

TIIG Lancashire

Location of Violent Incidents across Lancashire
April 2013 to March 2016

January 2017

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ACCIDENT AND EMERGENCY DEPARTMENT DATA

- There were a total of 656,050 ED injury attendances to Lancashire Emergency Departments (EDs) between April 2013 and March 2016; of which, 600,731 were made by residents of Lancashire. There were 15,846 attendances for injuries sustained from assaults (2.4%); 14,427 (91.0%) of which were residents of Lancashire.
- Blackpool Victoria Hospital and Royal Blackburn Hospital EDs recorded 68.4% of total injury attendances (38.3% and 30.1% respectively), and 57.1% of assaults (21.4% and 35.7%); Royal Preston Hospital ED recorded 23.8% of assaults.
- Injury attendances overall decreased by 0.5% between 2013/14 and 2014/15, and by 2.4% between 2014/15 and 2015/16. Despite not comprising a large proportion of the Lancashire total, injury attendances decreased most at Ormskirk and District General Hospital (39.1%), followed by Southport and Formby District Hospital (29.2%). While attendances generally decreased, attendances to Blackpool Victoria Hospital and Royal Blackburn Hospital for trauma-related injuries increased by 4.0% and 3.6% respectively. Attendances for assaults decreased by 12.2% between 2013/14 and 2014/15, and by 1.0% between 2014/15 and 2015/16.
- Residents of Blackpool Unitary Authority (UA) accounted for 21.5% of total injury attendances, Wyre Local Authority (LA) for 10.4%, Blackburn with Darwen UA for 9.5% and Preston LA for 9.2%.
- Attendances overall for Lancashire residents decreased by 2.1%; the biggest decreases were found in West Lancashire and Lancaster LAs (33.4% and 19.9% respectively). Injury attendances increased the most in Pendle LA (10.4%), followed by Burnley LA (10.3%), and Rossendale LA (8.0%).
- In terms of assaults, residents of Preston LA accounted for 16.2%, Blackpool UA for 15.4% and Blackburn with Darwen UA for 12.7%.
- Preston LA had the highest rate for ED assault attendances (13.3 per year, per 1,000 population), followed by Blackpool UA (12.7) and Burnley LA (12.1). The Lower Super Output Areas (LSOAs) with the highest attendance rates were Blackburn with Darwen 006E (16.3), Blackpool 006A (14.9) and Blackpool 010E (13.8).
- Assault attendances by Lancashire residents decreased over this three year period for all authority areas, except in Lancaster LA where assaults increased by 37.5% from 285 in 2013/14 to 392 in 2015/16. The biggest decreases were found in Hyndburn (32.7%), Pendle (26.6%) and Ribble Valley (25.2%) LAs.
- In terms of sex and age, 71.3% of assault attendees were male and 62.4% were aged between 15 and 34 years; 37.3% were males aged between 15 and 29 years. In terms of ethnicity, 94.3% of assault attendees were white.
- In terms of attendance details, 59.1% of assault attendees self-referred; 42.5% arrived by private transport; 32.0% by ambulance; and, 52.7% were discharged with no follow up treatment required.
- In terms of incident location 46.2% of assaults occurred in a public place and 19.9% occurred at home.
- In terms of weapons used, the vast majority (77.8%) of assaults involved a body part, 8.8% involved a blunt object and 8.3% involved a sharp object (of which 39.3% involved a knife and 25.1% a bottle).

NORTH WEST AMBULANCE SERVICE DATA

- Over the same reporting period, there were 647,297 North West Ambulance Service (NWAS) call outs across Lancashire; 6,197 of which were for assaults (assault/sexual assault and stab/gunshot/penetrating trauma combined). NWAS call

outs for assaults decreased by 15.8% between 2013/14 and 2014/15, but increased by 128.0% between 2014/15 and 2015/16.

- Of call outs for assaults, 23.0% were to Blackpool UA, 12.6% to Preston LA, and 11.0% to Blackburn with Darwen UA.
- Similar to ED data, 56.7% of assault call outs were for people aged between 15 and 34 years, and 71.1% were for males; 31.6% were for males aged between 15 and 29 years.
- To a much greater extent than ED data, NWS call outs were clustered in city and town centre night time economy areas, particularly Blackpool 006A (250, 4.0%), Blackpool 010E (152, 2.5%), Blackpool 010D (132, 2.1%), Preston 017F (127, 2.0%) and Burnley 003D (110, 1.8%).
- While call outs to a given geography may be for an individual who is not resident in that area, rates per population were still calculated as a comparative measure. Call out rates for assault presented in this report should be interpreted with caution and with this caveat in mind. Blackpool UA had the highest rate of assault call outs (10.2 per year, per 1,000 population), followed by Preston LA (5.5) and Burnley LA (5.4). The LSOAs with the highest call out rates were Blackpool 006A (55.8), Blackpool 010E (35.7) and Blackpool 010D (33.7). The vast majority of the 20 LSOAs with the highest call out rates were located in city and town centres, particularly Blackpool and Preston but also Burnley, Accrington, Lancaster, Blackburn, Morecambe and Fleetwood. The two exceptions were West Lancashire 014A and 014D which are suburban areas of Skelmersdale.

ASSAULTS AND DEPRIVATION

- Both ED attendances and NWS call outs were significantly associated with deprivation. For ED data, deprivation was found to explain 59.3% of variance in assault rate; and for call out data, deprivation was found to explain 36.1% of the variance in assault rate. Both of these associations were found to be statistically significant ($p < 0.001$).

- Between 2014/15 and 2015/16 there was a substantial increase in the number of NWS call outs for assaults, from 1,387 to 3,163. In previous years, substantial changes in call out data for given injury groups have been due to alterations in process, whether recording or categorisation changes, rather than genuine trends. The reasons for this change have not been identified but TIIG and NWS will liaise in order to investigate and understand this increase.
- Both ED attendances and NWS call outs were found to be significantly associated with deprivation. The relationship between violence and deprivation is well evidenced (Shepherd, 1998; Howe and Crilly, 2001) and violence shows one of the strongest inequality gradients (Bellis et al., 2012). Reducing economic inequality is a key objective for collaborative partners in order to develop effective strategies to reduce violence. Reducing economic inequality is a complex challenge which requires international and national leadership, with collaborative working at local level involving partners from all sectors; however, while this challenge is particularly complex, it is important to recognise economic inequality as a causal factor, and strong predictor, of violence.
- Along with economic inequality, adverse childhood experience is increasingly being recognised as a key determinant of violent behaviour (Widom and Maxfield, 2001), in addition to a variety of other health risk outcomes (Felitti, 1998). Adverse childhood experiences can arise from various forms of neglect or abuse, the risk factors for which are higher in disadvantaged neighbourhoods (CDC, 2016). Violence is suggested to be contagious, where exposure and experience of violence greatly increases the risk of being involved in violence in later life (Bellis et al., 2012). For these reasons, preventing adverse childhood experiences and promoting healthy family relationships are crucial components of violence reduction strategies.
- Over half of violent incidents are suggested to be alcohol-related and half of these incidents are suggested to occur in night time economy environments (ONS, 2015). Historical TIIG evidence along with findings from the University of Cardiff (2016) suggest that preventing violence occurring in night time economy environments prevents it happening at all; unlike other problems in public health, violence of this kind is not displaced to another time or location. Licensing work is crucial to reducing this type of violence and making night time economy environments safer; work undertaken in Lancashire has been successful in achieving these objectives in recent years for specific licensed premises. Work of this kind needs to be supported and continued, and TIIG data should continue to play a key part in providing public health evidence.
- These data show that more males than females were assaulted in the home (1,233 compared to 1,184). Since over 80% of domestic violence victims are women (Refuge, 2016), these data imply substantial underreporting from females attending EDs. Since 30% of women in England and Wales reported experiencing domestic violence at some time since the age of 16 (ONS, 2014), reducing domestic violence should be a key priority for violence reduction strategies, and EDs are appropriately positioned to play a central and leading role in this objective. Further work should also be undertaken to appraise the suitability of reception environments across Lancashire for women to report domestic violence. Additional measures or mechanisms may be considered to ensure patient comfort, safety and discretion.
- Further work should be undertaken to investigate specific trends in ED attendances for assaults across Lancashire. Where assaults have substantially decreased, such as in Blackburn UA, Blackpool UA, Hyndburn, Pendle and Ribble Valley LAs, and where assaults have substantially increased, such as in Lancaster LA, trends should be investigated to see whether they can be related to other changes in those areas. Affecting factors may relate to changes in tourist or student populations, new public health initiatives, or changes in health or service provision. Identified associations and relationships may be particularly useful in informing public health policies and practice.

- Analyses of TIIG data and secondary data sources, undertaken by Lancashire County Council, revealed that ED attendances for assaults were significantly associated with serious assaults and all types of domestic assaults, while NWAS call outs for assaults were significantly associated with less serious assaults. An understanding of the nature and likely consequences of ED attendances and NWAS call outs can help improve the provision of service, and adds context to observed trends.

As agreed by commissioners and members of the Pan Lancashire Steering Group, the structure of bespoke work in 2016/17 was changed from Themed Reports to analysis of identified key issues. This report presents data tables and analyses which consider violence in terms of locations, specifically patient area of residence, as determined by Emergency Department (ED) data, and call out location, which is often the general location of where the incident occurred, as determined by North West Ambulance Service (NWAS) data. Trends are also presented in terms of demographic compositions of assault attendances/call outs, deprivation and, in terms of ED data, incident location categories and attendance details. Analyses also compared ED data (patient geography) with NWAS data (location geography), particularly in terms of attendance/call out numbers and rates by Local/Unitary Authority areas and Lower Super Output Areas (LSOAs). While individuals cannot be cross-referenced between the two datasets, assault data is mapped, using InstantAtlas mapping software, and compared in order to provide valuable information to Community Safety Partnerships (CSPs) in violence prevention work.

AREA DESCRIPTION

Situated in the North West of England, Lancashire is made up of 14 authority areas and its total population in 2015 was 1.48 million (ONS, 2016). Table 1 displays Lancashire resident population estimates (ONS, mid-2015) by age group; Lancashire had a slightly lower proportion of children aged between 0 and 4 years, and people aged between 15 and 29 years, but a higher proportion of people aged 60 years and over, compared to the North West and England & Wales as a whole.

Table 1. Lancashire resident population estimates by age compared to North West England and UK¹

	0-4		5-14		15-29		30-59		60+	
	N	%	N	%	N	%	N	%	N	%
Lancashire	88,485	6.0	171,803	11.6	277,250	18.8	569,542	38.5	371,035	25.1
North West	443,189	6.2	829,322	11.6	1,392,045	19.4	2,813,350	39.2	1,695,929	23.6
England and Wales	3,610,602	6.2	6,702,514	11.6	11,158,774	19.3	22,987,535	39.7	13,425,988	23.2

Table 2 shows the population of Lancashire authority areas by gender. Blackburn with Darwen has the largest population (146,846), followed by Lancaster (142,283), Preston (141,302) and Blackpool (139,578). Preston had the highest proportion of males (50.5%), followed by Chorley (50.1%); Fylde had the highest proportion of females (51.2%), followed by Ribble Valley (50.9%) and Lancaster and Rossendale (50.8% each).

Table 2. Population by authority area by gender, mid-2015 population estimates

Local Authority	Males	%	Females	%	Total population
Blackburn with Darwen	73,180	49.8	73,666	50.2	146,846
Blackpool	68,795	49.3	70,783	50.7	139,578
Burnley	43,109	49.3	44,262	50.7	87,371
Chorley	56,568	50.1	56,401	49.9	112,969
Fylde	37,771	48.8	39,551	51.2	77,322
Hyndburn	39,671	49.4	40,557	50.6	80,228
Lancaster	70,018	49.2	72,265	50.8	142,283
Pendle	44,466	49.3	45,645	50.7	90,111
Preston	71,324	50.5	69,978	49.5	141,302
Ribble Valley	28,705	49.1	29,775	50.9	58,480
Rossendale	34,163	49.2	35,324	50.8	69,487
South Ribble	53,671	48.9	55,980	51.1	109,651
West Lancashire	54,739	48.6	58,003	51.4	112,742
Wyre	53,569	48.8	56,176	51.2	109,745
Total	729,749	49.4	748,366	50.6	1,478,115

¹ Throughout this report, percentages may not add up to 100% due to rounding.

EMERGENCY DEPARTMENTS IN LANCASHIRE

Lancashire has six EDs that primarily serve residents of Lancashire (table 3). These are Royal Blackburn Hospital (which includes data from Burnley General Hospital Urgent Care Centre), Blackpool Victoria Hospital, Chorley and South Ribble Hospital, Royal Preston Hospital, Ormskirk and District General Hospital and Royal Lancaster Infirmary. Lancashire residents who attended Southport and Formby District General Hospital ED in Merseyside are also included.

Table 3. Lancashire Emergency Departments and Urgent Care Centres

NHS trust	Hospital	ED/UCC [†]
East Lancashire Hospitals NHS Trust	Royal Blackburn Hospital	ED
	Burnley General Hospital	UCC
Blackpool Teaching Hospitals NHS Foundation Trust	Blackpool Victoria Hospital	ED
Lancashire Teaching Hospitals NHS Foundation Trust	Chorley and South Ribble Hospital	ED
	Royal Preston Hospital	ED
Southport and Ormskirk Hospitals NHS Trust	Ormskirk and District General Hospital	ED
	Southport and Formby District General Hospital [*]	ED
University Hospitals of Morecambe Bay NHS Foundation Trust	Royal Lancaster Infirmary	ED

^{*} Data in this report from this hospital are for Lancashire residents only.

[†] ED = Emergency Department; UCC = Urgent Care Centre. For the purpose of this report, ‘EDs’ refer to all the hospitals, whether ED and/or UCC services are provided.

DATA ITEMS

Table 4 displays injury groups collected by each ED. Assaults, deliberate self-harm (DSH), other injuries, road traffic accidents (RTAs) and sports injuries are categorised by all EDs, while falls are only categorised by Lancashire Teaching Hospitals NHS Foundation Trust (Royal Preston Hospital and Chorley and South Ribble Hospital).

Table 4. Injury group data items by ED, April 2013 to March 2016

ED	Assault	Deliberate self-harm	Falls	Firework injuries	Other injury	Road traffic accidents	Sports injuries
Blackpool Victoria Hospital	Y	Y	-	Y	Y	Y	Y
Chorley and South Ribble Hospital	Y	Y	Y	Y	Y	Y	Y
Ormskirk and District General Hospital	Y	Y	-	Y	Y	Y	Y
Royal Blackburn Hospital	Y	Y	Y*	Y	Y	Y	Y
Royal Lancaster Infirmary	Y	Y	-	Y	Y	Y	Y
Royal Preston Hospital	Y	Y	Y	Y	Y	Y	Y
Southport and Formby District	Y	Y	-	Y	Y	Y	Y

*While Royal Blackburn Hospital does categorise falls, they are specified in 'Complaint Description' as opposed to 'Patient Group', meaning they are not included in routine analyses.

EDs across Lancashire differ in the level of injury-related data they collect; all EDs are compliant with the College of Emergency Medicine (CEM) recommended/Information Sharing to Tackle Violence (ISTV) mandated assault-related data items; however, some EDs collect other assault-related data items recommended by TIIG (table 5).

Table 5. Assault-related data items by ED, April 2013 to March 2016²

ED	CEM/ISTV questions						TIIG recommended questions			
	Assault date	Assault time	Assault location	Location details	Assault weapon	Weapon details	Alcohol consumed	Location last drink	Location details	Reported to Police
Blackpool Victoria Hospital	Y	Y	Y	Y	Y	Y	-	-	-	-
Chorley and South Ribble Hospital	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ormskirk and District General Hospital	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Royal Blackburn Hospital	Y	Y	Y	Y	Y	Y	-	-	-	-
Royal Lancaster Infirmary	Y	Y	Y	Y	Y	Y	-	-	-	-
Royal Preston Hospital	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Southport and Formby District Hospital	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

² Southport and Ormskirk Hospitals NHS Trust also collects the number of attackers, the gender of attacker/s and the relation to the attacker/s.

DATA OVERVIEW

Between April 2013 and March 2016, there were 656,050 ED injury attendances (table 6); Blackpool Victoria Hospital (251,365; 38.3%) and Royal Blackburn Hospital (197,625; 30.1%) together accounted for 68.4% of attendances to Lancashire EDs. Attendances overall decreased by 0.5% between 2013/14 and 2014/15, and by 2.4% between 2014/15 and 2015/16.

Table 6. Injury attendances by ED, April 2013 to March 2016

ED	2013/14	2014/15	2015/16	% change	Total	%
Blackpool Victoria Hospital	82,457	83,138	85,770	+4.0	251,365	38.3
Chorley and South Ribble Hospital	23,127	21,769	20,444	-11.6	65,340	10.0
Ormskirk and District General Hospital	5,657	4,518	3,445	-39.1	13,620	2.1
Royal Blackburn Hospital	64,230	66,826	66,569	+3.6	197,625	30.1
Royal Lancaster Infirmary	15,317	15,041	12,508	-18.3	42,866	6.5
Royal Preston Hospital	28,206	26,626	24,545	-13.0	79,377	12.1
Southport and Formby District Hospital	2,148	2,189	1,520	-29.2	5,857	0.9
Total	221,142	220,107	214,801	-2.9	656,050	100

Table 7 displays patient groups by financial year with percentage change over the three year period. The vast majority of attendances for all EDs was for other injuries (78.8%; incorporating unintentional injuries, except those specifically categorised), followed by falls (8.0%; categorised only at Chorley and South Ribble and Royal Preston Hospitals), sports injuries (5.8%), RTAs (4.4%), assaults (2.4%) and DSH (0.6%). Over this three year period, attendances overall decreased by 2.9%; the number of assault-related attendances decreased by 12.7%, while attendances for DSH and RTAs increased by 3.1% and 2.3% respectively.

Table 7. Injury attendances by patient group and year, April 2013 to March 2016

Patient group	2013/14	2014/15	2015/16	Change 2012/13 to 2014/15	Total	%
Assault	5,746	5,086	5,014	-12.7	15,846	2.4
Deliberate self-harm	1,271	1,295	1,310	+3.1	3,876	0.6
Falls	18,251	17,786	16,763	-8.2	52,800	8.0
Firework injuries	31	35	46	+48.4	112	0.0
Other injury	173,375	172,887	170,785	-1.5	517,047	78.8
Road traffic accidents	9,331	9,716	9,546	+2.3	28,593	4.4
Sports injuries	13,137	13,302	11,337	-13.7	37,776	5.8
Total	221,142	220,107	214,801	-2.9	656,050	100

Table 8 shows cross tabulations of injury group by hospital. Southport and Formby District Hospital had the highest proportions of assaults and DSH of total attendances (5.9% and 9.6% respectively), and also RTAs (11.0%). Royal Preston, Royal Blackburn and Blackpool Victoria Hospitals had higher proportions of assaults of total injuries (4.7%, 2.8% and 2.7% respectively) than the total across Lancashire (2.4%). After excluding falls (not recorded at most EDs), the differences in distributions of injury groups

between EDs was found to be statistically significant ($p < 0.001$); the differences in distribution between assaults compared to all other injury groups between EDs was also found to be statistically significant ($p < 0.001$).³

Table 8. Percentages of injury groups by ED, April 2013 to March 2016

	Assault	Deliberate self-harm	Falls	Firework injuries	Other injury	Road traffic accidents	Sports injuries
Blackpool Victoria Hospital	2.7	0.4	0.0	0.0	87.6	4.7	4.6
Chorley and South Ribble Hospital	1.4	0.4	0.0	0.0	94.9	1.3	1.9
Ormskirk and District General Hospital	2.3	0.2	29.3	0.0	52.8	6.3	9.2
Royal Blackburn Hospital	2.8	1.2	0.0	0.0	74.5	7.6	13.9
Royal Lancaster Infirmary	1.3	0.6	0.0	0.0	70.3	4.3	23.5
Royal Preston Hospital	4.7	1.0	42.4	0.0	32.0	9.3	10.5
Southport and Formby District Hospital	5.9	9.6	0.0	0.0	66.3	11.0	7.1
Total	2.4	0.6	8.0	0.0	78.8	4.4	5.8

Of the total 656,050 ED attendances, 600,731 were made by residents of Lancashire; attendances by non-Lancashire residents are considered in the following section but excluded from the report thereafter. Table 9 displays injury attendances by authority area and ED; 21.5% of ED attendees were resident in Blackpool UA, 10.4% in Wyre LA and 9.5% in Blackburn UA. The fewest ED attendances were made by residents of Rossendale (1.7%), Ribble Valley (1.9%) and West Lancashire (2.0%).

Table 9. Injury attendances by authority area and year, Lancashire residents, April 2013 to March 2016

Authority area	2013/14	2014/15	2015/16	% change	Total	%
Blackburn with Darwen	19,692	19,366	18,245	-7.3	57,303	9.5
Blackpool	43,754	40,927	44,568	+1.9	129,249	21.5
Burnley	17,365	18,505	19,155	+10.3	55,025	9.2
Chorley	13,803	13,616	12,761	-7.5	40,180	6.7
Fylde	14,730	13,457	15,250	+3.5	43,437	7.2
Hyndburn	5,678	5,894	5,791	+2.0	17,363	2.9
Lancaster	12,030	11,871	9,638	-19.9	33,539	5.6
Pendle	13,793	15,013	15,232	+10.4	44,038	7.3
Preston	17,043	16,317	14,788	-13.2	48,148	8.0
Ribble Valley	3,872	3,779	3,739	-3.4	11,390	1.9
Rossendale	3,282	3,478	3,543	+8.0	10,303	1.7
South Ribble	13,003	12,172	11,429	-12.1	36,604	6.1
West Lancashire	4,610	4,164	3,071	-33.4	11,845	2.0
Wyre	20,786	19,496	22,025	+6.0	62,307	10.4
Total	203,441	198,055	199,235	-2.1	600,731	100

³ For details of statistical procedures please contact lead author.

NON-LANCASHIRE RESIDENTS

Table 10 shows a comparison of injury attendances by Lancashire and non-Lancashire residents. There was a slightly higher proportion of assaults, of total attendances, by non-Lancashire residents compared to Lancashire residents (2.6% compared to 2.4%); a slightly higher proportion of RTAs (5.4% compared to 4.3%), and a substantially lower proportion of falls (5.2% compared to 8.3%; however, falls are only categorised at Preston and Chorley EDs). Similar proportions were observed for DSH (0.6% and 0.6%) and other injuries (78.2% and 78.9%).

Table 10. Injury attendances by injury group, Lancashire residents and non-Lancashire residents, April 2013 to March 2016

		Assault	Deliberate self-harm	Falls	Firework injuries	Other injury	Road traffic accidents	Sports injuries	Total
Lancashire residents	N	14,427	3,542	49,920	107	473,812	25,594	33,329	600,731
	%	2.4	0.6	8.3	0.0	78.9	4.3	5.5	100
Non-Lancashire residents	N	1,419	334	2,880	5	43,235	2,999	4,447	55,319
	%	2.6	0.6	5.2	0.0	78.2	5.4	8.0	100
Total	N	15,846	3,876	52,800	112	517,047	28,593	37,776	656,050
	%	2.4	0.6	8.0	0.0	78.8	4.4	5.8	100

In terms of night time economy violence, 43 of 1,419 assaults (3.0%) by non-Lancashire residents were reported to have happened in a pub/bar/club, compared to 671 of 14,427 (4.7%) by residents of Lancashire. However, Blackpool Victoria Hospital ED does not categorise Pub/Bar/Club as an assault location and it is likely that a substantial number of assaults on non-Lancashire residents occur in the night time economy premises of Blackpool.

LANCASHIRE RESIDENTS ATTENDING ELSEWHERE

Previous analysis has revealed that there are relatively few attendances by Lancashire residents to other EDs. The four EDs which receive the most attendances by Lancashire residents are Royal Bolton Hospital, Royal Albert Edward Infirmary, Fairfield General Hospital and Aintree University Hospital EDs. The typical monthly attendances to these four EDs are shown in table 11.

Table 11. Typical monthly attendances by Lancashire residents to other EDs

	Assault	Deliberate self-harm	Road traffic accidents	Other injury	Total
Royal Bolton Hospital	0	0	<5	<30	32
Royal Albert Edward Infirmary	<5	<5	<5	91	98
Fairfield General Hospital	<5	<5	<5	51	56
Aintree University Hospital	<5	0	<5	82	88

ASSAULT ATTENDANCES

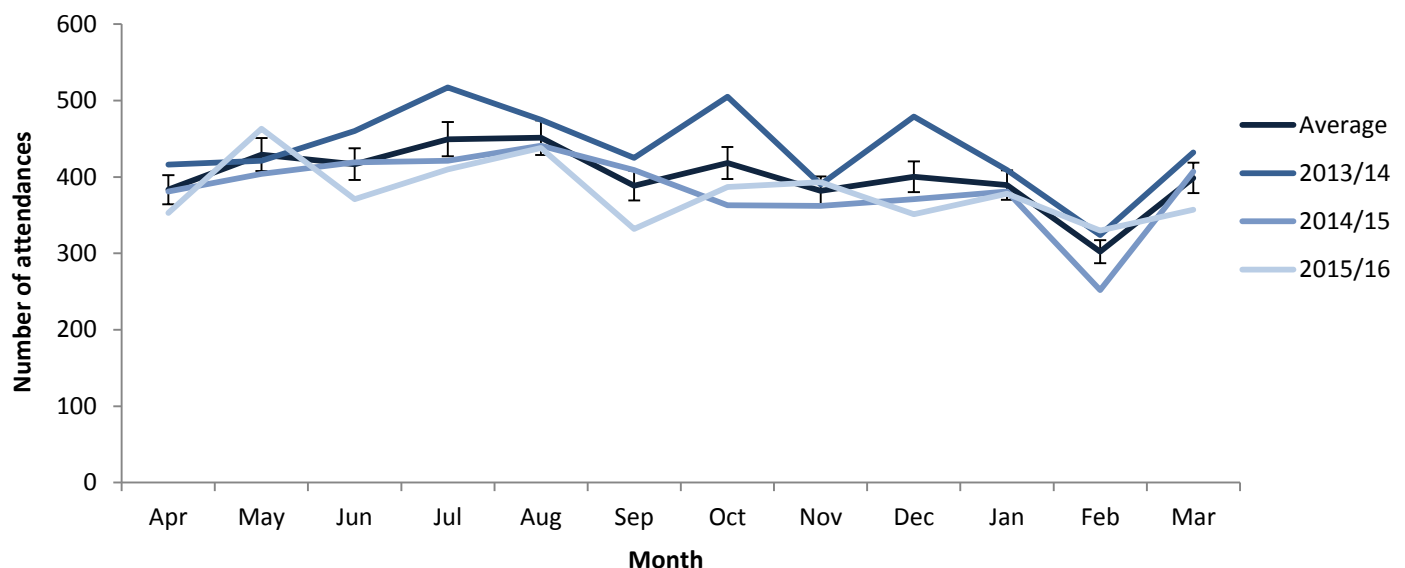
Of the 15,846 attendances for injuries sustained from assaults, 14,427 were residents of Lancashire (91.0%; table 12). ED attendances for assaults decreased between 2013/14 and 2014/15 (12.2%), and between 2014/15 and 2015/16 (1.0%). For EDs combined, using a 12 month average and calculated as a daily rate, August had the most assault attendances (14.6 per day), followed by July (14.5 per day); February had the lowest daily rate (10.7 per day).

Table 12. Assault attendances by month and year, Lancashire residents, April 2013 to March 2016

Month/Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
2013/14	416	421	460	517	475	425	505	390	479	409	324	432	5,253
2014/15	381	404	419	421	441	409	363	362	371	381	252	407	4,611
2015/16	353	463	371	410	438	332	387	393	351	378	330	357	4,563
Total	1,150	1,288	1,250	1,348	1,354	1,166	1,255	1,145	1,201	1,168	906	1,196	14,427
Daily rate (12 months)	12.8	13.8	13.9	14.5	14.6	13.0	13.5	12.7	12.9	12.6	10.7	12.9	13.2

Figure 1 shows assault attendances by month and year for Lancashire residents with a three year average and 95% confidence intervals. While this does account for the yearly decreases in attendances overall, the position of yearly data in relation to the three year average indicates particular months which are higher or lower than might be expected. For example, looking at 2015/16 data, attendances in May and February exceeded the 5% range of the three year average, while attendances for several other months, most notably June and September, fell below the 5% range of the three year average.

Figure 1. Assault attendances by month and year, Lancashire residents, April 2013 to March 2016



Royal Blackburn Hospital ED recorded 35.7% of assaults, Royal Preston Hospital ED 23.8% and Blackpool Victoria Hospital ED 21.4% (table 13); these EDs combined recorded 80.9% of ED attendances for assault in Lancashire. Over this three year period, assaults decreased for all EDs except Royal Lancaster Infirmary, for which assaults increased by 34.9% over this three year period. Assaults also increased to Ormskirk and District General Hospital; however, there are very few assaults to this ED (an increase from 23 to 41 per year). While assaults over three years went down, the number of recorded assaults increased between 2014/15 and 2015/16 in Royal Preston Hospital and Blackpool Victoria Hospital EDs.

Table 13. Assault attendances by ED and year, Lancashire residents, April 2013 to March 2016

ED	2013/14	2014/15	2015/16	Total	%
Blackpool Victoria Hospital	1,174	924	989	3,087	21.4
Chorley and South Ribble Hospital	464	445	417	1,326	9.2
Ormskirk and District General Hospital	23	25	41	89	0.6
Royal Blackburn Hospital	1,942	1,703	1,503	5,148	35.7
Royal Lancaster Infirmary	292	306	394	992	6.9
Royal Preston Hospital	1,246	1,066	1,127	3,439	23.8
Southport and Formby District Hospital	112	142	92	346	2.4
Total	5,253	4,611	4,563	14,427	100

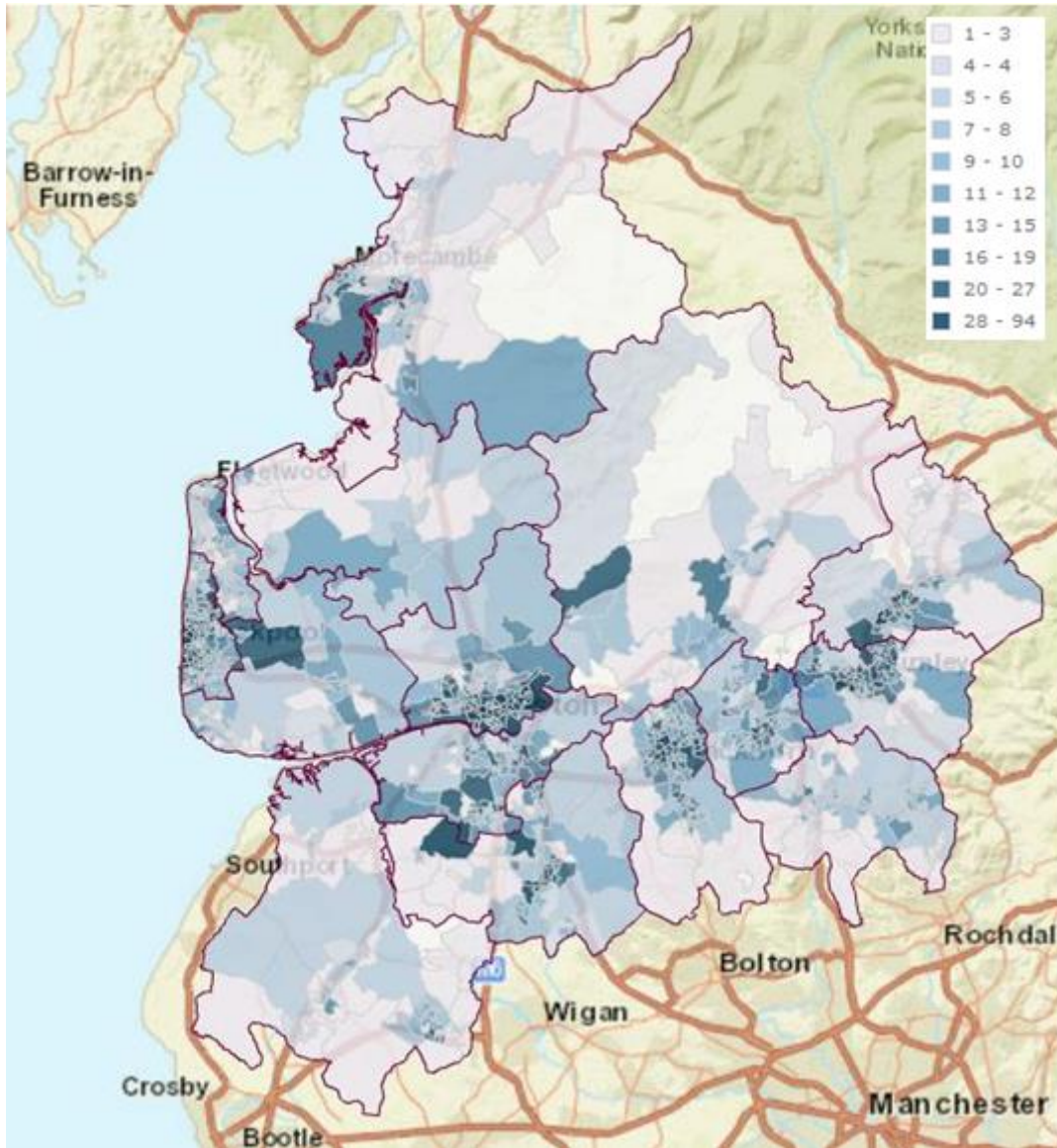
Residents of Preston LA accounted for 16.2% of assaults, Blackpool UA for 15.4% and Blackburn with Darwen UA for 12.7% (table 14). Assaults attending EDs by residents of Lancashire decreased over this three year period by a total of 13.1%; the biggest decrease was in Hyndburn LA (32.7%), followed by Pendle (26.6%) and Ribble Valley (25.2%). Unlike all other authority areas, assault attendances by residents of Lancaster LA increased by 37.5%

Table 14. Assault attendances by authority area and year, Lancashire residents, April 2013 to March 2016

Authority area	2013/14	2014/15	2015/16	% change	Total	%
Blackburn with Darwen	703	592	541	-23.0	1,836	12.7
Blackpool	832	697	687	-17.4	2,216	15.4
Burnley	438	449	392	-10.5	1,279	8.9
Chorley	359	355	325	-9.5	1,039	7.2
Fylde	169	111	147	-13.0	427	3.0
Hyndburn	324	281	218	-32.7	823	5.7
Lancaster	285	308	392	+37.5	985	6.8
Pendle	338	238	248	-26.6	824	5.7
Preston	840	739	758	-9.8	2,337	16.2
Ribble Valley	103	96	77	-25.2	276	1.9
Rossendale	122	109	105	-13.9	336	2.3
South Ribble	367	281	319	-13.1	967	6.7
West Lancashire	143	168	136	-4.9	447	3.1
Wyre	230	187	218	-5.2	635	4.4
Total	5,253	4,611	4,563	-13.1	14,427	100

Figure 2 displays assault attendances in terms of patient LSOA of residence, with authority boundaries. The LSOAs with the highest numbers of assault attendances were Blackburn with Darwen 006E (94), Preston 014A (79), Blackpool 006A (67), Chorley 007C (62), and Blackpool 010E (59). The top three LSOAs are all city centre areas in Blackburn, Preston and Blackpool respectively.

Figure 2. Assault attendances by LSOA with authority boundaries, Lancashire residents, April 2013 to March 2016



People aged between 15 and 34 years accounted for 62.4% of assault attendances. The peak was among people aged between 20 and 24 years (19.8%), followed by people aged between 15 and 19 years (16.3%) and 25 and 29 years (15.2%); assault attendances were found to steadily decrease as age increased (figure 3).

Figure 3. Assault attendances by five year age group, Lancashire residents, April 2013 to March 2016

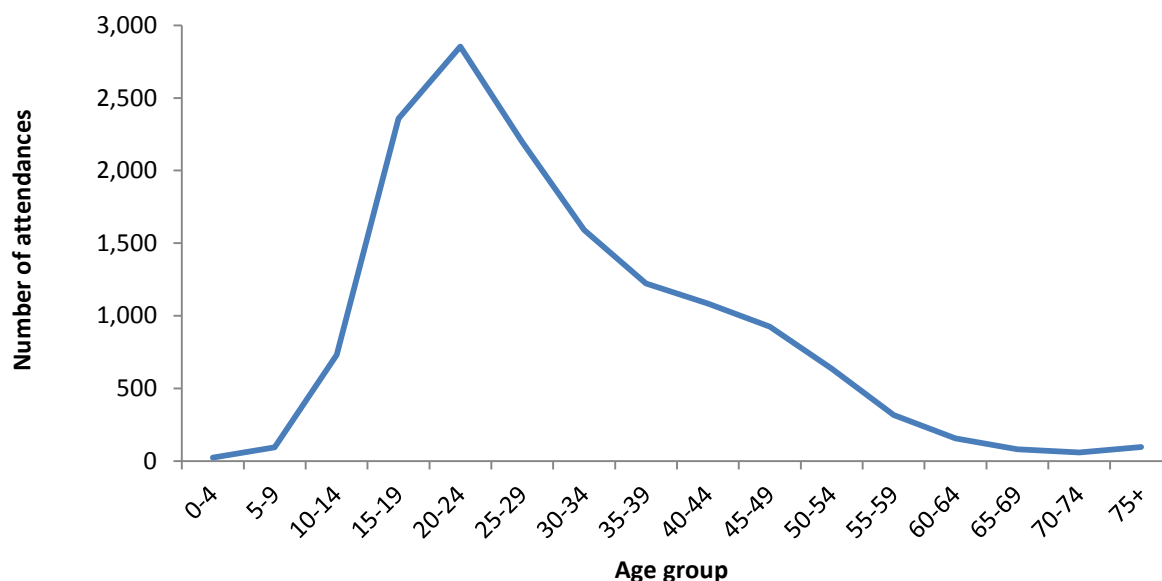


Table 15 shows age and sex breakdown for assault attendances; 71.3% of assault attendees were male and 37.3% of attendances were by males aged between 15 and 29 years.

Table 15. Assault attendances by age and gender, Lancashire residents, April 2013 to March 2016⁴

Age group	Female		Male		Total	
0-4	8	0.2	16	0.2	24	0.2
5-14	222	5.4	604	5.9	826	5.7
15-29	2,023	48.8	5,383	52.4	7,406	51.3
30-59	1,763	42.5	4,013	39.0	5,776	40.0
60+	130	3.1	261	2.5	391	2.7
Total	4,146	100	10,277	100	14,423	100

⁴ There were less than five records where age or gender was unknown; these have been omitted from the table.

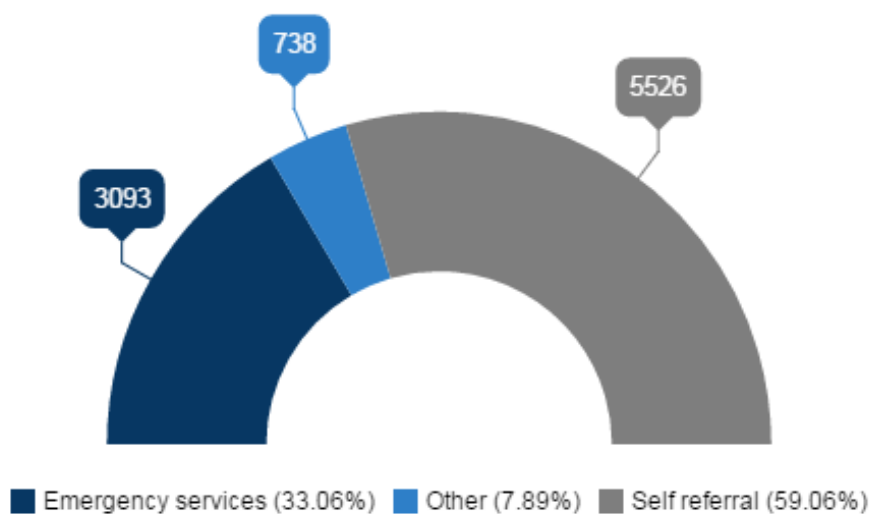
In terms of ethnicity (figure 4), the vast majority of assault attendees were White (7,546; 94.3%), followed by Asian (219; 2.7%), mixed (109; 1.4%), other (70; 0.9%) and Black (61; 0.8%); there were 6,422 records where ethnicity was not recorded (ethnicity is not recorded at Royal Blackburn, Southport and Formby District and Ormskirk and District General Hospitals). According to the census in 2011 (ONS, 2017), the ethnic breakdown in Lancashire was 90.4% White, 7.9% Asian, 1.1% mixed, 0.3% other and 0.4% Black. All ethnic groups were overrepresented in ED assault data with the exception of Asian attendees who were substantially underrepresented.

Figure 4. Ethnicity of assault attendees, Lancashire residents, April 2013 to March 2016



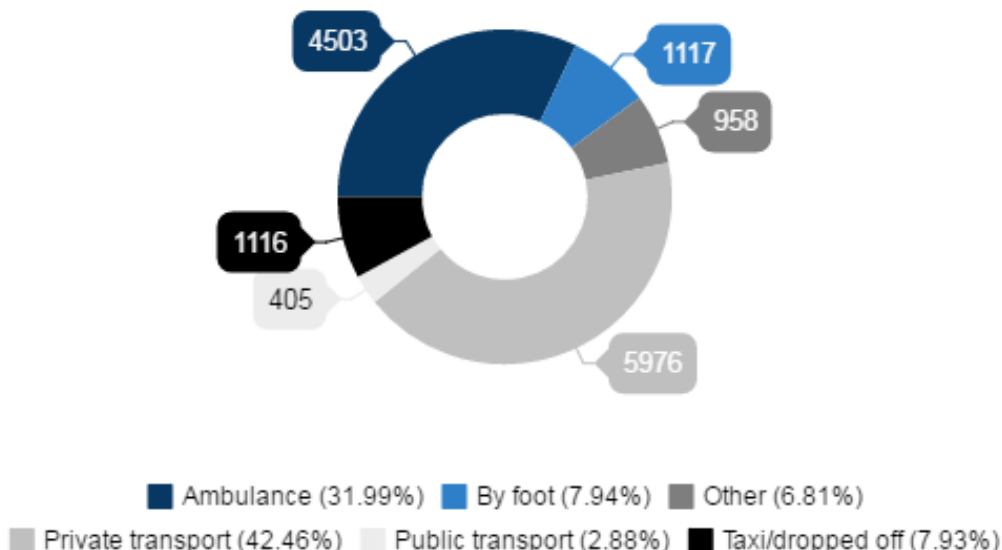
In terms of referral source (figure 5), 59.1% of assault attendees (5,526) were self-referred, 33.1% (3,093) were referred by the emergency services and 7.9% (738) were referred by other means. Royal Preston Hospital and Chorley and South Ribble Hospitals do not record referral source; overall there were 5,070 records without a specified referral source.

Figure 5. Referral source for assault attendees, Lancashire residents, April 2013 to March 2016



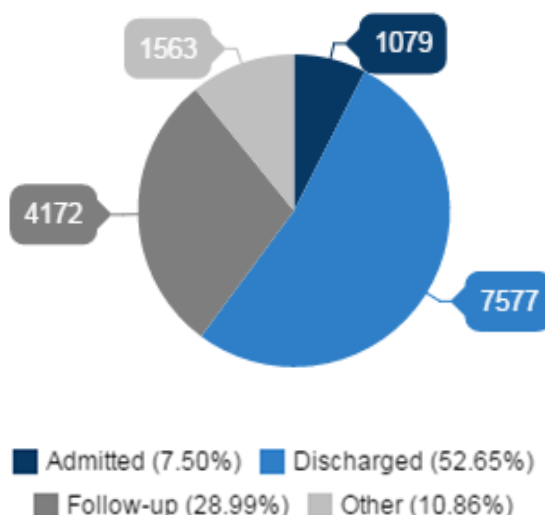
In terms of arrival mode (figure 6), 42.5% (5,976) of assault attendances arrived at EDs by private transport, 32.0% (4,503) arrived by ambulance, 7.9% (1,117) arrived by foot, 7.9% (1,116) arrived by taxi or were dropped off, and 2.9% (405) arrived by public transport; 6.8% (958) arrived by other means and there were 352 (2.5%) records without a specified arrival mode for ED attendances.

Figure 6. Arrival mode for assault attendees, Lancashire residents, April 2013 to March 2016



In terms of disposal (figure 7), 52.7% of assault attendees (7,577) were discharged from the ED with no further treatment required, 29.0% (4,172) were referred for follow-up treatment and 7.5% (1,079) were admitted into hospital; 10.9% (1,563) were disposed of by other means, and there were 36 records (0.3%) without a specified method of disposal.

Figure 7. Disposal method for assault attendees, Lancashire residents, April 2013 to March 2016



In terms of assault location (where the incident occurred, as categorised by the ED; figure 8), 46.2% (5,175) of assaults occurred in a public place, 19.9% (2,231) occurred at home, 15.3% (1,716) occurred in other locations, 6.2% (691) occurred in places of work, and 671 (6.0%) occurred in pubs/bars/clubs; there were 3,229 (22.4%) records without a specified assault location.

Figure 8. Assault location for assault attendees, Lancashire residents, April 2013 to March 2016

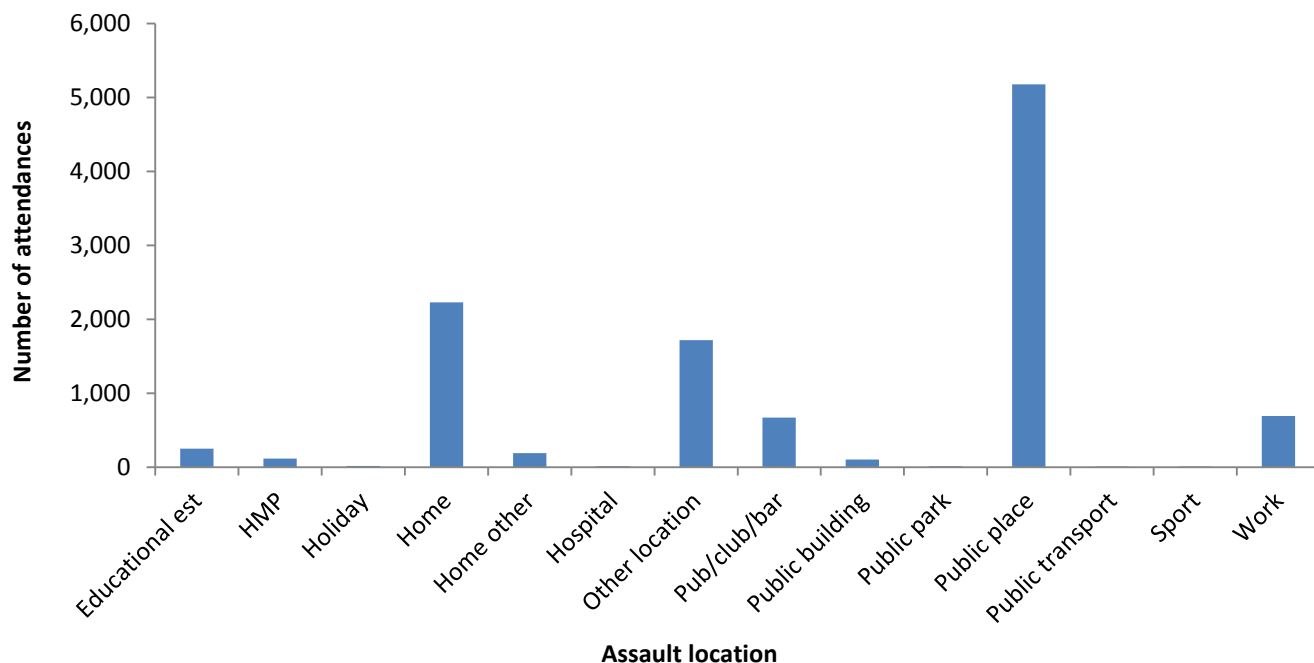


Figure 9 shows a cross tabulation of gender and assault location (for selected locations: Home [home/home other], night time economy premises [pub/bar/club], work, and public place [public building/park/place/transport]). A higher proportion of females were assaulted in the home (28.6% of assaults on females were in the home, compared to 12.0% of male assaults; 1,184 and 1,233) and in work (7.0% compared to 3.9%; 290 and 400). A higher proportion of males were assaulted in night time economy premises (5.3% of assaults on males were in pubs/bars/clubs, compared to 3.0% of females; 547 and 124) and in public places (41.5% compared to 24.9%; 4,266 and 1,031). The difference in distribution of sex between assault locations was found to be statistically significant ($p < 0.001$).

Figure 9. Selected assault locations by gender, Lancashire residents, April 2013 to March 2016

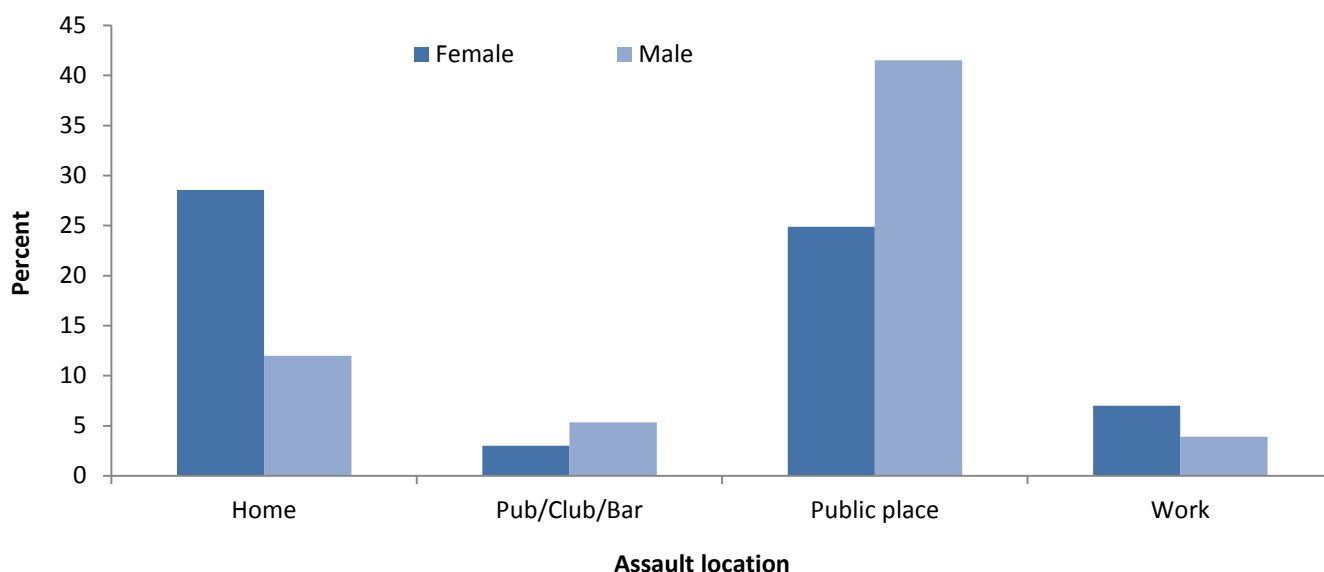
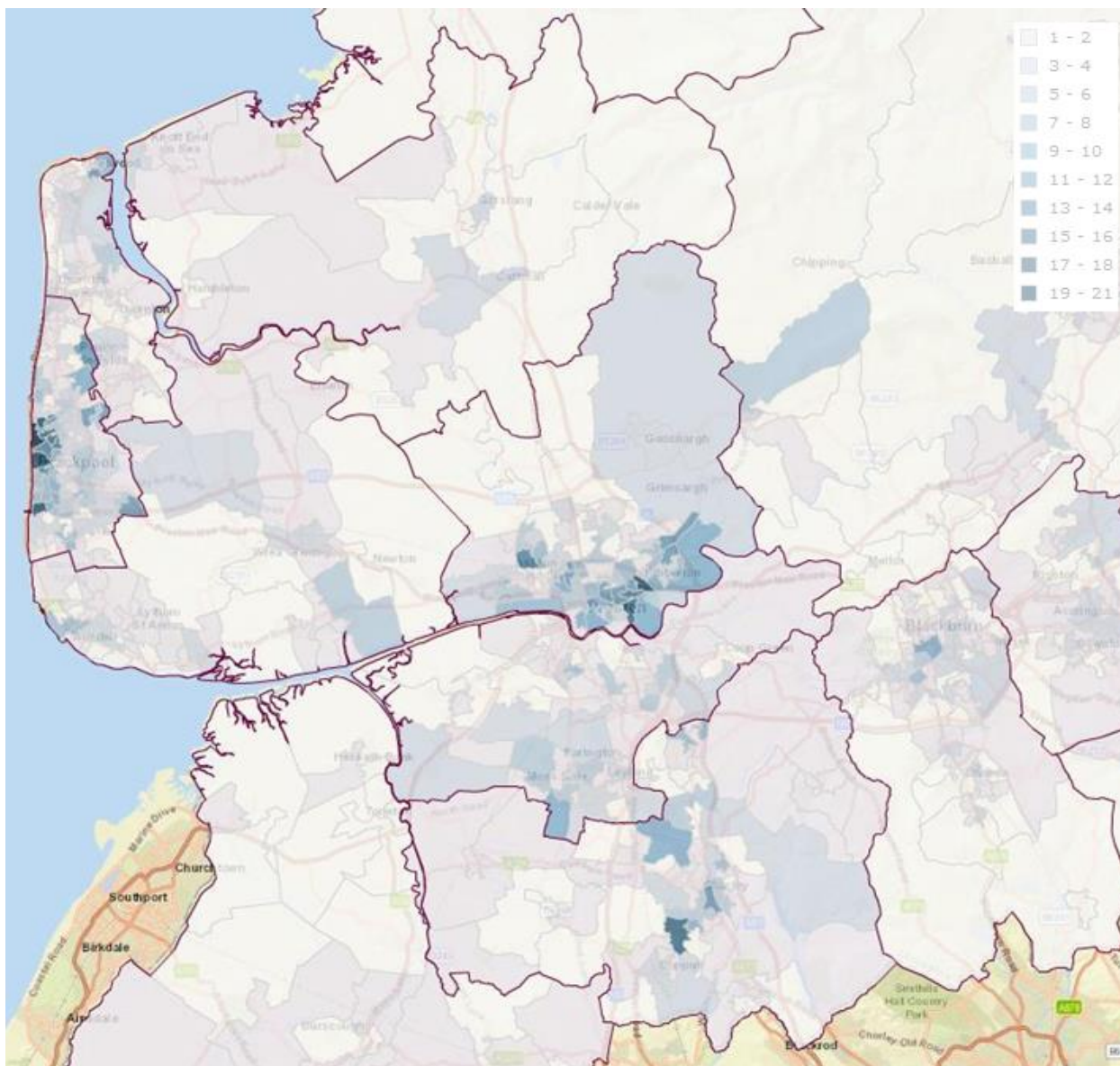


Figure 10 shows the number of assaults where the location was given as home by LSOA with authority boundaries. The 10 LSOAs with the highest numbers of assaults in the home were: Blackpool 006A (21), Preston 014B (18), Blackpool 006B (17), Blackpool 010D (17), Blackpool 013D (17), Blackpool 008B (16), Preston 016A (16), Blackpool 008D (15), Chorley 012B (15), and Blackpool 010A (14). The perspective of the map has been enlarged in order to show the areas with the highest numbers of assaults, i.e. Blackpool, Preston and Chorley.

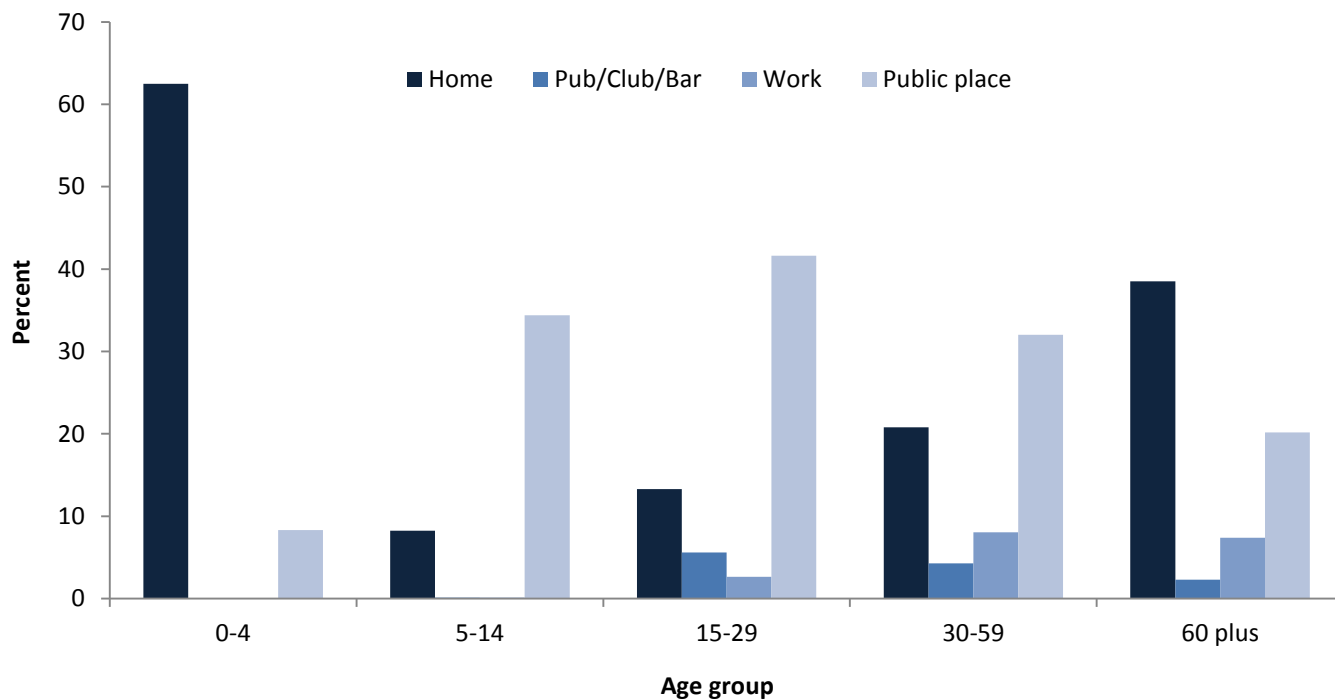
Figure 10. Assaults in the home, numbers by LSOA with authority boundaries, April 2013 to March 2016



Assaults that occurred in night time economy premises were not considered for separate analysis as Blackpool Victoria Hospital ED (where a large proportion of night time economy violence occurs) does not categorise Pub/Bar/Club; specific premises are listed as ‘public places’ or ‘other’ locations. For this reason, and owing to time constraints, free text analysis of assault location details (where specific premises are named) was beyond the scope of this report.

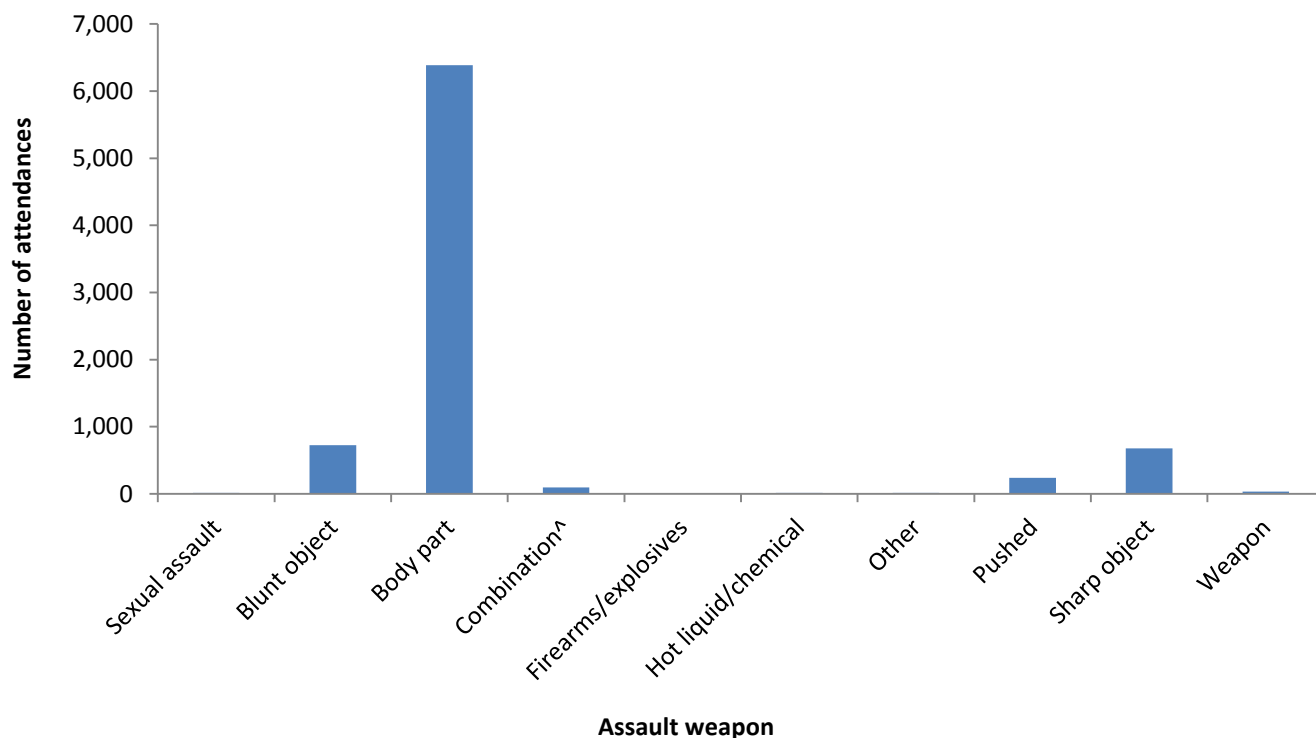
Figure 11 shows a cross tabulation of age group and assault location (for selected locations). A higher proportion of children aged between 0 and 4 years were assaulted in the home (62.5%; 15) compared to other age groups; a higher proportion of people aged between 15 and 29 years were assaulted in a public place (41.6%; 3,083), and in night time economy premises (5.6%; 415) compared to other age groups; and, a higher proportion of people aged between 30 and 59 years were assaulted at work (8.0%; 465) compared to other age groups. The difference in distribution of age groups between assault locations was found to be statistically significant ($p < 0.001$).

Figure 11. Selected assault locations by age group, Lancashire residents, April 2013 to March 2016



In terms of weapons used in assaults (figure 12), 77.8% (6,385) involved a body part, 8.8% (723) blunt objects, 8.3% (679) sharp objects and 2.9% (238) of assault attendees were pushed; there were 6,206 (43.1%) records without a specified or unknown assault weapon.

Figure 12. Assault weapon for assault attendees, Lancashire residents, April 2013 to March 2016



^Combination of weapons and/or body parts.

Figure 13 shows a cross tabulation of gender and assault weapon (for selected weapon types: Body part, blunt object and sharp object). A slightly higher proportion of females were assaulted with body parts (46.6% compared to 43.3% of males; 1,930 and 4,452). A slightly higher proportion of males were assaulted with blunt objects (5.5% of compared to 3.9% of females; 561 and 162) and sharp objects (5.5% compared to 2.8%; 564 and 115). The difference in distribution of sex between sharp objects was found to be statistically significant ($p < 0.001$).

Figure 13. Selected assault weapons by gender, Lancashire residents, April 2013 to March 2016

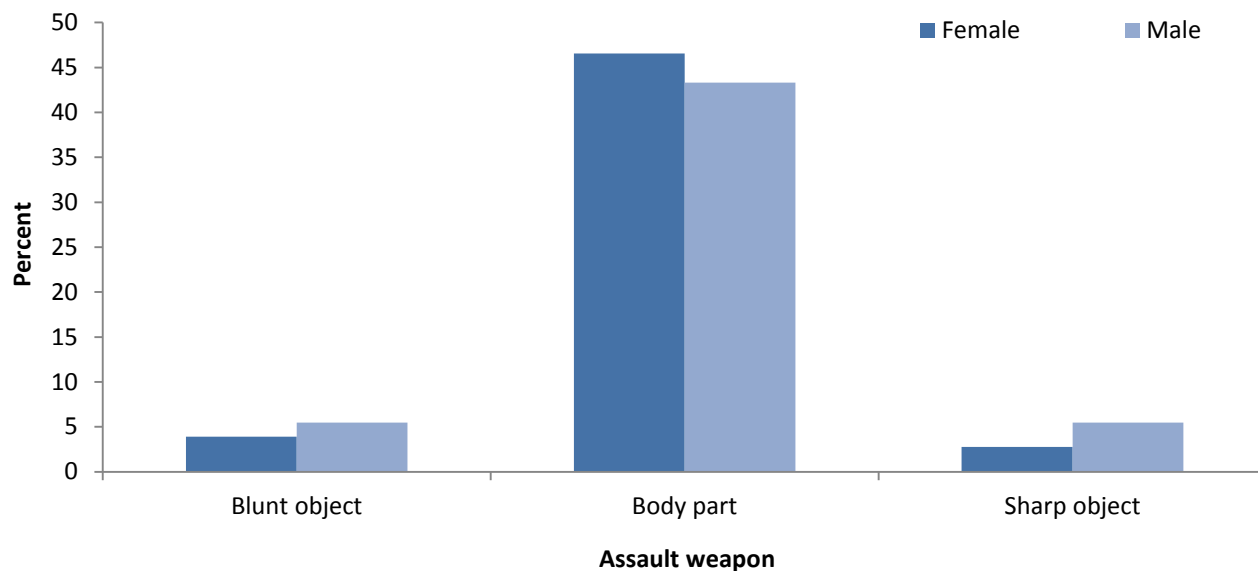
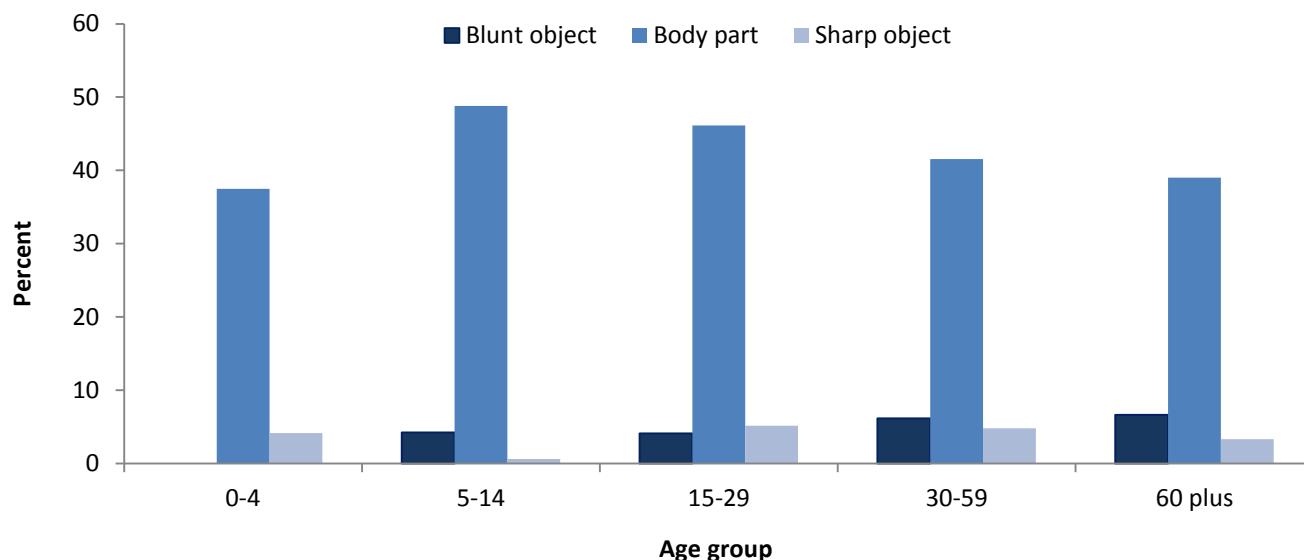


Figure 14 shows a cross tabulation of age group and assault weapon (for selected weapons). A higher proportion of people aged between 5 and 14 years were assaulted with a body part (48.8%; 403) compared to other age groups; a higher proportion of people aged between 15 and 29 years were assaulted with a sharp object (5.1%; 381) compared to other age groups; and a higher proportion of people aged 60 years or over were assaulted with a blunt object (6.6%; 26) compared to other age groups. The difference in distribution of age groups between weapon type was found to be statistically significant ($p < 0.001$).

Figure 14. Selected assault weapons by age group, Lancashire residents, April 2013 to March 2016



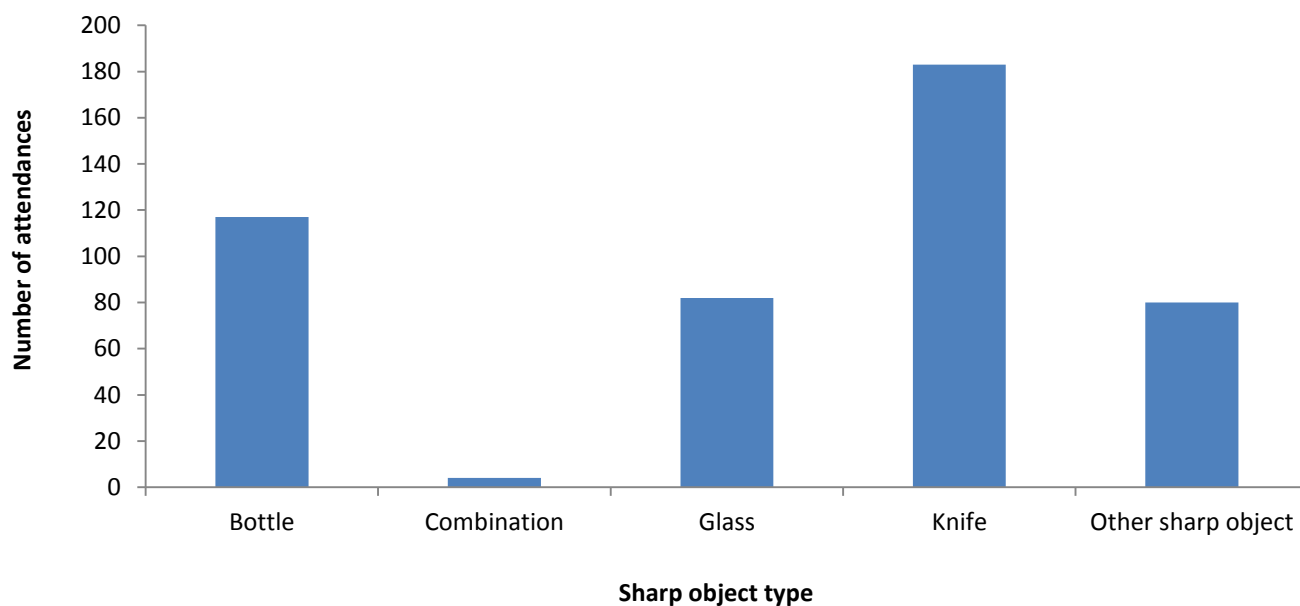
Cross tabulations were conducted for assault location and selected weapon types (table 16). Of assaults where body part was specified as the weapon type (6,385), 47.5% (3,034) occurred in a public place; where blunt object was specified (723), 27.7% (200) occurred at home; and where sharp object was specified (679), 8.1% (55) occurred in night time economy premises. The difference in distribution of weapon type between assault locations was found to be statistically significant ($p < 0.001$).

Table 16. Selected assault locations by weapons, Lancashire residents, April 2013 to March 2016

	Body part	Blunt object	Sharp object
Home	20.3	27.7	26.4
Pub/Club/Bar	7.1	3.0	8.1
Public place	47.5	46.2	43.6
Work	6.6	6.4	1.9

Of records which indicated sharp object (figure 15; 679), 39.3% (183) were reported to be a knife, 25.1% (117) a bottle, 17.6% (82) glass, and 17.2% (80) other sharp object; there were 213 records which indicated a sharp object was used but were without specification.

Figure 15. Sharp object type for assault attendees, Lancashire residents, April 2013 to March 2016



A cross tabulation was conducted for selected assault locations and types of sharp object (bottle, glass, knife; table 17). Where bottle was specified as the sharp object type (116), 51.7% (60) occurred in a public place and 2.6% (3) occurred at work; where glass was specified (82), 28.0% (23) occurred in a night time economy premises; and where a knife was specified (183), 32.2% (59) occurred at home. The difference in distribution of sharp objects between assault locations was found to be statistically significant ($p < 0.001$).

Table 17. Selected assault locations by sharp object types, Lancashire residents, April 2013 to March 2016

	Bottle	Glass	Knife
Home	12.1	19.5	32.2
Pub/Club/Bar	17.2	28.0	1.6
Public place	51.7	34.1	45.9
Work	2.6	0.0	0.5

ASSAULT CALL OUTS

Between April 2013 and March 2016 there were 3,036,070 call outs to the North West Ambulance Service (NWAS) across the North West of England, 32,856 of which were for assaults (assault/sexual assault and stab/gunshot/penetrating trauma). There were 647,297 total call outs in Lancashire, 6,197 of which were for assaults. Call out location for assault/sexual assault or stab/gunshot/penetrating trauma is often the general location of where the incident occurred and in the context of this report is considered as an indicator of incident location. Between 2013/14 and 2014/15 there was a 15.9% increase in call outs for assaults, but between 2014/15 and 2015/16 there was a substantial increase of 128.0%. Please note, this increase is not reflective of a trend but reflects code and system changes which typically occur at the end of the financial year (March 2014/15). In this case, the change related to override codes, which, until March 2015, were used for some incidents occurring in public places, meaning the original nature of the call was not recorded.

The month with the highest number of call outs, calculated as a 12 month average daily rate, was August (7.2 per day), followed by July (6.3); the months with the lowest rates were February and January (4.5 and 4.6 respectively; table 18). Figure 16 shows assault call outs by month and year across Lancashire with 95% confidence intervals.

Table 18. Assault call outs by month and year, across Lancashire, April 2013 to March 2016

Month/Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
2013/14	148	148	154	166	162	131	134	117	132	116	112	127	1,647
2014/15	107	116	111	136	127	121	111	86	89	113	75	195	1,387
2015/16	247	297	278	280	378	280	257	251	287	203	197	208	3,163
Total	502	561	543	582	667	532	502	454	508	432	384	530	6,197
Daily rate (12 months)	5.6	6.0	6.0	6.3	7.2	5.9	5.4	5.0	5.5	4.6	4.5	5.7	5.7

Figure 16. Assault call outs by month and year across Lancashire, April 2013 to March 2016

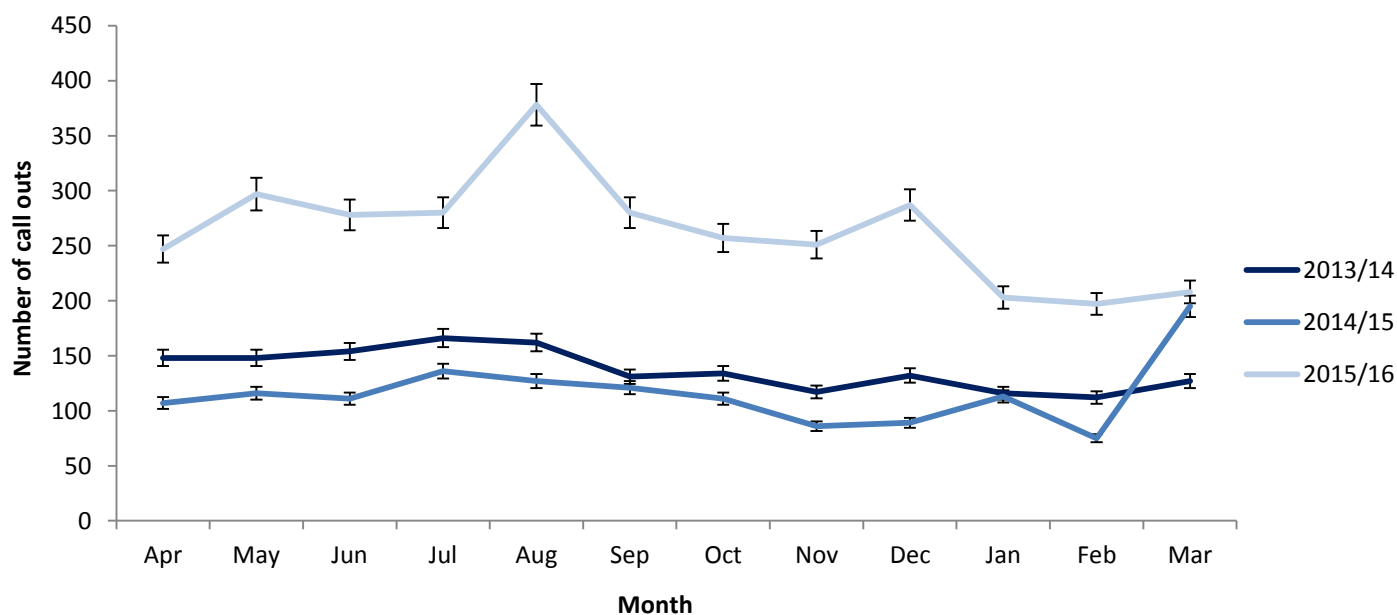


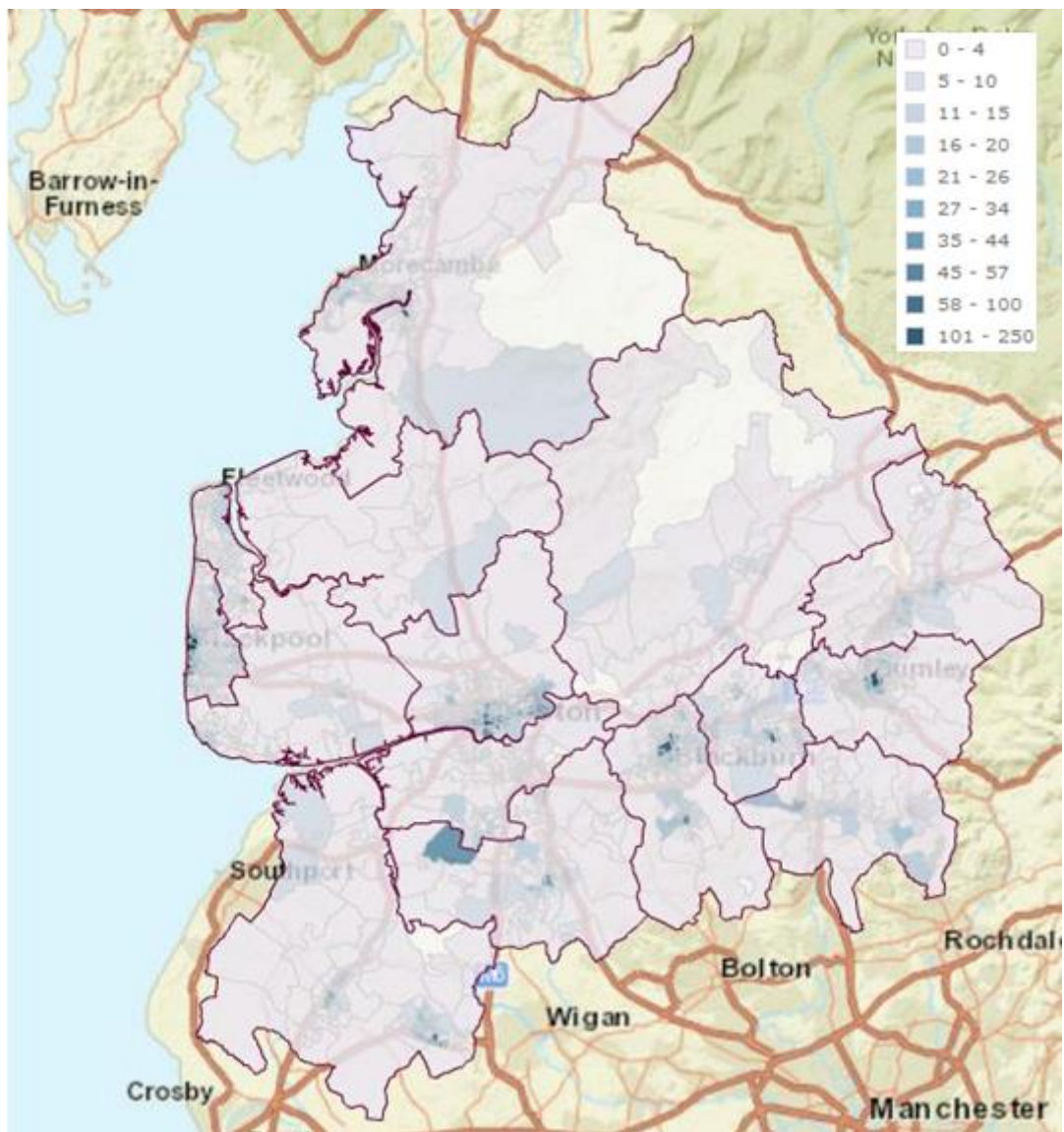
Table 19 shows assault call outs by year and authority areas. The authority area with the highest number of call outs was Blackpool UA with 23.0% of total call outs (1,427), followed by Preston (12.6%; 782) and Blackburn with Darwen (11.0%; 683).

Table 19. Assault call outs by authority area and year, across Lancashire, April 2013 to March 2016

Authority area	2013/14	2014/15	2015/16	Total	%
Blackburn with Darwen	189	159	335	683	11.0
Blackpool	378	312	737	1,427	23.0
Burnley	113	107	248	468	7.6
Chorley	87	73	143	303	4.9
Fylde	52	37	87	176	2.8
Hyndburn	111	68	176	355	5.7
Lancaster	109	145	269	523	8.4
Pendle	93	73	164	330	5.3
Preston	209	154	419	782	12.6
Ribble Valley	21	17	43	81	1.3
Rosendale	42	49	103	194	3.1
South Ribble	57	40	109	206	3.3
West Lancashire	116	92	184	392	6.3
Wyre	70	61	146	277	4.5
Total	1,647	1,387	3,163	6,197	100

Figure 17 displays assault call outs in terms of LSOA of call out location, with authority boundaries. The eight LSOAs with the highest number of assault call outs were Blackpool 006A (250), Blackpool 010E (152), Blackpool 010D (132), Preston 017F (127), Burnley 003D (110), Blackburn with Darwen 006E (78), Hyndburn 008B (75), Lancaster 014E (73), Preston 017G (72) and Lancaster006D (59). All of these LSOAs are respective city and town centre areas; Hyndburn 008B comprises part of Accrington town centre and Lancaster 006D comprises part of Morecambe town centre.

Figure 17. Call outs by LSOA with authority boundaries, across Lancashire, April 2013 to March 2016



People aged between 15 and 34 years accounted for 56.7% of call outs for assaults (figure 18). Call outs for assaults peaked among people aged between 20 and 24 years (17.2%), followed by people aged between 25 and 29 years (16.7%). There were 1,534 (24.8%) call outs where age was not recorded. Similar to ED attendances, after the age of 30, call outs for assaults decrease as age increases.

Figure 18. Assault call outs by five year age group, across Lancashire, April 2012 to March 2015

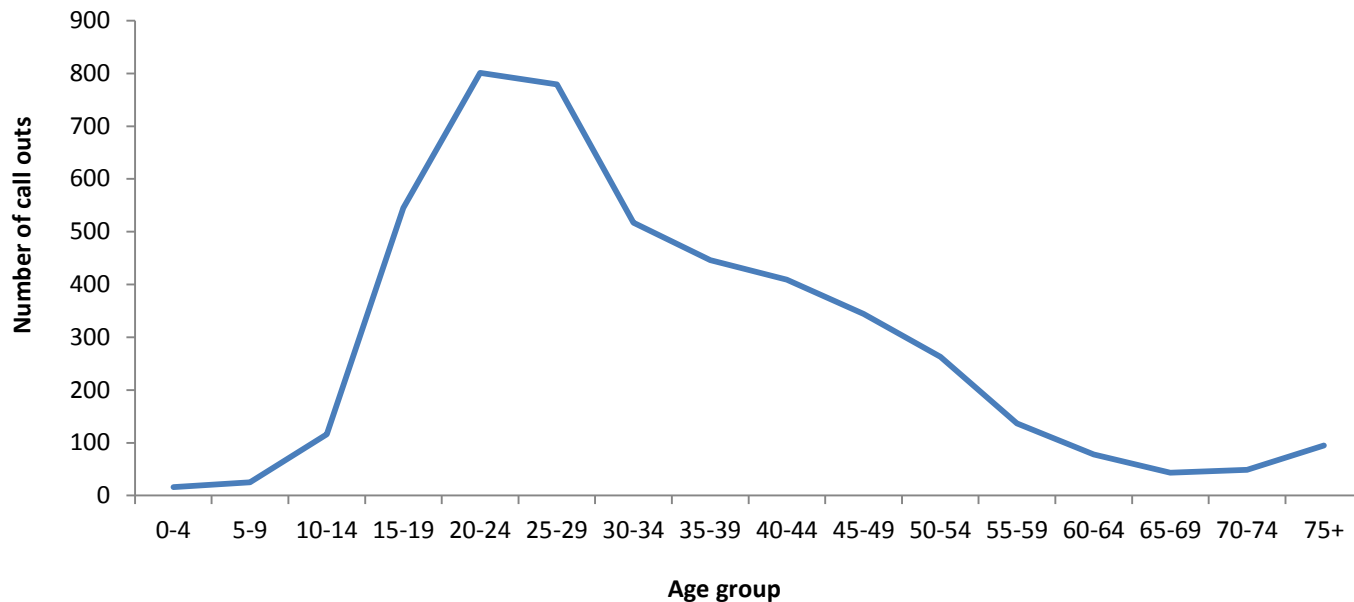


Table 20 shows age and sex breakdown for assault call outs; where age was also recorded, 71.1% of assault call outs were for males, and 33.7% of call outs were for males aged between 15 and 29 years; 31.6% were for males aged between 30 and 59 years. While the biggest proportion of assault call outs among males was the 15 to 29 year age group (47.4%), among females it was the 30 to 59 year age group. There were 1,535 (24.8%) call outs where age or gender was not recorded.

Table 20. Assault call outs by age and gender, across Lancashire, April 2012 to March 2015

Age group	Female		Male		Total	
0-4	2	0.1	13	0.4	15	0.3
5-14	44	3.3	97	2.9	141	3.0
15-29	554	41.1	1,571	47.4	2,125	45.6
30-59	643	47.7	1,473	44.5	2,116	45.4
60+	106	7.9	159	4.8	265	5.7
Total	1,349	100	3,313	100	4,662	100

ATTENDANCE AND CALL OUT COMPARISSON

Table 21 shows a comparison of ED attendances and ambulance call outs by authority area and sex. Overall the split between sex was similar in the two data sets (ED data 71.3% male, call out data 71.1% male); however, there was some variation between authority areas. In terms of attendances data, Pendle LA had the highest proportion of males (76.8%), while Ribble Valley LA had the highest proportion of females (33.0%); in terms of call out data, Chorley LA had the highest proportion of males (76.3%) and Wyre LA had the highest proportion of females (38.9%). For ED data, there were three records without specified sex, and for call out data there were 407 records without specified sex.

Table 21. Assault ED attendances and NWAS call outs by authority area and gender, April 2013 to March 2016

Local Authority	ED assaults		ED assaults		ED assaults Total	NWAS assaults		NWAS assaults		NWAS assaults Total
	Males	%	Females	%		Males	%	Females	%	
Blackburn with Darwen	1,306	71.1	530	28.9	1,836	476	74.4	164	25.6	640
Blackpool	1,569	70.8	647	29.2	2,216	958	72.1	371	27.9	1,329
Burnley	878	68.6	401	31.4	1,279	313	72.0	122	28.0	435
Chorley	732	70.5	307	29.5	1,039	213	76.3	66	23.7	279
Fylde	307	72.2	118	27.8	425	105	66.5	53	33.5	158
Hyndburn	572	69.5	251	30.5	823	241	71.9	94	28.1	335
Lancaster	701	71.2	284	28.8	985	332	67.5	160	32.5	492
Pendle	633	76.8	191	23.2	824	228	73.1	84	26.9	312
Preston	1,674	71.6	663	28.4	2,337	534	72.6	202	27.4	736
Ribble Valley	185	67.0	91	33.0	276	54	70.1	23	29.9	77
Rossendale	233	69.3	103	30.7	336	118	67.8	56	32.2	174
South Ribble	694	71.8	272	28.2	966	120	63.8	68	36.2	188
West Lancashire	341	76.3	106	23.7	447	264	70.8	109	29.2	373
Wyre	453	71.3	182	28.7	635	160	61.1	102	38.9	262
Lancashire	10,278	71.3	4,146	28.7	14,424	4,116	71.1	1,674	28.9	5,790

Table 22 shows a comparison of ED attendances and ambulance call outs by authority area in terms of numbers and rates (12 month average per 1,000 population). As mentioned in the key findings, call outs to a given geography may be for an individual who is not resident in that area, and rates per population should be interpreted with this caveat in mind. Preston LA had the highest rate of ED attendance for assaults (5.5 per year per 1,000 people), followed by Blackpool UA (5.3) and Burnley LA (4.9); West Lancashire LA had the lowest rate of ED attendance for assaults (1.3). Blackpool UA had the highest rate of call out for assaults (3.4 per year per 1,000 people, almost double the next highest rate), followed by Preston LA (1.8) and Burnley LA (1.8); Ribble Valley LA had the lowest rate of call out for assaults (1.4).

Table 22. Assault ED attendances and NWS call outs, numbers and rates by authority area, April 2013 to March 2016

Local Authority	Population	ED assaults	ED assault rate (12 month average per 1,000 population)	NWS assaults	NWS assault rate (12 month average per 1,000 population)
Blackburn with Darwen	146,846	1,836	4.2	679	1.5
Blackpool	139,578	2,216	5.3	1,427	3.4
Burnley	87,371	1,279	4.9	468	1.8
Chorley	112,969	1,039	3.1	303	0.9
Fylde	77,322	427	1.8	169	0.7
Hyndburn	80,228	823	3.4	355	1.5
Lancaster	142,283	985	2.3	522	1.2
Pendle	90,111	824	3.0	329	1.2
Preston	141,302	2,337	5.5	782	1.8
Ribble Valley	58,480	276	1.6	81	0.5
Rossendale	69,487	336	1.6	194	0.9
South Ribble	109,651	967	2.9	206	0.6
West Lancashire	112,742	447	1.3	387	1.1
Wyre	109,745	635	1.9	277	0.8
Lancashire	1,478,115	14,427	3.3	6,179	1.4

Figure 19 shows rate of ED attendance for assaults (12 month average per 1,000 population) against deprivation for all LSOAs. There is a significant ($p < 0.001$) positive association between deprivation and rate of assault, where increasingly deprived areas had increasing assault rates among its residents. The R^2 value of 0.593 indicates that 59.3% of the variance between LSOAs, in terms of the rate of ED attendances, can be predicted using deprivation scores.

Figure 19. Rate of ED attendance per 1,000 population for assaults vs deprivation, April 2013 to March 2016

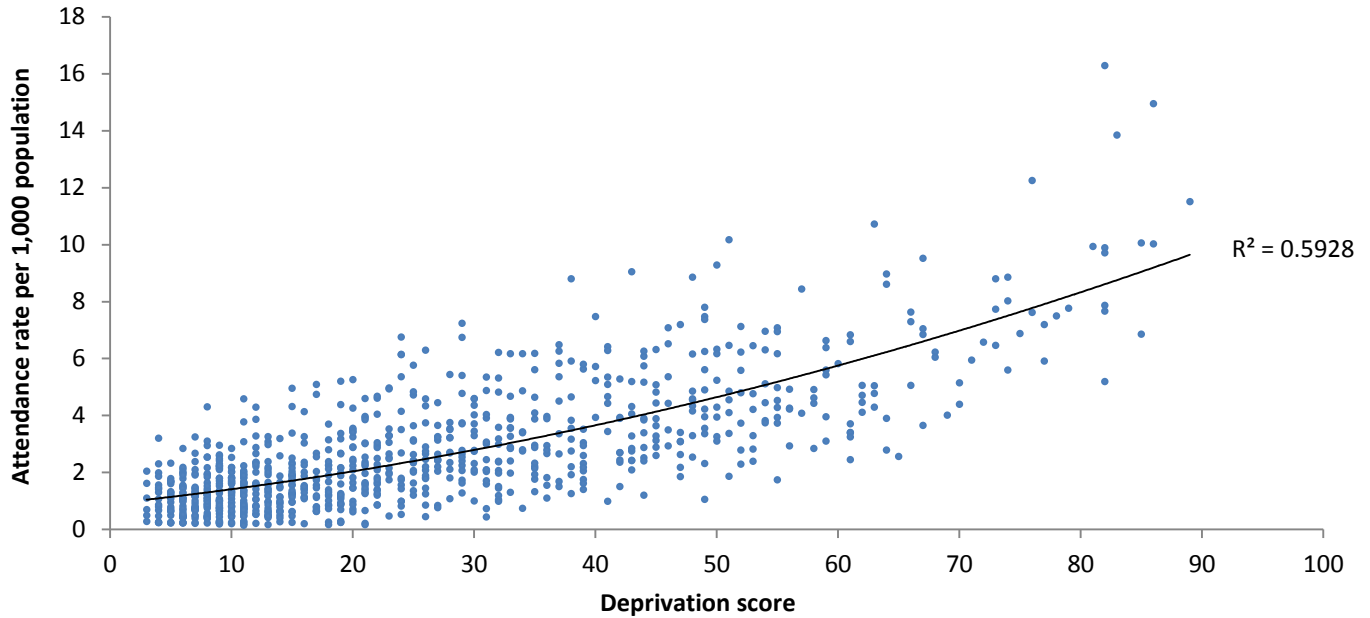
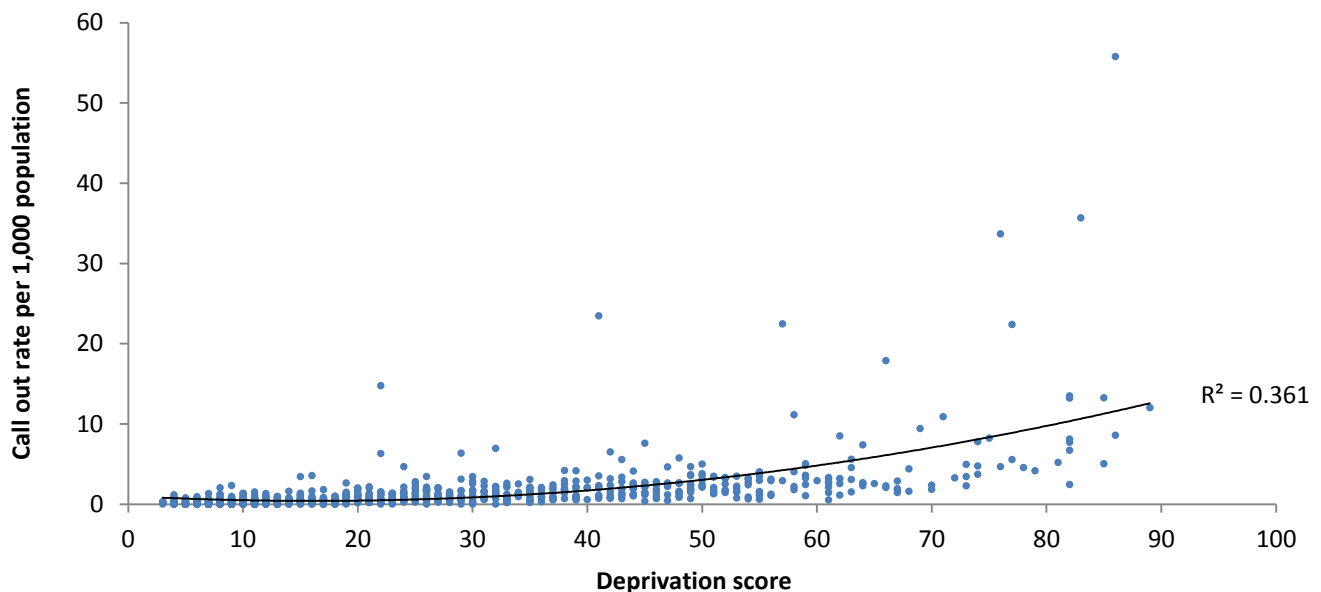


Figure 20 shows rate of call outs for assaults (12 month average per 1,000 population) against deprivation for all LSOAs. There is a significant ($p < 0.001$) positive association between deprivation and rate of assault, where increasingly deprived areas had increasing assault rates. The R^2 value of 0.361 indicates that 36.1% of the variance between LSOAs, in terms of the rate of call outs, can be predicted using deprivation scores.

Figure 20. Rate of call outs per 1,000 population for assaults vs deprivation, April 2013 to March 2016



GEOGRAPHIC ANALYSIS

Table 23 shows the 20 LSOAs with the highest ED attendance rates for assault. The 20 LSOAs are dominated by areas in Blackburn with Darwen UA, Blackpool UA, and Preston LA. There are two LSOAs from other areas, one from Burnley LA and one from Pendle LA. The order of LSOAs by ED assault rate is similar to the order of total ED attendance numbers; LSOAs have similar populations by design.⁵ Notable exceptions are LSOAs from Preston, namely 014A, 009E, 014C and 014B where the numbers are high but rates are relatively lower owing to higher populations compared to other LSOAs (figure 21 shows mapped rates by LSOA with authority boundaries).

Table 23. Assault ED attendances, numbers and rates by LSOA, Lancashire residents, April 2013 to March 2016

LSOA code	LSOA name	ED assaults	ED assault rate (12 month average per 1,000 population)
E01012655	Blackburn with Darwen 006E	94	16.3
E01012681	Blackpool 006A	67	14.9
E01012737	Blackpool 010E	59	13.8
E01012736	Blackpool 010D	48	12.3
E01012673	Blackpool 010A	43	11.5
E01024895	Burnley 003F	44	10.7
E01025295	Preston 014A	79	10.2
E01012670	Blackpool 011A	36	10.1
E01012751	Blackpool 013D	42	10.0
E01012679	Blackpool 008B	44	9.9
E01012683	Blackpool 006B	41	9.9
E01012682	Blackpool 008D	42	9.7
E01025286	Preston 009E	53	9.5
E01025297	Preston 014C	56	9.3
E01012629	Blackburn with Darwen 006A	31	9.0
E01025219	Pendle 010F	34	9.0
E01025296	Preston 014B	54	8.9
E01012675	Blackpool 010B	41	8.9
E01025290	Preston 017B	42	8.8
E01012738	Blackpool 011D	32	8.8

⁵ <http://www.ons.gov.uk/methodology/geography/ukgeographies/censusgeography#super-output-area-soa>

Figure 21. Assault ED attendance rates by LSOA with authority boundaries, Lancashire residents, per 1,000 population, 12 month average

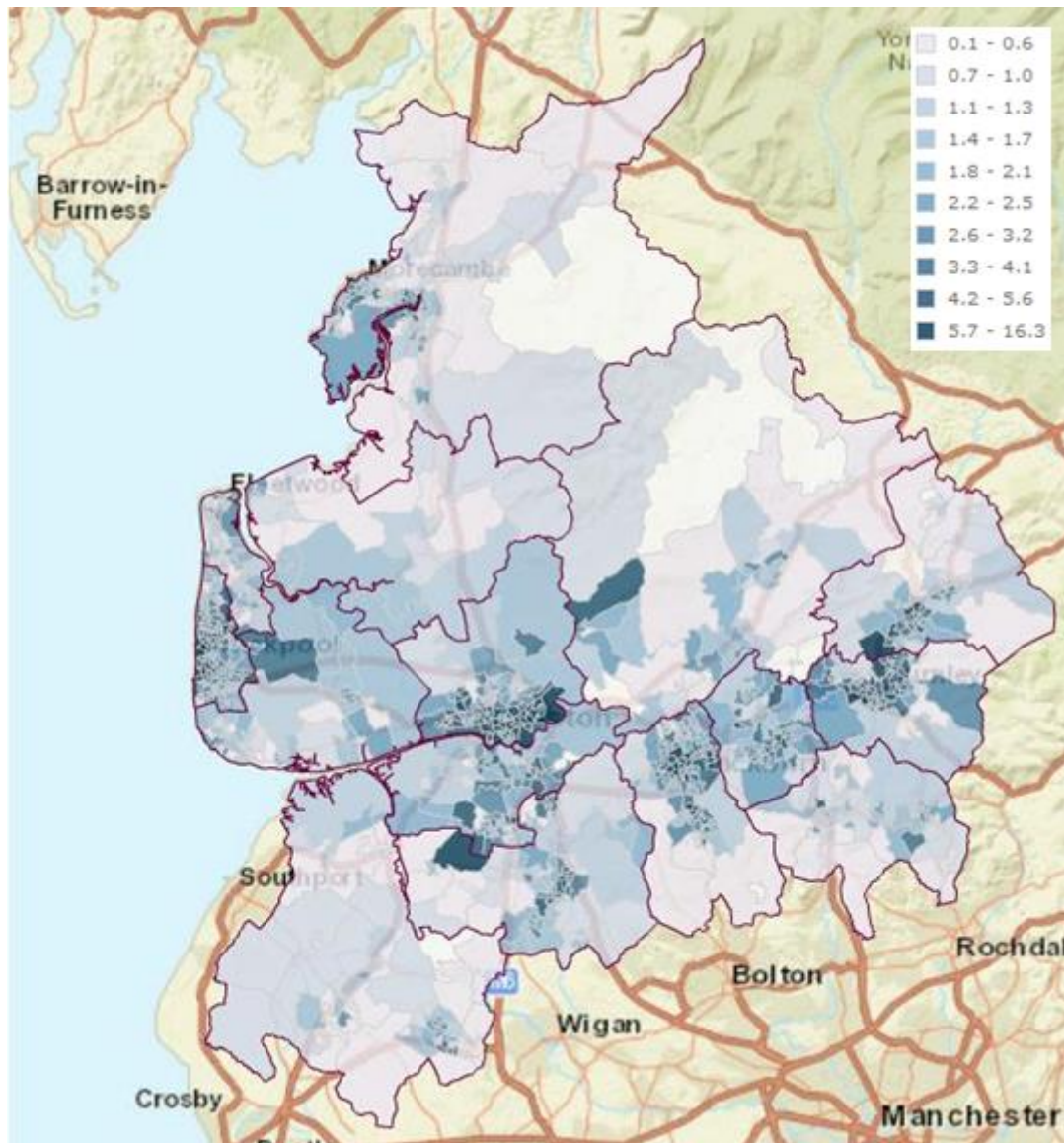
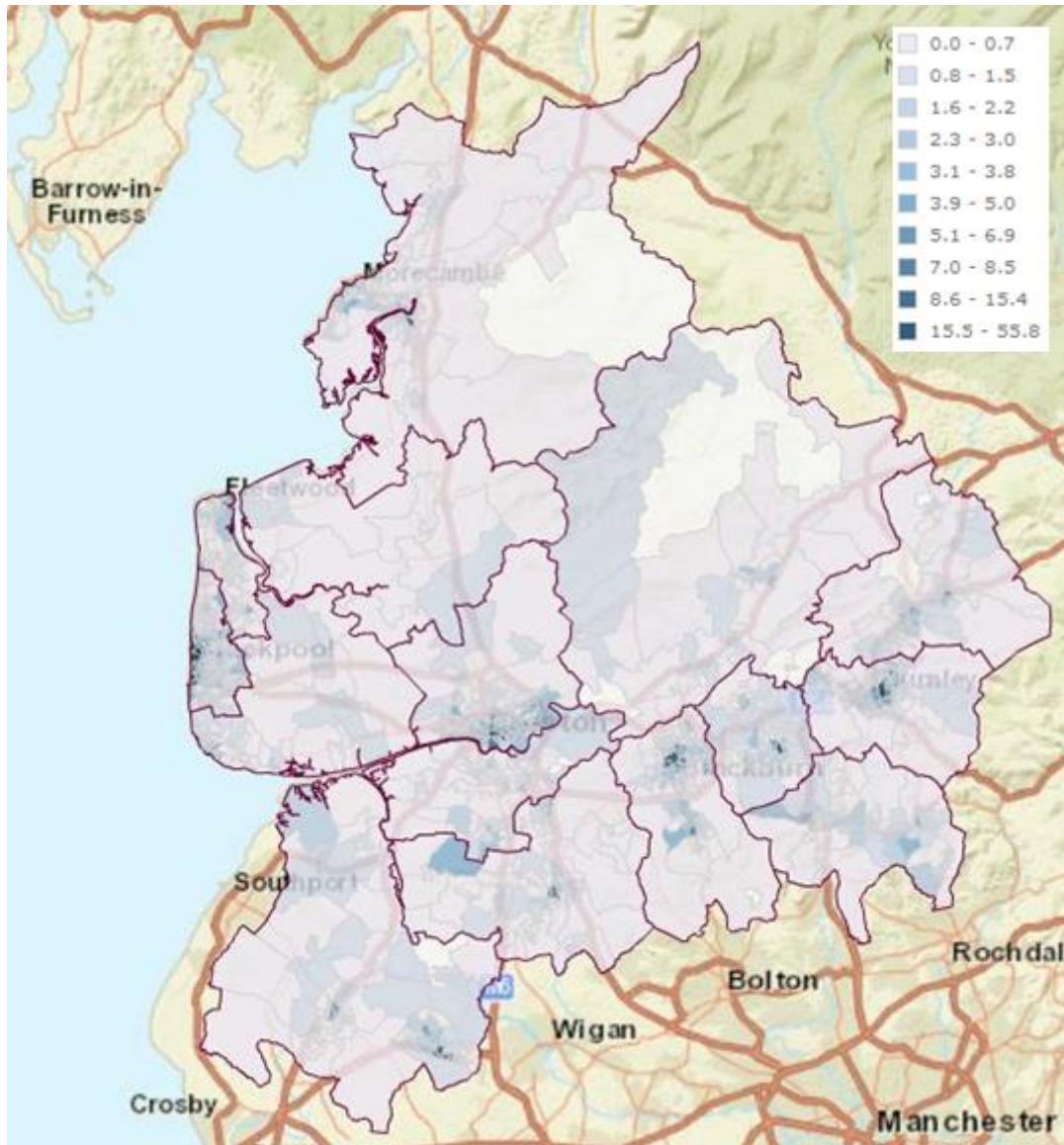


Table 24 shows the 20 LSOAs with the highest call out rates for assault. Unlike ED data, the 20 LSOAs are dominated by areas in city and town centres, particularly Blackpool and Preston. Other city and town centres which are included in the top 20 include Blackburn, Burnley, Accrington (Hyndburn 008B), Lancaster, Morecambe (Lancaster 006D and 009A) and Fleetwood (Wyre 001F). There are two LSOAs which are not in city or town centres but feature in the top 20 and both are around the area of the Hope Housing Project in Skelmersdale (West Lancashire 014A and 014D). Blackpool 006A had a call out rate of 55.8 per year per 1,000 people), which is 56.3% higher than the 2nd highest LSOA. There is also a substantial drop off between the top 3 LSOAs and the 4th highest (43.4%) and again after the top six LSOAs and the 7th highest (25.1%; figure 22 shows mapped rates by LSOA with authority boundaries).

Table 24. Assault call outs, numbers and rates by LSOA, across Lancashire, April 2013 to March 2016

LSOA code	LSOA name	NWAS call outs	NWAS call out rate (12 month average per 1,000 population)
E01012681	Blackpool 006A	250	55.8
E01012737	Blackpool 010E	152	35.7
E01012736	Blackpool 010D	132	33.7
E01033223	Preston 017F	127	23.5
E01033224	Preston 017G	72	22.5
E01024877	Burnley 003D	110	22.4
E01025036	Hyndburn 008B	75	17.9
E01033071	Lancaster 014E	73	14.8
E01012655	Blackburn with Darwen 006E	78	13.5
E01012671	Blackpool 013A	56	13.2
E01012672	Blackpool 013B	50	13.2
E01012673	Blackpool 010A	45	12.0
E01025139	Lancaster 006D	59	11.2
E01025584	Wyre 001F	44	10.9
E01025493	West Lancashire 014A	47	9.4
E01012751	Blackpool 013D	36	8.6
E01025504	West Lancashire 014D	29	8.5
E01025110	Lancaster 009A	36	8.3
E01024858	Burnley 007C	35	8.1
E01012622	Blackburn with Darwen 009C	37	7.8

Figure 22. Assault call out rates by LSOA with authority boundaries, across Lancashire, per 1,000 population, 12 month average



MOSAIC ANALYSIS

MOSAIC classifies UK households using Postcodes based on social group and geodemography; the analysis here is restricted to Lancashire residents by LSOAs, since LSOAs are TIIG's lowest geographical classification. The MOSAIC master database was used (version 2015) to find the most common MOSAIC type in each LSOA in Lancashire.⁶ Table 25 shows the most commonly occurring MOSAIC types across Lancashire; any MOSAIC type which was the most commonly occurring for ten or more LSOAs is included.

Table 25. MOSAIC types with the number of LSOAs in which this MOSAIC type is the most common

MOSAIC code	MOSAIC type	Number of LSOAs
F24	Bungalow Haven	87
L50	Renting a Room	79
H30	Affordable Fringe	63
I38	Asian Heritage	54
M55	Families with Needs	54
D15	Modern Parents	53
G29	Satellite Settlers	42
K46	Self Supporters	37
M54	Childcare Squeeze	36
L51	Make Do & Move On	33
B5	Empty-Nest Adventure	32
D16	Mid-Career Convention	29
N60	Dependent Greys	26
O62	Low Income Workers	25
A3	Wealthy Landowners	24
F23	Solo Retirees	18
J42	Learners & Earners	18
E18	Dependable Me	17
L52	Midlife Stopgap	17
O63	Streetwise Singles	16
N59	Pocket Pensions	16
A4	Village Retirement	14
H34	Contemporary Starts	14
N58	Aided Elderly	14
H31	First-Rung Futures	13
F25	Classic Grandparents	11
F22	Legacy Elders	10

⁶ Please contact the lead researcher for a full spreadsheet containing LSOAs in Lancashire with the number of postcodes, the number of postcodes with the most common MOSAIC type and the percentage of the most common type in relation to all postcodes.

Table 26 shows the ten highest LSOAs in terms of ED attendance assault rate, with the number of postcodes in that LSOA, the most common MOSAIC type and the percentage of that type in relation to all postcodes. ‘Renting a room’ was the most common MOSAIC type for eight of the top ten; the exceptions, ‘Streetwise singles’ and ‘Dependent greys’ were the most common MOSAIC types for those LSOAs but comprised small proportions (29.8% and 21.9%). ‘Renting a room’ households are grouped with ‘Make Do & Move On’, ‘Disconnected Youth’ and ‘Midlife Stopgap’, all of which are described as ‘single people privately renting low cost homes for the short term (6% of UK households)’. More specifically, ‘Renting a room’ households are described as ‘transient renters of low cost accommodation, often within subdivided older properties’.⁷

Table 26. Ten highest LSOAs for ED attendance assault rate, with the most common MOSAIC type for that LSOA

LSOA code	LSOA name	Number of postcodes	ED assault rate	Most common MOSAIC type in LSOA	Percentage of most common type
E01012655	Blackburn with Darwen 006E	1007	16.3	063 Streetwise singles	29.8
E01012681	Blackpool 006A	722	14.9	L50 Renting a room	78.8
E01012737	Blackpool 010E	759	13.8	L50 Renting a room	87.0
E01012736	Blackpool 010D	431	12.3	L50 Renting a room	52.9
E01012673	Blackpool 010A	709	11.5	L50 Renting a room	57.3
E01024895	Burnley 003F	725	10.7	L50 Renting a room	61.7
E01025295	Preston 014A	1134	10.2	N60 Dependent Greys	21.9
E01012670	Blackpool 011A	620	10.1	L50 Renting a room	80.6
E01012751	Blackpool 013D	645	10.0	L50 Renting a room	78.6
E01012679	Blackpool 008B	656	9.9	L50 Renting a room	56.6

Table 27 shows the ten highest LSOAs in terms of NWS call out numbers, with the number of postcodes in that LSOA, the most common MOSAIC type and the percentage of that type in relation to all postcodes. There is more variety in MOSAIC types, in terms of NWS call out numbers, compared to ED attendance rate. Four of the top 10 LSOAs are the same as the ten highest LSOAs in terms of ED attendance rate, and five of the top ten are LSOAs where ‘Renting a room’ is the most common MOSAIC type. The MOSAIC types which are in the ten highest for call out numbers but not ED attendance rates are ‘Student Scene’ (54.2% in Preston 017F), ‘Asian Heritage’ (54.1% in Burnley 003D), and ‘Central Pulse’ (51.8% in Lancaster 014E). ‘Student Scene’ (students living in high density accommodation close to universities and educational centres) and ‘Central Pulse’ (entertainment-seeking youngsters renting city centre flats in vibrant locations close to jobs and night life), are grouped as educated young people privately renting in urban neighbourhoods (7% of UK households). ‘Asian Heritage’ (large extended families in neighbourhoods with a strong South Asian tradition) are residents of settled urban communities with a strong sense of identity (5% of UK households).

⁷ <https://www.theaudienceagency.org/insight/mosaic>

Table 27. Ten highest LSOAs for NWAS call out numbers, with the most common MOSAIC type for that LSOA

LSOA code	LSOA name	Number of postcodes	NWAS call outs	Most common MOSAIC type in LSOA	Percentage of most common type
E01012681	Blackpool 006A	722	250	L50 Renting a room	78.8
E01012737	Blackpool 010E	759	152	L50 Renting a room	87.0
E01012736	Blackpool 010D	431	132	L50 Renting a room	52.9
E01033223	Preston 017F	855	127	J43 Student Scene	54.2
E01024877	Burnley 003D	721	110	I38 Asian Heritage	54.1
E01012655	Blackburn with Darwen 006E	1007	78	O63 Streetwise singles	29.8
E01025036	Hyndburn 008B	986	75	L50 Renting a room	65.4
E01033071	Lancaster 014E	657	73	J41 Central Pulse	51.8
E01033224	Preston 017G	614	72	O63 Streetwise Singles	24.6
E01025139	Lancaster 006D	870	59	L50 Renting a Room	64.7

Table 28 shows MOSAIC types with highest percentages of assaults of all injuries, ordered from highest to lowest, with example LSOAs. The top three MOSAIC types in terms of highest assault proportion of total injuries were ‘Student Scene’ (e.g. Preston 12F, 015B, 017F), ‘Central Pulse’ (e.g. Lancaster 014E, 014F) and ‘Learners & Earners’ (e.g. Lancaster 013D, 014A/B, 015A/B, 015C/D, 017C, Preston 011B, 012A/G, 013B, 017A/B/D, and West Lancashire 007A/C/E). ‘Student scene’ and ‘Central Pulse’ have already been discussed; ‘Learners & Earners’ are grouped as educated young people privately renting in urban neighbourhoods (7% of UK households), and specifically inhabitants of the university fringe where students and older residents mix in cosmopolitan locations. ‘Ageing access’ was the MOSAIC type with the highest proportion of intentional injuries (assault and DSH) or total injuries. ‘Ageing access’ are grouped as residents of settled urban communities with a strong sense of identity (5% of UK households), and are older residents owning small inner suburban properties with good access to amenities.

Table 28. MOSAIC type with highest percentages of assaults of all injuries, with example LSOAs

MOSAIC type	LSOAs with highest percentage of this MOSAIC type	Percentage assaults	Percentage intentional injuries	Percentage unintentional injuries
J43 Student Scene	Preston 12F, 015B, 017F	10.1	12.5	87.5
J41 Central Pulse	Lancaster 014E, 014F	6.8	9.4	90.6
J42 Learners & Earners	Lancaster 013D, 014A/B, 015A/B, 015C/D, 017C, Preston 011B, 012A/G, 013B, 017A/B/D West Lancashire 007A/C/E	5.9	8.2	91.8
I39 Ageing Access	Lancaster 013C, 014C	4.7	16.7	83.3
K48 Down-to-Earth Owners	Lancaster 013A West Lancashire 014E	4.5	5.1	94.9
K47 Offspring Overspill	Lancaster 006E, 008A South Ribble 006C	4.5	5.0	95.0
M56 Solid Economy	Lancaster 018C	3.7	4.5	95.5
O64 High Rise Residents	Blackpool 008A Preston 017H	3.6	3.9	96.1
O62 Low Income Workers	Blackburn with Darwen 011A, 012E, 014C Blackpool 014A/B Burnley 001F, 004A, 008A Hyndburn 002A, 004E, 007D Lancaster 016F Pendle 009A Preston 007C Rossendale 003D South Ribble 014C, 015B West Lancashire 010C/E/F, 013B/D, 014B Wyre 002B, 005C	3.3	4.3	95.7
L51 Make Do & Move On	Blackburn with Darwen 014B Burnley 006C, 007D Chorley 006E, 009C, 012A, 013B Hyndburn 002E/F, 003C/D, 007A Lancaster 011D, 013B Pendle 001B/C/D, 002B, 004C, 005D Preston 013E/F Rossendale 003B/C, 009B, 010F/G/H/I South Ribble 007B, 009A, 017D West Lancashire 011D	3.2	3.7	96.3
M55 Families with Needs	Blackburn with Darwen 008B/C/D/F, 011B/D, 012A/C Blackpool 007B, 016E Burnley 001D, 004F, 010A, 010B, 010C, 014F Chorley 001A, 001C, 006A Fylde 003A Hyndburn 003A, 005B, 006E, 008C Lancaster 010B, 011E, 017B, 020H Pendle 005A, 012C Preston 005C/D, 007D/E, 009A/B/D/E, 014B, 016B Rossendale 004D, 010C South Ribble 008A, 017A West Lancashire 010A/B/D, 013C, 014A/C/D Wyre 003A/C, 005D	3.2	4.0	96.0
E20Boomerang Boarders	Blackburn with Darwen 001F Chorley 005F Lancaster 004A Preston 003A/B, 006B South Ribble 003B West Lancashire 006D/F	3.1	3.8	96.2
H32 Flying Solo	Burnley 011D	3.0	3.0	97.0

Table 29. Continued (MOSAIC type with highest percentages of assaults of all injuries, with example LSOAs)

MOSAIC type	LSOAs with highest percentage of this MOSAIC type	Percentage assaults	Percentage intentional injuries	Percentage unintentional injuries
L50 Renting a Room	Blackburn with Darwen 10 LSOAs Blackpool 23 LSOAs Burnley 14 LSOAs Cholrey 010D Hyndburn 7 LSOAs Lancaster 006D, 009A/C Lancaster 011C Pendle 007A/B, 010B/D/F Preston 011C, Preston 012C, Preston 014C/D, 017C Rossendale 002F Wyre 001B/D/F	2.9	3.5	96.5
O63 Streetwise Singles	Blackburn with Darwen 006E, 004D, 007C/D Chorley 001B Fylde 004B, 009D Hyndburn 004A Lancaster 006A Preston 004D, 005A, 009F, 017G Rossendale 003E West Lancashire 009B, 011B	2.9	4.6	95.4
J45 Bus-Route Renters	Fylde 006D Lancaster 009B/D South Ribble 007D	2.8	4.8	95.2
N60 Dependent Greys	Blackburn with Darwen 017B Blackpool 002C, 004C, 014C, 017A, 019C Burnley 007A/B, 008B Chorley 010E Hyndburn 004D, 005C, 007C, 008A, 009A Lancaster 006B, 020I Pendle 004D Preston 005B, 006E, 007F, 014A Rossendale 002E South Ribble 017B Wyre 005B, 011E	2.7	3.6	96.4
H31 First-Rung Futures	Blackburn with Darwen 002A Blackpool 003C Chorley 001D, 003C, 004A, 010B Preston 003E, 008C Rossendale 008C South Ribble 004C/E, 013D West Lancashire 007B	2.7	3.1	96.9
I38 Asian Heritage	Blackburn with Darwen 25 LSOAs Burnley 003B/C/D/E Hyndburn 006A/B/G/H Pendle 12 LSOAs Preston 011A/D, 015A/C, 016A/D/E/F Rossendale 002C	2.7	2.9	97.1
J40 Career Builders	Fylde 009E Preston 010D	2.6	3.1	96.9

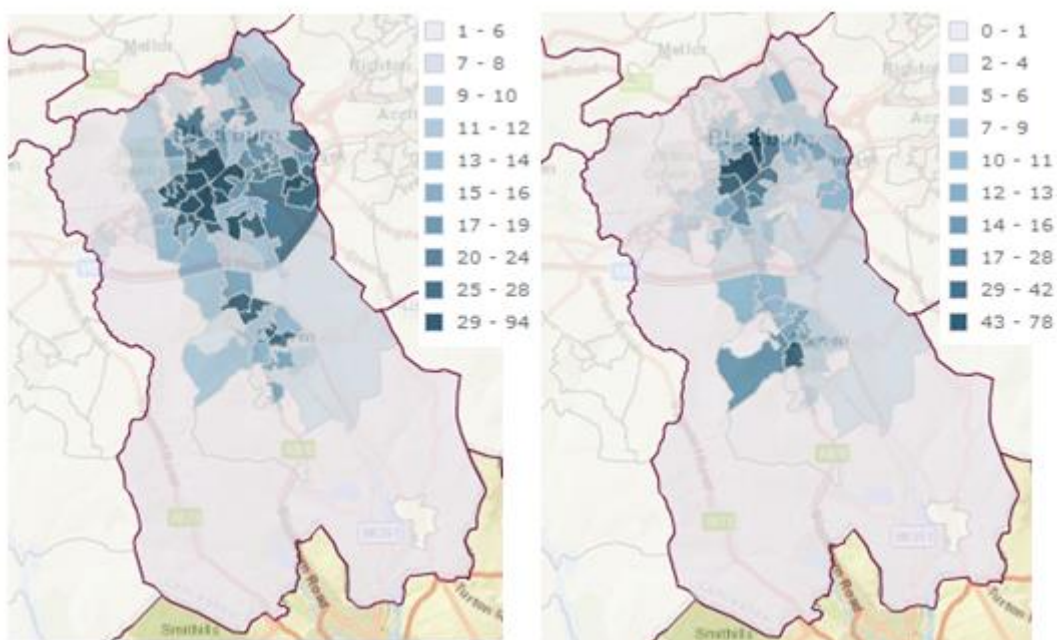
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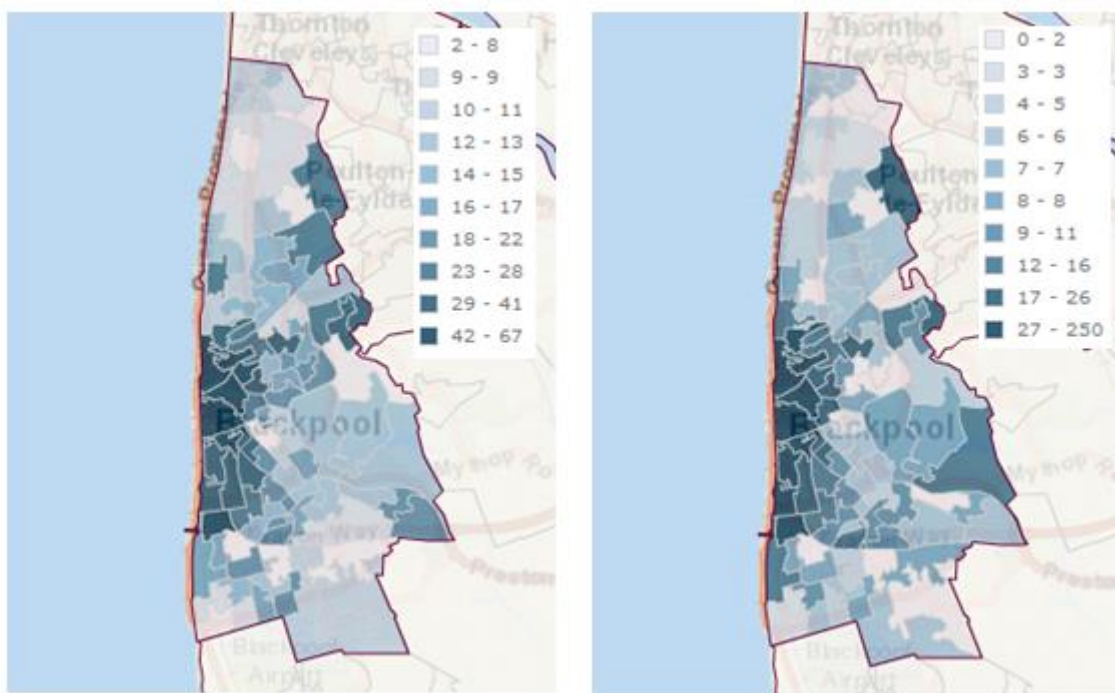
APPENDICES

Appendix 1-14 show ED attendance numbers and NWS call out numbers for assaults for each authority area in Lancashire. The scales vary both between authority areas and between attendance and call out maps for a given area. There is a general trend for NWS call outs to be most numerous in town and city centre areas, while ED attendance numbers (patient address locations) are more spread out through authority areas and more closely associated with area of increasing deprivation.

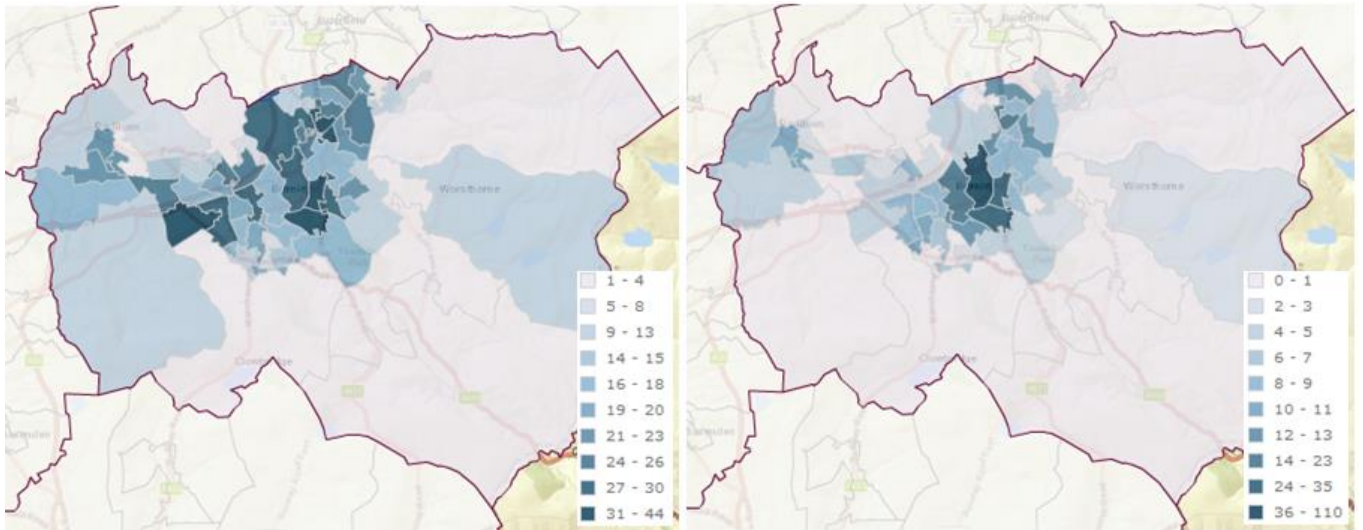
Appendix 1. Assault attendances (left) vs call outs (right), by LSOA within Blackburn with Darwen UA, April 2013 to March 2016



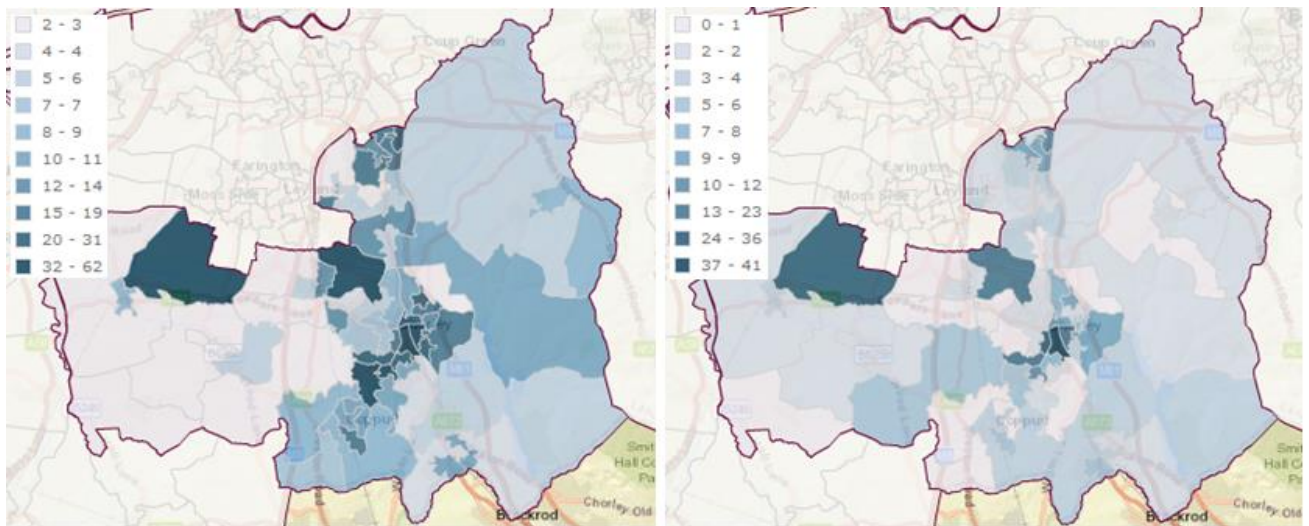
Appendix 2. Assault attendances (left) vs call outs (right), by LSOA within Blackpool UA, April 2013 to March 2016



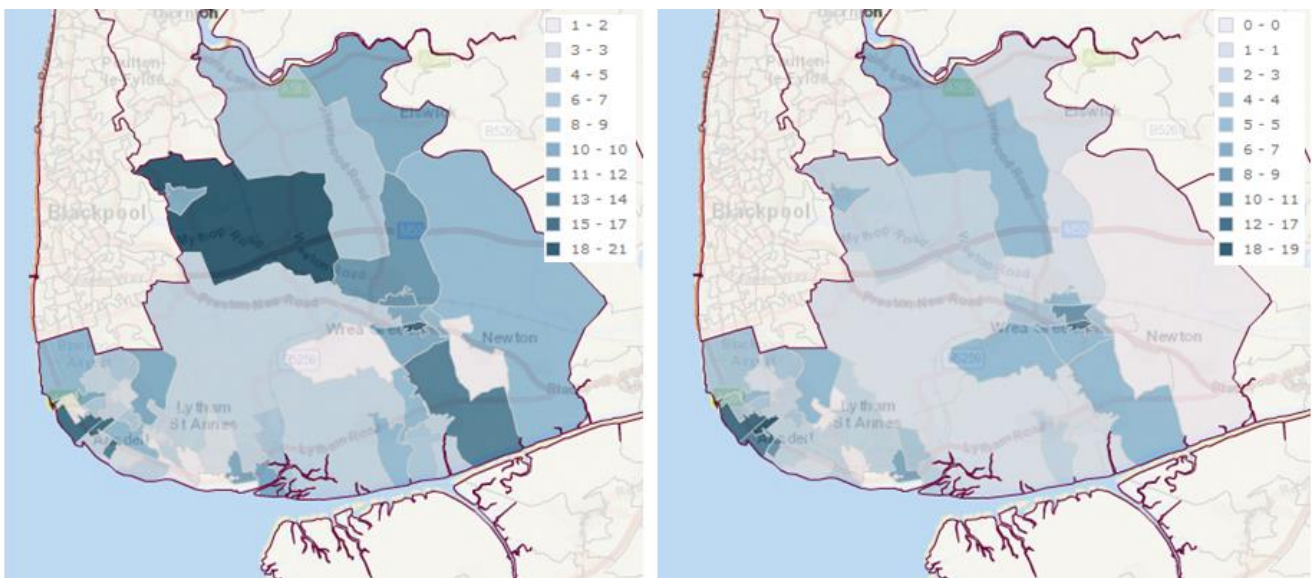
Appendix 3. Assault attendances (left) vs call outs (right), by LSOA within Burnley LA, April 2013 to March 2016



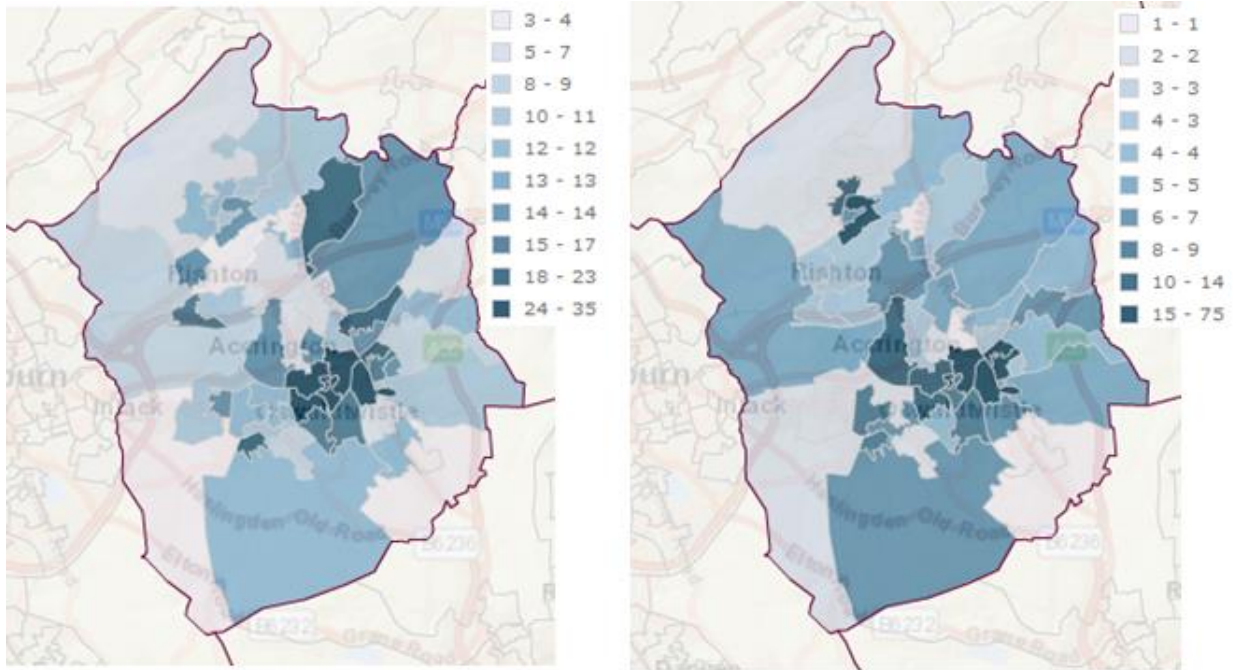
Appendix 4. Assault attendances (left) vs call outs (right), by LSOA within Chorley LA, April 2013 to March 2016



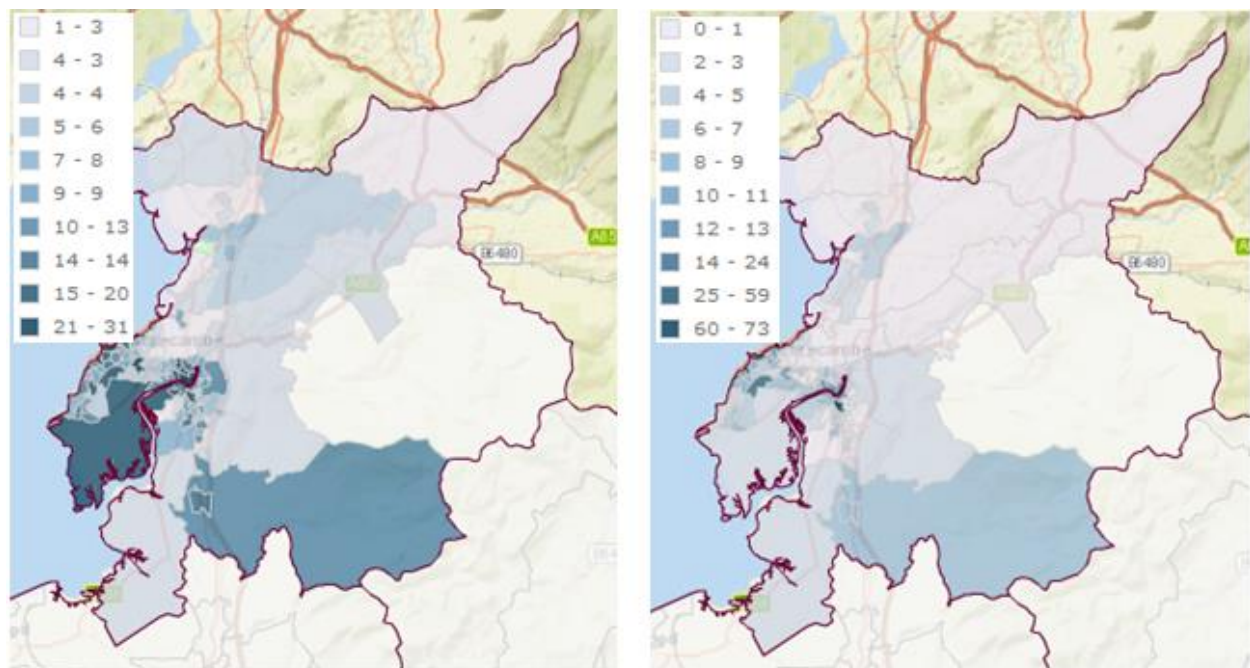
Appendix 5. Assault attendances (left) vs call outs (right), by LSOA within Fylde LA, April 2013 to March 2016



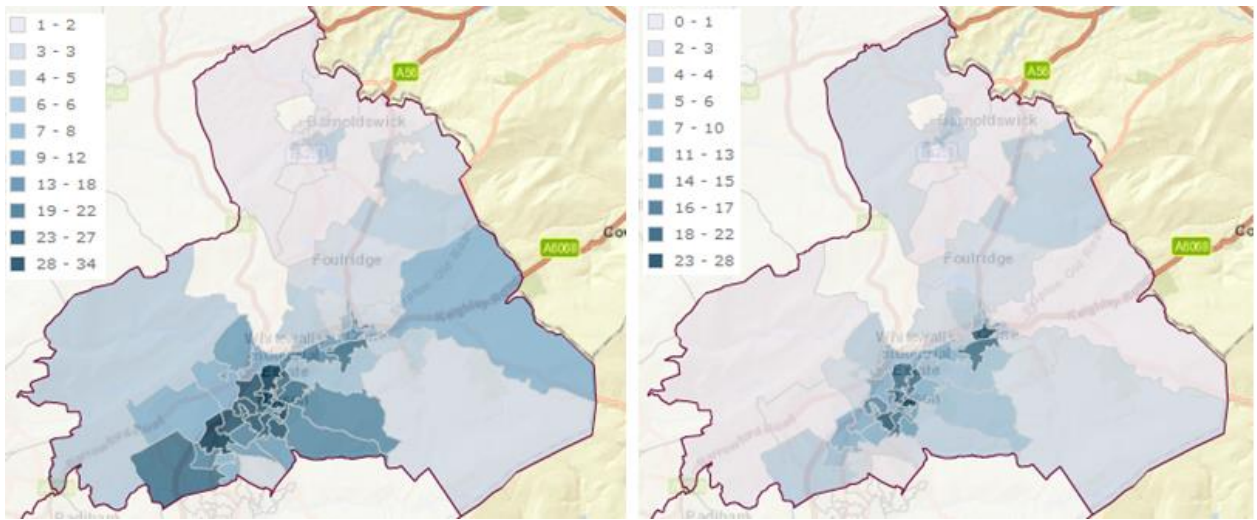
Appendix 6. Assault attendances (left) vs call outs (right), by LSOA within Hyndburn LA, April 2013 to March 2016



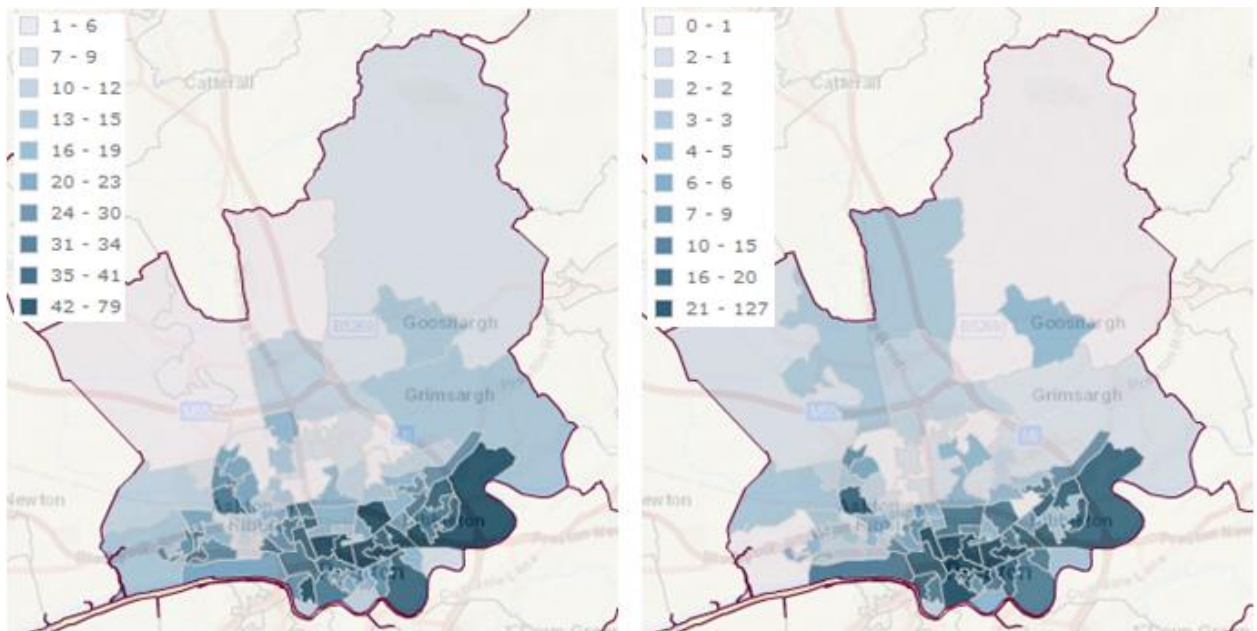
Appendix 7. Assault attendances (left) vs call outs (right), by LSOA within Lancaster LA, April 2013 to March 2016



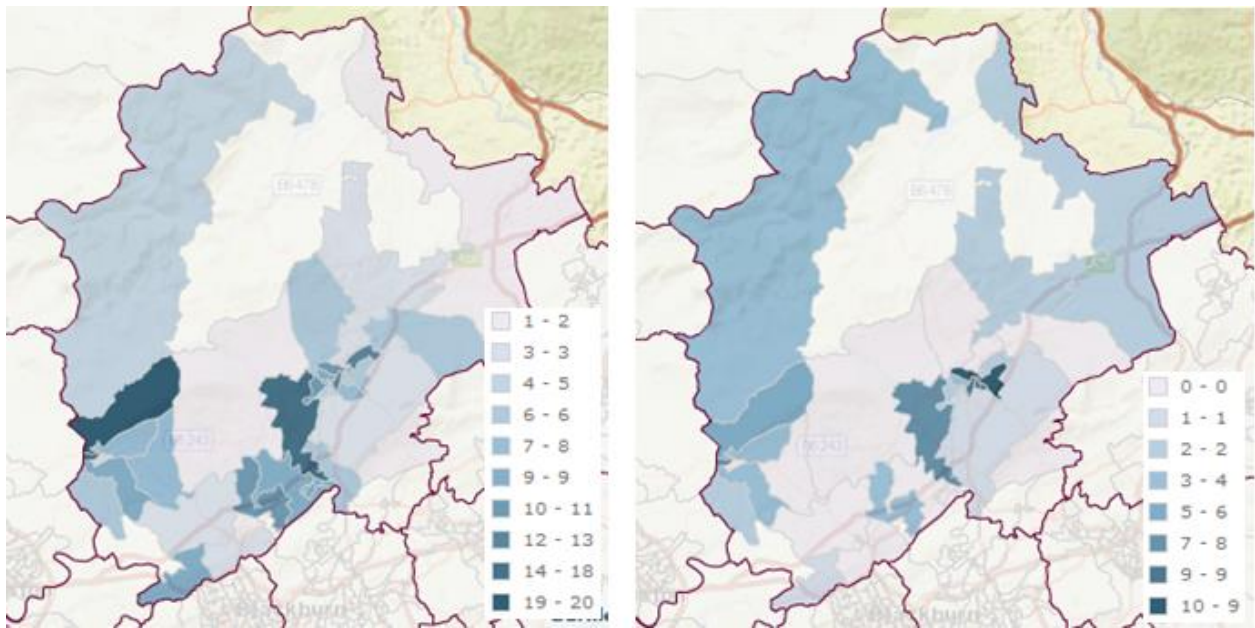
Appendix 8. Assault attendances (left) vs call outs (right), by LSOA within Pendle LA, April 2013 to March 2016



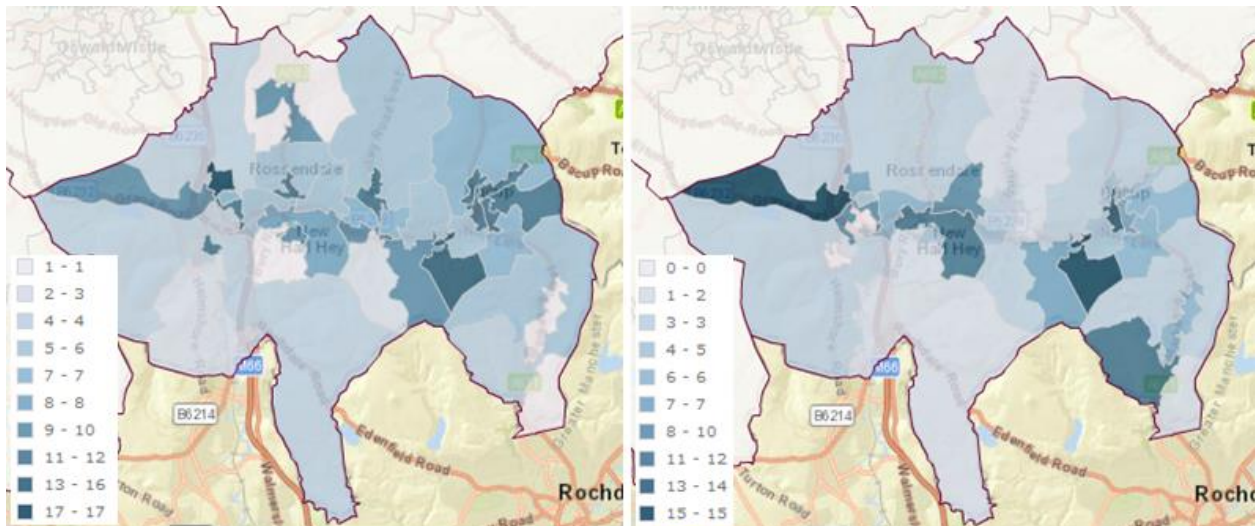
Appendix 9. Assault attendances (left) vs call outs (right), by LSOA within Preston LA, April 2013 to March 2016



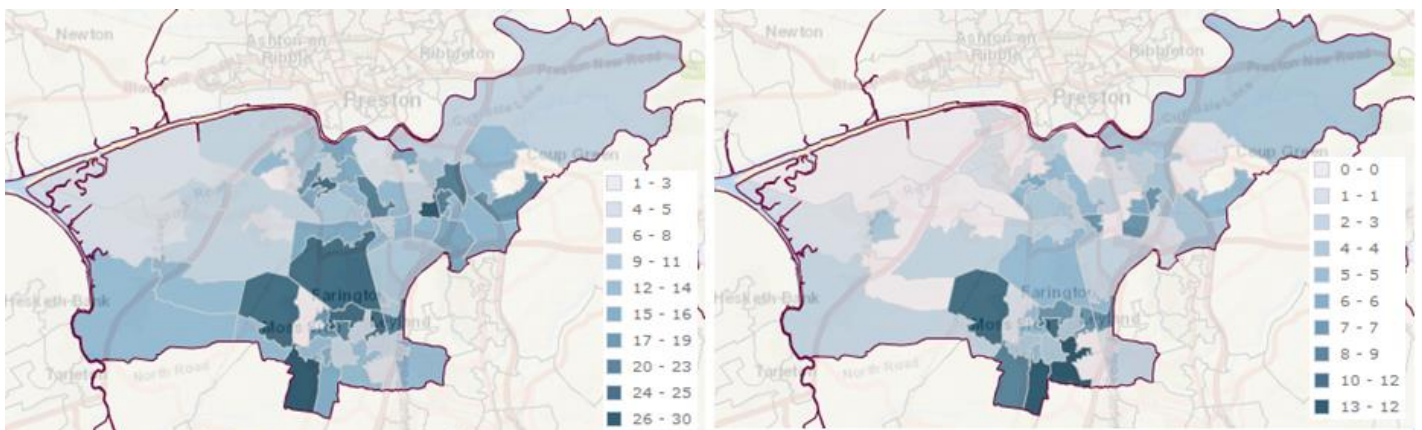
Appendix 10. Assault attendances (left) vs call outs (right), by LSOA within Ribble Valley LA, April 2013 to March 2016



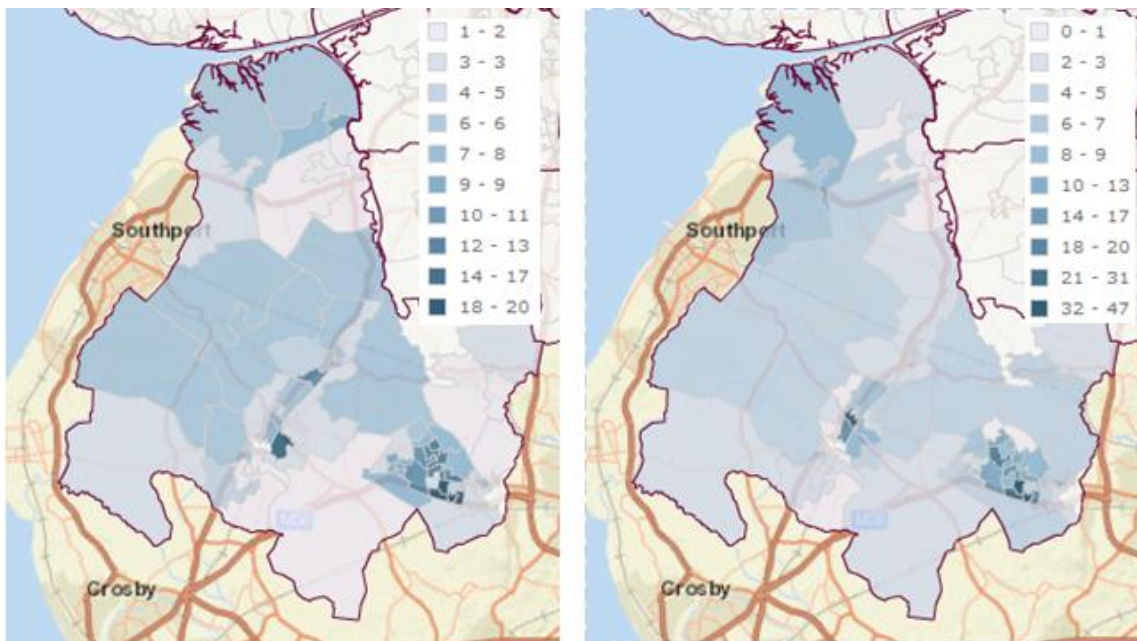
Appendix 11. Assault attendances (left) vs call outs (right), by LSOA within Rossendale LA, April 2013 to March 2016



Appendix 12. Assault attendances (left) vs call outs (right), by LSOA within South Ribble LA, April 2013 to March 2016



Appendix 13. Assault attendances (left) vs call outs (right), by LSOA within West Lancashire LA, April 2013 to March 2016



Appendix 14. Assault attendances (left) vs call outs (right), by LSOA within Wyre LA, April 2013 to March 2016

