

## Injury attendances to Manchester Royal Infirmary Emergency Department

### April 2009 to March 2010

This report summarises recorded injury attendances to Manchester Royal Infirmary Emergency Department (ED) between April 2009 and March 2010.

Between April 2009 and March 2010 there were 43,089 injury attendances to Manchester Royal Infirmary ED. Males accounted for over half (n=25,280; 59%) of all attendances. The month with the highest attendances was May (n=5,338) with February having the lowest attendances (n=2,043) (**Figure 1**). The majority (84%) of attendances were recorded as other accident; assault accounted for the highest proportion (6%) of specified injury groups followed by road traffic collision (RTC) (6%) and sports injury (4%) (**Table 1**).

For all injuries, the highest proportion of attendances were for persons aged 20-34 (38%) and 5-19 (20%) (**Figure 2**). Over half (53%) of assault attendees were aged 20-34. Nearly half (48%) of RTC attendees were aged 20-34. Over half (56%) of sports injury attendees were aged 20-34 (**Figure 3**).

**Table 2** shows the location where injuries occurred. The majority (69%) of injuries were recorded as other location; 14% occurred in a public place while 12% occurred in the home.

**Table 3** shows the ethnicity of attendees to Manchester Royal Infirmary ED. Nearly two thirds

(64%) were white, 11% were recorded as other, 8% were Pakistani and 7% were black.

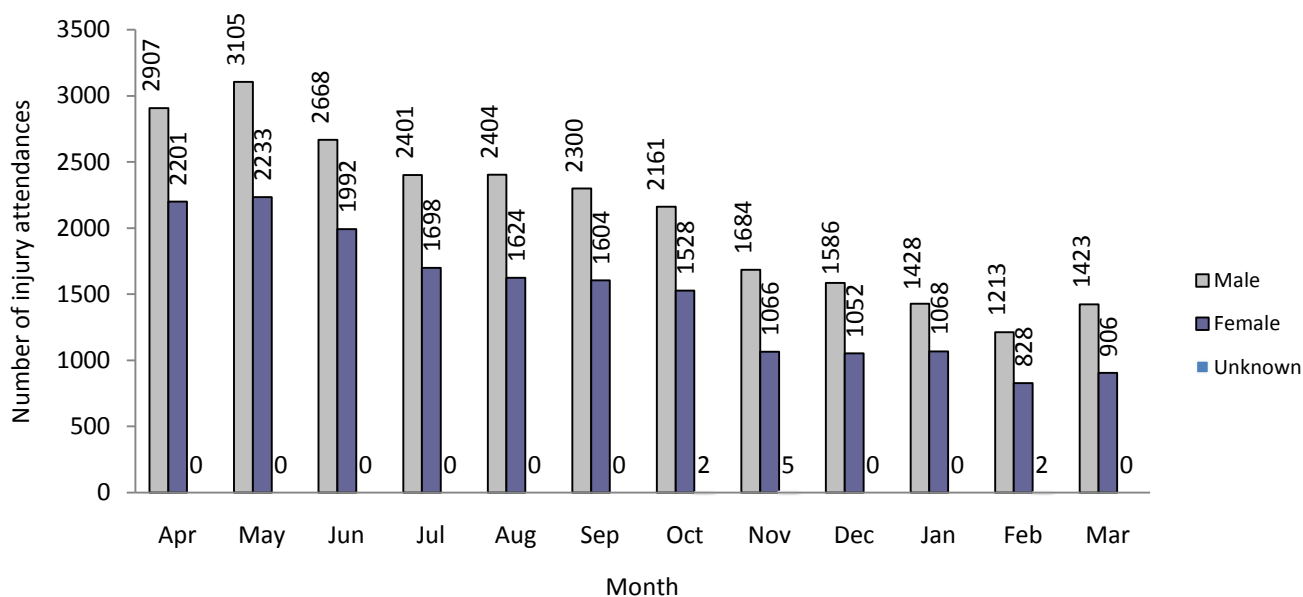
The disposal of a patient can give an indication of the severity of the injuries sustained. Nearly two-thirds (59%) of attendees were discharged, nearly a quarter (24%) were referred and 9% were admitted (**Table 4**). Over two-thirds (69%) of RTC attendees were discharged while 4% were admitted. Over a third (34%) of deliberate self harm (DSH) attendees were admitted (**Table 5**).

**Table 6** shows the arrival methods of attendances at Manchester Royal Infirmary ED. Over three-quarters (79%) arrived by means other than an ambulance, while more than one in five (21%) arrived by ambulance.

**Figure 4 (a-d)** shows crude rates of attendance at Manchester Royal Infirmary 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: Manchester Royal Infirmary ED: Total injury attendances by gender and month, April 2009 to March 2010<sup>2</sup>**

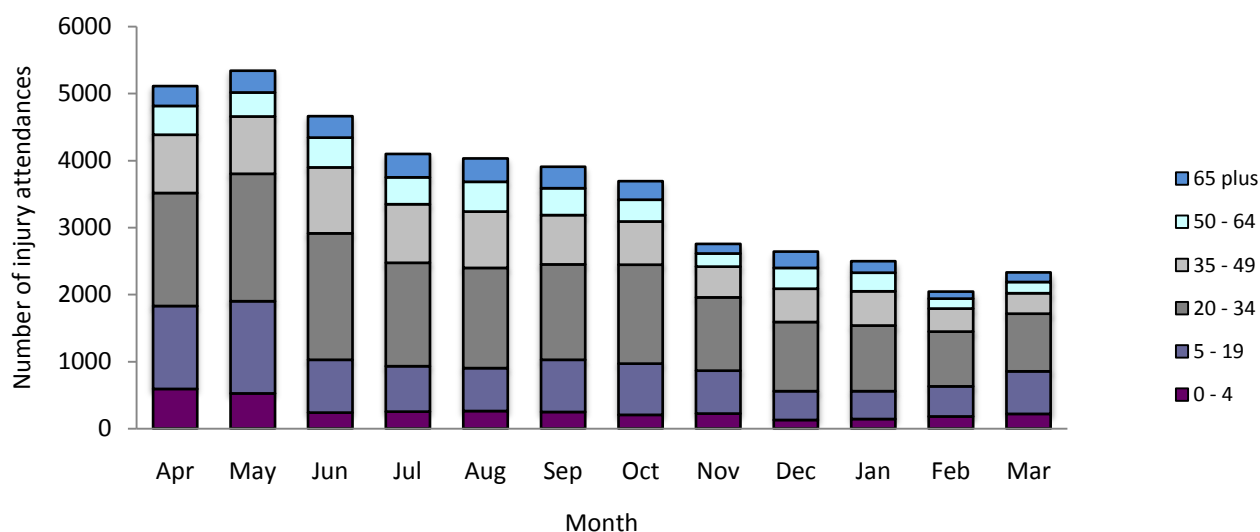


**Table 1: Manchester Royal Infirmary ED: Total injury attendances by injury group and month, April 2009 to March 2010**

Injury group	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	%
Other accident*	4552	4717	4161	3668	3557	3437	3043	1915	2020	1989	1474	1652	36185	84
RTC	160	172	136	154	135	144	203	353	270	211	239	243	2420	6
Assault	212	244	198	169	213	189	221	249	196	174	155	173	2393	6
Sports injury	125	145	112	60	69	67	171	208	128	93	151	231	1560	4
DSH	59	60	53	48	54	67	53	30	24	29	24	30	531	1
<b>Total</b>	<b>5108</b>	<b>5338</b>	<b>4660</b>	<b>4099</b>	<b>4028</b>	<b>3904</b>	<b>3691</b>	<b>2755</b>	<b>2638</b>	<b>2496</b>	<b>2043</b>	<b>2329</b>	<b>43089</b>	<b>100</b>

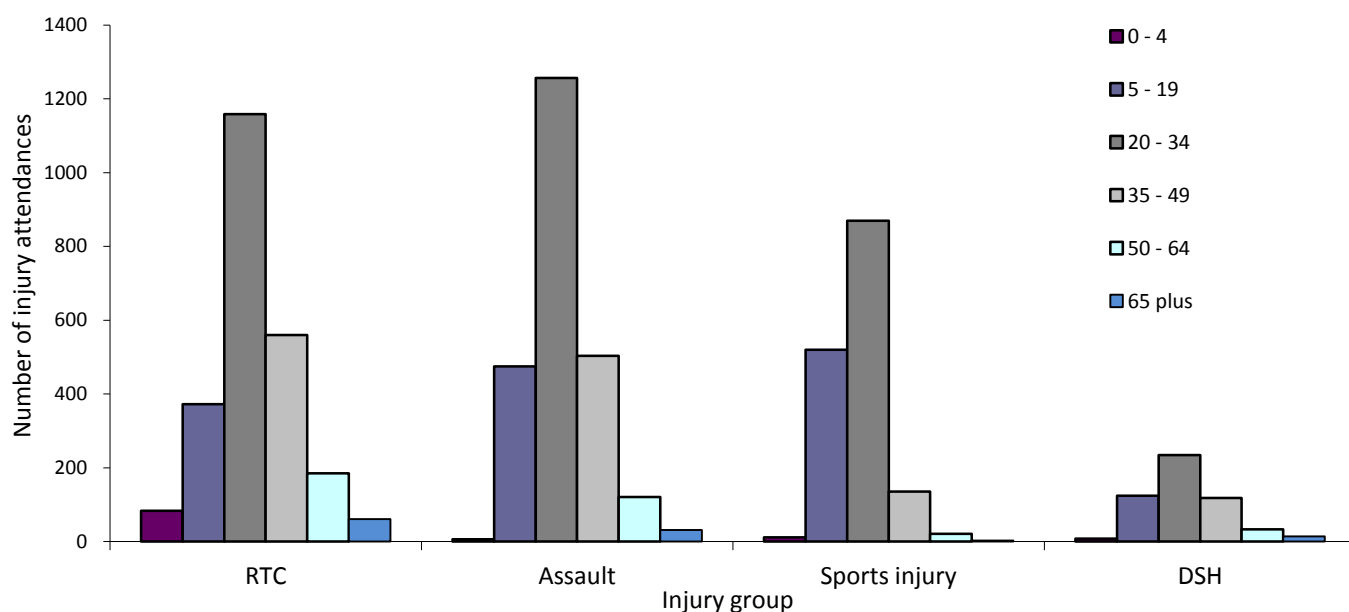
\*Firework injury has been included in other accident due to low numbers (n=22)

**Figure 2: Manchester Royal Infirmary ED: Total injury attendances by age group and month, April 2009 to March 2010**



<sup>2</sup> There was an IT system change in October 2009, which resulted in the recording of information becoming more precise. This may well explain the reduction in 'other accident' attendances from that date forward.

**Figure 3: Manchester Royal Infirmary ED: Total injury attendances by age group and injury group, April 2009 to March 2010**



**Table 2: Manchester Royal Infirmary ED: Total injury attendances by location of incident and injury group, April 2009 to March 2010\***

	RTC		Assault		DSH		Sports injury		Other accident		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Other	984	98	1295	54	315	82	1287	83	24599	68	28480	69
Public place	8	1	926	39	44	11	159	10	4631	13	5768	14
Home	***	***	105	4	24	6	***	***	4949	14	5104	12
Educational establishment	***	***	9	0	***	***	90	6	989	3	1090	3
Work	***	***	57	2	***	***	***	***	1016	3	1077	3
<b>Total</b>	<b>999</b>	<b>100</b>	<b>2392</b>	<b>100</b>	<b>384</b>	<b>100</b>	<b>1560</b>	<b>100</b>	<b>36184</b>	<b>100</b>	<b>41519</b>	<b>100</b>

\*Location was not recorded in 1,570 cases

**Table 3: Manchester Royal Infirmary ED: Total injury attendances by ethnicity and month, April 2009 to March 2010<sup>3</sup>**

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	%
White	3332	3442	2974	2528	2635	2538	2359	1763	1731	1607	1304	1433	27646	64
Other ethnic group	510	579	492	496	415	417	452	284	246	277	217	266	4651	11
Pakistani	410	427	399	395	323	299	244	194	188	182	160	194	3415	8
Black	325	351	351	307	287	293	257	183	158	152	122	153	2939	7
Not known	213	230	146	109	131	114	171	151	171	136	117	151	1840	4
Mixed	146	122	122	104	105	104	84	81	60	51	36	53	1068	2
Indian	74	91	73	77	70	68	56	45	40	49	39	31	713	2
Chinese	52	51	54	44	30	45	39	30	25	25	26	35	456	1
Bangladeshi	46	45	49	39	32	26	29	24	19	17	22	13	361	1
<b>Total</b>	<b>5108</b>	<b>5338</b>	<b>4660</b>	<b>4099</b>	<b>4028</b>	<b>3904</b>	<b>3691</b>	<b>2755</b>	<b>2638</b>	<b>2496</b>	<b>2043</b>	<b>2329</b>	<b>43089</b>	<b>100</b>

<sup>3</sup> White = Irish, British, other white background; Mixed = white and black, white and Asian, mixed any other; Other = any other ethnic group, any other Asian background; Black = African, Caribbean, other black.

**Table 4: Manchester Royal Infirmary ED: Total injury attendances by method of disposal and month, April 2009 to March 2010\*<sup>4</sup>**

Disposal	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	%
Discharged	3238	3384	2790	2504	2621	2447	2298	1426	1237	1085	1013	1180	25223	59
Referred	1053	1080	1169	855	657	761	750	853	898	957	675	740	10448	24
Other	474	534	424	302	271	243	302	253	268	233	192	243	3739	9
Admitted	343	340	277	438	479	453	337	218	234	220	162	162	3663	9
<b>Total</b>	<b>5112</b>	<b>5343</b>	<b>4666</b>	<b>4106</b>	<b>4036</b>	<b>3913</b>	<b>3697</b>	<b>2761</b>	<b>2649</b>	<b>2496</b>	<b>2044</b>	<b>2328</b>	<b>43073</b>	<b>100</b>

\*Method of disposal was not recorded in 16 cases

**Table 5: Manchester Royal Infirmary ED: Total injury attendances by method of disposal and injury group, April 2009 to March 2010\***

Disposal	RTC		Assault		DSH		Sports injury		Other accident		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Discharged	1674	69	1276	53	169	32	900	58	21204	59	25223	59
Referred	380	16	592	25	99	19	569	36	8808	24	10448	24
Other	278	11	321	13	84	16	46	3	3010	8	3739	9
Admitted	86	4	204	9	178	34	44	3	3151	9	3663	9
<b>Total</b>	<b>2418</b>	<b>100</b>	<b>2393</b>	<b>100</b>	<b>530</b>	<b>100</b>	<b>1559</b>	<b>100</b>	<b>36173</b>	<b>100</b>	<b>43073</b>	<b>100</b>

\*Method of disposal was not recorded in 16 cases

**Table 6: Manchester Royal Infirmary ED: Total injury attendances by mode of arrival and month, April 2009 to March 2010**

Arrival mode	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	%
Ambulance	949	1003	899	889	1035	853	847	518	611	497	411	445	8957	21
Other	4159	4335	3761	3210	2993	3051	2844	2237	2027	1999	1632	1884	34132	79
<b>Total</b>	<b>5108</b>	<b>5338</b>	<b>4660</b>	<b>4099</b>	<b>4028</b>	<b>3904</b>	<b>3691</b>	<b>2755</b>	<b>2638</b>	<b>2496</b>	<b>2043</b>	<b>2329</b>	<b>43089</b>	<b>100</b>

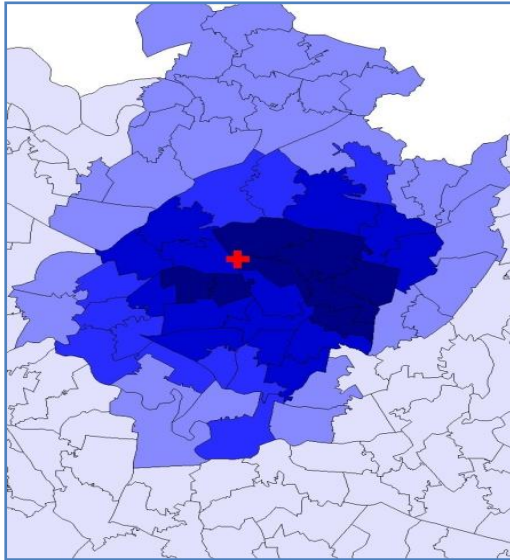
For further information please contact: Centre for Public Health, Research Directorate, Liverpool John Moores University, 3rd Floor, Henry Cotton Building, 15-21 Webster Street, Liverpool, L3 2ET, Tel: 0151 231 4513 or Email: [i.j.warren@ljmu.ac.uk](mailto:i.j.warren@ljmu.ac.uk)  
Website: [www.tiig.info](http://www.tiig.info) (data requests should be made through the website)

<sup>4</sup> Admitted=admitted to ED bed/became a lodged patient of the same health care provider; Discharged=discharged - did not require any follow up treatment; Referral/follow up =discharged - follow up treatment to be provided by GP, referred to ED clinic, referred to fracture clinic, referred to other out-patient clinic, transferred to other health care provider, referred to other health care professional; Other=died in department, left department before being treated, left department having refused treatment, other.

**Figure 4a,b,c,d: Middle Super Output Area of residence for injury attendances to Manchester Royal Infirmary ED. Quintiles of crude rates per 1,000 population, April 2009 to March 2010**

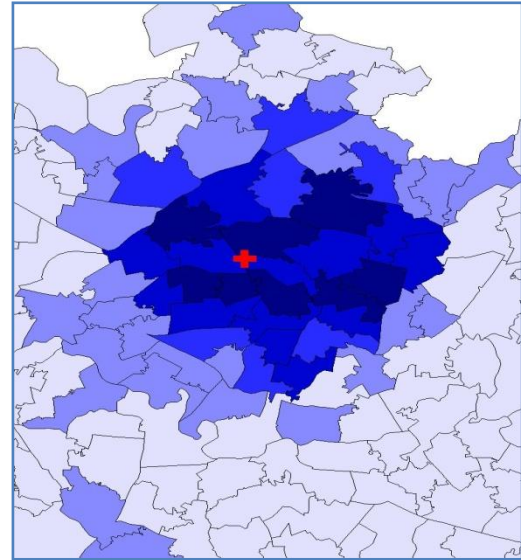
a) All injury attendances: quintiles of crude rates per 1,000 population    b) Assault: quintiles of crude rates per 1,000 population

✚ Manchester Royal Infirmary ED



1 (0.00 – 10.52)	MSOA E02001062 (157.26)
2 (10.53 – 34.55)	MSOA E02001068 (147.91)
3 (34.56 – 71.47)	MSOA E02001067 (146.98)
4 (71.48 – 114.93)	MSOA E02001066 (146.04)
5 (114.94 – 157.26)	

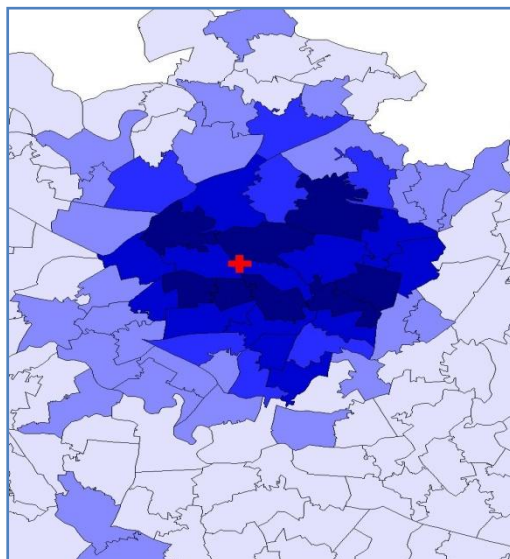
✚ Manchester Royal Infirmary ED



1 (0.00 – 0.73)	MSOA E02001062 (10.16)
2 (0.74 – 2.18)	MSOA E02001060 (8.71)
3 (2.19 – 3.75)	MSOA E02001071 (8.35)
4 (3.76 – 6.90)	MSOA E02001068 (8.23)
5 (6.91 – 10.16)	

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

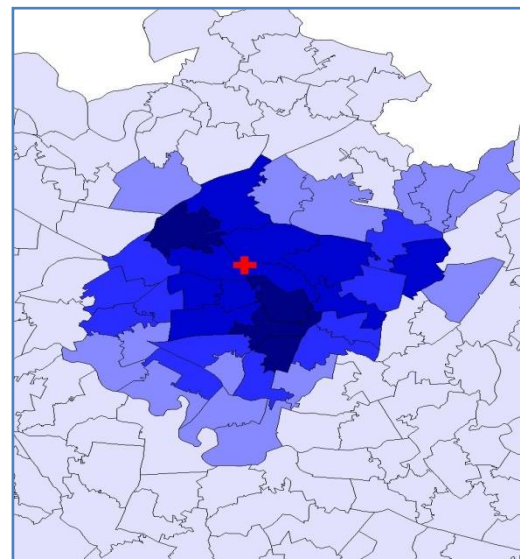
✚ Manchester Royal Infirmary ED



1 (0.00 – 0.61)	MSOA E02001071 (15.25)
2 (0.62 – 1.69)	MSOA E02001064 (10.77)
3 (1.70 – 3.63)	MSOA E02001067 (10.77)
4 (3.64 – 7.62)	MSOA E02001066 (10.28)
5 (7.63 – 15.25)	

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

✚ Manchester Royal Infirmary ED



1 (0.00 – 0.73)	MSOA E02001076 (9.56)
2 (0.74 – 2.30)	MSOA E02001060 (8.35)
3 (2.31 – 3.99)	MSOA E02001080 (7.96)
4 (4.00 – 5.93)	MSOA E02001070 (7.02)
5 (5.94 – 9.56)	