

TIIG

INJURY SURVEILLANCE IN THE NORTH WEST OF ENGLAND

Assaults in Lancashire: an analysis of Emergency Department data (April 2012 to March 2013)

Introduction

Violence is a major public health concern in the UK. The UK Government reported that there were 290,959 assaults resulting in injury in 2012/13¹. However, this figure is based on recorded crime only, though it is known that a proportion of assaults that require treatment are not reported to the police².

As promoted by the World Health Organisation (WHO), the recording and sharing of emergency department (ED) data is a key element of injury prevention^{3,4}. Therefore the data collected by EDs (including patient demographics, attendance date and time, and assault location) can contribute to the reduction of violence.

Furthermore, as reported by the Home Office, there is a correlation between violence and the night-time economy (NTE)⁵. The NTE is made up of the leisure industry, namely pubs, bars and clubs, in towns and cities⁶. It is within these licensed premises where alcohol consumption is widespread and it is well-known that the consumption of alcohol is strongly associated with violence⁷.

Assault-related injuries are a burden on our health services⁸. According to Public Health England, between 2008/09 – 2010/11 there were 103,201 violence-related hospital admissions⁹.

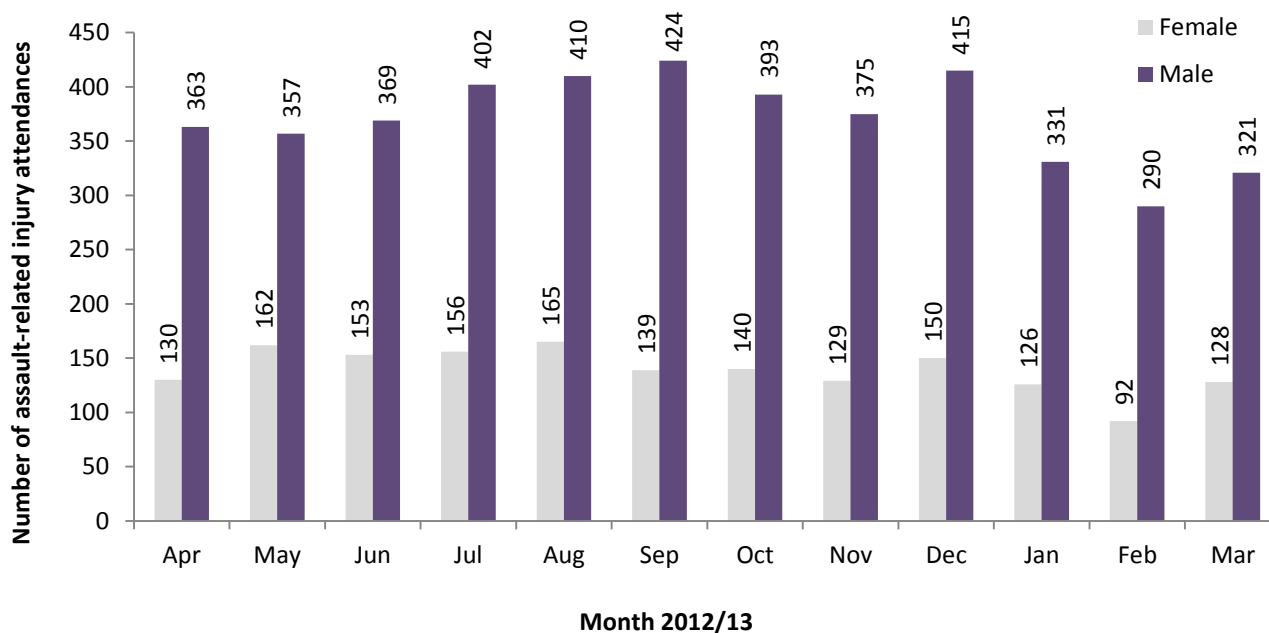
This report delivers an indication of the affliction of assaults on EDs across Lancashire over the twelve-month period, April 2012 to March 2013. It uses data on assault-related injuries from all EDs in Lancashire.

Numbers of assaults

During the twelve-month period, 6,120 assault-related injury attendances were recorded at Lancashire EDs. Of these, 5,665 (93%) were residents of Lancashire.

The month with the highest recorded number of attendances was August 2012 (n=575) compared to 382 in February 2013 (**Figure 1**).

Figure 1: Number of assault-related injury attendances to all Lancashire EDs by month and gender, April 2012 to March 2013



Patient demographics

As illustrated in **Table 1**, almost three-quarters (73%) of all attendees across the county's EDs were male and over half (55%) were aged 15-29 years. Overall, 15-29 year old males accounted for over two-fifths (41%) of all assault attendances.

Local Authority (LA) of residence

In 2012/13, residents of Blackpool and Preston made the most attendances to Lancashire EDs for an assault-related injury (both 16%), followed by Blackburn-with-Darwen residents (13%) (**Table 1**).

Table 1: Number of assault-related injury attendances to all Lancashire EDs by age, gender and LA of residence, April 2012 to March 2013^{A,B}

	Age group and gender												
	0-4		5-14		15-29		30-59		60+		Total		
	F	M	F	M	F	M	F	M	F	M	F	M	Persons
Total ED attendances	8	6	88	228	875	2496	655	1634	44	86	1670	4450	6120
Total ED attendances: Lancashire residents only	8	6	81	203	814	2301	625	1509	41	77	1569	4096	5665
LA of residence:													
<i>Blackburn-with-Darwen</i>	***	0	15	29	99	349	<100	219	6	12	211	609	820
<i>Blackpool</i>	0	0	17	30	126	374	106	325	5	16	254	745	999
<i>Burnley</i>	0	***	6	18	65	175	46	134	***	8	118	336	454
<i>Chorley</i>	***	***	***	13	66	175	68	109	8	5	147	304	451
<i>Fylde</i>	0	0	***	***	24	72	19	36	***	***	48	112	160
<i>Hyndburn</i>	0	0	***	9	46	155	25	93	***	***	75	259	334
<i>Lancaster</i>	***	0	9	19	51	91	38	61	***	7	102	178	280
<i>Pendle</i>	0	0	***	14	40	132	29	85	***	8	71	239	310
<i>Preston</i>	***	***	12	37	160	409	99	244	9	6	282	697	979
<i>Ribble Valley</i>	0	0	***	***	16	32	14	<30	0	***	31	59	90
<i>Rosendale</i>	0	0	***	***	19	47	14	35	***	***	37	90	127
<i>South Ribble</i>	0	***	6	10	61	151	51	95	***	***	121	261	382
<i>West Lancashire</i>	0	0	***	9	6	15	***	***	0	0	10	26	36
<i>Wyre</i>	0	0	0	7	35	124	25	46	***	***	62	181	243
Total ED attendances: LA of residence not known	0	0	***	6	14	53	14	51	***	7	31	117	148
Total ED attendances: LA of residence outside Lancashire	0	0	7	25	61	195	30	125	***	<10	101	354	455

Location of assault

Where the assault location was recorded^C, just less than half (46%) occurred in a public place. Eighteen per cent of assaults were recorded as taking place in the home, with the same proportion recorded as other. There were 7% of assaults reported as taking place in a public building followed by 5% at work (**Table 2**).

^A This report looks at attendances to Lancashire EDs only therefore a proportion of Lancashire residents who have visited an ED outside of the county will not be included in these figures. This is particularly the case with West Lancashire residents attending Royal Albert Edward Hospital in Wigan. For this reason, these figures should be treated with caution.

^B Please note that all numbers less than five have been suppressed (with ***) in line with patient confidentiality and if there is only one number less than five in a category then two numbers will be suppressed to prevent back calculations from totals.

^C Royal Blackburn Hospital does not collect data on the location of the incident.

Table 2: Number of assault-related injury attendances to all Lancashire EDs by month and assault location, April 2012 to March 2013^D

Location	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	%
Public place	175	149	144	182	186	157	156	158	159	112	113	130	1821	46
Home	64	67	68	64	79	51	67	52	63	51	38	68	732	18
Other	47	39	70	75	63	90	72	45	63	66	35	45	710	18
Public building	25	21	23	30	24	30	19	25	23	11	19	17	267	7
Work	24	22	29	8	14	15	16	24	14	10	9	13	198	5
Educational establishment	<10	13	11	***	0	9	8	10	7	13	7	11	99	2
Home - other person's	7	8	***	***	10	13	6	6	8	7	***	***	80	2
Prison	0	***	***	***	***	***	***	5	***	***	***	***	26	1
Public park/playground	0	5	***	***	***	***	***	0	***	***	***	***	18	0
Holiday	0	0	***	***	***	***	0	***	0	***	0	0	9	0
Garden	***	0	0	0	0	***	***	0	0	0	0	0	***	0
Hospital	0	0	0	0	***	***	0	0	***	0	0	0	***	0
Public transport	***	0	0	0	0	0	0	0	0	0	0	***	***	0
Special event	0	***	0	0	0	0	0	***	0	0	0	0	***	0
Sport	***	0	0	0	0	0	0	0	***	0	0	0	***	0
Bus station	0	0	0	0	0	0	0	0	***	0	0	0	***	0
Unknown	***	0	0	0	0	0	0	0	0	0	0	0	***	0
Total	353	327	353	370	383	373	352	327	343	273	229	291	3974	100

^D Royal Blackburn Hospital does not record the location of the incident and has therefore been omitted from this table (n=2,146).

Mode of arrival

Table 3 demonstrates the mode of arrival to the ED. Four in ten (40%) arrived to the ED by private transport and almost a quarter (23%) arrived by ambulance.

^D Please note that all numbers less than five have been suppressed (with ***) in line with patient confidentiality and if there is only one number less than five in a category then two numbers will be suppressed to prevent back calculations from totals.

Table 3: Number of assault-related injury attendances to all Lancashire EDs by month and mode of arrival, April 2012 to March 2013

Mode of arrival	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	%
Private transport	178	210	203	200	241	224	212	203	221	195	169	187	2443	40
Ambulance	119	108	122	156	137	125	138	121	127	98	73	104	1428	23
Unknown	62	76	53	72	61	71	56	58	82	54	45	56	746	12
Other	47	39	50	29	40	20	25	16	29	20	26	23	364	6
By foot	18	11	24	37	34	37	41	36	29	26	17	32	342	6
Taxi	23	26	16	22	28	28	21	20	35	23	25	18	285	5
Dropped off	22	18	15	12	9	26	13	24	23	17	12	7	198	3
Public transport	15	14	18	17	17	19	12	13	8	17	8	14	172	3
Police/ prison escort	9	17	21	13	8	13	15	13	11	7	7	8	142	2
Total	493	519	522	558	575	563	533	504	565	457	382	449	6120	100

Patient disposal

The disposal of a patient gives an indication of the severity of the injuries sustained. As illustrated in **Table 4**, over half (54%) of assault attendees were discharged, whilst 24% required follow-up treatment or a referral for further treatment and 8% were admitted to hospital.

Table 4: Number of assault-related injury attendances to all Lancashire EDs by disposal method and ED, April 2012 to March 2013^E

	Disposal method										Total
	Admitted		Discharged		Follow-up/referral		Other		Unknown		
	n	%	n	%	n	%	n	%	n	%	
Total attendances	498	8	3321	54	1488	24	667	11	215	4	6120
Royal Blackburn Hospital	253	12	1048	49	621	29	176	8	48	2	2146
Blackpool Victoria Hospital	59	4	1050	70	187	12	205	14	0	0	1501
Chorley and South Ribble Hospital	33	5	312	50	177	29	68	11	30	5	620
Royal Lancaster Infirmary	<35	9	162	50	86	26	<50	14	1	0	325
Ormskirk General Hospital	***	4	52	75	13	19	***	1	0	0	69
Royal Preston Hospital	120	8	697	48	404	28	171	12	67	5	1459

Table 5 looks at the disposal method for Lancashire residents only. More attendees from Hyndburn, Rossendale, Blackburn-with-Darwen and Ribble Valley were admitted (15%, 13%, 12% and 12% respectively) than other areas. For assault attendees requiring follow-up treatment/referral, there were more from Pendle, Burnley and West Lancashire (39%, 34% and 33% respectively).

^E Please note that all numbers less than five have been suppressed (with ***) in line with patient confidentiality and if there is only one number less than five in a category then two numbers will be suppressed to prevent back calculations from totals.

Table 5: Number of assault-related injury attendances to all Lancashire EDs by disposal method and LA of residence (Lancashire residents only), April 2012 to March 2013^{F,G}

	Disposal method										
	Admitted		Discharged		Follow-up/referral		Other		Unknown		Total
	n	%	n	%	n	%	n	%	n	%	
Lancashire residents only	459	8	3039	54	1425	25	605	11	137	2	5665
<i>Blackburn-with -Darwen</i>	99	12	421	51	205	25	<100	11	***	0	820
<i>Blackpool</i>	48	5	669	67	145	15	<140	14	***	0	999
<i>Burnley</i>	44	10	202	44	154	34	24	5	30	7	454
<i>Chorley</i>	30	7	210	47	137	30	56	12	18	4	451
<i>Fylde</i>	<10	4	105	66	33	21	15	9	***	1	160
<i>Hyndburn</i>	51	15	162	49	84	25	37	11	0	0	334
<i>Lancaster</i>	23	8	144	51	69	25	<45	15	***	0	280
<i>Pendle</i>	28	9	141	45	120	39	8	3	13	4	310
<i>Preston</i>	65	7	474	48	277	28	118	12	45	5	979
<i>Ribble Valley</i>	11	12	45	50	24	27	<10	8	***	3	90
<i>Rosendale</i>	16	13	65	51	36	28	<10	6	***	2	127
<i>South Ribble</i>	30	8	204	53	97	25	31	8	20	5	382
<i>West Lancashire</i>	***	3	23	64	12	33	0	0	0	0	36
<i>Wyre</i>	7	3	174	72	32	13	30	12	0	0	243

Of the assault attendees who were admitted to hospital, over two-fifths (44%) were males aged 15-29 years (**Table 6**). This number was over seven times greater than the number of females admitted for the same age group. Males aged 15-29 years also accounted for the largest proportion of patients requiring a follow-up or referral for further treatment (42%).

^F This report looks at attendances to Lancashire EDs only therefore a proportion of Lancashire residents who have visited an ED outside of the county will not be included in these figures. This is particularly the case with West Lancashire residents attending Royal Albert Edward Hospital in Wigan. For this reason, these figures should be treated with caution.

^G Please note that all numbers less than five have been suppressed (with ***) in line with patient confidentiality and if there is only one number less than five in a category then two numbers will be suppressed to prevent back calculations from totals.

Table 6: Number of assault-related injury attendances to all Lancashire EDs by disposal method, age and gender, April 2012 to March 2013^H

Age group	Disposal method											
	Admitted		Discharged		Follow-up/referral		Other		Unknown		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
	Females											
Total	78	5	987	59	400	24	166	10	39	2	1670	100
0-4	***	50	***	38	***	13	0	0	0	0	8	100
5-14	***	2	56	64	21	24	6	7	***	3	88	100
15-29	31	4	524	60	216	25	<95	10	<15	2	875	100
30-59	37	6	378	58	150	23	68	10	22	3	655	100
60+	***	9	<30	59	<15	27	***	5	0	0	44	100
	Males											
	n	%	n	%	n	%	n	%	n	%	n	%
Total	420	9	2334	52	1088	24	501	11	107	2	4450	100
0-4	***	17	***	50	***	33	0	0	0	0	6	100
5-14	<10	4	152	67	60	26	<10	3	***	1	228	100
15-29	220	9	1284	51	629	25	300	12	63	3	2496	100
30-59	178	11	845	52	380	23	192	12	39	2	1634	100
60+	13	15	<55	58	<20	20	***	3	***	3	86	100

Date and time of attendance

As illustrated in **Table 7**, the day of the week that saw the highest number of attendances due to assault-related injuries was a Sunday (23%), followed by Saturdays (21%).

Between 18:00 and 05:59, the hours of the NTE, there were 3,714 assault attendances to Lancashire AEDs; this accounted for over six in ten (61%) of the total number of presentations. Attendances peaked between 02:00 and 03:59 with over one in ten (12%) presentations.

^H Please note that all numbers less than five have been suppressed (with ***) in line with patient confidentiality and if there is only one number less than five in a category then two numbers will be suppressed to prevent back calculations from totals.

Table 7: Number of assault-related injury attendances to all Lancashire EDs by attendance day and time group, April 2012 to March 2013

Time group	Day of attendance															
	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
00:00-01:59	60	8	60	8	55	10	55	9	69	9	172	13	203	14	674	11
02:00-03:59	52	7	68	9	45	8	32	5	69	9	201	16	238	17	705	12
04:00-05:59	34	4	37	5	21	4	26	4	64	8	119	9	162	11	463	8
06:00-07:59	12	2	25	3	12	2	14	2	18	2	61	5	70	5	212	3
08:00-09:59	32	4	36	5	31	5	29	5	34	4	51	4	61	4	274	4
10:00-11:59	64	8	68	9	52	9	38	6	52	7	71	6	75	5	420	7
12:00-13:59	101	13	55	7	36	6	56	10	66	9	89	7	101	7	504	8
14:00-15:59	82	11	71	10	39	7	50	9	55	7	81	6	103	7	481	8
16:00-17:59	74	10	73	10	47	8	69	12	71	9	87	7	94	7	515	8
18:00-19:59	93	12	81	11	81	14	70	12	61	8	85	7	105	7	576	9
20:00-21:59	94	12	69	9	80	14	70	12	82	11	122	10	109	8	626	10
22:00-23:59	67	9	91	12	73	13	76	13	122	16	143	11	98	7	670	11
Total	765	100	734	100	572	100	585	100	763	100	1282	100	1419	100	6120	100

The NTE is more prevalent at weekends, and shown in **Table 8** are the number of assault-related injury attendances on Friday and Saturday nights. There were more attendances on a Saturday night compared to Fridays (Saturday=953; 56%). Over a quarter (26%) of attendances on Friday and Saturday nights were between 02:00 and 03:59, followed by 00:00-01:59 (22%).

Table 8: Number of assault-related injury attendances to all Lancashire EDs on Friday and Saturday nights by attendance day and time group, April 2012 to March 2013

Time group	Friday night		Saturday night		Total	
	n	%	n	%	n	%
18:00-19:59	61	8	85	9	146	9
20:00-21:59	82	11	122	13	204	12
22:00-23:59	122	16	143	15	265	15
00:00-01:59	172	23	203	21	375	22
02:00-03:59	201	27	238	25	439	26
04:00-05:59	119	16	162	17	281	16
Total	757	100	953	100	1710	100

Alcohol consumption

As discussed earlier, we know of the relationship between violence and the NTE and consumption of alcohol. Two of the six EDs in Lancashire record whether alcohol had been consumed in the three hours prior to the assault¹.

Figure 2 shows that more attendees had consumed alcohol prior to the assault than had not (Yes=1,182; 60%).

Figure 2: Number of assault-related injury attendances to Lancashire EDs by alcohol consumption in the three hours prior to the assault, April 2012 to March 2013¹

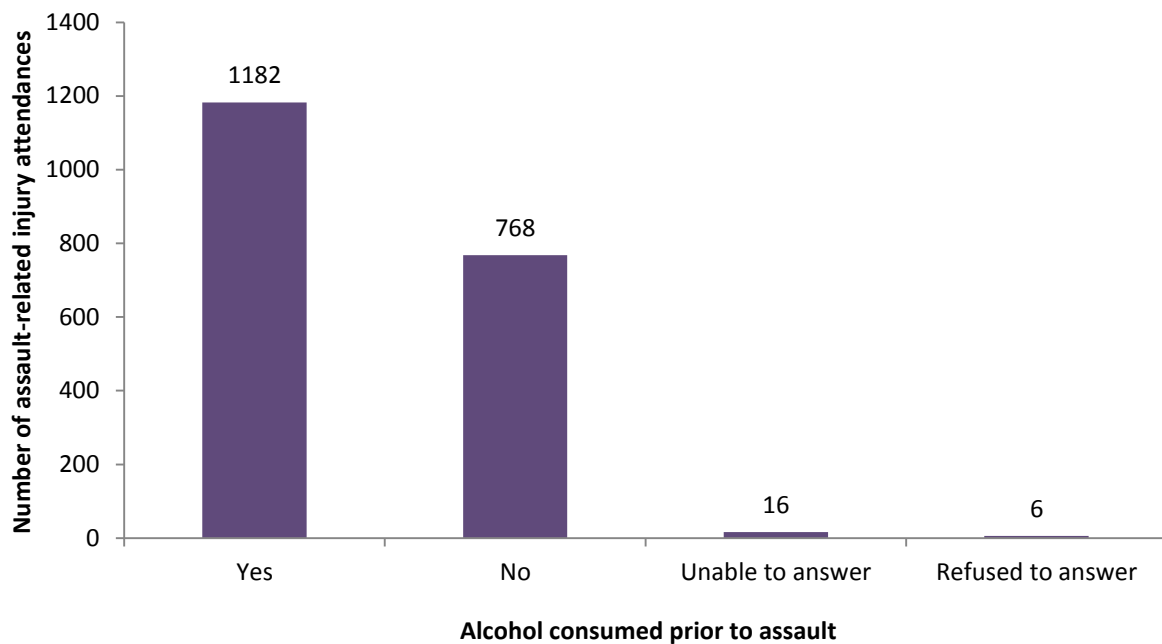


Table 9 looks at the location of where alcohol was last consumed prior to the assault. Almost half (47%) had last consumed alcohol in a pub or bar. Thirteen per cent had consumed alcohol at home, followed by 11% in a nightclub and 10% in a friend's home.

¹ EDs that collect data on whether alcohol has been consumed in the three hours prior to the assault include: Chorley and South Ribble Hospital and Royal Preston Hospital.

Table 9: Location last drink consumed of assault-related injury attendances to Lancashire EDs, April 2012 to March 2013^J

Location last drink consumed	Total	%
Pub/Bar	357	47
Home	102	13
Nightclub	82	11
Friends Home	80	10
Other	51	7
No Drink	40	5
Street/Road	25	3
Unable to Answer	19	2
Green Space/Park	5	1
Refused to Answer	4	1
Unknown	1	0
Total	766	100

Assault weapon

Four of the six EDs in the county capture the assault weapon used^K. The majority (70%) of attendees had injuries inflicted by a body part e.g. fist or head, followed by a blunt object or sharp object (both 9%) (**Table 10**).

Table 10: Weapon of assault-related injury attendances to Lancashire EDs, April 2012 to March 2013^{K,L}

Assault weapon	Total	%
Body part	1342	70
Unknown	177	9
Blunt object	171	9
Sharp object	167	9
Pushed	47	2
Other	6	0
Fire arms/explosives	***	0
Glass	***	0
Refused to Answer	***	0
Total	1913	100

^J This data is only captured by Chorley and South Ribble Hospital and Royal Preston Hospital.

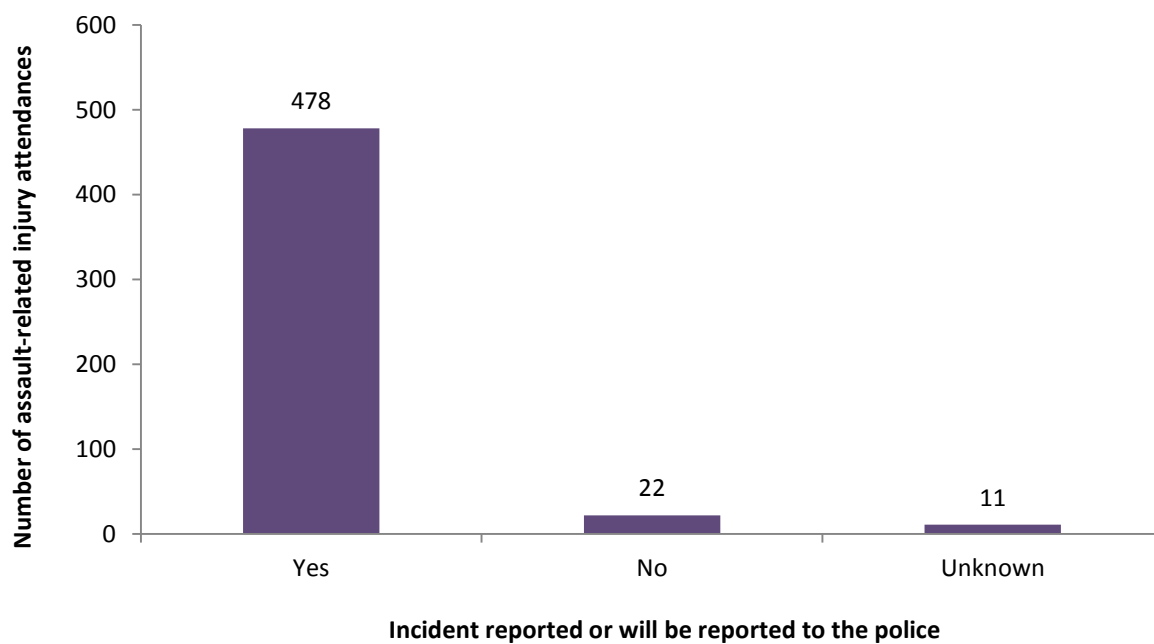
^K EDs that collect data on the assault weapon used include: Blackpool Victoria Hospital, Chorley and South Ribble Hospital, Ormskirk General Hospital and Royal Preston Hospital.

^L Please note that all numbers less than five have been suppressed (with ***) in line with patient confidentiality and if there is only one number less than five in a category then two numbers will be suppressed to prevent back calculations from totals.

Police informed

For the two EDs that record this data^M, **Figure 3** illustrates the number of assault-related injury attendances that were reported or will be reported to the police. The majority (94%) were or will be reported, although this information is only captured by two of the EDs in Lancashire and therefore the figures should be treated with caution.

Figure 3: Number of assault-related injury attendances to Lancashire EDs by incident reported or will be reported to the police, April 2012 to March 2013^M



^M EDs that collect data on whether the police have been informed or will be informed of the assault include: Chorley and South Ribble Hospital and Royal Preston Hospital.

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