

# Merseyside & Cheshire Local Authority Profile St Helens

Injuries in Older People  
April 2012 to March 2015

November 2015

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ISBN: 978-1-910725-35-1 (web)

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## Key findings

- Between April 2012 and March 2015 there were 51,255 injury attendances made by St Helens residents to Emergency Departments (EDs) across Merseyside and Cheshire; of which 11,642 (23%) were made by people aged 65 years and over. This represents 23% of total injury attendances to EDs while representing 19% of the total population.
- Of attendees aged 65 years or over, 60% were female and 40% were male; where ethnicity was known, 72% of attendees were white.
- Across all EDs combined, 52% of attendances were classified as other injuries, 41% were falls, 4% were road traffic collisions and 1% were sports injuries, assaults and burns and scalds.
- Females were more likely than males to attend an ED for falls (45% of total injuries compared to 36%).
- The time of day with the most attendances was between 10:00 and 11:59 (15%); the busiest day of the week was Monday (16% of attendances); and, the month with the highest average daily attendances was July (38 per day).
- People aged 65 years and over were more likely to arrive at the EDs by ambulance, be referred to an ED by the emergency services and be admitted into hospital than the average for all age groups combined. Older people were also more likely than other age groups to report their home as the injury location.
- Rates of injury attendances were found to correlate with deprivation, with increasing attendances found to be associated with increasing levels of deprivation.
- Rates of falls were also correlated with deprivation but inconsistent categorisation of falls between EDs prevented more robust analyses.

## Older people in St Helens

St Helens is a city and metropolitan borough in Merseyside, in the North West of England. According to the mid-2013 census, St Helens has a population of 176,221, of which 33,972 are people aged 65 years and over (ONS, 2015). Of people aged 65 years and over, 55% (18,584) are female and 45% (15,388) are male, compared to all age groups combined where 51% (89,892) are female and 49% (86,629) are male. People aged 65 and over in St Helens represent 19% of the total population which is the same as the average for Cheshire and Merseyside (19%) and higher than the North West region (18%) and England (17%). Despite having a lower proportion than other areas, the number of people aged 65 years and over is increasing in St Helens and the UK generally. Owing to the post-war baby boom of 1946/47, the number of people who reached state retirement age in 2012 increased by 169,000 to 726,069 and the number of people turning or aged 65 is expected to continue increasing steadily (ONS, 2015).

Among older people, there are inequalities in life expectancy and general health, and it is often the poorest older adults who suffer the greatest disadvantage. St Helens is one of the most deprived Local Authorities (LAs) in England, the Index of Multiple Deprivation (IMD) ranking the Borough as the 64<sup>th</sup> most deprived in England (ONS, 2010).

Longer life expectancies do not always correlate with healthy life expectancy and it is important to understand the needs and risks for older people to ensure their later years of life are healthy and happy. A key aim of health and social care providers is to invest in local prevention services which offer advice, support and interventions which help healthy older people to live long and independent lives and help injured or unwell older people to regain independence and prevent or delay the onset of further health problems or injuries (DoH, 2009).

Falls comprise the majority of injuries among older people (DoH, 2001), can cause bone fractures and head traumas and can increase the risk of early death (NCIPC, 2014). 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 (DoH, 2009). St Helens which has a population of just over 175,000, will have approximately 9,800 falls among older people each year; approximately 1,400 of those will attend an ED and 700 will sustain a fracture, of which just under one third will be a fracture of the hip (DoH, 2009).

This Trauma and Injury Intelligence Group (TIIG) Local Authority Profile presents injuries suffered by older people in St Helens using ED recorded data between April 2012 and March 2015. In the context of this report, older people are categorised as people aged 65 years and older, as agreed with local partners. 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 St Helens. This report also provides 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.

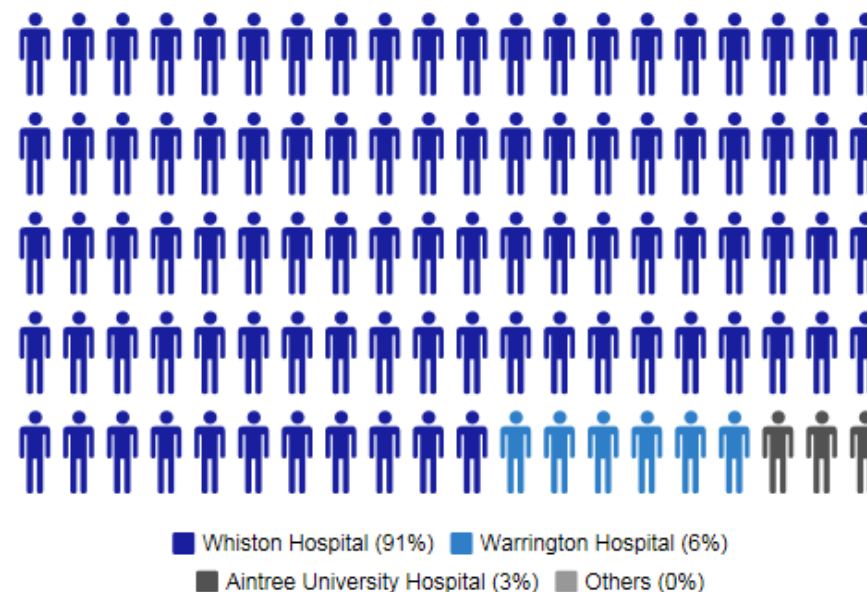
### Injuries across St Helens, April 2012 to March 2015

For all age groups, between April 2012 and March 2015 there were 51,255 injury attendances made by St Helens residents to Emergency Departments (EDs) across Merseyside and Cheshire; 11,642 of these were made by people aged 65 years and over. Attendances by people aged 65 years and over accounted for 23% of total injury attendances to EDs while representing 19% of the total population of St Helens. Of those, 10,607 (91%) attended Whiston Hospital ED, 675 (6%) attended Warrington Hospital, 309 (3%) attended Aintree University ED. There were 51 (<1%) combined attendances to Southport District General Hospital, Royal Liverpool University Hospital, Arrowe Park Hospital, Countess of Chester Hospital, Leighton Hospital and Macclesfield Hospital.

**Table 1. All injury attendances by people aged 65 years and over by Local Authority**

Local Authority	2012/13	2013/14	2014/15	Total
Halton	3014	2896	2333	8243
Warrington	2583	3042	2434	8059
Cheshire East	6497	6652	6678	19827
Cheshire West	4662	4707	4329	13698
Knowsley	6540	5317	5042	16899
Liverpool	13970	13019	12906	39895
Sefton	14907	12755	13400	41062
<b>St Helens</b>	<b>4679</b>	<b>3753</b>	<b>3210</b>	<b>11642</b>
Wirral	6111	6293	6538	18942
<b>Total</b>	<b>62963</b>	<b>58434</b>	<b>56870</b>	<b>178267</b>

**Figure 1. Attendances by people aged 65 years and over by Emergency Department**



In terms of gender, 60% (6,935) of attendees aged 65 years and over were female and 40% (4,707) were male. Of people aged 65 years or over, 3,891 (33%) were aged between 65 and 74 years, 4,427 (38%) were aged between 75 and 84 years, and 3,324 (29%) were aged 85 years or over. In terms of ethnicity,<sup>1</sup> 7,670 (72%) of injury attendees from St Helens were White, 2,859 (27%) were unknown, 69 (1%) were Black and 13 (<1%) were Chinese. There were 20 combined attendances by patients of Pakistani, Indian and other ethnic groups (<1%). Table 2 displays injury attendances of St Helens residents by financial year and injury group;<sup>2</sup> injuries overall decreased by 31% over this three year period.

**Table 2. Injury attendances by St Helens residents aged 65 years and over by financial year and injury group**

Injury group	2012/13	2013/14	2014/15	Total	% <sup>3</sup>
Assault	66	34	10	110	1
Burns and scalds	51	24	12	87	1
Deliberate self-harm <sup>4</sup>	15	10	12	37	0
Falls	1135	1661	2012	4808	41
Other <sup>5</sup>	3079	1881	1119	6079	52
Road traffic collision	249	116	43	408	4
Sports injury	84	27	2	113	1
<b>Total</b>	<b>4679</b>	<b>3753</b>	<b>3210</b>	<b>11642</b>	<b>100</b>

<sup>1</sup> University Hospital Aintree, Arrowe Park Hospital, Southport District General Hospital and Warrington Hospital do not collect data on ethnicity. Unknown ethnicities from EDs who do collect this information have been included.

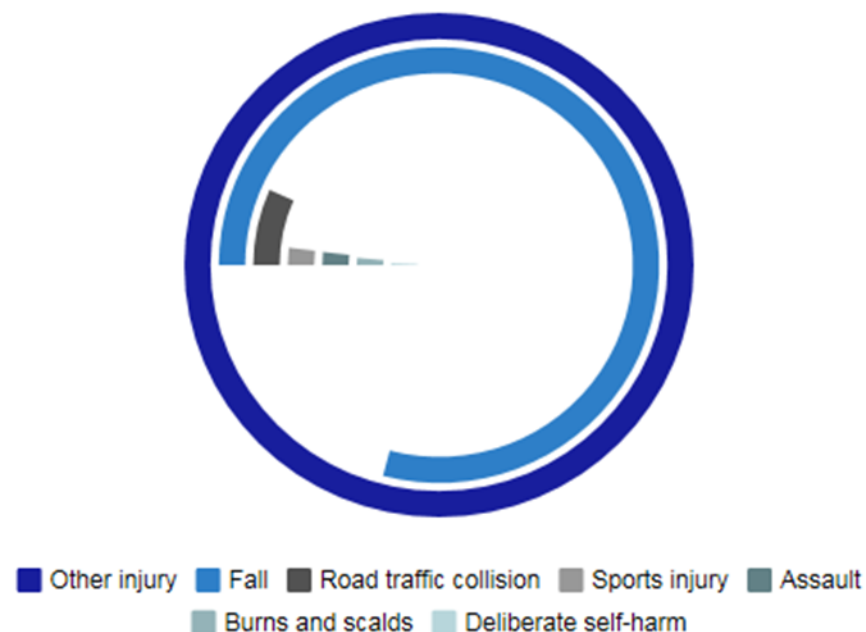
<sup>2</sup> Countess of Chester Hospital, Leighton Hospital, Macclesfield District General Hospital, Southport District General Hospital and Warrington Hospital do not categorise falls; these EDs accounted for 84 records.

<sup>3</sup> Due to rounding percentages may not add up to 100.

<sup>4</sup> Deliberate self-harm includes less than five records of overdose.

<sup>5</sup> Other injury includes 16 records of firework injuries, less than five unknown injuries and 77 records of injuries from ingestion.

**Figure 2. Injury groups for people aged 65 years and over**



“Among older people, there are inequalities in life expectancy and general health, and it is often the poorest older adults who suffer the greatest disadvantage.”

Table 3, displaying injury attendances by age group and gender, shows that females were more likely to present to an ED for falls compared to males.

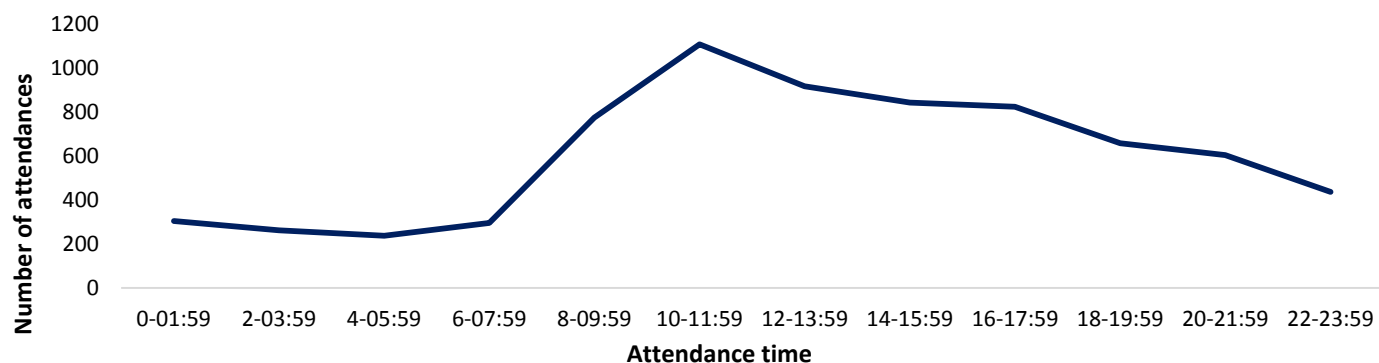
**Table 3. Injury attendances by St Helens residents aged 65 years and over by injury group, age group and gender<sup>6</sup>**

Age Gender Injury group	65-74				75-84				85+			
	Male		Female		Male		Female		Male		Female	
	N	% <sup>4</sup>	N	% <sup>4</sup>	N	%	N	% <sup>4</sup>	N	%	N	% <sup>4</sup>
Assault	32	2	14	1	17	1	22	1	7	1	18	1
Burns and scalds	15	1	24	1	15	1	<20	1	<10	1	<10	0
Deliberate self-harm <sup>5</sup>	12	1	11	1	5	0	***	0	***	0	***	0
Falls	498	26	662	33	722	39	1158	45	493	51	1275	54
Other <sup>6</sup>	1212	64	1176	59	1006	54	1266	49	430	44	989	42
Road traffic collision	90	5	104	5	69	4	76	3	27	3	42	2
Sports injury	24	1	17	1	16	1	32	1	10	1	14	1
Total	1883	100	2008	100	1850	100	2577	100	974	100	2350	100

## Time, day and month of attendance

Figure 3 displays attendances by people aged 65 years or over by time group. Where time groups were recorded (7,261), attendances peaked between 10:00 and 11:59 (1,107; 15%); attendances were lowest between 04:00 and 05:59 (237; 3%).

**Figure 3. Injury attendances by St Helens residents aged 65 years and over by time group**



<sup>6</sup> 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 at the next level to prevent back calculations from totals.

Monday had the most attendances overall for people aged 65 and over for all EDs combined with 16% (1,844) of total attendances; Sunday had the fewest attendances for EDs combined with 13% (1,530) of total attendances. July had the highest rate of attendances with an average of 38 attendances per day (1,044 in total), while February had the lowest rate with an average of 27 attendances per day (755 in total).

## Arrival, referral and disposal

Table 4 displays the arrival mode to EDs for people aged 65 years and over compared to all age groups combined, and shows that double the proportion of attendees aged 65 years and over arrived at EDs by ambulance compared to all age groups combined.

**Table 4. Arrival mode by St Helens residents aged 65 years and over compared to all age groups combined<sup>6</sup>**

Arrival mode	People aged 65 and over		All age groups combined	
	N	%	N	%
Ambulance	7450	64	16575	32
Foot	50	0	805	2
Other	385	3	4081	8
Police	<10	0	497	1
Private transport	3438	30	27433	54
Public transport	297	3	1750	3
Taxi	***	0	59	0
Unknown	12	0	55	0
Total	11642	100	51255	100



Table 5 displays the referral source to EDs for people aged 65 years and over compared to all age groups combined which shows that a higher proportion of attendees aged 65 years and over were referred by emergency services and a lower proportion were referred by friends or relatives or self-referred compared to all age groups combined.

**Table 5. Referral source for St Helens residents aged 65 years and over compared to all age groups combined**

Referral source	People aged 65 and over		All age groups combined	
	N	% <sup>4</sup>	N	% <sup>4</sup>
Carer	360	3	554	1
Educational establishment	23	0	247	0
Emergency services	1621	14	4332	8
Friend/relative	867	7	6606	13
GP	783	7	2828	6
Health professional	704	6	3397	7
Other <sup>7</sup>	883	8	2487	5
Police	32	0	453	1
Self-referral	6342	54	30069	59
Work	27	0	282	1
<b>Total</b>	<b>11642</b>	<b>100</b>	<b>51255</b>	<b>100</b>

Table 6 displays the disposal method for St Helens residents aged 65 years and over by injury group and shows that over half of all attendances resulted in an admission to hospital for people aged 65 years and over.

<sup>7</sup> For people aged 65 years and over, 'Other' includes 6 records referred from unknown sources.

For all injury groups, compared to all age groups combined, a substantially higher proportion of attendances for people aged 65 years and over were admitted to hospital (56% compared to 26%) and a lower proportion were discharged with no follow up treatment required (27% compared to 43%).

**Table 6. Disposal of St Helens residents aged 65 years and over by injury group<sup>6</sup>**

Injury group		Admitted	Discharged	Other	Referred	Total
<b>Assault</b>	N	70	23	0	17	110
	%	64	21	0	15	100
<b>Burns and scalds</b>	N	52	<25	***	11	87
	%	60	25	2	13	100
<b>Deliberate self-harm</b>	N	28	***	0	<10	37
	%	76	8	0	16	100
<b>Falls</b>	N	2951	1144	39	674	4808
	%	61	24	1	14	100
<b>Other</b>	N	3138	1738	80	1123	6079
	%	52	29	1	18	100
<b>Road traffic collision</b>	N	212	143	***	<55	408
	%	52	35	0	13	100
<b>Sports injury</b>	N	84	18	***	<15	113
	%	74	16	1	9	100
<b>Total</b>	N	6535	3091	124	1892	11642
	%	56	27	1	16	100

## Location of injury

Table 7 displays incident location by injury group for people aged 65 years and over which shows that a higher proportion of injuries among older people in St Helens occurred at home and fewer occurred in a public place compared to all age groups combined.

**Table 7. Incident location for St Helens residents aged 65 years and over compared to all age groups combined<sup>8</sup>**

Location	People aged 65 and over		All age groups combined	
	N	% <sup>4</sup>	N	%
Educational establishment	0	0	185	3
Home	460	44	2744	39
Other	228	22	1862	26
Public place	47	5	743	11
Unknown	288	28	1057	15
Work	12	1	449	6
<b>Total</b>	<b>1035</b>	<b>100</b>	<b>7040</b>	<b>100</b>

## LSOA breakdown

Table 8 displays the number and rate of attendances for the top ten Lower Super Output Areas (LSOAs) for people aged 65 years and over.

**Table 8. Top ten LSOAs in terms of all injury attendance rates per 100 population for St Helens residents aged 65 years and over**

LSOA Name	LSOA Code	65 and over population	Total attendances	Rate of attendances
				per 100 population
St. Helens 019F	E01006907	303	363	119.8
St. Helens 014D	E01006873	281	281	100.0
St. Helens 006A	E01006837	282	232	82.3
St. Helens 012B	E01006834	213	166	77.9
St. Helens 023C	E01006891	352	213	60.5
St. Helens 007E	E01006918	198	117	59.1
St. Helens 021A	E01006832	335	189	56.4
St. Helens 019C	E01006903	328	179	54.6
St. Helens 019E	E01006906	237	128	54.0
St. Helens 021C	E01006893	289	155	53.6

<sup>8</sup> Whiston Hospital does not record incident location and all records from this ED have been omitted.

Figure 4 displays the rate of all injury attendances per 100 population by St Helens residents aged 65 years and over. As displayed, the majority of LSOAs with the highest rates of attendance are clustered in the centre of the Local Authority.

**Figure 4. All injury attendance rates per 100 population for St Helens residents aged 65 years and over, April 2012 to March 2015**

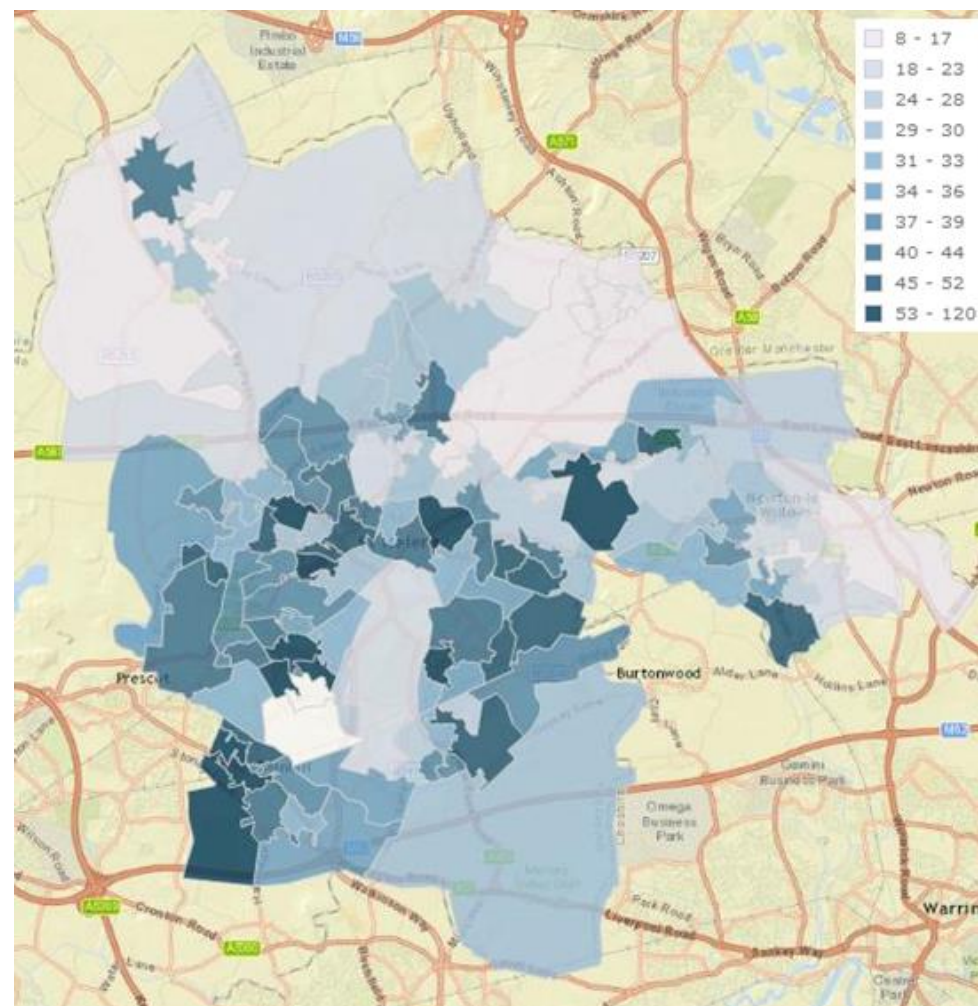
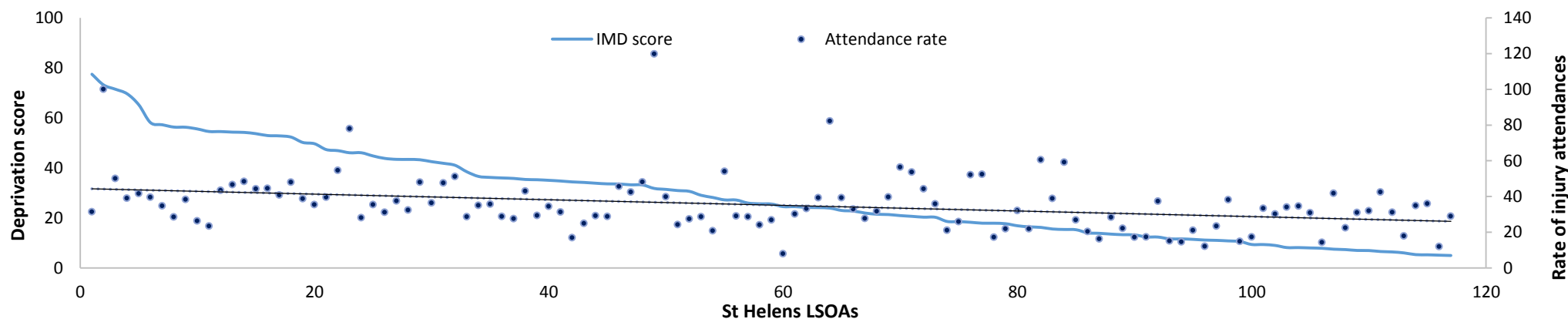


Figure 5 displays all injury attendance rates per 100 population for St Helens residents aged 65 years and over, with a linear trend line, plotted against deprivation scores, where higher scores represent higher levels of deprivation, for each LSOA. As shown, attendance rates generally declined with decreasing level of deprivation.

**Figure 5. All injury attendance rates per 100 population for St Helens residents aged 65 years and over for each LSOA by deprivation score, April 2012 to March 2015**



## Falls

Falls accounted for 41% (4,808) of all injury attendances for people aged 65 years and over in St Helens. Figure 6 displays fall attendance rates per 100 population for St Helens residents aged 65 years and over, with a linear trend line, plotted against deprivation scores, where higher scores represent higher levels of deprivation, for each LSOA. Fall attendance rates also declined with decreasing level of deprivation and to a greater extent than all injuries combined.

**Figure 6. Fall attendance rates per 100 population for St Helens residents aged 65 years and over for each LSOA by deprivation score, April 2012 to March 2015**

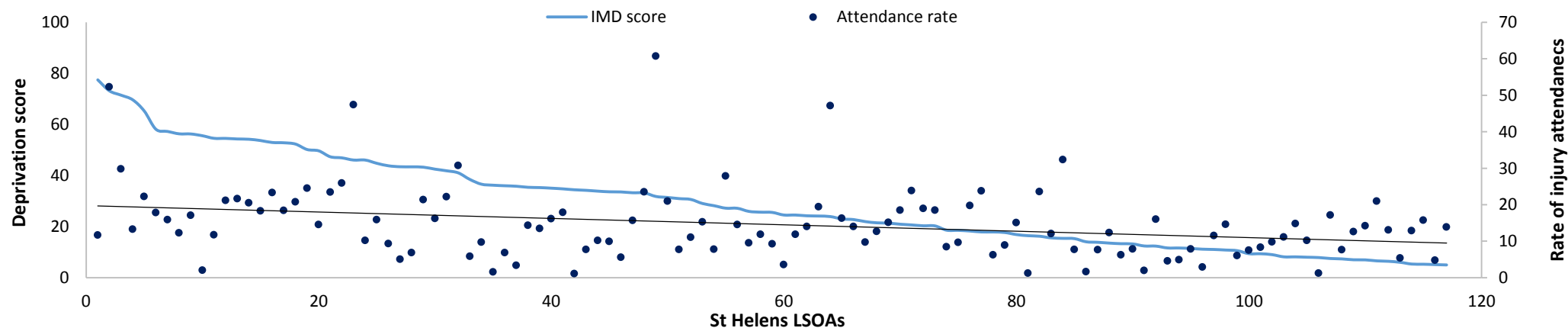




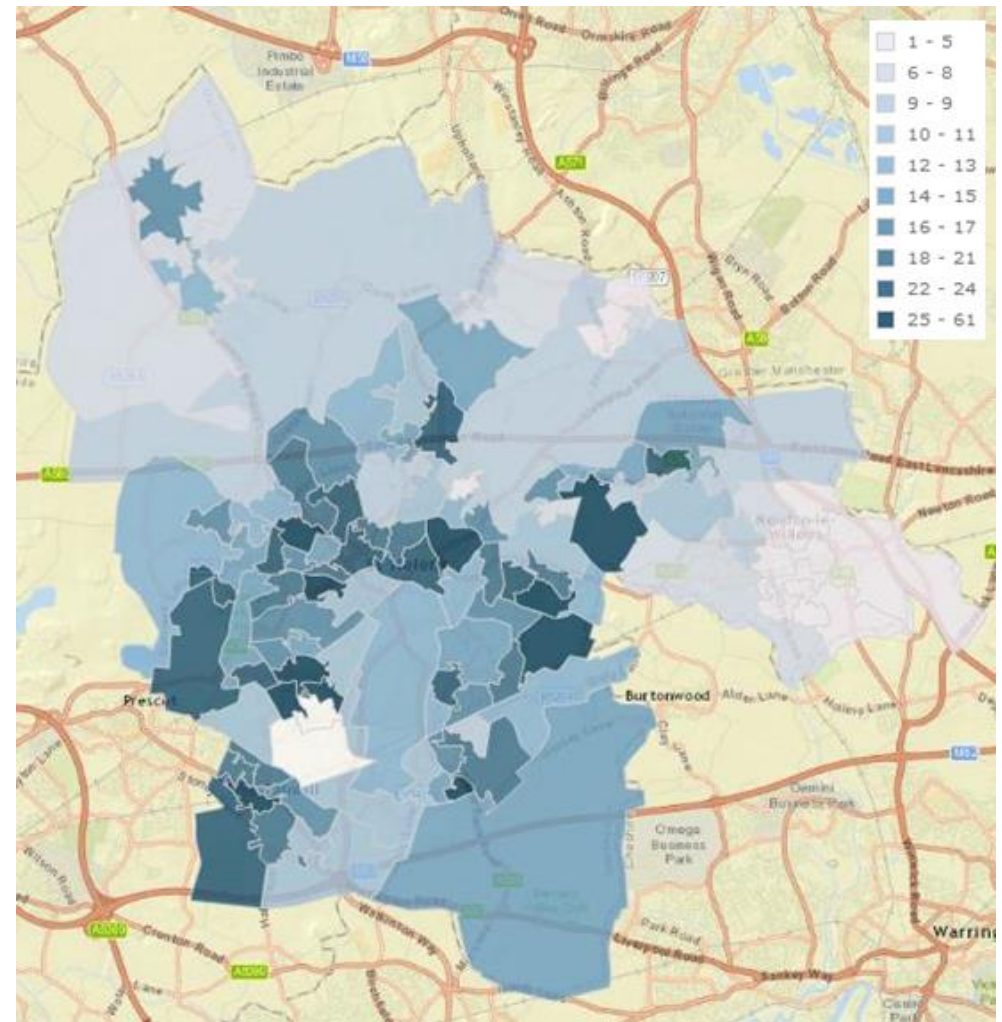
Table 9 displays the number and rate of attendances for the top ten Lower Super Output Areas (LSOAs) for people aged 65 years and over.

**Table 9. Top ten LSOAs in terms of fall attendance rates per 100 population for St Helens residents aged 65 years and over**

LSOA Name	LSOA Code	65 and over population	Total fall attendances	Rate of fall attendances per 100 population
St. Helens 019F	E01006907	303	184	60.72607261
St. Helens 014D	E01006873	281	147	52.31316726
St. Helens 012B	E01006834	213	101	47.41784038
St. Helens 006A	E01006837	282	133	47.16312057
St. Helens 007E	E01006918	198	64	32.32323232
St. Helens 017D	E01006899	231	71	30.73593074
St. Helens 017B	E01006817	208	62	29.80769231
St. Helens 019E	E01006906	237	66	27.84810127
St. Helens 019C	E01006903	328	85	25.91463415
St. Helens 022C	E01006908	155	38	24.51612903

Figure 7 displays the rate of fall attendances per 100 population by St Helens residents aged 65 years and over. As displayed the majority of LSOAs with the highest rates of attendance are clustered in the centre of the Local Authority.

**Figure 7. Fall attendance rates per 100 population for St Helens residents aged 65 years and over, April 2012 to March 2015**



“A high proportion of injuries for people aged 65 years and over occur in the home; community interventions may consider preventative action to make homes safer.”

## Recommendations

- Consider mechanisms to improve the categorisation of falls, particularly at Warrington Hospital and Aintree Hospital EDs. This can be achieved through multi-agency working and meetings between the TIIG team, stakeholders and the EDs.
  - Consider mechanisms to include the incident location data item to the IT system at Whiston Hospital ED. This can primarily be achieved through liaison between the TIIG team and the systems team within the ED.
  - Conduct further analyses to understand the disproportionate gender split in terms of injury attendances. Community partners and preventative interventions could be improved by ascertaining whether the higher number of females presenting to EDs is due to higher incidence of injuries or unwillingness by males to seek medical services when injuries occur.
  - Conduct further analyses to understand why a relatively high proportion of attendees aged 65 years and over were referred to EDs by emergency services and a relatively lower proportion were referred by friends or relatives compared to all age groups combined. Such a trend could imply that older people are sustaining more serious injuries or that older people do not have the support networks available to younger people. If older people are lacking support, explore mechanisms to improve outreach and support services for older people.
  - Explore why older people presenting for deliberate self-harm were admitted and referred for further treatment less than other injury groups. Deliberate self-harm has high rates of repeat attendances and is a high risk factor for suicide. Consider evaluating the process of how self-harm is dealt with among older people within EDs; for example consider giving psycho-social assessments for all patients presenting for self-harm and offering psychiatric follow-up appointments where appropriate.
- Consider ways that TIIG data can feed into strategies to reduce the risk of falls for older people. Older adults who have a history of falls are significantly more likely to fall again (WHO, 2004); therefore patients attending EDs for falls, can be referred to various follow up treatments or preventative interventions. 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.
  - In addition to older people who have previously fallen, individuals at elevated risk of falling are patients: who suffer from neurological conditions or cognitive problems; who are visually impaired; who are recovering from infections; and, who have mobility issues or are suffering from bone or joint conditions such as arthritis (The Health Foundation, 2012). ED attendees, especially elderly patients, suffering from any of the above conditions may be appropriate for specific follow up treatments.
  - Consider the high proportion of injuries for people aged 65 years and over that occur in the home. Community interventions may seek to make homes safer in a number of ways, including reducing tripping hazards, adding grab bars or railings at strategic points, and improving lighting within the home.
  - Explore why rates of attendance for people aged 65 years and over are highest in the LSOA in the north of the Local Authority. Such exploration may include a further analysis of the relationship between deprivation and injury, and an assessment of extrinsic factors, or dangerous environments, which may include busy roads, hazards for pedestrians or risk factors in or around people's homes.

These recommendations are unlikely to be achieved without sustained working between cooperating agencies. However their implementation would be likely to initiate substantial positive change by preventing and reducing unintentional and intentional injuries among older populations in St Helens.

## References

Department for Communities and Local Government. (2010) English indices of deprivation.. Available at: <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2010> [Accessed 15th April 2015].

Department of Health. (2001). National service framework: older people, March 2001. [online]. Available at: <https://www.gov.uk/government/publications/quality-standards-for-care-services-for-older-people> [Accessed 24th April 2015].

Department of Health. (2009). Falls and fractures. Exercise Training to Prevent Falls, 2009. [online]. Available at: [http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Publicationsandstatistics/Publications/dh\\_103146](http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Publicationsandstatistics/Publications/dh_103146) [Accessed 24th April 2015].

Office for National Statistics. (2015). Life Expectancy at Birth and at Age 65 by Local Areas in England and Wales, 2011–13.[online]. Available at: <http://www.ons.gov.uk/ons/rel/subnational-health4/life-expectancy-at-birth-and-at-age-65-by-localareas-in-england-and-wales/2011-13/stb-life-expectancy-at-birth-2011-13.html> [Accessed 24th April 2015].

The Health Foundation. (2012). Patient safety resource centre: Frail older people. Available at: <http://www.healthcommunities.com/healthy-aging/healthy-living-tips-50s.shtml> [Accessed 28th April 2015].

World Health Organisation. (2004). Health Evidence Network: What are the main risk factors for falls amongst older people and what are the most effective interventions to prevent these falls? Available at: [www.euro.who.int](http://www.euro.who.int) [Accessed 19th April 2015].



This work was commissioned by the Cheshire and Merseyside Public Health Intelligence Network.

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