trauma and injury intelligence group

Arrowe Park Accident and Emergency department

Monthly bulletin: April 2004 to March 2005

This bulletin provides a breakdown of all trauma[1] attendances at Arrowe Park Accident and Emergency department between April 2004 and March 2005. Capturing a year's worth of data, this report can be used to identify trends and changes in data collection and A&E attendance.

Figure 1 illustrates the number of trauma attendees by month of attendance. Trauma attendance peaked in August; with February having the least number of trauma attendees. This pattern was similar when looking at all A&E attendances.

Figure 1: Total number of trauma attendees by month, April 2004 to March 2005

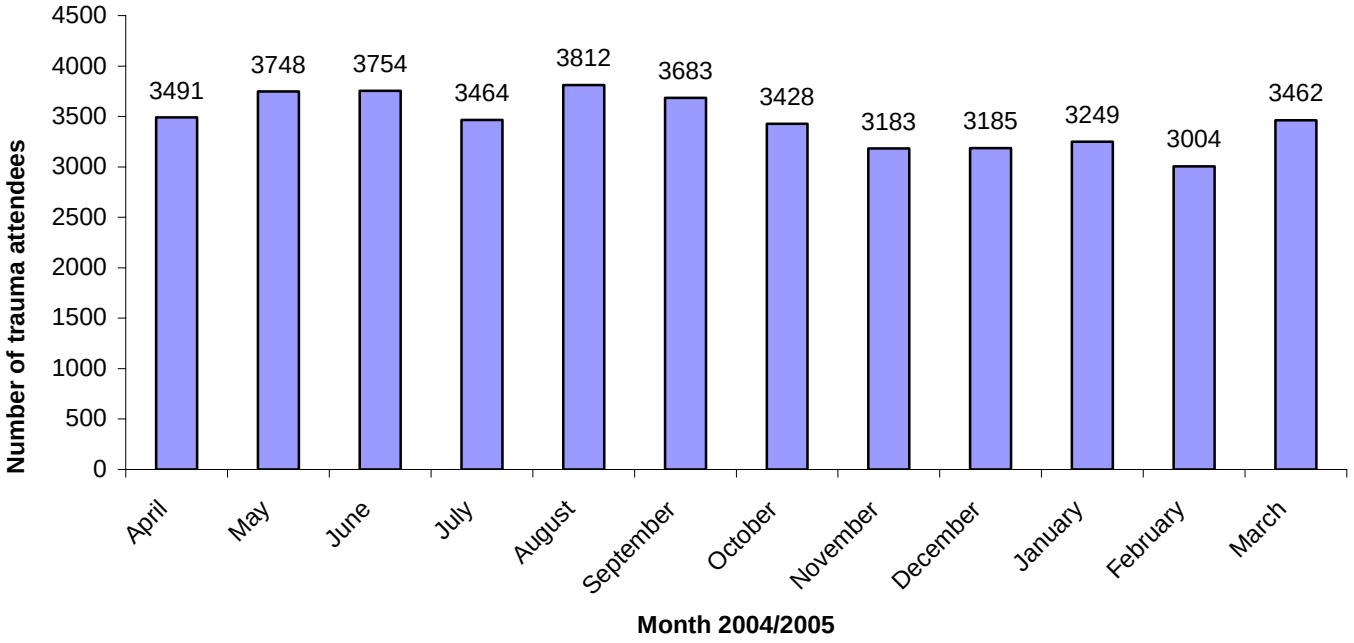
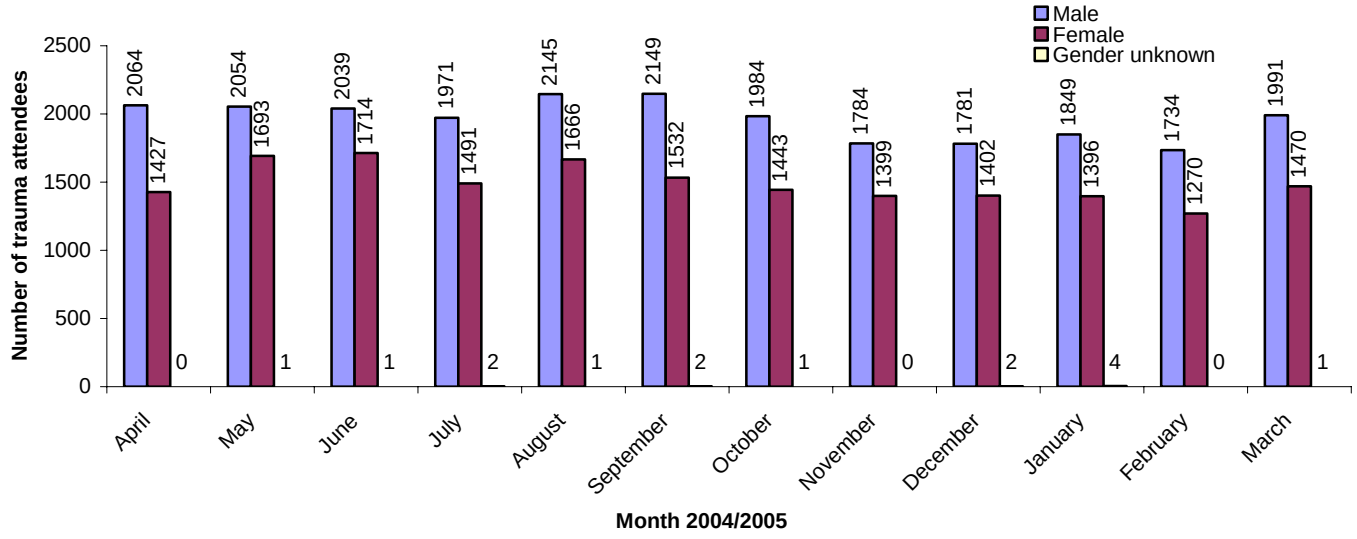


Figure 2 illustrates trauma attendees by gender. For all months there were more male trauma attendees than females presenting at Arrowe Park A&E department.

Figure 2: Gender of trauma attendees by month, April 2004 to March 2005



[1]Trauma refers to all A&E attendees presenting as an accident or intentional/unintentional injury.

Figure 3 illustrates age group of trauma attendees.

Figure 3: Age group of trauma attendees by month, April 2004 to March 2005

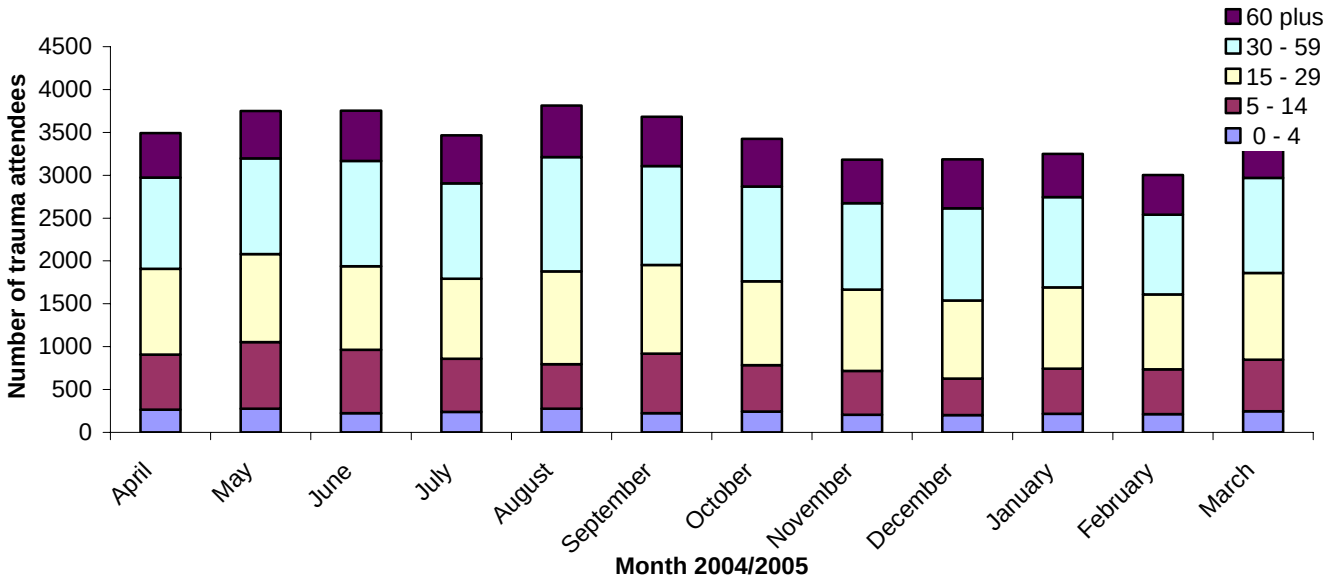


Table 1 details injury group of trauma attendees. In 40% of trauma attendances, injury was caused by a fall. Although August 2004 saw the highest number of trauma attendees in this year, fall attendance peaked in May and June 2004.

Table 1: Trauma attendees by injury group, April 2004 to March 2005

Injury Group	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	% of total
Fall	1437	1565	1609	1403	1435	1441	1295	1173	1241	1308	1132	1352	16391	40
Struck	460	574	548	449	525	551	526	473	379	398	392	469	5744	14
Road traffic accident	322	341	312	310	384	349	357	361	407	315	320	375	4153	10
Wound/cut	306	325	332	325	354	346	310	268	304	274	269	303	3716	9
Other accident	294	257	361	358	358	313	240	224	233	235	200	241	3314	8
Assault	285	283	236	208	269	201	241	206	248	218	236	241	2872	7
Sports injury	191	175	162	170	168	242	228	254	149	236	257	274	2506	6
Deliberate self harm	95	103	93	121	142	98	103	118	110	134	95	96	1308	3
Burn	32	40	31	30	50	37	38	40	34	45	31	40	448	1
Bite	31	39	39	41	75	49	36	19	32	31	23	28	443	1
Ingestion	20	27	21	22	27	31	37	25	28	28	24	20	310	1
Non fire burn/scald	6	4	4	8	13	10	7	5	6	10	8	12	93	0
Inhalation	10	5	1	15	7	7	1	3	7	11	10	5	82	0
Glass	0	3	1	2	4	3	5	3	2	1	1	1	26	0
Stab	1	2	3	0	1	2	2	3	2	5	2	1	24	0
Electrical	1	2	1	2	0	1	1	1	1	0	1	2	13	0
Firearm	0	2	0	0	0	1	0	0	1	0	2	1	7	0
Firework	0	0	0	0	0	0	0	6	0	0	1	0	7	0
Drown/immersion	0	0	0	0	0	1	1	1	0	0	0	1	4	0
Non drown asphyxia	0	1	0	0	0	0	0	0	1	0	0	0	2	0
Total	3491	3748	3754	3464	3812	3683	3428	3183	3185	3249	3004	3462	41463	100

Table 2 illustrates injury group of trauma attendees for the 0-4 and 60 plus age groups. During April 2004 to March 2005 falls accounted for the highest group of trauma attendees for both age groups.

Table 2: Trauma attendees aged 0-4 and 60 plus by injury group, April 2004 to March 2005

Injury Group	Aged 0-4		Aged 60 plus	
	N	%	N	%
Bite	35	1	78	1
Burn	102	4	35	1
Fall	1350	48	4509	69
Ingestion	147	5	24	0
Other accident	314	11	485	7
Road traffic accident	127	4	302	5
Struck	44	2	382	6
Wound/cut	310	11	521	8
Assault	5	0	49	1
Deliberate self harm	0	0	55	1
Non fire burn/scald	376	13	4	0
Inhalation	15	1	10	0
Glass	0	0	1	0
Sports injury	4	0	30	0
Stab	0	0	2	0
Electrical	1	0	1	0
Total	2830	100	6488	100

Table 3 illustrates the location where assaults occurred for patients presenting with assault related injuries. The primary locations for assaults were street/road, public space and domestic violence/home. Further information on assault location will be collected at Arrowe Park A&E as of April 2005 and these analyses will be included in monthly reports for 2005/2006.

Table 3: Assault attendees by location of incident, April 2004 to March 2005

Assault location	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	% of total
Street/road	111	140	100	89	107	97	106	99	124	110	102	103	1288	45
Public space	51	53	34	38	47	39	35	19	35	27	22	50	450	16
Domestic violence/home	45	34	42	26	41	28	39	36	35	37	38	37	438	15
Public house	17	20	20	18	18	12	17	10	22	18	24	8	204	7
Night club	16	5	7	6	11	5	15	12	8	12	9	10	116	4
Work	11	5	7	11	11	6	7	7	5	4	10	9	93	3
School	4	7	4	4	0	2	8	4	8	1	13	7	62	2
Other/unknown	8	6	5	3	5	4	2	10	2	2	10	3	60	2
Public park	7	6	5	5	11	2	3	2	1	0	1	5	48	2
Public transport	3	0	2	2	0	1	3	2	2	2	1	2	20	1
Railway station	1	0	3	0	5	2	2	1	0	1	0	2	17	1
Leisure facility	3	0	0	2	2	0	1	0	2	1	4	0	15	1
Shop/shopping centre	3	3	3	0	1	1	1	0	1	0	2	0	15	1
Details withheld by patient	0	0	1	1	5	1	1	1	1	1	0	1	13	0
Car park	1	0	0	2	4	0	0	0	1	0	0	1	9	0
Road/car rage	3	2	1	0	1	0	0	1	0	0	0	1	9	0
Bus station	1	1	1	0	0	1	0	1	0	1	0	1	7	0
Football	0	1	1	0	0	0	1	1	1	1	0	1	7	0
Hospital	0	0	0	1	0	0	0	0	0	0	0	0	1	0
Total	285	283	236	208	269	201	241	206	248	218	236	241	2872	100

Table 4 shows the number of attackers involved in assaults requiring A&E treatment. The majority (57%) of assaults involved one attacker, yet more than three in ten (31%) involved two or more attackers, suggesting more vicious gang fighting.

Table 4: Number of attackers, April 2004 to March 2005

Number of attackers	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	% of total
1 attacker	163	147	123	130	144	98	138	130	156	127	144	124	1624	57
2 Attackers	20	20	22	11	21	31	18	18	20	22	24	18	245	9
>2 Attackers	69	82	57	55	52	39	61	33	43	45	40	57	633	22
Unknown	33	34	34	12	52	33	24	25	29	24	28	42	370	13
Total	285	283	236	208	269	201	241	206	248	218	236	241	2872	100

Figure 4 shows the total number of trauma cases and the number of assault cases in which alcohol was involved. The percentage of all trauma cases that involved alcohol ranged from 9% (September) to 13% (December), whilst for assaults this rose to between 39% (February) and 55% (June).

Figure 4: Alcohol related trauma attendees, April 2004 to March 2005

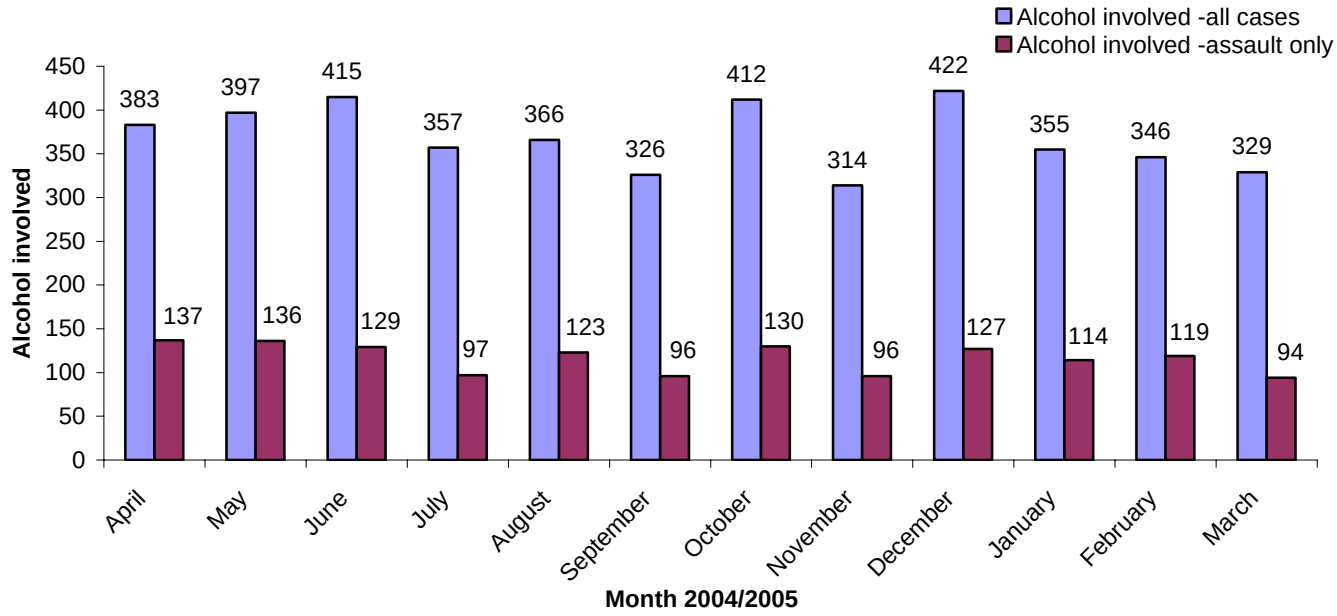


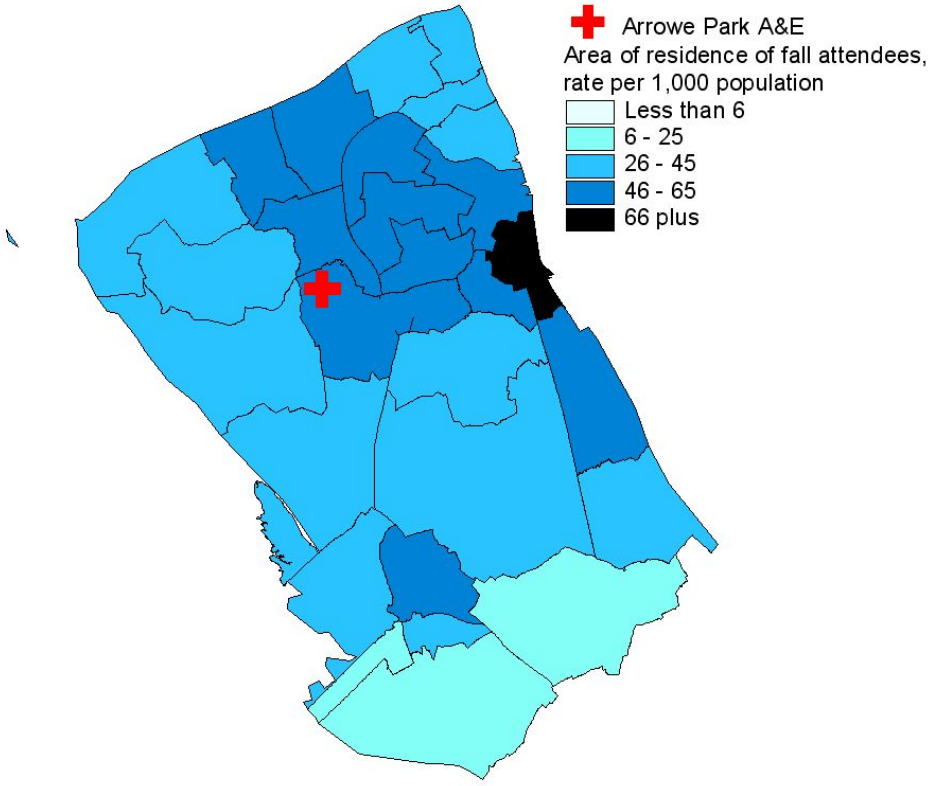
Table 5 shows the disposal method of trauma attendees. The majority (87%) of trauma attendees were discharged after treatment.

Table 5: Disposal method of trauma attendees, April 2004 to March 2005

Disposal method	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	% of total
Admit	418	476	469	426	511	448	459	402	396	440	384	430	5259	13
Discharge	3073	3272	3285	3038	3301	3235	2969	2781	2789	2809	2620	3032	36204	87

Figure 5 illustrates that the ward of Tranmere had the highest rate of fall attendees to Arrowe Park A&E during April 2004 to March 2005, 66 per 1,000 population.

Figure 5: Ward of residence of fall attendees, April 2004 to March 2005



Individuals attending Arrowe Park A&E as a result of being struck mainly resided in Tranmere, Birkenhead and Bidston, with a rate of 14, 12 and 12 attendances per 1,000 population respectively.

Figure 6: Ward of residence of struck attendees, April 2004 to March 2005

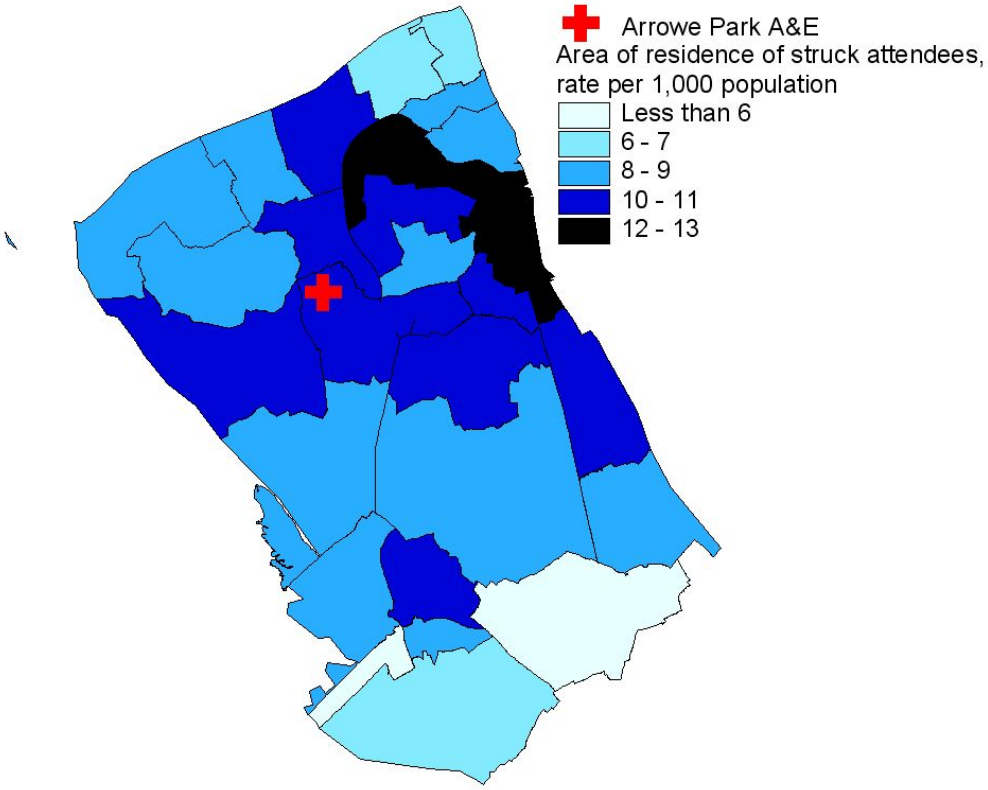
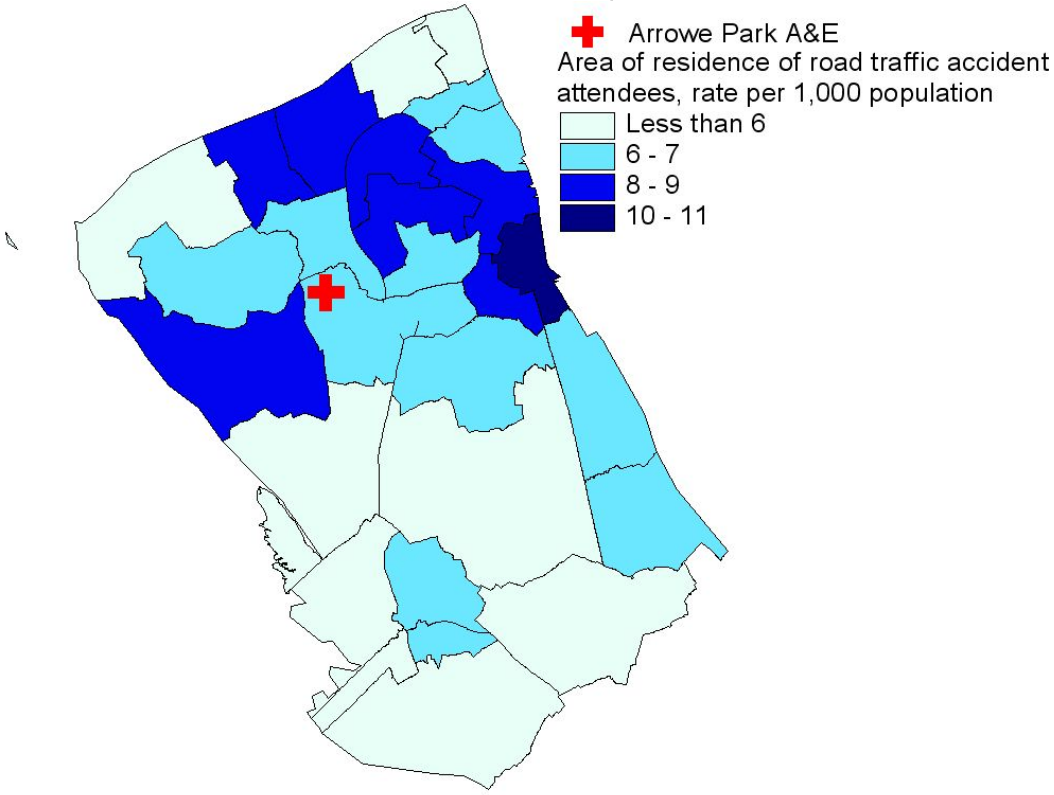


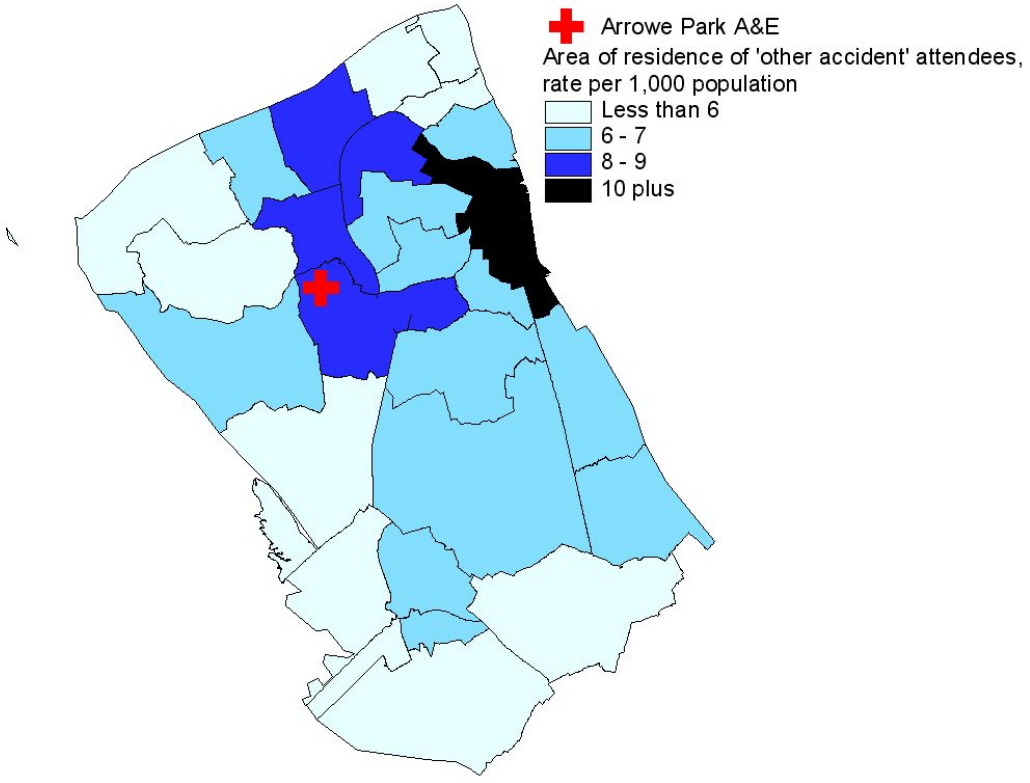
Figure 7 illustrates that during April 2004 to March 2005 the ward of Tranmere had the highest rate of road traffic accident attendees to Arrowe Park, at 11 per 1,000 population.

Figure 7: Ward of residence of road traffic accident attendees, April 2004 to March 2005



Tranmere and Birkenhead had the highest rate of A&E attendees classed as other accident, at 11 and 10 per 1,000 population respectively.

Figure 8: Ward of residence of other accident attendees, April 2004 to March 2005



As with other accident attendees, Tranmere and Birkenhead had the highest rate of A&E attendees classed as wound or cut during April 2004 to March 2005, at 11 and 10 per 1,000 population respectively.

Figure 9: Ward of residence of wound/cut attendees, April 2004 to March 2005

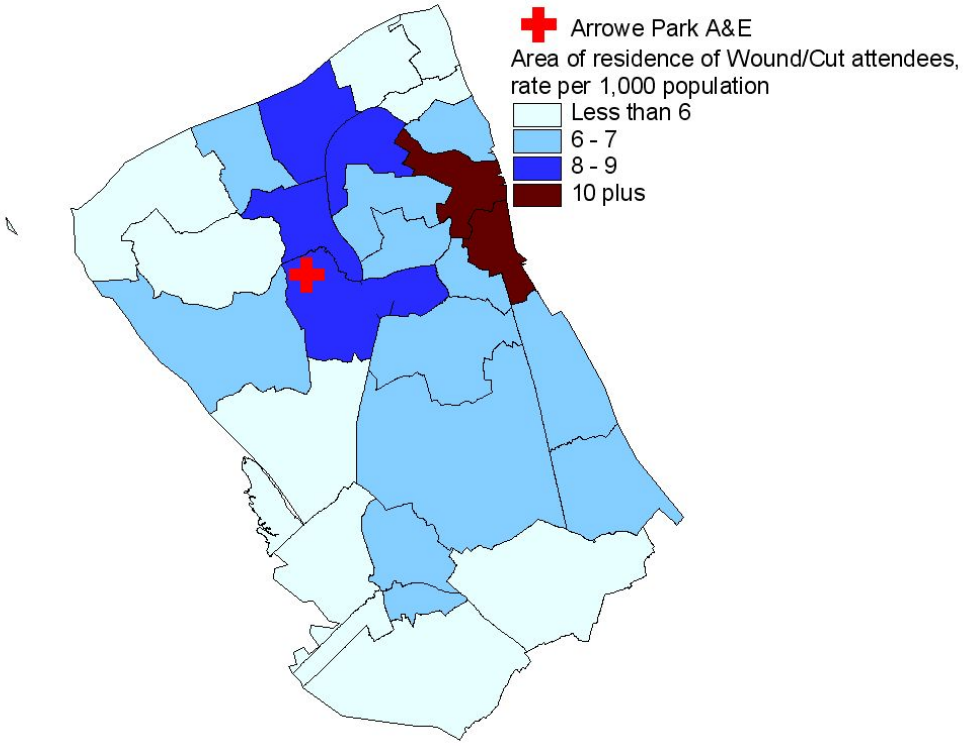
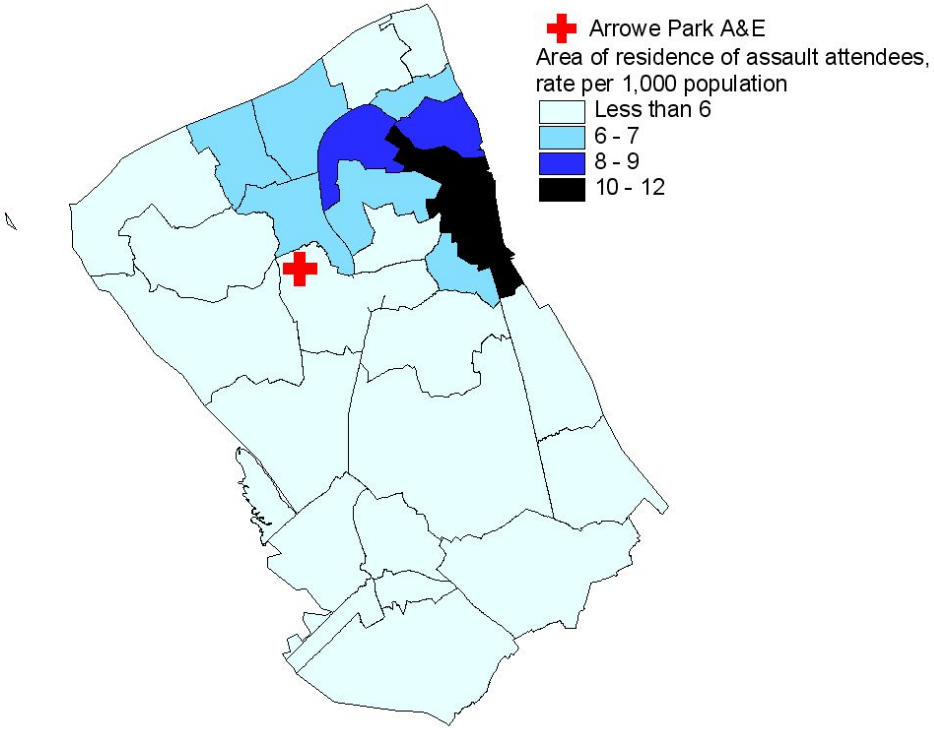


Figure 10 illustrates ward of residence of assault attendees to Arrowe Park A&E. Birkenhead and Tranmere had the highest rate of assault attendees, at 12 and 11 per 1,000 population respectively.

Figure 10: Ward of residence of assault attendees, April 2004 to March 2005



As can be seen in figures 5 to 10 above the wards of Tranmere and Birkenhead generally had the highest rates of trauma attendees to Arrowe Park A&E during April 2004 to March 2005. These areas can be highlighted as areas to target interventions on trauma and injury.

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Zara Anderson
TIIG analyst
Centre for Public Health, Faculty of Health and Applied Social Sciences, Liverpool John Moores University
Castle House, North Street, Liverpool, L3 2AY
Tel: 0151 231 4505 Email: z.a.anderson@livjm.ac.uk Website: www.nwpho.org.uk/ait