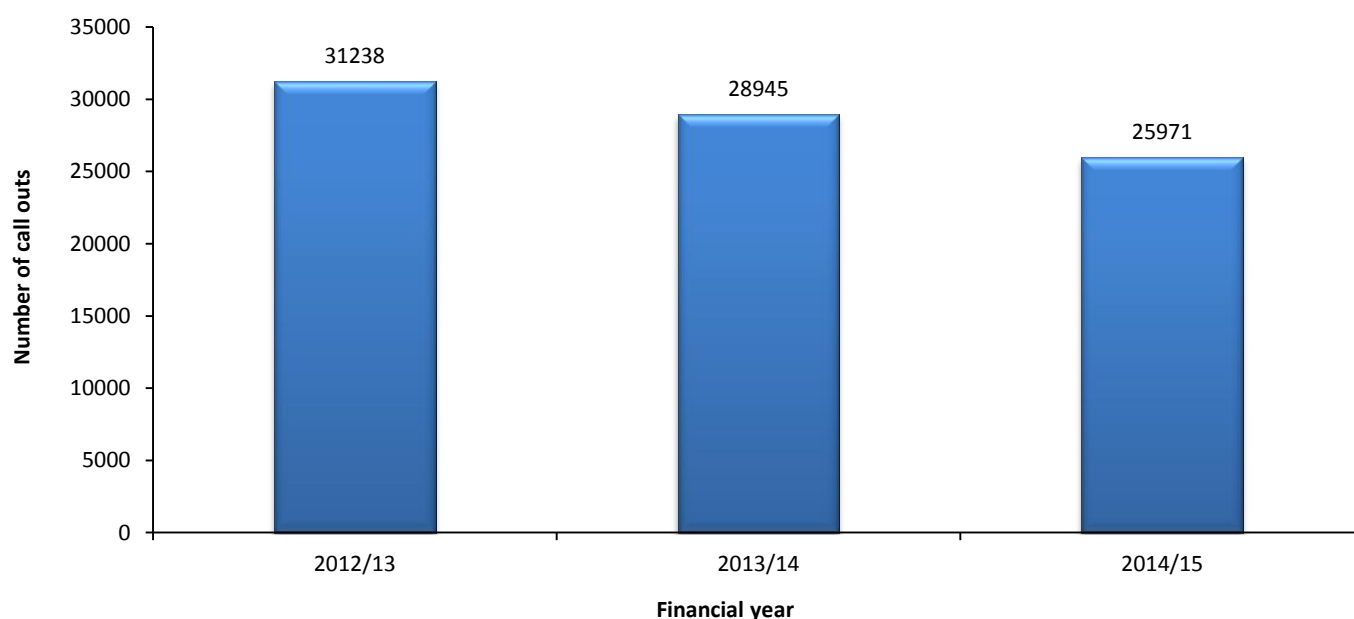


Table 20 displays ambulance call outs by people aged 65 years and over by LA and age group. The largest proportion of call outs was made by people aged 85 years and over (36,714; 42.6%), followed by people aged 75 to 84 years (31,176; 36.2%). The highest number of call outs were made to Manchester LA (11,985; 13.9%) followed by Stockport (10,446; 12.1%).

**TABLE 20. Ambulance call outs to people aged 65 years and over by LA of call out location and age group, April 2012 to March 2015**

LA	65-74	75-84	85+
<b>Bolton</b>	1,746	3,052	3,541
<b>Bury</b>	1,341	2,413	2,851
<b>Manchester</b>	3,035	4,363	4,587
<b>Oldham</b>	1,451	2,447	3,169
<b>Rochdale</b>	1,507	2,568	3,008
<b>Salford</b>	1,519	2,748	3,249
<b>Stockport</b>	1,902	3,704	4,840
<b>Tameside</b>	1,853	2,887	3,257
<b>Trafford</b>	1,632	3,193	4,013
<b>Wigan</b>	2,278	3,801	4,199
<b>Total</b>	<b>18,264</b>	<b>31,176</b>	<b>36,714</b>

Figure 17 shows ambulance call outs by gender across the three year period. The majority of call outs were made by females (54,519; 63.3%); males comprised 36.7% (31,609), which is a similar gender split to ED attendances.<sup>11</sup>

**FIGURE 18. Ambulance call outs to people aged 65 years and over by gender and month/year, April 2012 to March 2015**

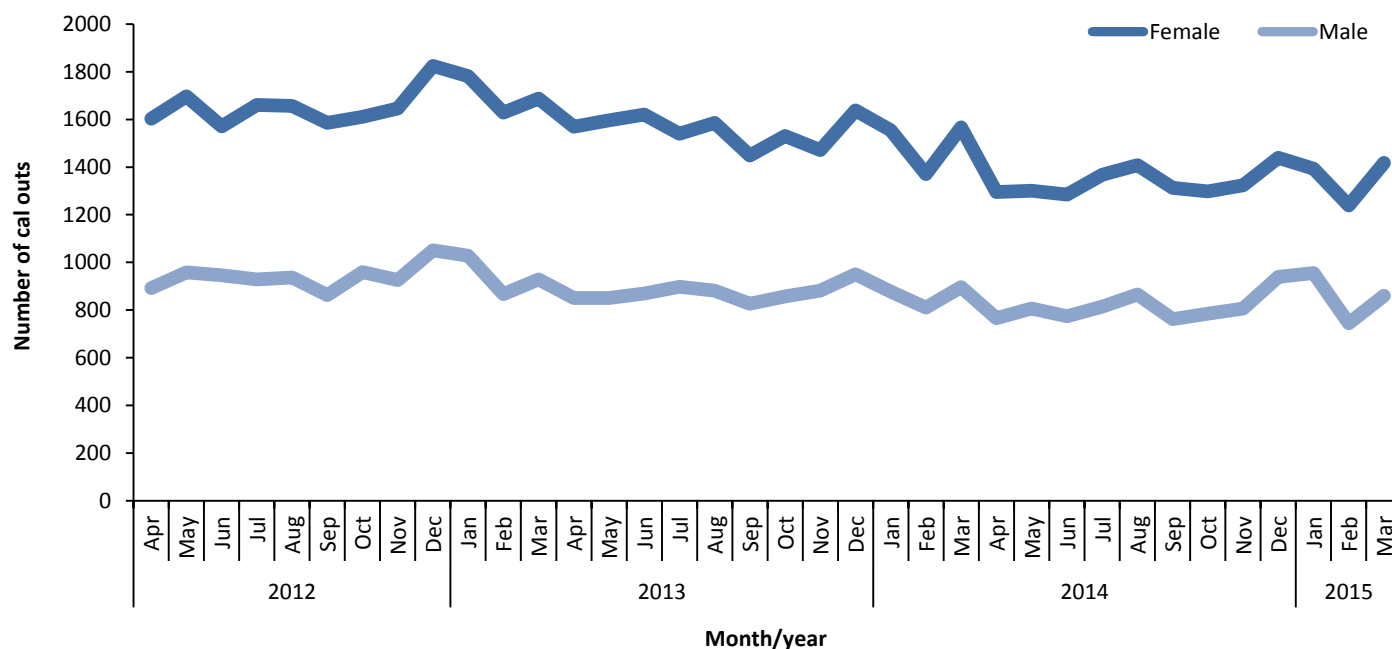


Figure 19 displays call outs for people aged 65 years and over by call out reason. Falls comprised the vast majority of call outs during this period (74,585; 86.6%), followed by call outs for other injuries (5,981; 6.9%) and psychiatric/suicide attempts (2,586; 3%).

<sup>11</sup> There were 26 records where the gender was unknown which have been omitted from the chart.

**FIGURE 19. Ambulance call outs to people aged 65 years and over by injury group, April 2012 to March 2015**

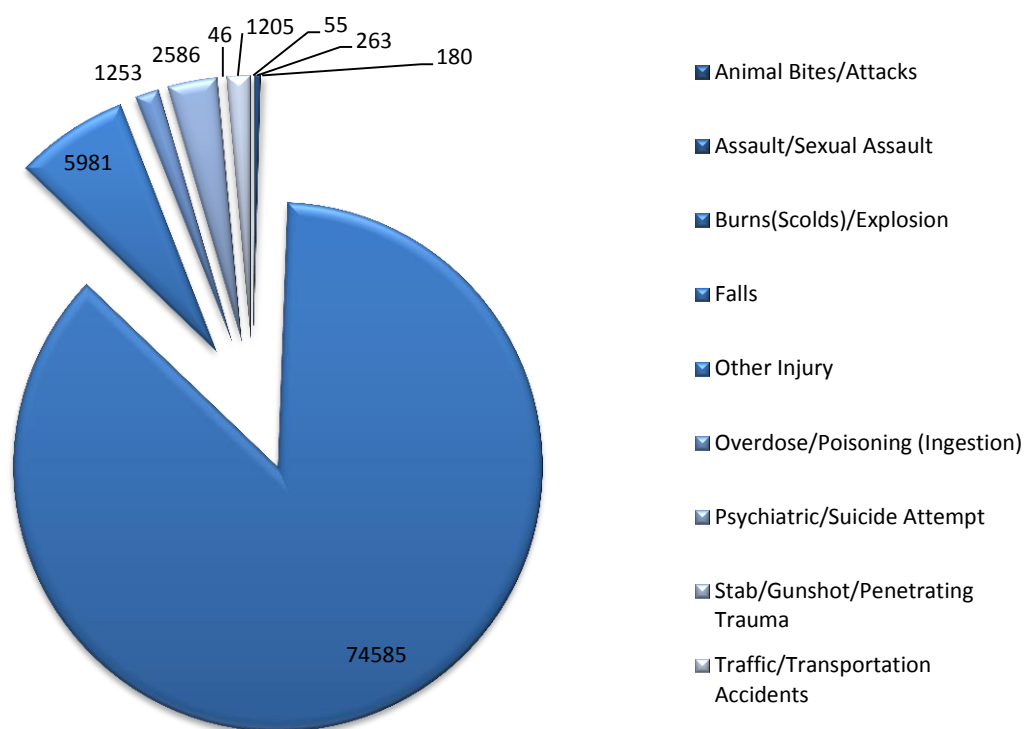


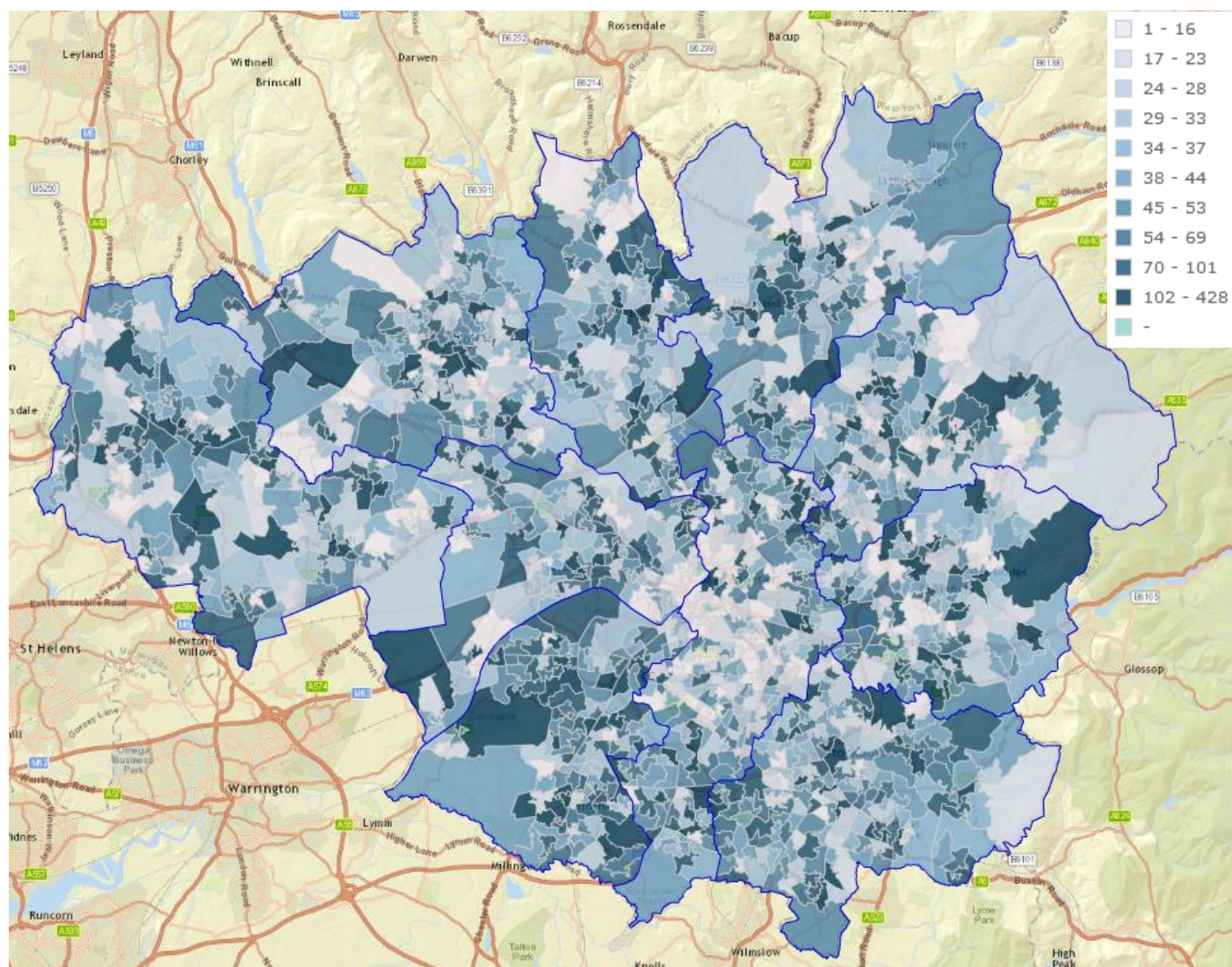
Table 21 shows that the highest number of call outs were from Rochdale 017F (428), followed by Stockport 012B (330) and Tameside 018D (313).

**TABLE 21. Top 10 LSOAs for ambulance call outs to people aged 65 years and over, April 2012 to March 2015**

LSOA name	LSOA code	Number of attendances
Rochdale 017F	E01005481	428
Stockport 012B	E01005899	330
Tameside 018D	E01006019	313
Stockport 014B	E01005758	305
Wigan 031E	E01006332	290
Oldham 003D	E01005447	273
Rochdale 020D	E01005506	271
Tameside 006C	E01005935	264
Salford 020A	E01005631	253
Trafford 015B	E01006160	238

Figure 20 displays an overview of the geographical spread of attendees to EDs by Greater Manchester residents by LSOA and within LA boundaries. The map is populated using the total ambulance call outs for each LSOA made in this period. This map was produced using InstantAtlas software and populated using the total number of attendances for each LSOA, as partially shown in Table 21.

**FIGURE 20. Number of ambulance call outs to people aged 65 years and over by LSOA with LA boundaries, April 2012 to March 2015**



## RECOMMENDATIONS

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

### DATA COLLECTION AND QUALITY

ED data collection and sharing is generally excellent in Greater Manchester. However, there are several areas where data collection and quality may be improved.

- Consider mechanisms to allow Manchester Royal Infirmary, Trafford General Hospital and Royal Albert Edward Infirmary to categorise fall injury attendances. Currently these attendances will be included with “other injuries”. This can be achieved through multi-agency meetings and discussions, primarily between the TIIG team and EDs. A potential barrier may be whether the patient management system used by EDs can be easily modified to allow for the categorisation of falls. This may be overcome with cooperative action and by highlighting the importance of such data in informing prevention and intervention strategies.
- Consider the potential to create a mechanism to link patient attendances; since repeat attendances are likely among older people, longitudinal data could be valuable in informing prevention schemes, by assessing the outcomes of specific strategies. For example the efficacy of outreach schemes such as home visits could be scrutinized with the aid of repeat ED attendance data. This is especially salient in cases such as DSH or elder abuse where repeated incidents are risk factors for eventual suicide and premature death.
- Methods for recording whether patients who are victims of DSH have had a psychosocial assessment can be related to disposal methods and treatment outcomes, and can form an invaluable component in improving treatment services that seek to impact and reduce the likelihood of repeated incidents.
- Consider mechanisms to supplement the recording of attendances for different types of abuse in older people. Currently EDs record assaults which incorporate instances of domestic violence, sexual assault and physical abuse which have contrasting risk factors and causes. Each type of abuse has different requirements for treatment to reduce the prevalence of abuse, where greater clarity can allow more effective use of resources. For example physical assaults by strangers may inform police strategies in areas of high occurrence, and contrastingly domestic violence intervention schemes would benefit from greater collaboration with frontline services such as EDs as a result of more accurate data categorisation.
- Consider ways to capture neglect as a specific form of abuse suffered by older people. This is the leading form of abuse suffered by those aged 65 years and over and is often a result of complex social circumstances. Currently such injury information is likely to be categorised as “other injury” which prohibits the use of ED data in schemes that seek to reduce the prevalence of neglect. The perpetrator of neglect is often a partner or primary carer who themselves may be suffering from mental health issues, financial instability or substance dependency issues. Accurately capturing ED attendance data for neglect will be invaluable for informing aftercare services for victims and further inform outreach and intervention schemes that specifically target the perpetrator as a potential victim themselves.



- Consider ways to improve collection of additional assault data items such as the consumption of alcohol three hours prior to incident, the relationship of the victim to the attacker and whether the assault was a case of domestic abuse. Enhanced data enables external partners and public health policy makers to improve intervention strategies through robust profiles for high risk groups, for example where neglect occurs within ongoing carer relationships.
- Consider ways to improve categorisation of incident locations to reduce the amount of locations recorded as 'other'. This may be achieved through liaison between the TIIG team, ED receptionists and ED systems representatives.

## PREVENTION AND INTERVENTION

- Consider ways TIIG data can inform strategies to prevent the risk of falls for older people. Falls are the most common form of injury for this cohort and those who attend for fall-related injuries are at a high risk of repeated incidents. Similarly, those patients who have further conditions such as mobility problems and mental health issues can benefit from referral to intervention services. Linking repeat attendances may allow a greater impact of aftercare and follow-up treatments.
- Consider the high rate of fall attendances made by females aged 75-90 years, especially in Salford. There may be demographic factors such as high numbers of elderly females living alone in this area, or falls occurring in areas of poor housing or deprivation which significantly increase the prevalence of fall incidents.
- Contemplate ways to inform strategies that seek to reduce the number of injuries that occur in the home. There are conflicting assessments over the efficacy of home visits for improving well-being of older people (Cattan et al., 2005); therefore data from EDs could be crucial in providing evidence for improving such prevention strategies. ED data could further benefit community based schemes that seek to reduce trip hazards, add railings to doors, and improve accessibility to outdoor spaces in areas of high incidents.
- Encourage liaison with family services, as the majority of abuse in older people is a result of neglect and is perpetrated by relatives, cohabitants or primary carers. Those experiencing neglect or abuse will often readily seek help with health professionals (O'Keeffe et al., 2007); therefore EDs are well positioned to collaborate with wider care services to reduce its prevalence.
- Perpetrators of neglect often suffer from depression due to the complex and challenging social circumstances of providing care. Greater use of data from sources such as EDs could provide greater efficacy in reducing incidents by addressing the needs of the perpetrators who may be suffering from mental health problems and may be disengaged with services. This could initially inform outreach schemes such as home visits to target perpetrators of sustained neglect and abuse as potential victims themselves. ED data can further be used to assess the efficacy of home intervention schemes by linking repeat attendances and specific disposal methods and aftercare services, thereby informing long term planning for the effective reduction of abuse in older people.
- Consider schemes to achieve greater engagement with males aged 75 years and over, who experience a sense of loneliness and social isolation; older males are more likely to suffer fatalities as a result of falling and commit DSH by violent methods and with intent that reflects attempted suicide.

- Consider ways to encourage liaison with schemes aimed to advance the skills of older drivers. EDs receive the majority of victims of RTCs aged 65 years and over, and are well placed to inform referral processes to prevention schemes which improve driver competency and reduced incidents (IAM, 2010).

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