

## Injury attendances to Royal Bolton Hospital Emergency Department

### January to December 2010

This report summarises recorded injury attendances to Royal Bolton Emergency Department (ED) between January and December 2010.

Between January and December 2010 there were 49,009 attendances to Royal Bolton ED. Males accounted for over half (53%) of all attendances. The month with the highest attendances was May (n=4,773) with February having the lowest (n=3,519) (**Figure 1**). Of the specified injury groups, falls (8%) accounted for the highest proportion followed by road traffic collision (RTC) (3%) and assault (3%) (**Table 1**).

The highest proportion of attendances were for persons aged 20-34 (23%) and 5-19 years (20%) (**Figure 2**). Over four in ten (45%) of fall attendees were aged 65 or over while over three in ten (31%) of burns and scald injuries were sustained by 0 to 4 year olds. 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. Over two-thirds (70%) were white whilst over a fifth (22%) were recorded as not known.

The disposal of a patient can give an indication of the severity of the injuries sustained. Seven in ten (47%) of attendees were referred, nearly a third (32%) were discharged and 16% were admitted (**Table 3**). Nearly two-thirds (64%) of burns and scald attendees were

referred, while over a quarter (27%) of deliberate self-harm (DSH) attendees were admitted (**Table 4**).

**Table 5** shows the arrival methods of attendances at Royal Bolton ED. Nearly three-quarters (74%) of attendees arrived by foot, whilst over a quarter (26%) of attendees arrived by ambulance.

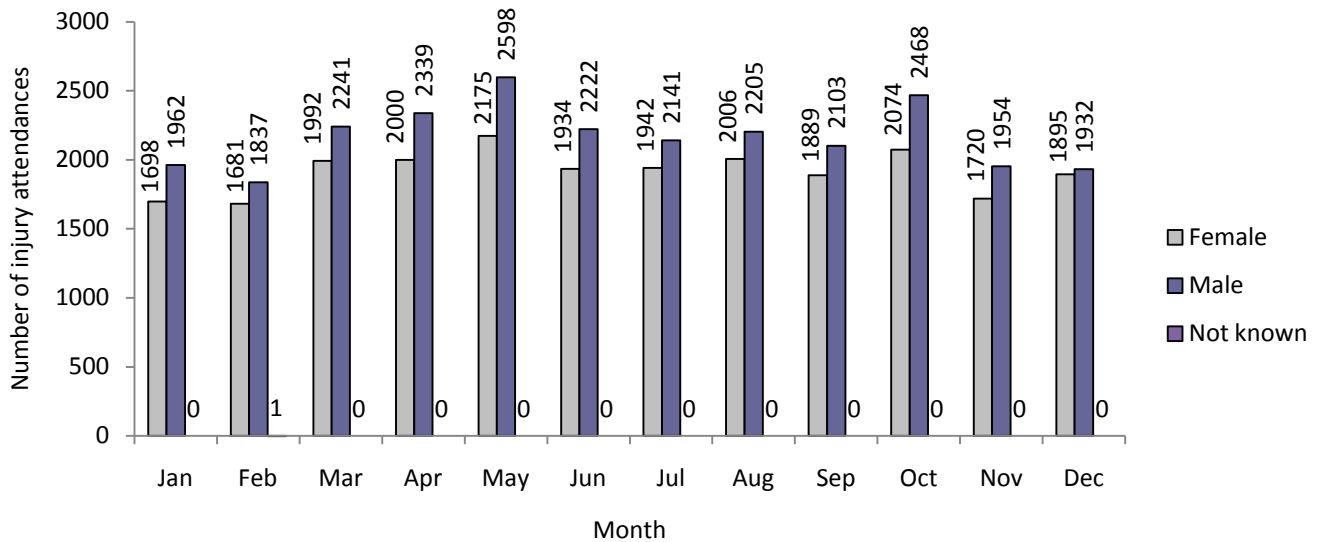
**Table 6** shows the time of arrival of attendees to Royal Bolton ED. The largest proportion of attendances occurred between 10.00am and 11.59am (n=6,507; 13%). **Table 7** shows the day of the week that attendees arrived at the hospital. Monday (17%) had the highest number of attendances.

**Table 8** presents data for assault attendees to Royal Bolton ED. Males represent over seven in ten (71%) of assault attendances, whilst over four in ten (44%) of assault attendees were aged 20 to 34. The peak days for attendance were weekends, between the hours of 8pm and 4am (34%).

**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.

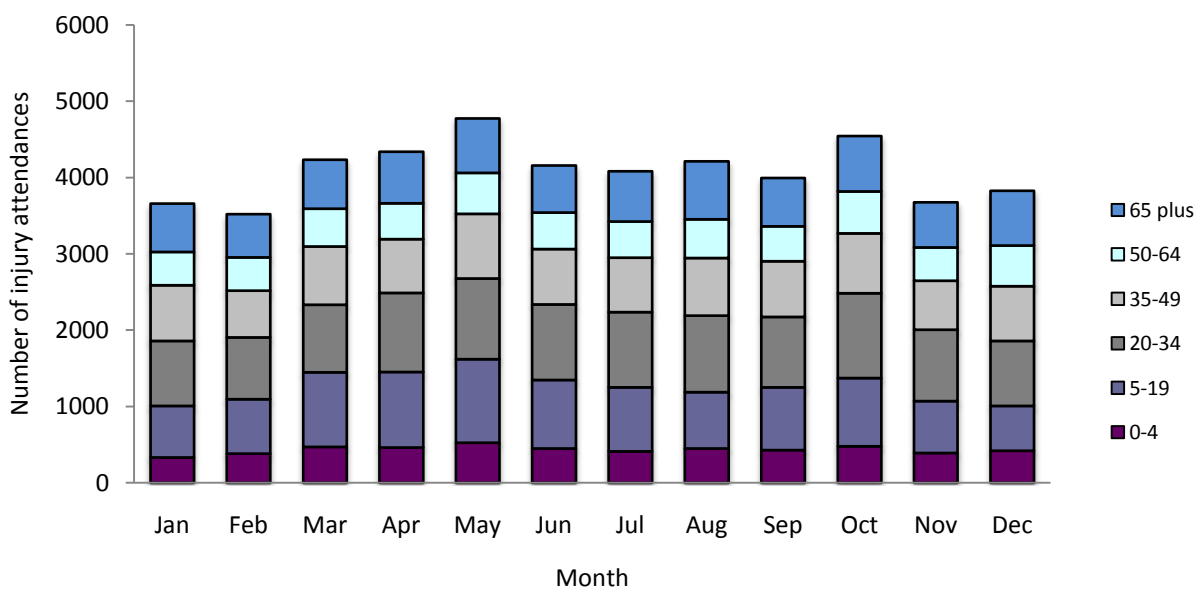
**Figure 1: Royal Bolton ED: Total injury attendances by gender and month, January to December 2010**



**Table 1: Royal Bolton ED: Total injury attendances by injury group and month, January to December 2010<sup>2</sup>**

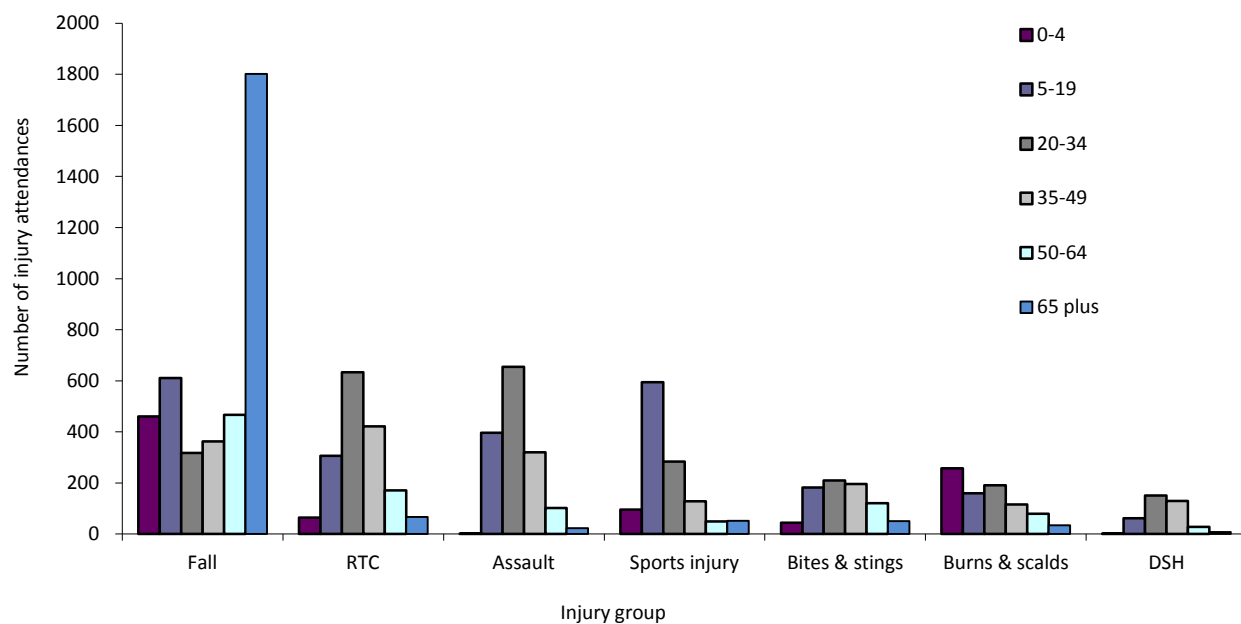
Injury group	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	%
<b>Other injury</b>	2854	2703	3335	3318	3904	3270	3304	3386	3214	3676	2809	2847	38620	79
<b>Fall</b>	360	301	301	368	317	303	296	316	275	329	347	506	4019	8
<b>RTC</b>	117	153	155	166	126	134	89	120	137	168	179	116	1660	3
<b>Assault</b>	123	123	117	124	145	115	105	120	128	137	133	126	1496	3
<b>Sports injury</b>	64	114	191	191	98	118	63	61	62	84	62	93	1201	2
<b>Burns &amp; scalds</b>	62	49	67	70	76	77	95	85	69	54	73	58	835	2
<b>Bites &amp; stings</b>	43	42	43	57	73	118	103	94	81	63	43	43	803	2
<b>DSH</b>	37	34	24	45	34	21	28	29	26	31	28	38	375	1
<b>Total</b>	3660	3519	4233	4339	4773	4156	4083	4211	3992	4542	3674	3827	49009	100

**Figure 2: Royal Bolton ED: Total injury attendances by age group and month, January to December 2010**



<sup>2</sup> Firework injury has been included in other injury due to low numbers (n=4).

**Figure 3: Royal Bolton ED: Total injury attendances by age group and injury group, January to December 2010**



**Table 2: Royal Bolton ED: Total injury attendances by ethnicity and month, January to December 2010<sup>3\*</sup>**

Ethnicity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	%
White	2404	2324	3063	3128	3403	2926	2870	2975	2754	3142	2550	2638	34177	70
Not known	985	921	844	804	942	880	884	900	889	1007	820	894	10770	22
Indian	100	85	113	147	122	133	123	125	111	146	110	111	1426	3
Pakistani	85	97	97	127	159	136	99	105	109	109	104	87	1314	3
Other ethnic group	35	37	37	56	46	30	37	37	39	54	36	35	479	1
Black	28	22	37	33	58	24	32	30	33	33	27	30	387	1
Mixed	16	27	29	34	32	21	29	31	41	42	22	27	351	1
Bangladeshi	***	***	7	***	5	***	***	***	7	***	***	***	45	0
Chinese	***	***	6	***	6	***	***	***	9	***	***	***	60	0
<b>Total</b>	<b>3660</b>	<b>3519</b>	<b>4233</b>	<b>4339</b>	<b>4773</b>	<b>4156</b>	<b>4083</b>	<b>4211</b>	<b>3992</b>	<b>4542</b>	<b>3674</b>	<b>3827</b>	<b>49009</b>	<b>100</b>

\*Percentages may not add up to 100 due to rounding.

**Table 3: Royal Bolton ED: Total injury attendances by method of disposal and month, January to December 2010\***

Disposal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	%
Referral / follow-up	1617	1723	2119	2190	2440	1965	1888	1760	1741	2187	1748	1715	23093	47
Discharged	1284	1070	1272	1247	1314	1353	1362	1438	1392	1345	1162	1204	15443	32
Admitted	615	578	647	670	712	573	594	727	641	774	555	654	7740	16
Other	144	148	195	232	307	265	239	286	218	236	209	254	2733	6
<b>Total</b>	<b>3660</b>	<b>3519</b>	<b>4233</b>	<b>4339</b>	<b>4773</b>	<b>4156</b>	<b>4083</b>	<b>4211</b>	<b>3992</b>	<b>4542</b>	<b>3674</b>	<b>3827</b>	<b>49009</b>	<b>100</b>

\*Percentages may not add up to 100 due to rounding.

<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 2010\***

Disposal	Assault		Bites & stings		Burns & scalds		DSH		Fall		Other		RTC		Sports injury		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Referral	618	41	381	47	535	64	160	43	1801	45	18170	47	779	47	649	54	23093	47
Discharged	610	41	336	42	231	28	60	16	1260	31	11787	31	745	45	414	34	15443	32
Admitted	83	6	20	2	15	2	101	27	788	20	6582	17	65	4	86	7	7740	16
Other	185	12	66	8	54	6	54	14	170	4	2081	5	71	4	52	4	2733	6
<b>Total</b>	<b>1496</b>	<b>100</b>	<b>803</b>	<b>100</b>	<b>835</b>	<b>100</b>	<b>375</b>	<b>100</b>	<b>4019</b>	<b>100</b>	<b>38620</b>	<b>100</b>	<b>1660</b>	<b>100</b>	<b>1201</b>	<b>100</b>	<b>49009</b>	<b>100</b>

\*Percentages may not add up to 100 due to rounding.

**Table 5: Royal Bolton ED: Total injury attendances by mode of arrival and month, January to December 2010\***

Mode	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	%
Foot	2636	2633	3217	3263	3598	3166	3029	2956	2888	3363	2697	2700	36146	74
Ambulance	974	855	976	1070	1169	988	1042	1252	1096	1170	968	1111	12671	26
Other	50	31	40	6	6	***	12	***	8	9	9	116	192	0
<b>Total</b>	<b>3660</b>	<b>3519</b>	<b>4233</b>	<b>4339</b>	<b>4773</b>	<b>4156</b>	<b>4083</b>	<b>4211</b>	<b>3992</b>	<b>4542</b>	<b>3674</b>	<b>3827</b>	<b>49009</b>	<b>100</b>

\*Arrival by helicopter has been included in other due to low numbers (n=37).

**Table 6: Royal Bolton ED: Total injury attendances by time of arrival and injury group, January to December 2010\***

Time	Assault		Bites & stings		Burns & scalds		DSH		Fall		Other		RTC		Sports injury		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	%	n	%	n	%	
0 - 1.59	218	15	25	3	15	2	57	15	212	5	1636	4	30	2	28	2	2221	5
2 - 3.59	220	15	14	2	9	1	50	13	140	3	1121	3	25	2	20	2	1599	3
4 - 5.59	120	8	11	1	2	0	21	6	114	3	810	2	15	1	11	1	1104	2
6 - 7.59	47	3	19	2	13	2	8	2	138	3	1171	3	35	2	23	2	1454	3
8 - 9.59	44	3	59	7	132	16	7	2	347	9	3131	8	150	9	60	5	3930	8
10 - 11.59	66	4	74	9	111	13	18	5	494	12	5418	14	230	14	96	8	6507	13
12 - 13.59	80	5	106	13	110	13	24	6	456	11	5120	13	211	13	127	11	6234	13
14 - 15.59	103	7	103	13	90	11	28	7	469	12	4333	11	224	13	104	9	5455	11
16 - 17.59	113	8	114	14	87	10	36	10	424	11	4506	12	232	14	206	17	5718	12
18 - 19.59	117	8	128	16	123	15	33	9	485	12	4263	11	208	13	212	18	5569	11
20 - 21.59	155	10	93	12	89	11	34	9	440	11	4325	11	194	12	219	18	5549	11
22 - 23.59	212	14	56	7	53	6	59	16	299	7	2772	7	106	6	95	8	3652	7
<b>Total</b>	<b>1495</b>	<b>100</b>	<b>802</b>	<b>100</b>	<b>834</b>	<b>100</b>	<b>375</b>	<b>100</b>	<b>4018</b>	<b>100</b>	<b>38607</b>	<b>100</b>	<b>1660</b>	<b>100</b>	<b>1201</b>	<b>100</b>	<b>48992**</b>	<b>100</b>

\*Percentages may not add up to 100 due to rounding.

\*\*Time of attendance was not recorded in 17 cases.

**Table 7: Royal Bolton ED: Total injury attendances by day and injury group, January to December 2010\***

Day	Assault		Bites		Burns		DSH		Fall		Other		RTC		Sports		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Mon	189	13	132	16	146	17	69	18	643	16	6477	17	275	17	202	17	8133	17
Tue	134	9	97	12	118	14	45	12	568	14	4912	13	282	17	151	13	6307	13
Wed	135	9	78	10	110	13	32	9	619	15	5060	13	247	15	196	16	6477	13
Thu	141	9	100	12	124	15	53	14	570	14	4877	13	215	13	135	11	6215	13
Fri	198	13	101	13	100	12	55	15	595	15	5837	15	264	16	137	11	7287	15
Sat	339	23	153	19	116	14	64	17	459	11	5351	14	164	10	156	13	6802	14
Sun	360	24	142	18	121	14	57	15	565	14	6106	16	213	13	224	19	7788	16
<b>Total</b>	<b>1496</b>	<b>100</b>	<b>803</b>	<b>100</b>	<b>835</b>	<b>100</b>	<b>375</b>	<b>100</b>	<b>4019</b>	<b>100</b>	<b>38620</b>	<b>100</b>	<b>1660</b>	<b>100</b>	<b>1201</b>	<b>100</b>	<b>49009</b>	<b>100</b>

\*Percentages may not add up to 100 due to rounding.

**Table 8: Royal Bolton ED: Total assault and injury attendances by gender, arrival mode, location of incident, age group and day/time of attendance, January to December 2010**

	Assault attendees		All injury attendees (n=49,009)
Gender	n	%	%
Male	1068	71	53
Female	428	29	47
Arrival mode	n	%	%
Ambulance	759	51	26
Foot	726	49	74
Other	11	1	0
Location	n	%	%
Not specified	618	41	43
Home	481	32	44
Public place	199	13	5
Other	167	11	5
Work	16	1	2
Educational establishment	15	1	2
Age group	n	%	%
0 - 4	***	0	11
5 - 19	396	26	20
20 - 34	655	44	23
35 - 49	320	21	18
50 - 64	102	7	12
65 plus	***	1	16
Day and time of attendance	n	%	%
Weekends*	508	34	12
Weekend day	310	21	21
Weekdays	677	45	67

\*8pm to 4am, Friday night/Saturday morning; Saturday night/Sunday morning; Sunday night/Monday morning. Time of attendance was not recorded in one attendance.


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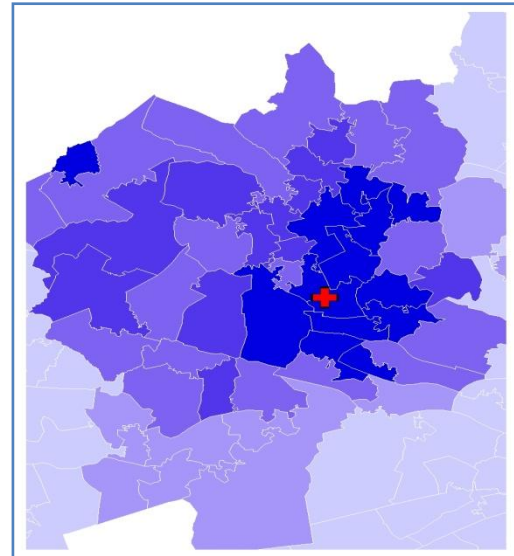
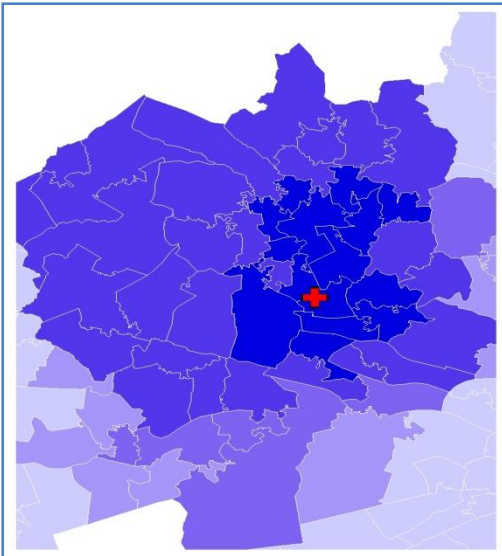
Website: [www.tiig.info](http://www.tiig.info) (data requests should be made through the website)






**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 2010**






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

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	1 (0.00 – 7.58)	
	2 (7.59 – 25.39)	MSOA E02001016 (238.19)
	3 (25.40 – 50.52)	MSOA E02001012 (196.52)
	4 (50.53 – 140.37)	MSOA E02000999 (196.20)
	5 (140.38 – 238.19)	MSOA E02001005 (192.61)

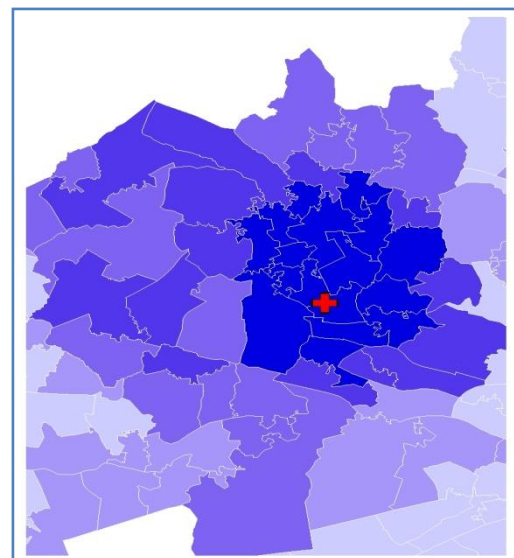
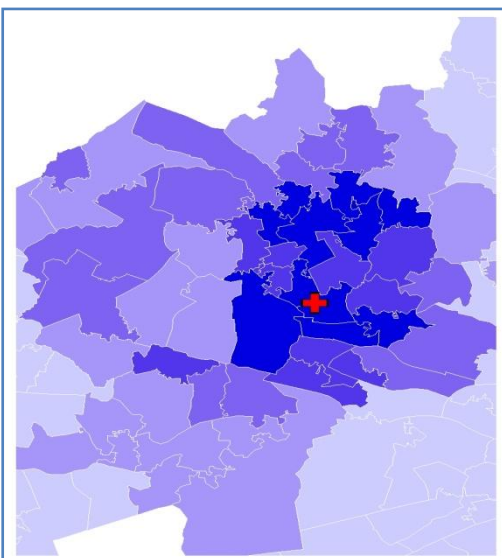
	1 (0.00 – 1.02)	MSOA E02000996 (19.36)
	2 (1.03 – 3.94)	MSOA E02001008 (15.59)
	3 (3.95 – 9.86)	MSOA E02001010 (15.52)
	4 (9.87 – 12.67)	MSOA E02000999 (15.38)
	5 (12.68 – 19.36)	






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






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

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	1 (0.00 – 0.54)	MSOA E02001016 (9.47)
	2 (0.55 – 1.87)	MSOA E02000999 (7.85)
	3 (1.88 – 3.40)	MSOA E02000998 (7.70)
	4 (3.41 – 5.49)	MSOA E02000994 (7.65)
	5 (5.50 – 9.47)	

	1 (0.00 – 0.29)	MSOA E02001016 (9.09)
	2 (0.30 – 1.20)	MSOA E02001012 (7.95)
	3 (1.21 – 3.07)	MSOA E02001010 (7.67)
	4 (3.08 – 4.56)	MSOA E02001009 (6.84)
	5 (4.57 – 9.09)	