

## Injury attendances to Royal Bolton Hospital Emergency Department

### January to December 2009

This report summarises recorded injury attendances to Royal Bolton Emergency Department (ED) between January and December 2009.

Between January and December 2009 there were 47,572 injury attendances to Royal Bolton ED. Males accounted for over half of all attendances (n=25,453; 54%). The month with the highest injury attendances was July (n=4,688) with December having the lowest attendances (n=3,339) (**Figure 1**). The majority of attendances were recorded as other injury (81%). Of the specified injury groups falls accounted for the highest proportion (6%) followed by assault (4%) and road traffic collision (RTC) (3%) (**Table 1**).

For all injuries the highest proportion of attendances were for persons aged 20-34 (24%) and 5-19 (21%) (**Figure 2**). Over a third of fall attendees (36%) were aged 65 or over. Over half (53%) of fall attendees were aged 65 plus. Over four in ten (42%) of assault attendees were aged 20-34. Nearly four in ten (38%) of RTC attendees were aged 20-34 (**Figure 3**).

**Table 2** shows the ethnicity of attendees to Royal Bolton ED. Nearly two-thirds (n=31,127; 90%) were white whilst over a quarter (28%) were recorded as not known.

The disposal of a patient can give an indication of the severity of the injuries sustained. Nearly half (46%) of attendees were referred, over a third (34%) were

discharged and 14% were admitted to hospital (**Table 3**). Half (50%) of RTC attendees were discharged. Over half (55%) of burn attendees were referred, while a third (33%) of DSH attendees were admitted. (**Table 4**).

**Table 5** shows the arrival methods of attendances at Royal Bolton ED. Three quarters (75%) of attendees arrived by foot, whilst nearly a quarter of attendees arrived by ambulance (23%).

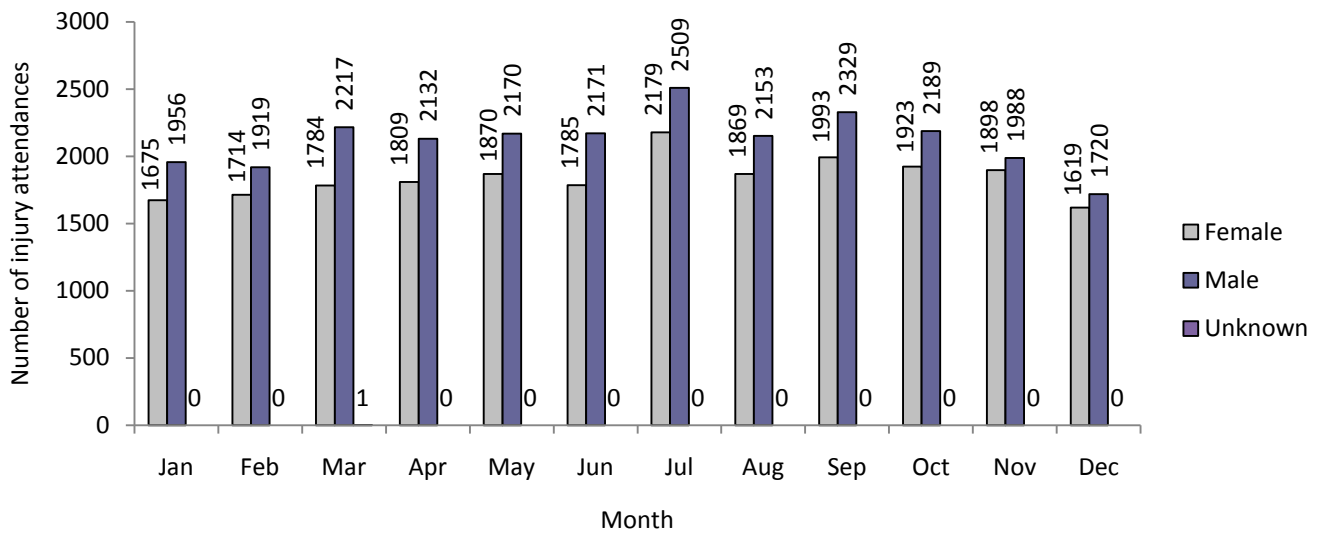
**Table 6** shows the time of arrival of injury attendees to Royal Bolton ED. The largest proportion of injury attendances occurred between 10.00am and 11.59am (n=3,762; 15%). A third of assault attendees presented at the ED between the hours of 22.00pm and 03.59am (n=617; 33%).

**Table 7** shows the day of the week that injury attendees arrived at the hospital. Nearly half (48%) of assault attendees arrived on Saturdays and Sundays.

**Figure 4 (a-d)** shows crude rates of attendance at Royal Bolton ED by attendee's area of residence, in this case Middle Super Output Area (MSOA). The MSOAs with the highest crude rates are indicated beneath each figure.<sup>1</sup>

<sup>1</sup> Population figures are drawn from mid-2008 population estimates from the Office for National Statistics.

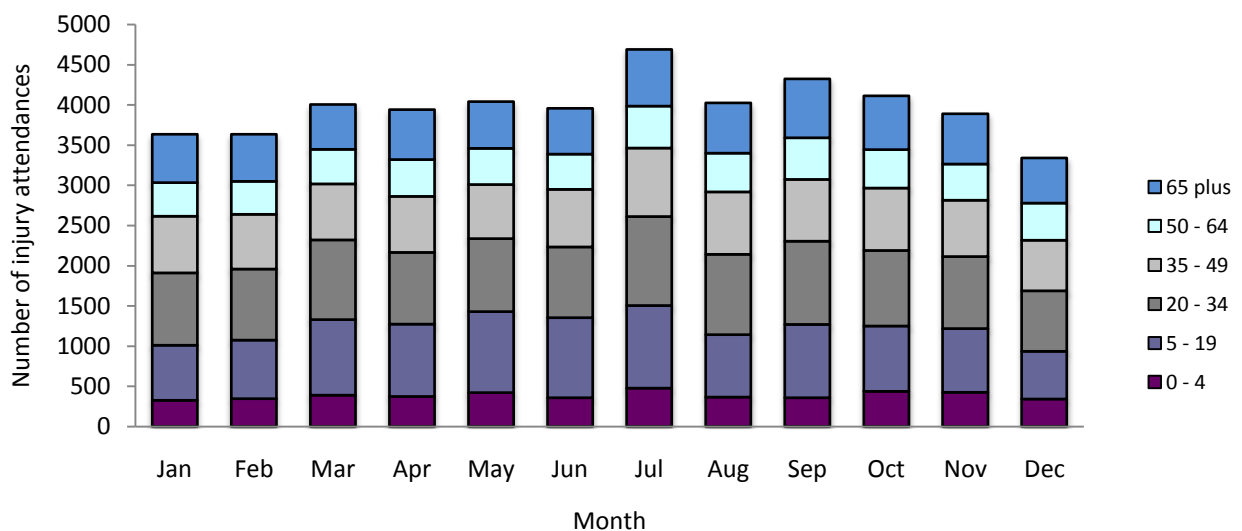
**Figure 1: Royal Bolton ED: Total injury attendances by gender and month, January to December 2009**



**Table 1: Royal Bolton ED: Total injury attendances by injury group and month, January to December 2009<sup>2</sup>**

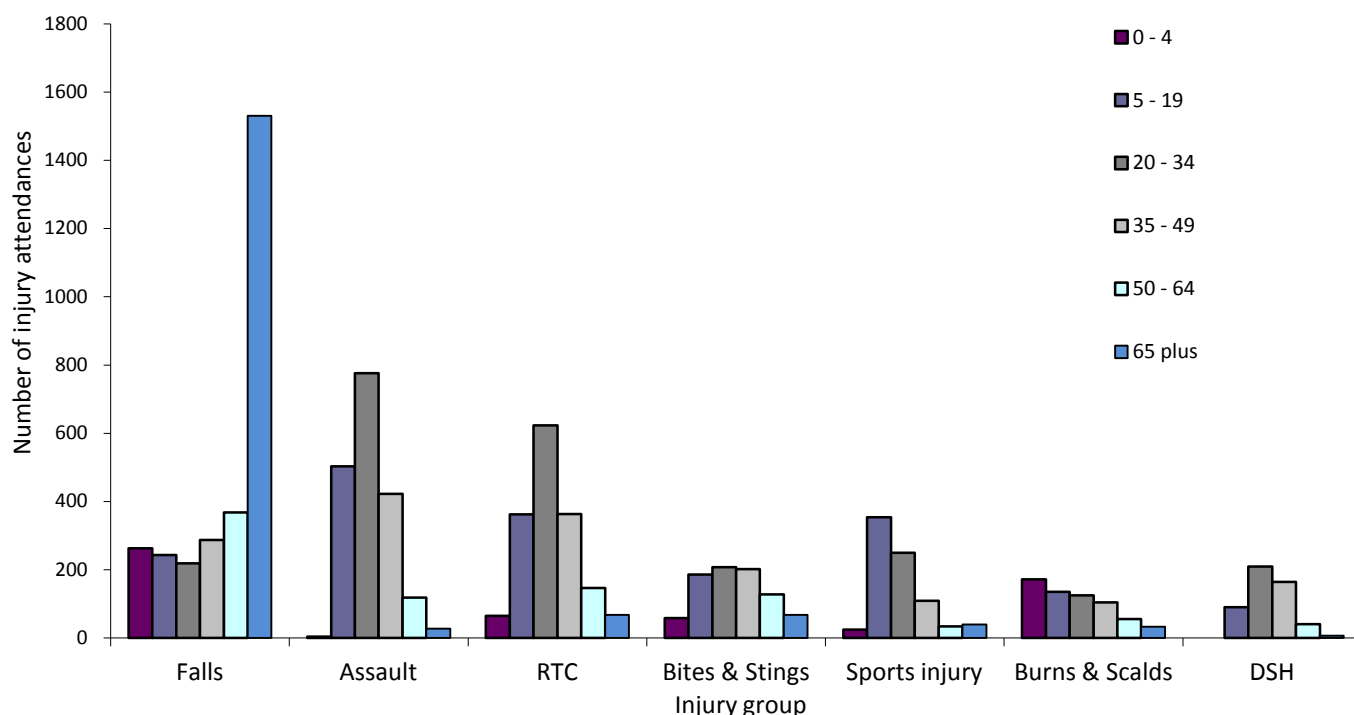
Injury group	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	%
<b>Other injury</b>	2923	2994	3255	3162	3248	3167	3963	3273	3578	3371	3084	2373	38391	81
<b>Falls</b>	198	180	203	217	246	232	193	215	259	245	240	483	2911	6
<b>Assault</b>	164	147	154	179	183	152	149	157	134	157	152	122	1850	4
<b>RTC</b>	149	95	150	140	158	159	127	119	107	124	162	137	1627	3
<b>Bites &amp; Stings</b>	34	43	44	67	63	100	122	119	96	61	49	51	849	2
<b>Sports</b>	59	71	108	87	53	48	40	48	62	73	87	74	810	2
<b>Burns &amp; Scalds</b>	58	42	37	49	51	54	49	60	46	43	70	65	624	1
<b>DSH</b>	46	61	51	40	38	44	45	31	40	38	42	34	510	1
<b>Total</b>	3631	3633	4002	3941	4040	3956	4688	4022	4322	4112	3886	3339	47572	100

**Figure 2: Royal Bolton ED: Total injury attendances by age group and month, January to December 2009**



<sup>2</sup> Firework injury has been included in other injury due to low numbers (n=3)

**Figure 3: Royal Bolton ED: Total injury attendances by age group and injury group, January to December 2009**



**Table 2: Royal Bolton ED: Total injury attendances by ethnicity and month, January to December 2009<sup>3</sup>**

Ethnicity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	%
White	2345	2340	2483	2613	2680	2628	3002	2603	2967	2689	2553	2224	31127	65
Not known	1050	1074	1258	1067	1083	1046	1324	1119	1062	1122	1059	880	13144	28
Indian	92	77	104	106	104	105	135	105	123	111	110	96	1268	3
Pakistani	81	74	86	78	105	112	127	118	94	96	84	73	1128	2
Other ethnic group	27	28	33	26	17	27	45	28	34	47	24	21	357	1
Black	18	20	16	30	23	20	18	25	16	23	27	24	260	1
Mixed	11	14	15	13	23	15	31	16	19	19	25	14	215	0
Bangladeshi	***	***	***	***	***	***	***	***	***	***	***	***	42	0
Chinese	***	***	***	***	***	***	***	***	***	***	***	***	31	0
<b>Total</b>	<b>3631</b>	<b>3633</b>	<b>4002</b>	<b>3941</b>	<b>4040</b>	<b>3956</b>	<b>4688</b>	<b>4022</b>	<b>4322</b>	<b>4112</b>	<b>3886</b>	<b>3339</b>	<b>47572</b>	<b>100</b>

**Table 3: Royal Bolton ED: Total injury attendances by method of disposal and month, January to December 2009**

Disposal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	%
Referred	1796	1572	1725	1749	1839	1954	2095	1857	2026	1856	1903	1469	21841	46
Discharged	1128	1196	1449	1418	1482	1328	1622	1424	1395	1376	1183	1156	16157	34
Admitted	503	574	549	529	502	467	660	526	686	669	607	529	6801	14
Other	204	291	279	245	217	207	311	215	215	211	193	185	2773	6
<b>Total</b>	<b>3631</b>	<b>3633</b>	<b>4002</b>	<b>3941</b>	<b>4040</b>	<b>3956</b>	<b>4688</b>	<b>4022</b>	<b>4322</b>	<b>4112</b>	<b>3886</b>	<b>3339</b>	<b>47572</b>	<b>100</b>

<sup>3</sup> Please note that all numbers less than five have been suppressed in line with patient confidentiality and if there is only one number <5 in a category then two numbers will be suppressed at the next level.

**Table 4: Royal Bolton ED: Total injury attendances by method of disposal and injury group, January to December 2009**

Disposal	Assault		RTC		DSH		Sports		Other		Bites		Burns		Falls		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Referred	730	39	670	41	175	34	358	44	17921	47	380	45	346	55	1261	43	21841	46
Discharged	757	41	808	50	59	12	352	43	12633	33	398	47	218	35	932	32	16157	34
Admitted	77	4	64	4	168	33	67	8	5834	15	15	2	15	2	561	19	6801	14
Other	286	15	85	5	108	21	33	4	2003	5	56	7	45	7	157	5	2773	6
<b>Total</b>	<b>1850</b>	<b>100</b>	<b>1627</b>	<b>100</b>	<b>510</b>	<b>100</b>	<b>810</b>	<b>100</b>	<b>38391</b>	<b>100</b>	<b>849</b>	<b>100</b>	<b>624</b>	<b>100</b>	<b>2911</b>	<b>100</b>	<b>47572</b>	<b>100</b>

**Table 5: Royal Bolton ED: Total injury attendances by mode of arrival and month, January to December 2009\***

Mode	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	%
Foot	2710	2632	3069	2966	3117	3067	3584	3115	3231	2980	2802	2416	35689	75
Ambulance	861	934	838	901	870	825	1029	855	1026	1079	1023	880	11121	23
Other	60	67	95	74	53	64	75	52	65	53	61	43	762	2
<b>Total</b>	<b>3631</b>	<b>3633</b>	<b>4002</b>	<b>3941</b>	<b>4040</b>	<b>3956</b>	<b>4688</b>	<b>4022</b>	<b>4322</b>	<b>4112</b>	<b>3886</b>	<b>3339</b>	<b>47572</b>	<b>100</b>

\*Arrival by helicopter has been included in other due to low numbers (n=44)

**Table 6: Royal Bolton ED: Total injury attendances by time of arrival and injury group, January to December 2009**

Time	Assault		RTC		DSH		Sports		Other		Bites		Burns		Falls		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
0 - 1.59	312	17	70	4	105	21	25	3	1303	3	23	3	23	4	183	6	2044	4
2 - 3.59	315	17	29	2	68	13	14	2	980	3	8	1	9	1	118	4	1541	3
4 - 5.59	145	8	15	1	41	8	12	1	690	2	12	1	4	1	83	3	1002	2
6 - 7.59	39	2	27	2	25	5	25	3	966	3	20	2	5	1	116	4	1223	3
8 - 9.59	52	3	165	10	6	1	62	8	3543	9	77	9	48	8	261	9	4214	9
10 - 11.59	76	4	228	14	16	3	110	14	5785	15	86	10	65	10	346	12	6712	14
12 - 13.59	86	5	183	11	24	5	114	14	5545	14	87	10	98	16	323	11	6460	14
14 - 15.59	97	5	196	12	32	6	87	11	4864	13	109	13	66	11	301	10	5752	12
16 - 17.59	116	6	189	12	32	6	86	11	4605	12	112	13	92	15	291	10	5523	12
18 - 19.59	120	6	233	14	27	5	90	11	3913	10	152	18	94	15	324	11	4953	10
20 - 21.59	187	10	186	11	43	8	105	13	3666	10	101	12	78	13	299	10	4665	10
22 - 23.59	305	16	106	7	91	18	80	10	2531	7	62	7	42	7	266	9	3483	7
<b>Total</b>	<b>1850</b>	<b>100</b>	<b>1627</b>	<b>100</b>	<b>510</b>	<b>100</b>	<b>810</b>	<b>100</b>	<b>38391</b>	<b>100</b>	<b>849</b>	<b>100</b>	<b>624</b>	<b>100</b>	<b>2911</b>	<b>100</b>	<b>47572</b>	<b>100</b>

**Table 7: Royal Bolton ED: Total injury attendances by day and injury group, January to December 2009**

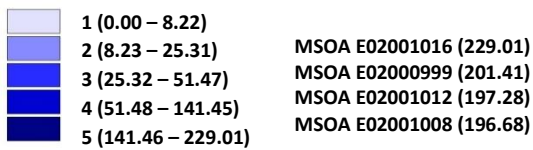
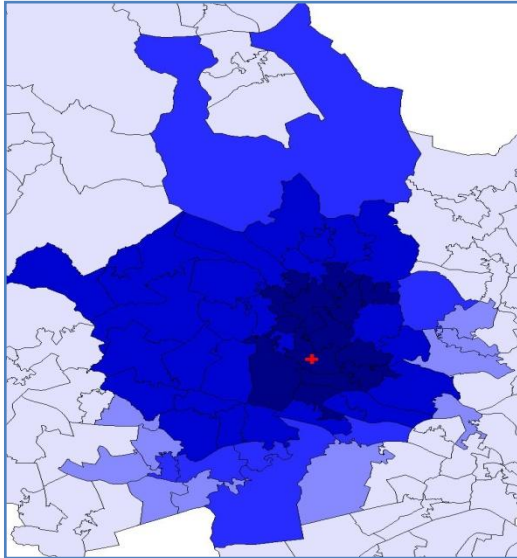
Day	Assault		RTC		DSH		Sports		Other		Bites		Burns		Falls		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Mon	217	12	257	16	79	15	115	14	7042	18	118	14	86	14	439	15	8353	18
Tue	156	8	195	12	69	14	118	15	5083	13	117	14	88	14	384	13	6210	13
Wed	155	8	229	14	47	9	105	13	5350	14	93	11	94	15	403	14	6476	14
Thu	202	11	240	15	48	9	94	12	5338	14	131	15	79	13	453	16	6585	14
Fri	230	12	284	17	58	11	73	9	5503	14	111	13	95	15	353	12	6707	14
Sat	440	24	194	12	109	21	113	14	4569	12	124	15	90	14	413	14	6052	13
Sun	450	24	228	14	100	20	192	24	5506	14	155	18	92	15	466	16	7189	15
<b>Total</b>	<b>1850</b>	<b>100</b>	<b>1627</b>	<b>100</b>	<b>510</b>	<b>100</b>	<b>810</b>	<b>100</b>	<b>38391</b>	<b>100</b>	<b>849</b>	<b>100</b>	<b>624</b>	<b>100</b>	<b>2911</b>	<b>100</b>	<b>47572</b>	<b>100</b>

For further information please contact: Centre for Public Health, Research Directorate, Liverpool John Moores University, 5<sup>th</sup> Floor, Kingsway House, Hatton Garden, Liverpool, L3 2AJ, Tel: 0151 231 8724 or Email: [i.j.warren@ljmu.ac.uk](mailto:i.j.warren@ljmu.ac.uk)  
 Website: [www.tiig.info](http://www.tiig.info) (data requests should be made through the website)

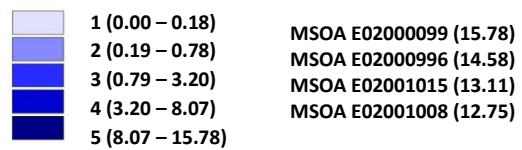
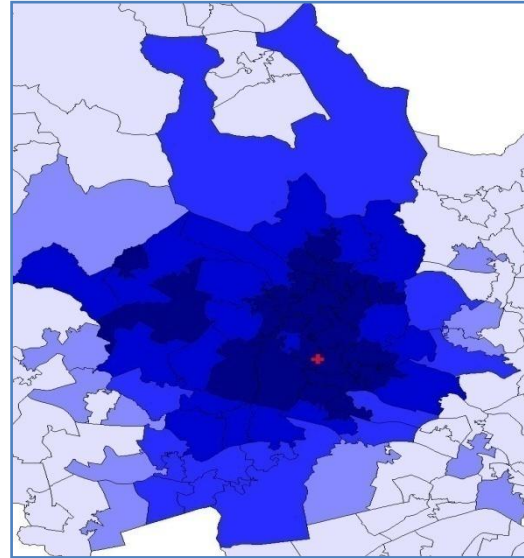
**Figure 4a,b,c,d: Middle Super Output Area of residence for injury attendances to Royal Bolton ED. Quintiles of crude rates per 1,000 population, January to December 2009**

a) All injury attendances: quintiles of crude rates per 1,000 population    b) Fall: quintiles of crude rates per 1,000 population

**+** Royal Bolton ED

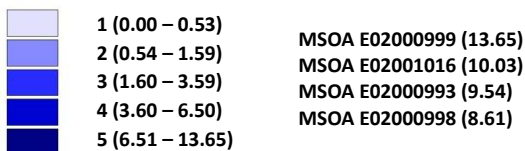
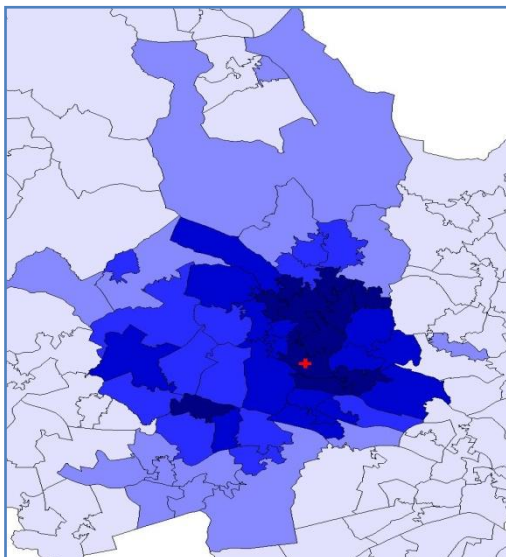


**+** Royal Bolton ED



c) Assault: quintiles of crude rates per 1,000 population

**+** Royal Bolton ED



d) RTC: quintiles of crude rates per 1,000 population

**+** Royal Bolton ED

