Applied **Criminology** Centre

The University of Huddersfield

Evaluation of Licensing Act:

Measuring Crime and Disorder in and around Licensed Premises

Research Study SRG/05/007

Final Report Prepared for the Home Office
Annex 5: Nottingham

Dr Andrew Newton, Professor Alex Hirschfield, Dr. Rachel Armitage, Michelle Rogerson, Leanne Monchuk and Dr Aidan Wilcox

March 2008

This report was submitted July 2007.

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Overview

This Annex provides detailed findings of a study into the impact of licensing hours in a single case study area, Nottingham. This area is one of five case study areas considered as part of a Home Office funded study to assess the impact of changes in the licensing laws on crime and disorder. The Licensing Act 2003 (LA03), hereafter referred to as the Act, came into effect in November 2005, and this research forms part of a wider evaluation programme of the Act, including a number of larger scale national measures and surveys. This annex is one of five (one for each case study area) and these individual annexes are supported by a final report, a technical annex, and a single additional supplementary annex.

This research examines two time periods, a baseline (April 1st 2003 to 23rd November 2005) and a post implementation period (24th November 2005 to 31st November 2006). It uses a mixture of quantitative and qualitative research methods, to assess the potential impacts of the Act at three scales, the macro level (entire study area), meso level (near to licensed premises) and micro level (at or inside licensed premises). It is argued that this increases the robustness of the findings.

A number of sources of data were examined in the quantitative analysis. The first area investigated is violence against the person, and two sources of data were used for this. These were police violence against the person crime offences, and ambulance and accident and emergency data (where available) are also utilised. The second area investigated was criminal damage (using police recorded crime data) and the third was sexual offences (again using police recorded crime data). The final area examined in the quantitative analysis was disorder, and police calls for service records (disorder only) were used here.

The quantitative analysis was supplemented by local qualitative fieldwork that involved participant observation of key drinking areas and inside key drinking premises, and semi structured interviews with licensees, door supervisors and bar staff. These occurred both before and after the introduction of the Act.

A more detailed discussions of the methods used in this research can be found in the technical annex.

Summary of Findings

The key findings from the Nottingham analysis were:

Violence against the person

There was a small increase in the average monthly count of violence against the person offences in Nottingham between the baseline period and post implementation periods. Violence against the person was lower in January, February, March and April of the post implementation period, compared to corresponding months of the baseline. For all other months of the post implementation period violence against the person was higher than baseline levels. There was a significant increase in offences during the first six months of the baseline period. During the first six months of the baseline this trend was reversed and there was a significant decrease (see supplementary annex). There were 42 less serious offences in the post implementation period (see supplementary annex).

In the post implementation period there was a small increase in the proportion of offences in the cluster area and within 50m of licensed premises (4% increase).

Changes to the daily distribution of violence against the person across Nottingham were marginal. However, there was a tendency for changes to be more pronounced in the areas closest to licensed premises

Geographical analysis identified hot spots of violence against the person around Nottingham City Centre and also concentrations around the Radford and Bullwell areas In the post implementation period hot spots of violence against the person persisted further into the early hours of the morning in the key drinking areas of Lace Market and Old Market Square, (although these hot spots had decreased in intensity.)

In both periods the majority of the top 15 premises for violence against the person were located in hot spot areas, all were located in the vicinity of Old Market Square and Lace Market.

There was an increase post implementation in terms of violence against the person offences for those premises using no additional hours and six or more hours, while all other premises reduced their share.

Weekend violence against the person rose by 6.2 per cent between the baseline and post-implementation period. Assaults recorded by the ambulance service also increased over this time period, but to a lesser extent (5.6%).

There was a small reduction in violence on weekdays between midnight and 1am but a slightly larger increase in the same hourly period at weekends and between 1am and 2am (see supplementary annex).

The KDE synthesis maps showed reductions from 1.00am to 2.59am, and increases from 3.00am- 4.59am. These were concentrated around the key drinking areas. From 11.00pm to 2.59am there were increases in Lace Market area and reductions in Market Square area.

Criminal damage

Criminal damage in Nottingham reduced between the baseline and post implementation periods.

In each month of the 12 months post implementation period, the number of criminal damage offences was lower than the average recorded in the corresponding months of the baseline. In the baseline period there were significant increases in offences for the first and second six months. In the post implementation period, both for the first and second six months, significant reductions could be observed (see supplementary annex).

The proportion of criminal damage offences reported in afternoon and evening periods of the post implementation period (between 2.00pm and 10.00pm) was lower than the baseline average. In contrast, the proportion of offences reported between midnight and 7.00am was higher in the post implementation period.

There is no evidence to suggest that criminal damage has become more concentrated in the area with a high density of pubs, bars and clubs.

Weekday criminal damage reduced in the post implementation period for all twelve months (see supplementary annex).

There were fewer criminal damage offences between 9pm and 1am on week day nights and a fairly modest increase between 1am and 3am at weekends (see supplementary annex).

KDE synthesis maps revealed there were some reductions between 1.00am and 2.59am that corresponded with the key drinking areas (see supplementary annex).

Sexual Offences

The average monthly count of sexual offences per month remained relatively stable between the baseline and post implementation period. However this average hides some important monthly fluctuations.

The number of sexual offences increased during May, June and July compared to the baseline period.

A smaller proportion of offences were recorded in the post implementation period between 8.59pm and 10.00pm compared to the baseline period. A larger proportion of offences were recorded from 10.59pm through until midnight and between 1.59am to 5.59am in the post implementation period.

Calls for disorder

There was little change to the average number of calls for disorder per month between the baseline and post implementation periods. However, this hides some monthly fluctuations. During the eight months analysed, four months saw an increase compared to the corresponding month in the baseline and four months saw a decrease. There were no significant changes observed in the eight months post implementation compared to the eight month baseline period (see supplementary annex).

The distribution of calls across times of they day has changed little between the baseline and post implementation periods, with calls peaking between 8.00pm and 8.59pm.

The proportion of calls made between 10.00am and 15.59 was higher in the post implementation period compared to the baseline. Between 4.00pm and 12.59am the proportion of post implementation calls was lower than the baseline.

The levels of concentration around licensed premises were lower than for violence against the person and criminal damage. The table shows that the proportion of calls for disorder shared by each of the zones was broadly similar in both periods.

There was virtually no change in the timing of disorder incidents either during the week or at weekends (see supplementary annex).

Findings from the fieldwork

Seven participants took part in the post implementation interviews.

When asked whether they felt that the levels of night-time violence in their premise had changed since the introduction of the Act, three (43%) felt that it had not changed, none felt that it had decreased and one (14%) felt that it had increased.

When asked whether they felt that the levels of night-time violence in the town/city had changed since the introduction of the Act, four (57%) felt that it had not changed, one (14%) felt that it had decreased and none felt that it had increased.

When asked whether they felt that the levels of drunk and disorderly behaviour had changed since the introduction of the Act, four (57%) felt that it had not changed, two (29%) felt that it had decreased and one (14%) felt that it had increased.

Four of the respondents (57%) felt that the Act had resulted in staggered closing times, two (29%) felt that it had not. One (14%) of the respondents felt that that extended drinking hours had led to people drinking more responsibly, five (71%) said that it had not. Six (86%) of respondents felt that the Act was a good policy, one (14%) felt that it was not.

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1. Introduction: profile of case study area

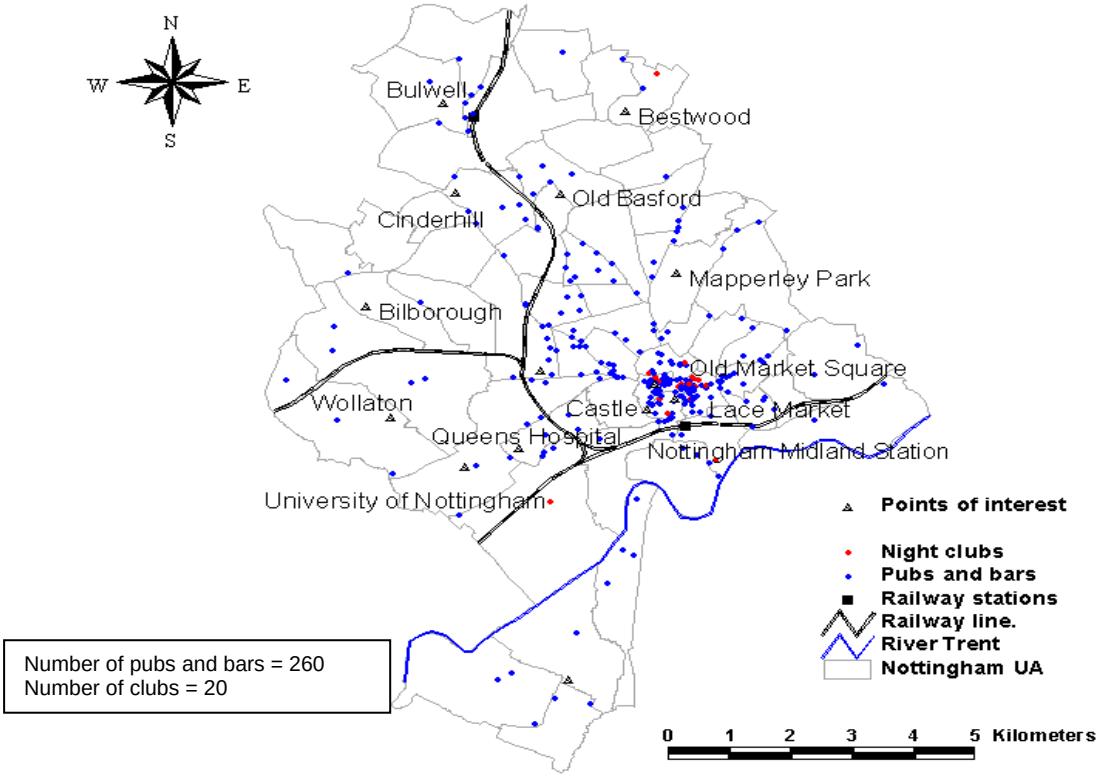
Brief description of profile area

Nottingham is a vibrant city with a population of 278,000 (The Office for National Statistics, 2005 mid year estimates). It is estimated that approximately 10 per cent of the population are students, and that 14 per cent are aged 20-24, compared to an average 6.5 per cent in England (ONS mid year estimates 2004). The key drinking areas are the Old Market Square and the Lace Market. It is estimated that within one mile of the Old Market square there are over 300 licensed premises, and this attracts approximately 50,000 persons during the evening (Nottingham City Council 2005).

Nottingham has a diverse night-time economy that caters for a range of target audiences including professionals, students and local residents, with some newer exclusive bars around the Lace Market area. In September 2005, new street drinking byelaws were introduced to give additional powers to police and Street Wardens with a new Alcohol Designation Order. The City Centre Alcohol Street Designation Order is a street drinking ban that makes it an offence to consume alcohol from a container when asked not to do so by an authorised officer in any street within the designated area. In conjunction with this the SAFE for Nottingham campaign was introduced as a multi-agency approach between the police, city council and partner agencies, which included Safer Streets teams of 15 uniformed police officers aiming to provide high visibility policing and reassurance. The locations of pubs, bars and night clubs in Nottingham UA are shown in Figure 1.1. There were 260 pubs and bars and 20 night clubs that were geo-coded and used in this research. Note that these descriptions include fieldworker observations from both the baseline and post implementation periods.

Map of case study area

Figure 1.1 Location of pubs, bars and nightclubs in Nottingham UA



Key drinking areas

Nottingham has two main drinking areas; these are Market Square and Lace Market.

Market Square

Although there was a large concentration of licensed premises in this area, the premises were inter-dispersed amongst shops and leisure facilities, such as the theatre and restaurants. This area contained both pubs/bars and night clubs.

The closing times of the premises in this area did not appear to alter substantially after the introduction of the Act and each premise appeared to close at a similar time. Pubs/bars typically closed at 11.00pm or 12.00am during the week and 12.00am to 1.00am at weekends. Most of the premises closed earlier on Sunday nights. The premises in this area generally did not have any formal dress code.

The majority of premises in this area offered drinks promotions, especially for spirits and bottled drinks (beer and alcopops). Most premises had fruit and/or games machines as well as pool tables. The target clientele for premises within Market Square were 18-35 year olds. However, whilst some premises were clearly aimed at a younger market, other premises seemed to attract slightly older drinkers. Most premises in this area appeared to attract those wanting cheap drinks as well as traditional ales. This area also seemed to attract a large student clientele - many of the venues had regular student nights.

Lace Market

Lace Market appeared to contain a lower concentration of licensed premises. The premises in this area were bars rather than pubs and there did not appear to be any night clubs. Unlike the premises in Market Square, premises in Lace Market did not generally have fruit or game machines or pool tables and were more likely to impose a dress code. The drinks market in this area was predominantly cocktails, although wines and lagers also appeared to be popular. The general target clientele in this area seemed slightly older than those in Market Square (21-45).

There were notable differences between the two main drinking areas in terms of type and style of premise, drinks market and clientele. Whilst premises in Lace Market were modern and contemporary, premises in Market Square were more traditional style pubs. The capacity of premises in both areas ranged from 122 in the smaller premises to 660 for the larger premises and 1500 for night clubs. Very few premises in either area had a strict dress code, although there was more of an emphasis on a smart/casual dress code in Lace Market.

Observations from the post implementation visits revealed that Market Square appeared to have a much stronger police presence than Lace Market. When conducting the participant observation in Lace Market, some police patrol cars were observed, but no foot patrol or Community Support Officers. Market Street seemed to be heavily policed both during the day and evening. In the daytime, police presence was mainly on foot with Police Community Support Officers also seen patrolling the streets. Both foot and vehicle patrols were seen in the evening. Police interaction in both areas appeared to be calm and friendly.

The main finding from the participant observation was that most problems occurred within the drinking areas when premises were closing or when people were moving between premises. Many bar managers (see below) believed that closing times were too similar and had not been staggered enough to allow the dispersal of drinkers. Nottingham offers a good public transport system with trams running late into the night and a good bus service which for some destinations

operates twenty-four hours a day. However, the participant observation revealed that taxi ranks were a potential site for violence and disorder due to the level of demand and limited numbers of taxis.

2. Violence against the person

Violence against the person is a diverse crime category including crimes such as murder, wounding and common assault. Analysis of police recorded data and the British Crime Survey (Walker, Kershaw and Nicholas, 2006)has shown that in England and Wales between 2004/05 and 2005/06 most types of violent crime have reduced or remained stable. Police recorded data has shown:

- a decrease of 13 per cent in more serious violence against the person;
- a four per cent decrease in more serious wounding;
- a six per cent increase in less serious wounding;
- a 14 per cent reduction in common assaults.

However these trends have been distorted by recent changes to police recording practices particularly in relation to less serious wounding and common assault. The British Crime Survey shows incidents of wounding and common assaults have decreased over the same period.

Violent crimes such as wounding and common assault have been found to display seasonal patterns with peaks in the summer months and troughs in the winter months (Hird and Ruparel, 2007).

The findings of this analysis are supported by additional analysis presented in the supplementary annex which examines violence against the person using statistical tests of change from the baseline to post implementation, serious and other violence against the person, weekend and weekday offences, and synthesis maps of hot spot change by time of day. The results of this are detailed in the supplementary analysis, and also included in the summary findings at the start of this annex, and concluding sections of this annex. The reader is also referred to the final report that summarises the findings of all five case study areas.

Macro level

The following section presents an analysis of trends in offences of violence against the person across Nottingham Unitary Authority. The analysis identified that levels of violence against the person were generally higher in the post implementation period compared to the baseline period. Annual comparisons in the baseline period revealed an increase in offences from 8428 (year 1) to 9582 (year 2). This trend was reversed in the post implementation period (9254).

There was a 2.8 per cent increase in the average monthly count of violence against the person offences in Nottingham from 751 offences per month in the baseline period to 771 offences per month post implementation. Table 2.1 displays the number of violence against the person offences in Nottingham UA by month and year. The blue shaded area represents the post implementation period. The final column represents the percentage between the baseline and post implementation periods. This has been calculated as the change between the number of offences in each month during the post implementation period, and the average number of offences in the two corresponding months from the two previous years in the baseline period.

The table confirms that for most of the implementation period the number of violence against the person offences recorded in Nottingham was higher than those for corresponding months in the baseline period. For the first four months post implementation (January to April 06) the number of offences reduced compared to the baseline. However this trend reversed for the remainder of the post implementation period with increases compared to the average baseline period. Increases were highest in July, where there was an 18.2 per cent increase in the number of offences recorded compared to the baseline average for July.

Table 2.1 Violence against the person monthly crime counts in Nottingham UA (December 2003 to December 2006)

	Year				Post implementation percentage change (monthly average) [1]
	2003	2004	2005	2006	
January		760	814	661	-16.0
February		661	749	652	-7.5
March		666	897	695	-11.1
April		659	830	740	-0.6
May		718	856	813	3.3
June		715	840	856	10.1
July		640	897	908	18.2
August		743	745	778	4.6
September		734	707	783	8.7
October		788	789	832	5.5
November		728	681	781	10.9
December	616	777	755	763	8.4

[1] Note: The baseline period is an average of the two year period 2004/2005

Figure 2.1 presents the monthly rate of violence against the person in Nottingham (per 10,000 persons) with the solid blue line showing the post implementation period and the baseline period shown as a dotted grey line. The graph shows that during the baseline period the rate of violence against the person remained relatively stable. In contrast, violence against the person in the implementation period rose steadily between January to July. Following this peak in July the rate of offences began to decrease returning to levels slightly above those in the baseline.

Figure 2.1 Violence against the person crime rates in Nottingham UA (average monthly baseline and post implementation period)

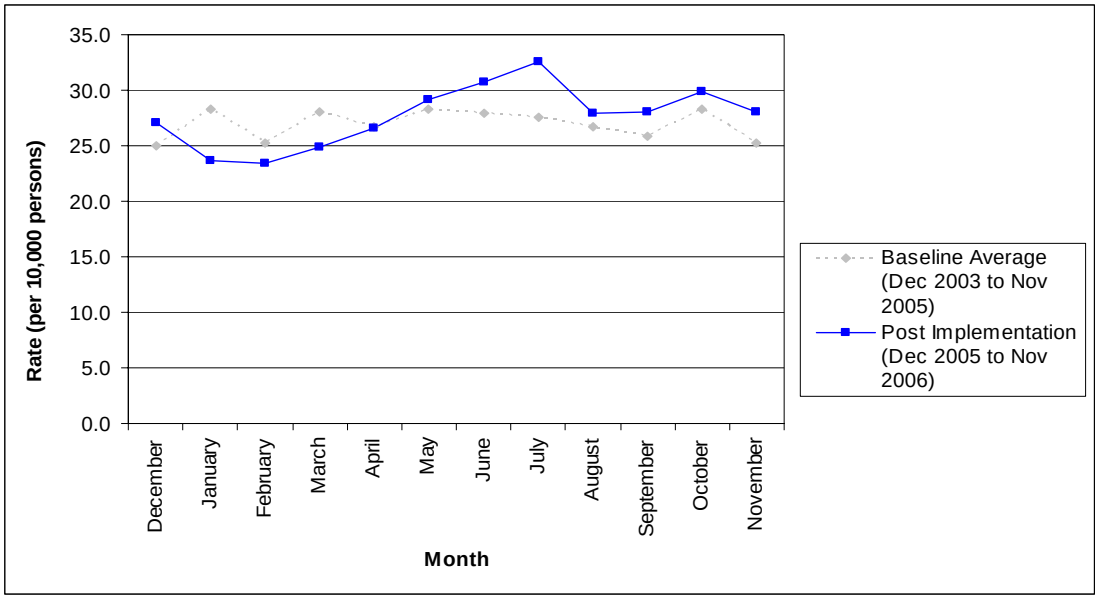


Figure 2.2 presents the monthly percentage change in violence against the person offences. The graph highlights the increase in December (immediately following the introduction of the Act)

followed by decreases in January, February, March and April. From May until November violence against the person increased compared to corresponding months in the baseline period.

Figure 2.2 Percentage change in violence against person offences in Nottingham UA (average monthly baseline to post implementation period change)

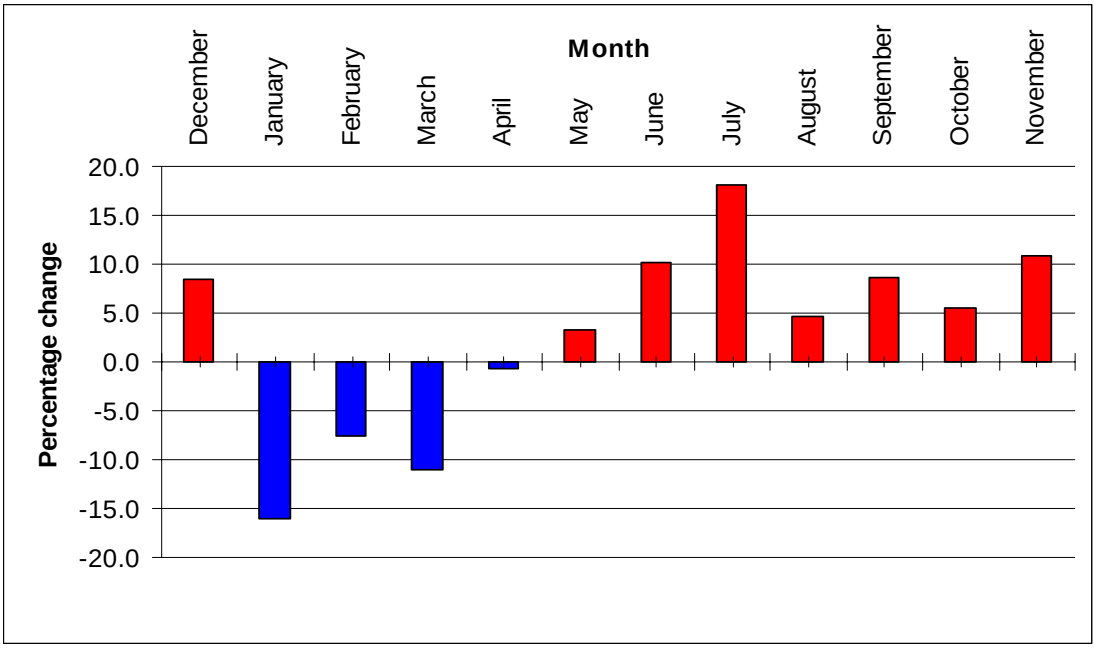
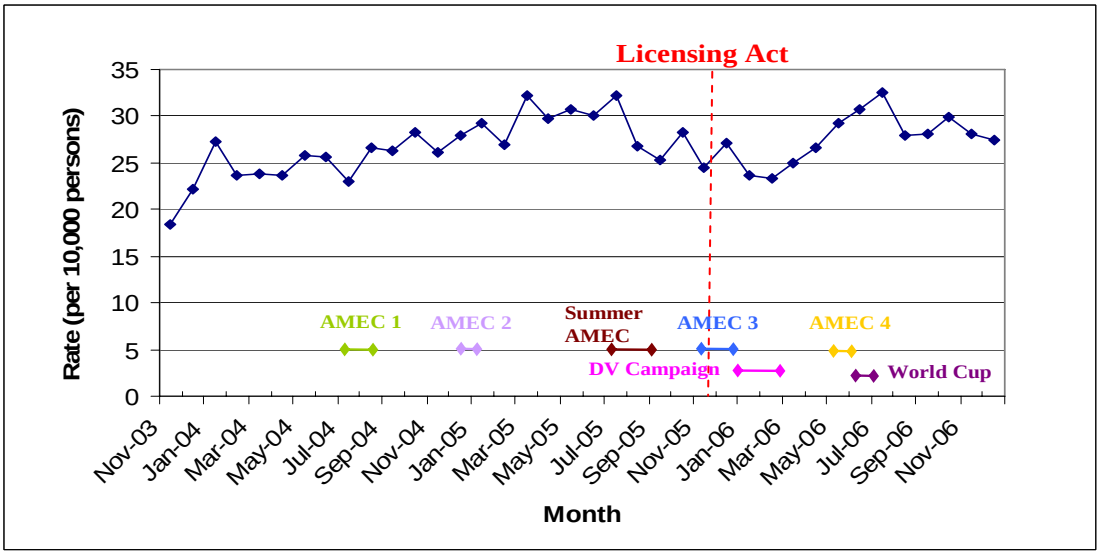


Figure 2.3 presents the monthly rates of violence against the person in Nottingham (per 10,000 persons) across the baseline and post implementation periods plotted against the introduction of the Act and the timing of other relevant initiatives and events occurring in Nottingham. The graph shows that several initiatives with the potential to impact on violence against the person were implemented in Nottingham.

Figure 2.3 Violence against the person crime rate in Nottingham UA and local initiatives (November 2003 to December 2006)



The graph shows that in the months prior to the introduction of the Act, violence against the person was declining. This trend continued in the months immediately following the Act but did not continue beyond March 2006 which saw the beginning of a steady increase in violence against the person. Five Alcohol Misuse Enforcement Campaigns (AMECs) were implemented between July to September 2004, January to February 2005, November 2005 to January 2006 and May to June 2006. An additional summer mini AMEC operated between July and September 2005. A small decreases in violence against the person corresponded with the operation of AMEC1 and the summer mini AMEC. However this was not repeated for the other AMEC operations. Offences peaked in July 2006 this corresponds with the World Cup. A percentage decrease in the number of offences recorded was seen between January 2006 and March 2006. This was also when the 'Domestic Violence Enforcement Campaign' was in operation.

Distribution of offences by time of day and day of week

The analysis examined whether the implementation of the Act had resulted in changes to the distribution of offences of violence against the person across the hours of the day or days of the week. The table shows that the daily distribution of violence against the person offences in the post implementation period followed a very similar pattern to the baseline, with the number of offences increasing steadily from 7.00am-7.59am to peak at around midnight before reducing dramatically until 6.00am-6.59am. The largest percentage increases in the number of violence against the person offences recorded were between 4.00am and 5.59am. The largest percentage decreases in the number of violence against the person offences recorded was between 7.00am and 7.59am (19.4%).

Table 2.2 Violence against the person offences by time of day in Nottingham UA (baseline and post implementation periods)

Time of day	Baseline year 1 frequency	Baseline year 2 frequency	Post implementation year 3 frequency	Percentage change (average baseline to post implementation period)
0900-0959	163	210	155	-16.9
1000-1059	211	245	198	-13.2
1100-1159	208	293	258	3.0
1200-1259	306	337	309	-3.9
1300-1359	310	341	310	-4.8
1400-1459	317	359	332	-1.8
1500-1559	487	465	450	-5.5
1600-1659	390	477	369	-14.9
1700-1759	446	504	445	-6.3
1800-1859	511	480	472	-4.7
1900-1959	469	569	516	-0.6
2000-2059	499	578	564	4.7
2100-2159	530	563	602	10.2
2200-2259	537	617	643	11.4
2300-2359	587	769	714	5.3
0000-0059	877	1011	968	2.5
0100-0159	518	618	652	14.8
0200-0259	491	569	560	5.7
0300-0359	194	180	274	46.5
0400-0459	76	85	118	46.6
0500-0559	46	51	73	50.5
0600-0659	41	50	46	1.1
0700-0759	65	74	56	-19.4
0800-0859	122	147	127	-5.6

Figure 2.4 shows the percentage of violence against the person offences in each time interval for each year. For the baseline period this is averaged over the two year period. There is also a smoothed trend line for each of the two time periods under consideration.[1] The figure shows that for the average baseline and post implementation periods, the percentage of violence against the person offences increases steadily from 7.00am until midnight. The greatest proportion of offences was recorded between 12.00-12.59am in both time periods. The trend lines show that from 10.00am through to 8.00pm the proportion of offences recorded during the post implementation period was lower than the baseline period. From 12.59am through until 6.00am a slightly larger proportion of offences were recorded in the post implementation period compared to the average baseline period. It is difficult to suggest any definite changes to the peaks of violence against the person by time of day post implementation.

[1] Two month moving average

Figure 2.4 Proportional changes to violence against the person offences by time of day in Nottingham UA (average baseline and post implementation periods)

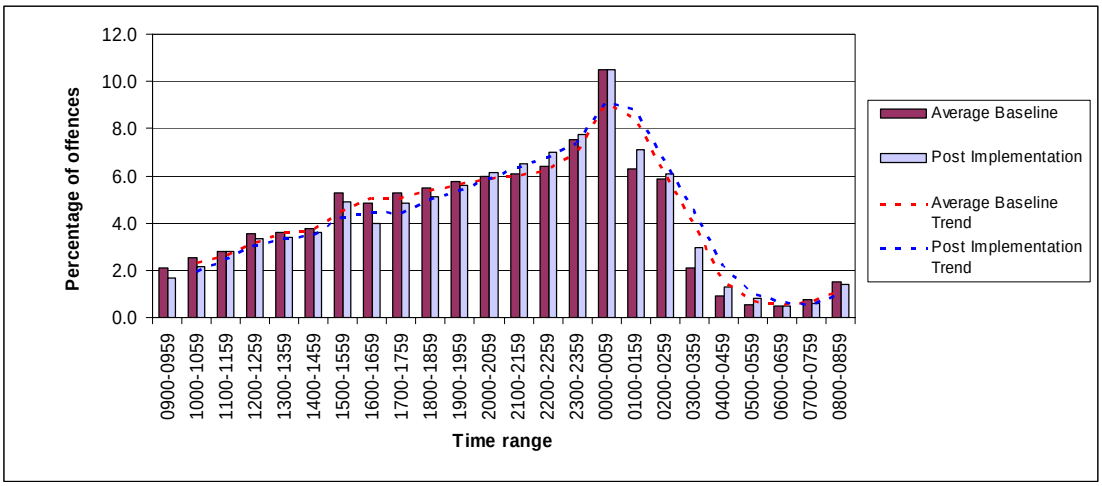
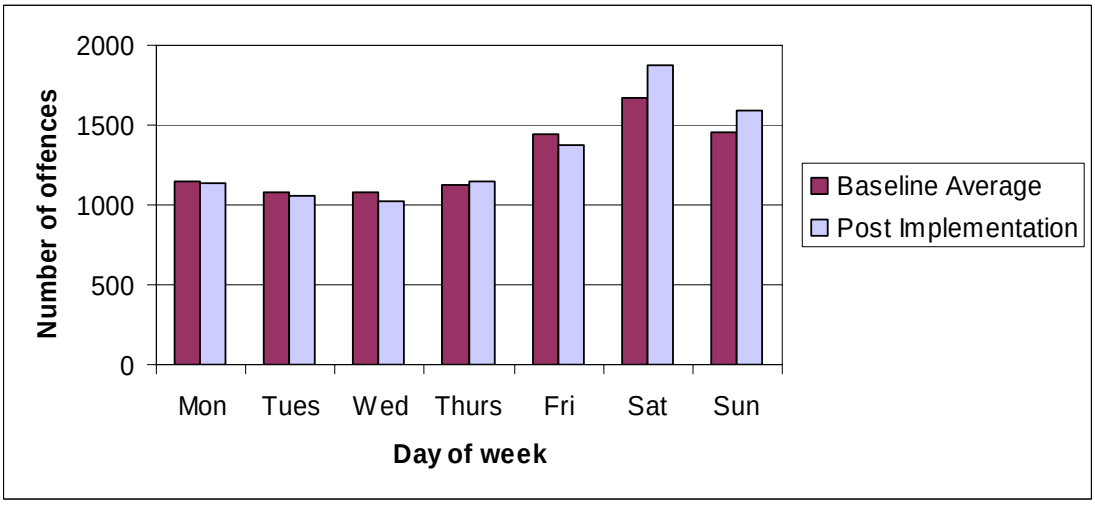


Figure 2.5 portrays the frequency of violence against the person of offences by day of week for the baseline period and post implementation periods. The baseline period is an average for the two years. For both time periods, the greatest number of violence against the person offences were recorded on a Saturday with offences increasing from Thursday through until Saturday then reducing between Sunday and Wednesday.

Figure 2.5 Violence against the person offences by day of week in Nottingham UA (average baseline and post implementation periods)



Victim profile

Figure 2.6 displays the gender of victims of violence against the person offences during the baseline and post implementation periods. It is essential to consider the impact of the 'not recorded' field (missing values) when interpreting the findings of this section of the analysis. The figures presented are based on those recorded.

The gender for the baseline period is an average over the two years. For both the average baseline period and the post implementation period the majority of victims of violence against the

person were male. There were small reductions in both the number of male and female victims in the post implementation period. However, the increase in the number of offences for which gender was not recorded makes it difficult to comment on these changes.

Figure 2.6 Violence against the person offences by gender in Nottingham UA (average baseline and post implementation periods)

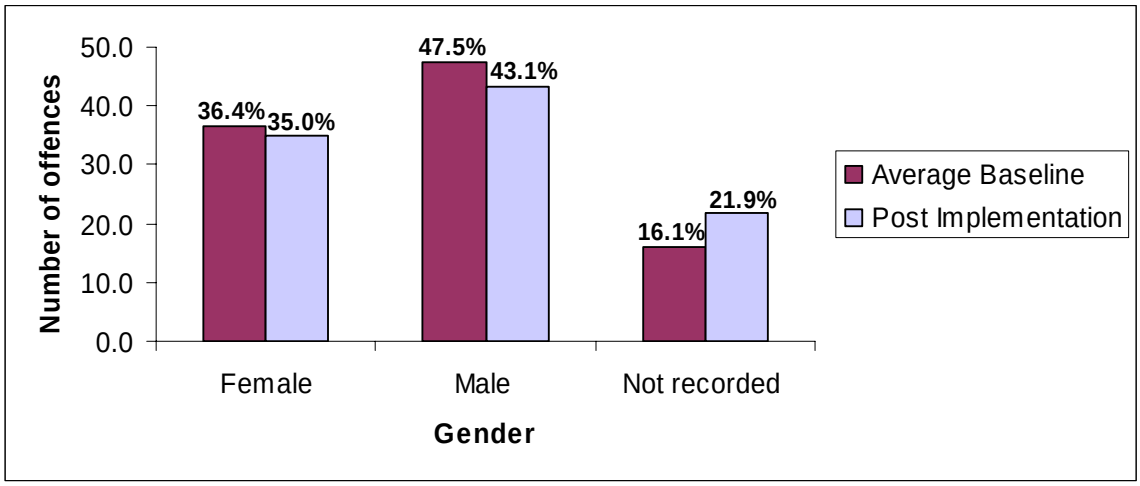
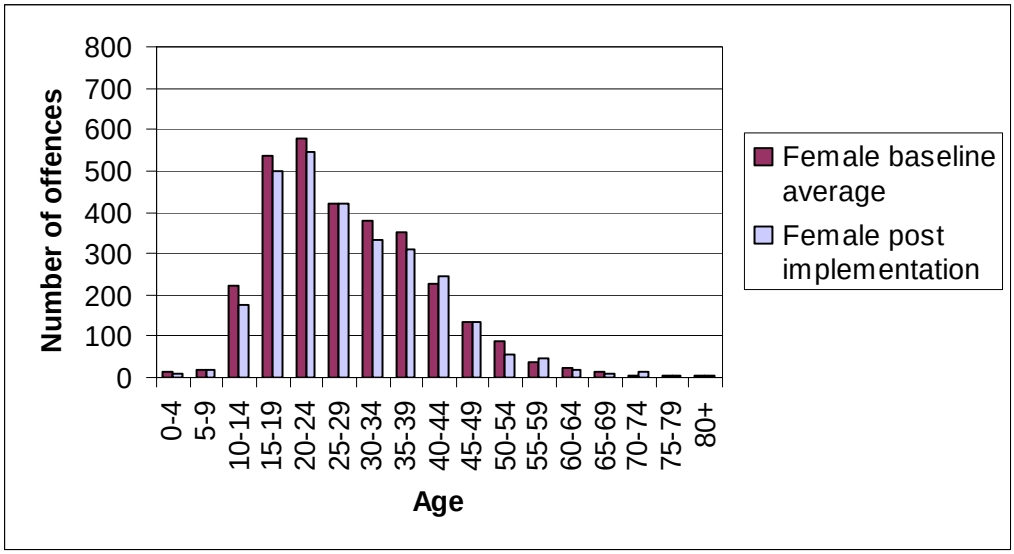


Figure 2.7 displays the gender and age of victims of violence against the person offences during the baseline and post implementation periods. The gender and age categories for the baseline periods are an average over the two years. Figure 2.7(a) shows that for both the average baseline period and the post implementation period, the peak age for female victims of violence against the person offences was 20 to 24, the number of female victims in this age group decreased in the post implementation period. Figure 2.7(b) shows that for both the baseline and post implementation periods, the peak age for male victims was also 20 to 24, as with female victims, the number of male victims in this age group reduced between the baseline and implementation periods.

Figure 2.7 Violence against the person by age and gender in Nottingham UA (average baseline and post implementation periods)

(a)



(b)

Alcohol related violence against the person

The crime offences supplied for this research also contained flags for whether alcohol was involved in the violence against the person offence, and a flag for domestic violence. In the case study area, 13 per cent of violence against the person offences in the baseline period had an alcohol flag. In the post implementation period 12 per cent of offences had an alcohol flag. The following analysis is based on those offences with an alcohol flag only.

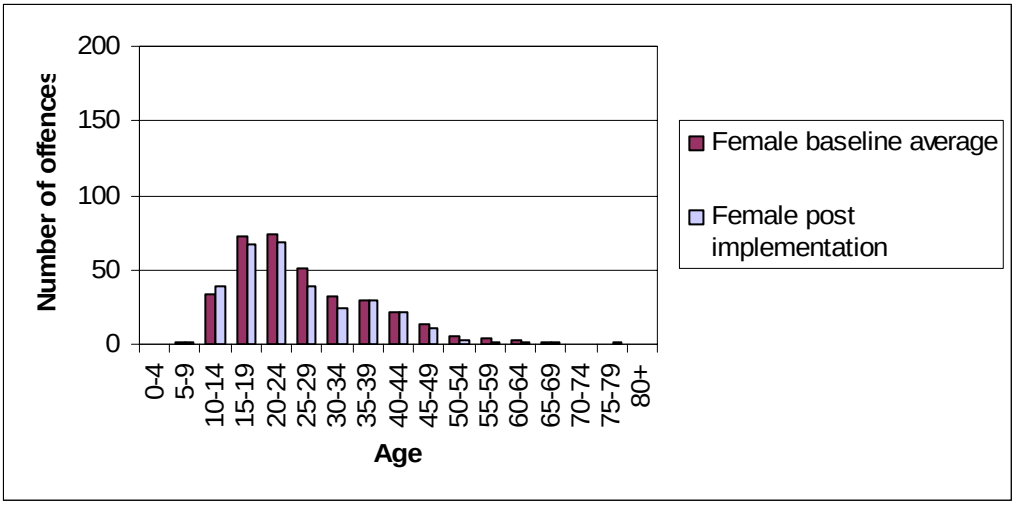
Figure 2.8 portrays the gender and age of victims of violence against the person offences during the baseline and post implementation periods with an alcohol flag. The baseline frequencies are an average over the two years. Figure 2.8(a) shows that the peak age for female victims of alcohol related violence against the person in the baseline period was 25- 29. The graph suggests that female victims of violence against the person were younger in the post implementation period. The peak age reduced to 20-24 and there were reductions in the number of victims in the

age groups between 25-79. At the same time the number of female victims aged between 10-24 increased.

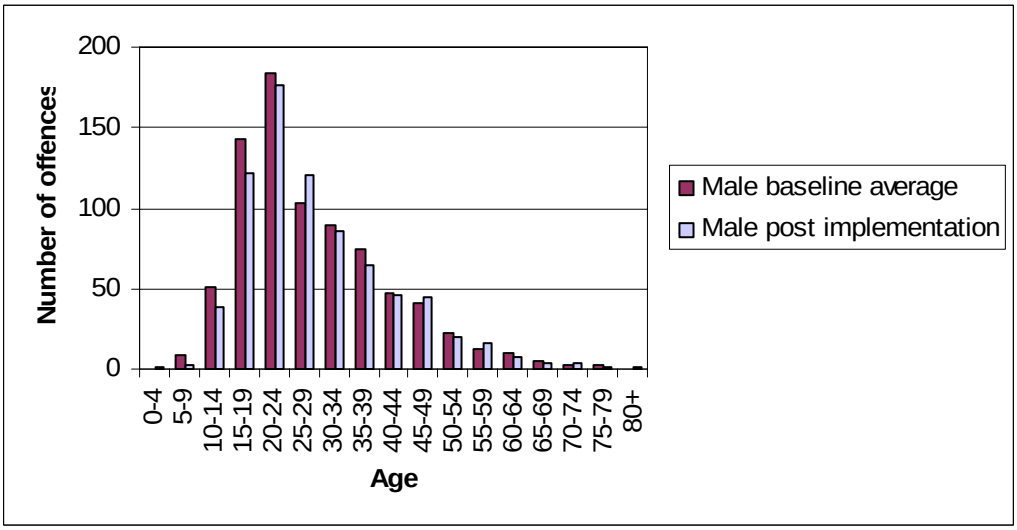
Figure 2.8 (b) shows that the peak age for male victims of alcohol related violence against the person offences in the baseline period was 25-29. Male victims also appear to be getting younger with fewer victims in all age categories between 25-80 and increases in the number of victims aged between 5-24.

Figure 2.8 Victims of violence against the person (with alcohol 'flagged') by age and gender in Nottingham UA (average baseline and post implementation time periods)

(a)



(b)



Domestic violence

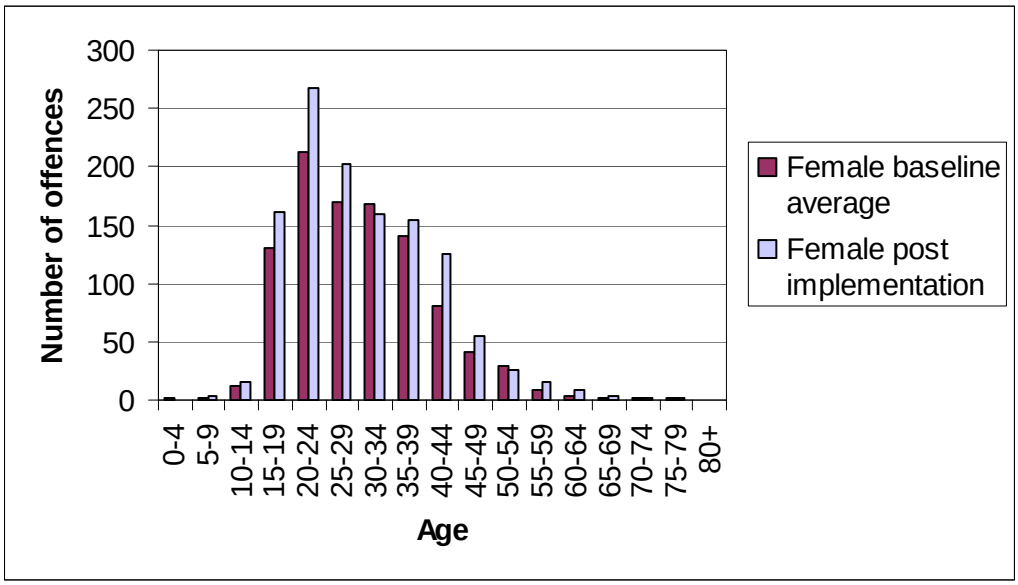
In the case study area, 16 per cent of violence against the person offences in the baseline period and 16 per cent of offences in the post implementation period had a domestic violence flag. The following analysis is based on those offences with a domestic violence flag only.

Figure 2.9 portrays the gender and age of victims of violence against the person offences during the baseline and post implementation periods with a domestic violence flag. The baseline

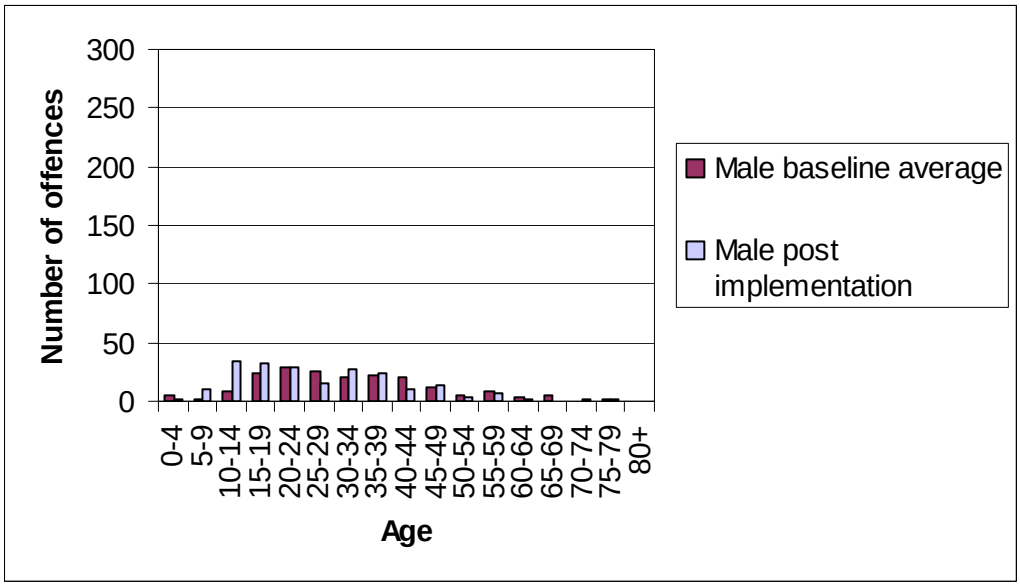
frequencies are an average over the two years. The figure shows that the majority of victims of domestic incidents of violence against the person were female. Figure 2.9(a) shows that in both periods the peak age for these female victims was between 20-24. There were increases in the number of victims across all age groups. Figure 2.9(b) shows that a much smaller proportion of victims of domestic incidents of violence against the person are male. For both the baseline and the post implementation periods, the peak age for male victims was between 20-24.

Figure 2.9 Victims of violence against the person (with domestic violence 'flagged') by age and gender in Nottingham UA (average baseline and post implementation time periods)

(a)



(b)



Meso and micro level

In addition to examining change across the macro level (entire case study area) a further focus of this research was to consider whether the Act has impacted in crime and disorder at specific times and specific locations. The distribution of licensed premises is neither random nor uniform across the case study area, thus it is likely the impact of the Act on crime and disorder is also not evenly distributed across the case study area. The advantages and limitations of using these macro, meso and micro level analyses are discussed in more detail in the technical annex.

Two areas were generated for the quantitative analysis. The first was a series of concentric buffer zones produced using a Geographical Information System (GIS), at a distance of 50 metre intervals from licensed premises (Figure 2.10). Thus, the first buffer zone covered the area 0 to 50 metres from licensed premises, the second 50 to 100 metres, the third 100 to 150 metres, and the fourth 150 to 200 metres. In addition to this, software was used to run clustering algorithms that generated areas were there was a concentration of licensed premises (Figure 2.11). These could be considered areas with a high density of licensed premises. The methodology for constructing theses zones is described in more detail in the technical annex.

The cluster area contains 46 per cent of premises, and has a mean nearest neighbour distance of 49 metres. The non cluster area contains 54 per cent of premises and a mean nearest neighbour distance of 302 metres. Thus premises are on average six times closer together in the cluster area.

Furthermore, there was an examination of crime that occurred inside or within the vicinity of (directly outside) licensed premises. The police recorded crime data contains a licensed premise flag, and this was used to attribute violence against the person offences to individual premises. These areas can be considered inside or immediately adjacent to a premise.

Figure 2.10 Concentric buffer zones (50m intervals) around pubs, bars and nightclubs in Nottingham UA

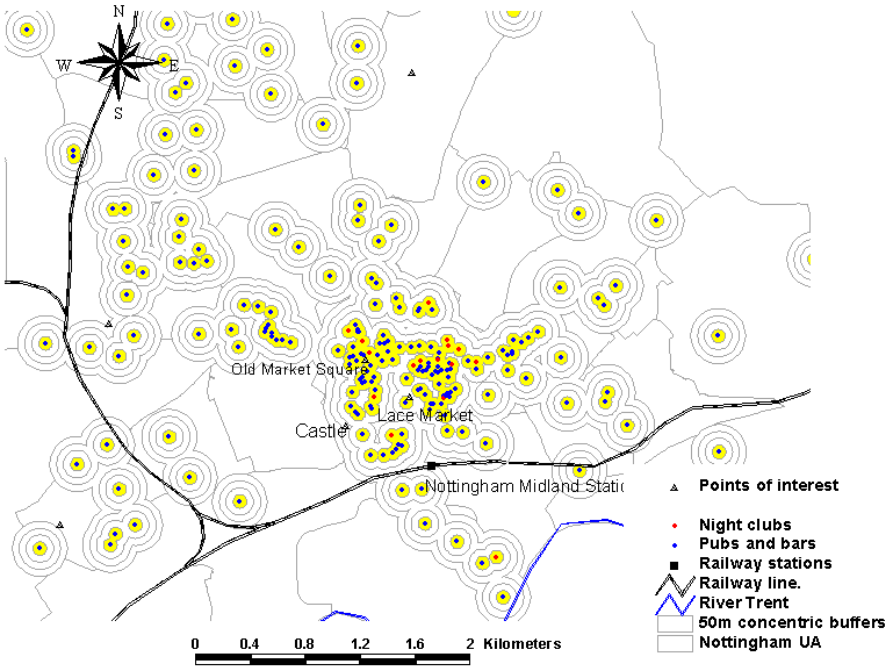
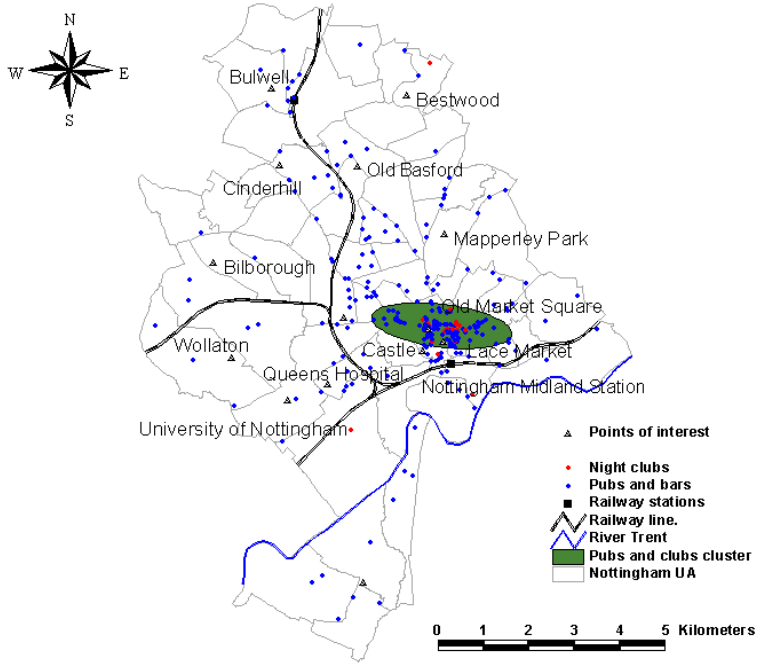


Figure 2.11 Cluster (high density) areas of pubs, bars and nightclubs in Nottingham UA



Cluster area	Non cluster area
Percentage of premises= 46	Percentage of premises= 54
Mean nearest neighbour distance = 49.5m	Mean nearest neighbour distance = 302.1m

Offences are not evenly distributed across the Nottingham area and may be influenced by the location of licensed premises. In order to examine the relationship between the location and concentration of licensed premises and the level of violence against the person, the frequency of offences was examined for specifically defined zones within the case study area. These were 50m concentric buffer zones surrounding licensed premises (pubs, bars and clubs), mapped on Figure 2.10 and also cluster areas (areas with high densities of licensed premises) mapped on Figure 2.11. The methodology for constructing these zones is described in more detail in the technical annex.

Table 2.3 Proportional changes to violence against the person offences in the buffer zones and cluster area in Nottingham UA (average monthly baseline and post implementation periods)

	Area					
	Cluster	0-50m	50-100m	100-150m	150-200m	Nottingham UA
Percentage baseline	21.6	17.9	13.5	9.0	8.1	100
Percentage post implementation	25.7	21.7	15.6	10.0	8.4	100
Proportional change	4.1	3.7	2.2	1.0	0.3	

The proportion of offences located in each of these zones is reported in Table 2.3. This shows that in the baseline around 21 per cent of all violence against the person offences in Nottingham occurred in the cluster area, and 18 per cent of these offences were located within 50m of licensed premises. The proportion of violence against the person decreased with increased distance from licensed premises. A similar trend is displayed in the post implementation period. There was a small increase in the proportion of offences in the cluster area and within 50m of licensed premises (4% increase), and marginal increases in the 50-100m and 100-150m zones (1-2%).

Daily distribution of violence against the person in specified zones

The frequency of violence against the person offences in each individual zone was calculated for the baseline period and post implementation period. This was divided by time of day into twenty-four one hour time intervals. The percentage of offences in each time interval for the baseline period (average over two years), and also the post implementation period was then calculated. From this a percentage change could be generated for each time interval in each individual zone, from the average baseline to the post implementation periods. The result of this proportional change analysis is depicted in Table 2.4. This table also includes volume change in addition to the proportional change that represents the actual change in numbers.

The table shows that changes to the daily distribution across Nottingham were very small (less than 1 percentage point). However there was a tendency for changes to be more pronounced in the areas closest to licensed premises. The most notable spatio-temporal changes were a three per cent reduction in the proportion of violence against the person offences occurring in the cluster area between 2.00am and 3.00am. This is followed by a three per cent increase in the proportion of crime occurring between 3.00am and 3.59am (3% in cluster area and 4.4% within 50m pubs, bars and clubs).

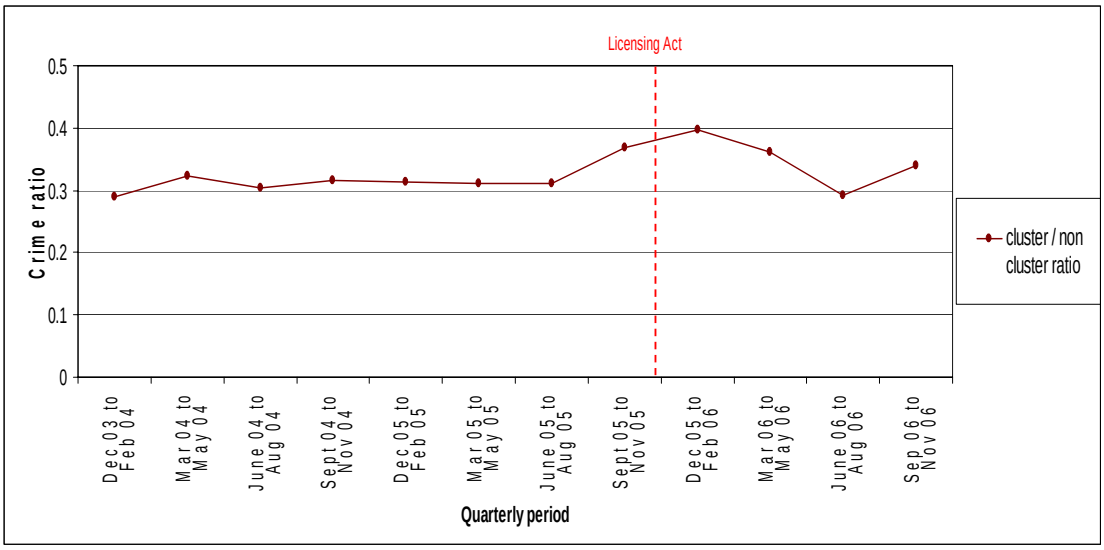
Table 2.4 Proportional changes to violence against the person by time of day and location in Nottingham UA (average baseline and post implementation time periods)

Time of day	Area											
	Cluster		0-50m		50-100m		100-150m		150-200m		Nottingham UA	
	Proportion	Volume	Proportion	Volume	Proportion	Volume	Proportion	Volume	Proportion	Volume	Proportion	Volume
0900-0959	0.0	3	0.3	7	-0.1	-1	-0.8	-7	-0.9	-8	-0.4	-32
1000-1059	-0.2	-1	0.0	3	-0.3	-2	-0.8	-7	-0.6	-6	-0.4	-30
1100-1159	-0.6	-12	-0.2	-2	0.1	4	0.7	8	-0.1	-2	0.0	8
1200-1259	-0.2	-1	0.1	5	-0.9	-10	0.2	3	1.2	8	-0.3	-13
1300-1359	-0.6	-8	0.0	5	-1.4	-16	-0.9	-7	-0.2	-3	-0.2	-16
1400-1459	0.0	6	0.3	11	-0.3	-1	-0.8	-6	0.4	2	-0.2	-6
1500-1559	-0.1	4	0.1	9	-0.1	3	-1.5	-12	0.4	2	-0.4	-26
1600-1659	-1.1	-18	-1.2	-17	0.2	7	-0.5	-4	0.0	-2	-0.9	-65
1700-1759	-0.6	-8	0.3	13	-2.1	-26	-0.8	-6	-0.7	-8	-0.4	-30
1800-1859	-0.4	-5	-0.3	1	-0.6	-5	1.9	19	-0.1	-3	-0.4	-24
1900-1959	0.2	9	0.2	11	0.8	15	0.3	4	-1.7	-16	-0.1	-3
2000-2059	0.4	14	-0.2	5	1.1	19	0.5	6	-0.8	-9	0.3	26
2100-2159	1.3	39	-0.5	1	2.5	39	0.2	4	-0.3	-5	0.4	56
2200-2259	1.3	40	0.3	22	1.1	21	0.7	8	1.0	6	0.5	66
2300-2359	-0.3	12	-0.8	7	0.1	8	-1.2	-10	-0.6	-8	0.3	36
0000-0059	0.0	27	-0.3	26	-0.7	-2	0.5	7	3.6	25	0.1	24
0100-0159	0.5	38	0.6	42	0.0	5	0.6	7	0.4	2	0.8	84
0200-0259	-3.2	-47	-3.3	-36	-1.8	-19	0.9	10	-0.6	-7	0.1	30
0300-0359	3.1	78	4.4	95	2.1	31	0.2	2	-0.2	-3	0.9	87
0400-0459	0.3	9	0.3	8	-0.1	-1	0.8	8	0.3	2	0.3	38
0500-0559	0.2	6	0.3	6	0.4	6	0.3	3	-0.1	-2	0.3	25
0600-0659	-0.1	-2	-0.1	-2	0.1	2	-0.1	-1	-0.1	-1	0.0	1
0700-0759	-0.2	-3	-0.2	-3	-0.6	-8	-0.1	-1	0.0	0	-0.1	-14
0800-0859	0.1	4	-0.1	-2	0.2	4	-0.4	-3	-0.2	-2	-0.1	-8

Proportion of violence against the person in the cluster area

Violence against the person ratios were produced by dividing the monthly counts of these offences in the cluster area with counts in the remainder of the Nottingham UA area. A crime ratio of 1.0 indicates an even distribution (same proportion in the cluster area and the remainder of the Nottingham area). Figure 2.12 tracks the changes to monthly crime ratios for the analysis period. This illustrates whether the proportion of Nottingham's violence against the person occurring within the cluster area has changed over the baseline and implementation periods. Figure 2.12 shows that the crime ratio has fluctuated across the period between 0.3 and 0.4 but overall the ratio has remained stable overtime suggesting that violence against the person has not become more concentrated in the cluster area (high density of pubs, bars and clubs).

Figure 2.12 Violence against the person crime ratio in Nottingham UA (December 2003 to November 2006)



Geographical distribution of violence against the person

The following section examines the distribution of violence against the person in more detail using hot spot maps that were produced for both the baseline and post implementation periods. Two types of hot spots were generated using CrimeStat III, these were Nearest Neighbour Hierarchical Clusters (NNHC) and Kernel Density Estimations (KDE). More detailed information on the generation of hot spots, and their relative merits and disadvantages, are provided in the technical annex.

The Nearest Neighbour Index (NNI) statistic (described in the technical annex) was calculated prior to the construction of hot spots. This showed that there is evidence of clustering in the violence against the person data, above the clustering exhibited by premises themselves, and that hot spot analysis is an appropriate technique to use.

Figure 2.13 maps the hot spots of violence against the person (derived through NNHC) in Nottingham in the baseline and post implementation periods. The purple ellipses represent the baseline hot spots and the blue ones the post implementation period. These hot spots do not account for the timing of the offences, but consider the overall concentration of offending over the 12 month period. The map shows that in both the baseline and post implementation periods violence against the person was concentrated around Nottingham City Centre. The map indicates that there are also concentrations of licensed premises in these areas. There were also hot spots

around the Radford and Bullwell areas. Hot spots in the post implementation period were consistent with those in the baseline period suggesting there has been little change in the geographical distribution of violence against the person. Some baseline hot spots are no longer apparent in the post implementation period, (near Cinderhill and north of Billborough) suggesting that violence against the person has become more concentrated around the City Centre, Radford and Bullwell.

The maps which follow, in Figure 2.14, show violence against the person hot spots by time of day. KDE is used to derive the hot spots. The timing of offences has been grouped into four periods, namely 9.00pm to 10.59pm, 11.00pm to 0.59am, 1.00am to 2.59am and 3.00am to 4.59am. The decision was taken to concentrate on these hours for two reasons. Firstly, the hours between 9.00pm and 5.00am account for the majority of all crimes of violence. Secondly, this period covers the hours when any changes to premises opening hours would occur.

For each of the pairs of maps, the left hand side represents the baseline period, while the right hand side represents the post implementation period. The maps show that for each time period the pattern in the post implementation period remains very similar to the baseline trends. Offences of violence against the person build up from 9.00pm and are highly concentrated in city centre. The intensity increases from 11.00pm to 00.59am and continues to concentrate around the city centre. A similar pattern is displayed between 1.00am and 2.59am. From 3.00am to 4.59am there is a dramatic reduction in violence against the person hot spots, both in their extent and intensity. However in the post implementation period the hot spots around Lace Market and Old Market Square persist, although they are less intense.

Figure 2.13 Violence against the person hot spots (NNHC) in Nottingham UA (average baseline and post implementation periods)

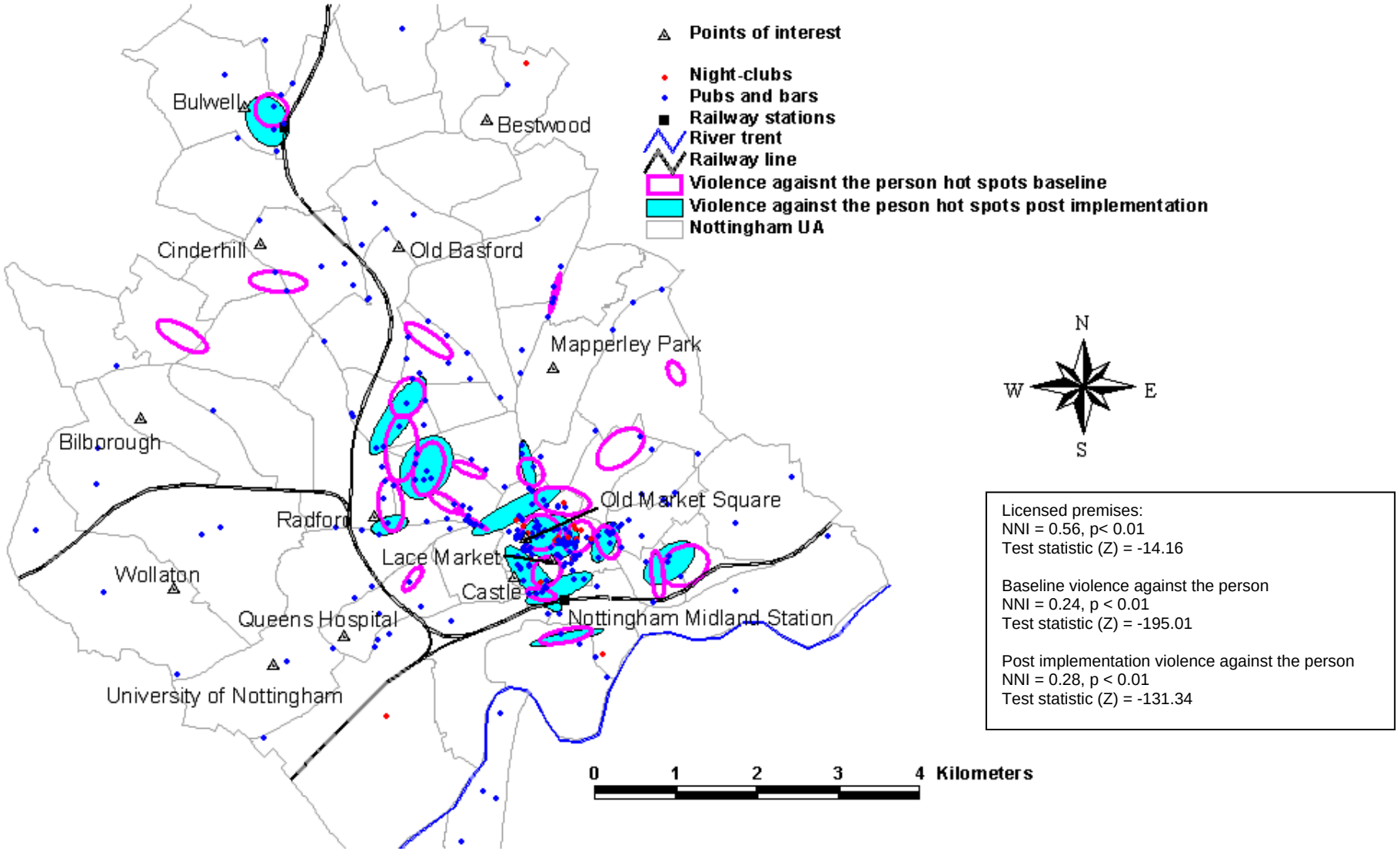
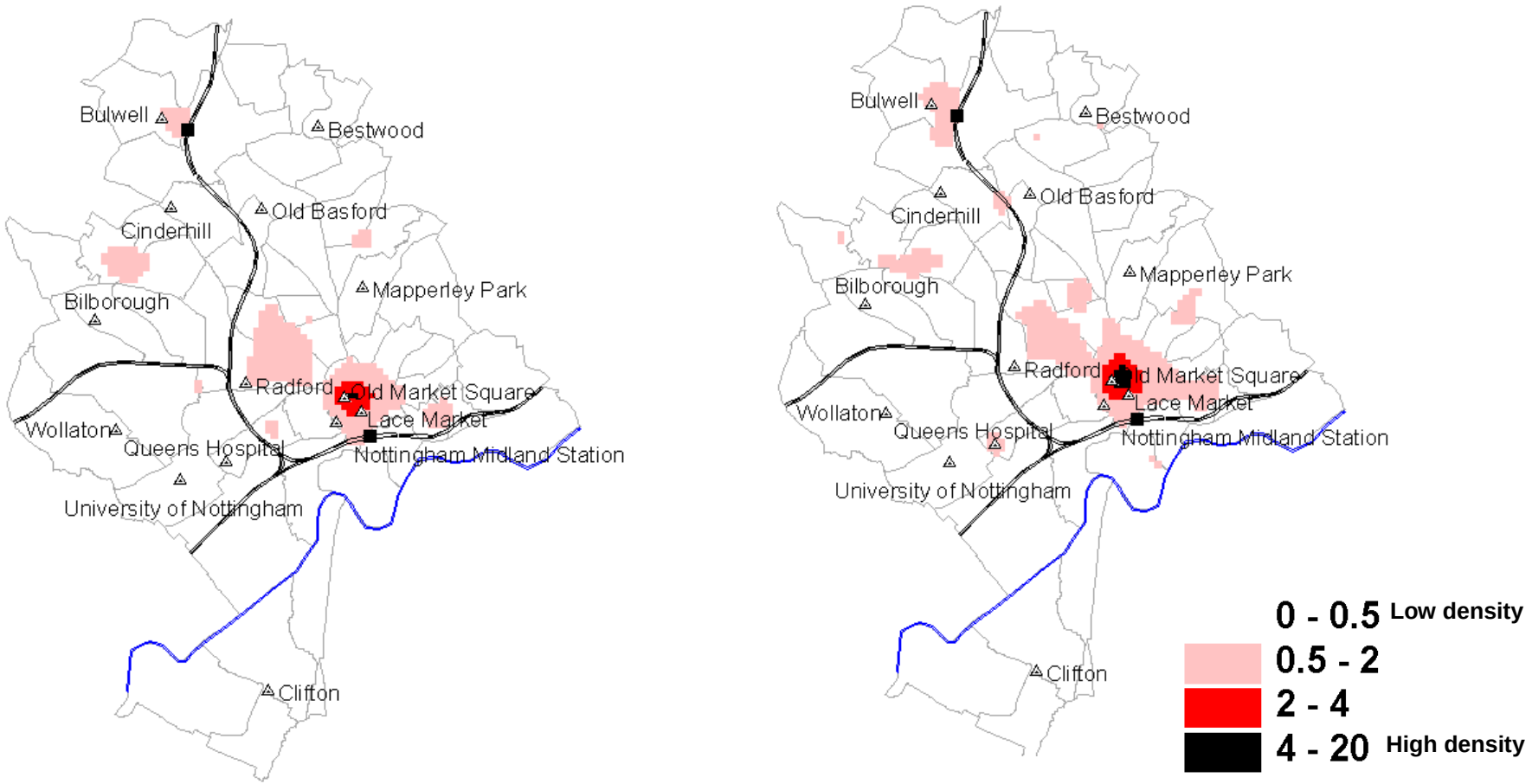


Figure 2.14 Violence against the person hot spots (KDE) by time of day in Nottingham UA (average baseline and post implementation periods)

a) Baseline period (9.00pm – 10.59pm)

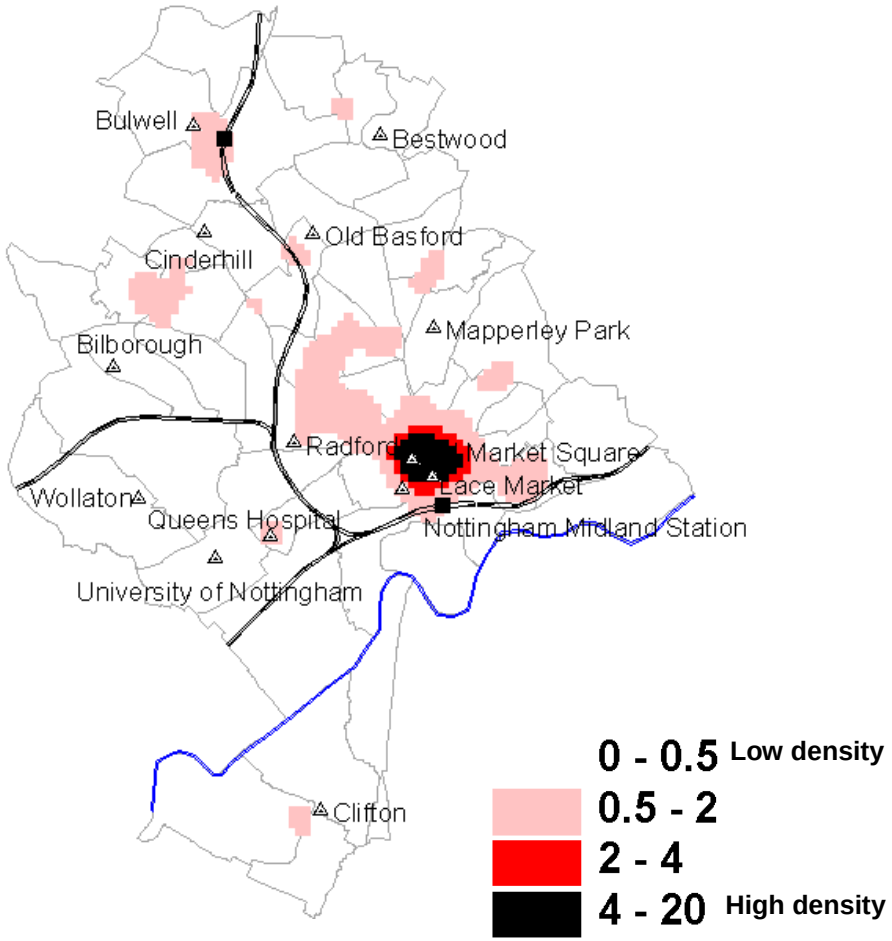
Post implementation period (9.00pm – 10.59pm)



b) Baseline period (11.00pm – 0.59pm)

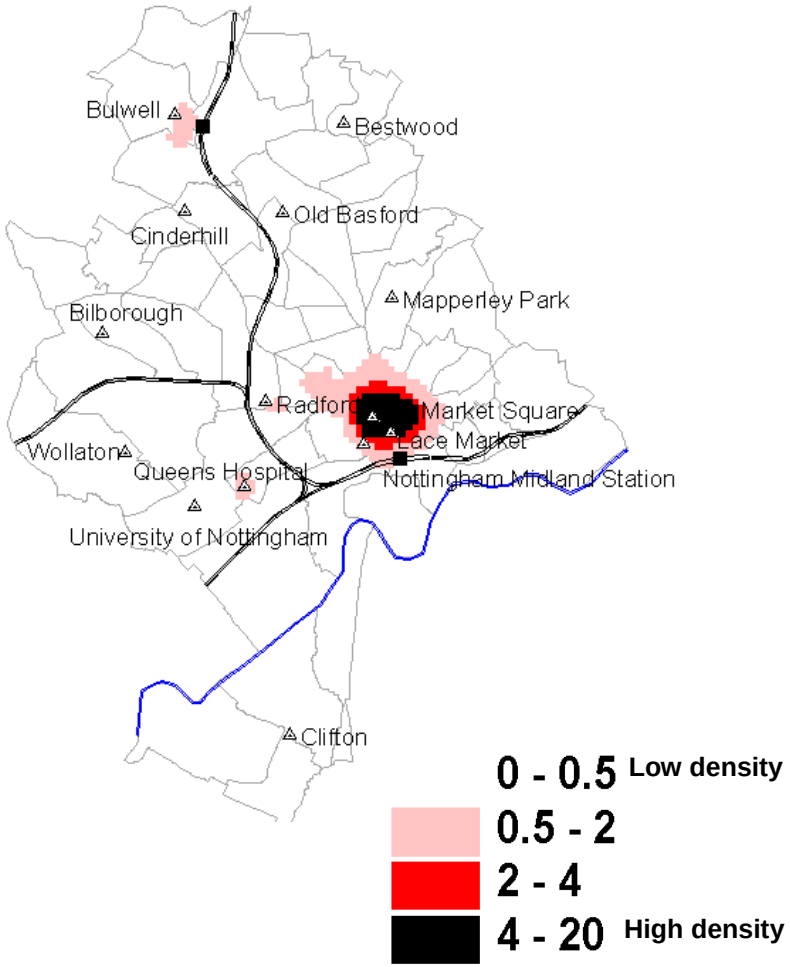
(11.00pm – 0.59pm)

Post implementation period



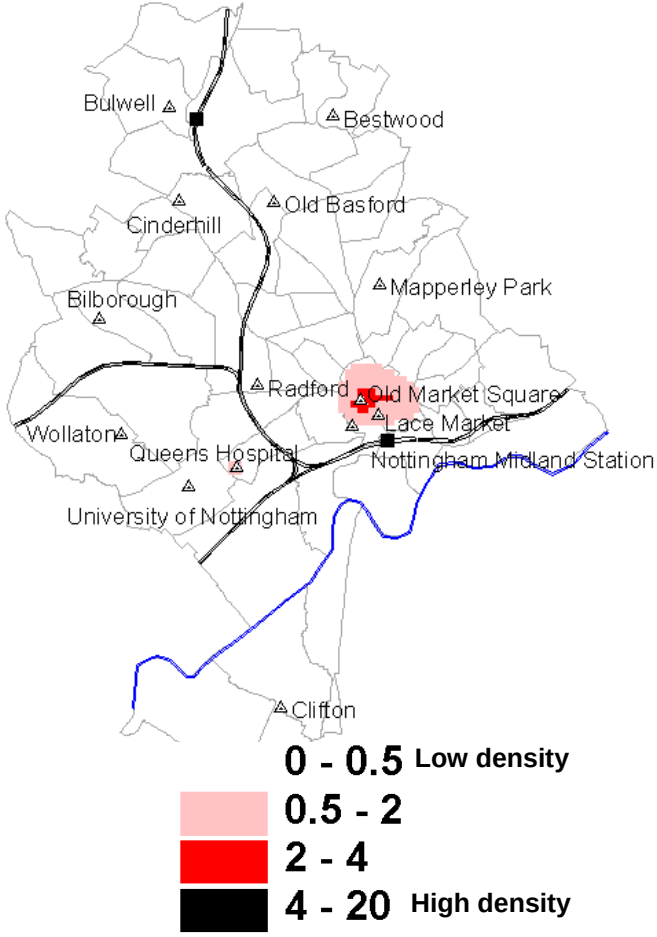
c) Baseline period (1.00am – 2.59am)

Post implementation period (1.00am



d) Baseline period (3.00am – 4.59am)

Post implementation period (3.00am – 4.59am)



Violence against the person in or at licensed premises

The two Resource Targeting Tables (RTTs) which follow show the number and percentage of violence against the person offences occurring in or at licensed premises. Premises are ranked in descending order of the number of offences. For more detailed information on each individual premise the reader is referred to the qualitative fieldwork and the findings in tables 6.2 and 6.3. Note that these tables do not account for differences in premise type, for example the capacity, the hours open (pub or nightclub hours for example), or whether the premise has been closed for any period. They relate to the absolute number of offences in an area, and those premises with the highest concentrations of offences irrespective of premise type, as these do have a direct impact on policing. More discussion of this is provided in the technical annex.

Table 2.5, which covers the baseline period, shows 1504 violence against the person offences were recorded in or at licensed premises during the two year baseline period. The top 15 premises (5% of premises) accounted for 40 per cent of these offences with the top 5 premises accounting for 20 per cent. Approximately 30 per cent of premises had no recorded offences.

Results from the post implementation period are displayed in Table 2.6. The table shows that 909 violence against the person offences were recorded in or at the top 15 premises during the one year post implementation period. In common with the baseline period the top 15 per cent of premises accounted for 40 per cent of offences. The top five per cent of premises accounted for 25 per cent of offences. Of the top fifteen premises in the baseline, 12 also appeared in the top 15 in the post implementation period. The evidence from these tables suggests that although there was some turnover of premises in the top 15, the top 15 in both periods accounted for a very similar proportion of offences, while a similar proportion of premises in both periods had no offences recorded against them.

Figure 2.15 plots the hot spots of violence against the person for the baseline and post implementation periods, along with the location of the top 15 premises in both periods. The majority of the top premises are located in baseline and post implementation hot spot areas, and all are located in the vicinity of Old Market Square and Lace Market.

Table 2.5 Resource Targeting Table of recorded[1] violence against the person offences recorded in or at pubs bars and nightclubs in Nottingham UA (baseline period)

Venue	Number of offences[2]	Number of premises	Cumulative number of offences	Cumulative number of premises	Percentage of offences	Percentage of premises	Cumulative percentage of offences	Cumulative percentage of premises
A	115	1	115	1	7.6	0.4	7.6	0.4
B	62	1	177	2	4.1	0.4	11.8	0.7
C	50	1	227	3	3.3	0.4	15.1	1.1
D	47	1	274	4	3.1	0.4	18.2	1.4
E	46	1	320	5	3.1	0.4	21.3	1.8
F	38	1	358	6	2.5	0.4	23.8	2.1
G	33	1	391	7	2.2	0.4	26.0	2.5
H	33	1	424	8	2.2	0.4	28.2	2.9
I	33	1	457	9	2.2	0.4	30.4	3.2
J	28	1	485	10	1.9	0.4	32.2	3.6
K	25	1	510	11	1.7	0.4	33.9	3.9
L	24	1	534	12	1.6	0.4	35.5	4.3
M	22	1	556	13	1.5	0.4	37.0	4.6
N	21	1	577	14	1.4	0.4	38.4	5.0
O	20	1	597	15	1.3	0.4	39.7	5.4
	11-20	21	877	36	18.6	7.5	58.3	12.9
	5-10	57	1264	93	25.7	20.4	84.0	33.2
	1-4	109	1504	202	16.0	38.9	100.0	72.1
	0	78	1504	280	0.0	27.9	100.0	100.0
	1504	280	na	na	100.0	100.0	na	na

[1] Based on police recorded crime data using offences flagged in or at individual licensed premises

[2] These figures represent the sum of 2 years of baseline data

Top 15 (baseline period and post implementation period)

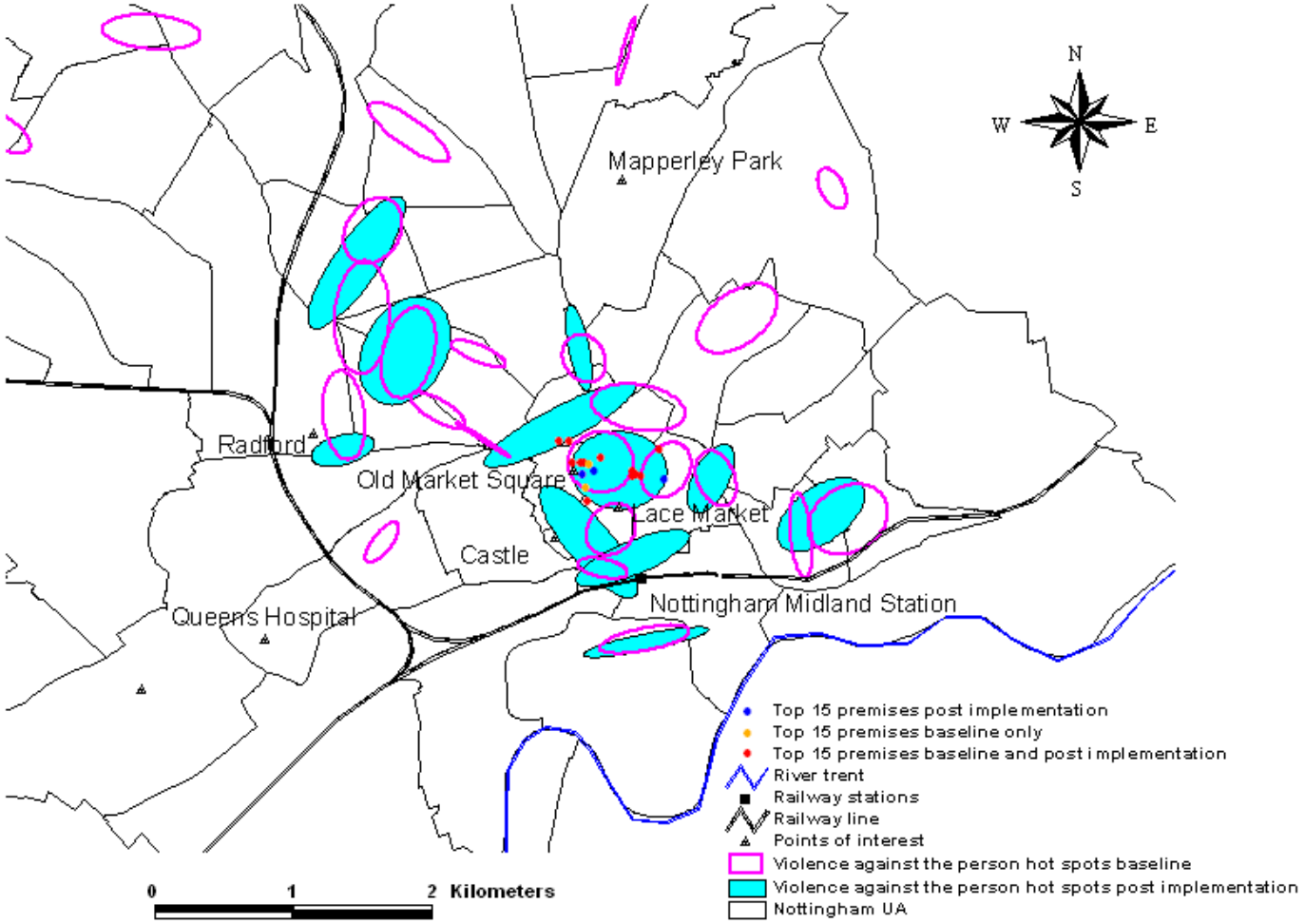
Table 2.6 Resource Targeting Table of violence against the person offences recorded[1] in or at pubs, bars and nightclubs in Nottingham UA (post implementation period)

Venue	Baseline rank	Number of offences	Number of premises	Cumulative number of offences	Cumulative number of premises	Percentage of offences	Percentage of premises	Cumulative percentage of offences	Cumulative percentage of premises
E	5	62	1	62	1	6.8	0.4	6.8	0.4
A	1	58	1	120	2	6.4	0.4	13.2	0.7
I	9	35	1	155	3	3.9	0.4	17.1	1.1
B	2	35	1	190	4	3.9	0.4	20.9	1.4
H	8	29	1	219	5	3.2	0.4	24.1	1.8
C	3	27	1	246	6	3.0	0.4	27.1	2.1
L	12	23	1	269	7	2.5	0.4	29.6	2.5
F	6	23	1	292	8	2.5	0.4	32.1	2.9
M	13	16	1	308	9	1.8	0.4	33.9	3.2
K	11	15	1	323	10	1.7	0.4	35.5	3.6
D	4	14	1	337	11	1.5	0.4	37.1	3.9
P	>15	14	1	351	12	1.5	0.4	38.6	4.3
Q	>15	12	1	363	13	1.3	0.4	39.9	4.6
O	15	11	1	374	14	1.2	0.4	41.1	5.0
R	>15	11	1	385	15	1.2	0.4	42.4	5.4
		6-10	31	622	46	26.1	11.1	68.4	16.4
		1-5	121	909	167	31.6	43.2	100.0	59.6
		0	113	909	280	0.0	40.4	100.0	100.0
		909	280	na	na	100.0	100.0	na	na

[1] Based on police recorded crime data using offences flagged in or at individual licensed premises

Top 15 (baseline period and post implementation period)

Figure 2.15 Comparison of top 15 ranked establishments for violence against the person in the baseline and post implementation periods in Nottingham UA



Additional hours *used* and *applied for*

The fieldworkers collected information on the actual additional hours premises *used* as opposed to those that were applied for. Information on the hours *applied for* were provided by the local authority for each area in the licensed premises databases.

Table 2.7 presents information on premises visited by the fieldworkers during the qualitative part of the study. Seven premises were visited and information was collected on the additional hours applied for per week. Of the premises visited two were in the top 15 in both periods, two were in the top 15 in the baseline only, and three were not in the top 15 in either period. All seven premises applied for additional hours, three premises applied for less than nine hours, four applied for more than nine hours. Premises do not, of course, always use the hours they apply for. In fact, none of the premises routinely used all of the hours applied for, and on average, premises used just 34 per cent of the extra hours granted per week.

Table 2.7 Profile of premises visited by fieldworkers in Nottingham UA during post implementation interviews

	Weekly additional hours (applied for)	Weekly additional hours (used)	Percentage hours applied for used	Capacity	Violence against person offences (average baseline)	Violence against person offences (post implementation)
S	13	0	0.0	400	5	5
N	5	2	40.0	400	11	7
O	14	6	42.9	100	10	11
T	8	3	37.5	470	1	1
U	16	4	25.0	120	2	1
B	4	2	50.0	850	31	35
G	10	4	40.0	450	17	5

Top 15
Baseline and post implementation
Baseline only
Post only

In order to make comparisons easier, premises were grouped into one of three categories according to the number of additional hours *used per week*: none; one to five, and six or more.

Table 2.8 examines crime by the additional hours premises *used,* at premises visited by the fieldworkers. The hours *used* were based on fieldworker findings from site visits. The table shows that the 14 per cent of premises *using* no additional hours accounted for six per cent of offences in the baseline, rising to eight per cent post implementation. The 71 per cent of premises *using* between one to five hours accounted for 80 per cent of offences falling to 75 per cent post implementation. The one premise (14 per cent of premises) *using* six hours or more accounted for 12 per cent of offences in the baseline and 17 per cent post implementation. In summary there was an increase post implementation in terms of violence against the person offences for those premises *using* no additional hours and six or more hours, while all other premises reduced their share. Due to the data structures it is not simple to compare the time of day or day of week of crime directly with the time of day or day of week when premises extended their hours.

Table 2.8 Estimated additional hours *used* per week by premises visited by fieldworkers in Nottingham UA and violence against the person offences (average baseline and post implementation periods)

Additional hours (used)	Number of premises	Violence against the person offences (average baseline)	Violence against the person offences (post implementation)
None	1	5	5
1 to 5	5	62	49
6 plus	1	10	11
Total	7	77	65

Additional hours (used)	Percentage of premises	Percentage of violence against the person	
		Average baseline	Post implementation
None	14.3	6.5	7.7
1 to 5	71.4	80.5	75.4
6 plus	14.3	13.0	16.9
Total	100	100	100

This analysis was repeated using the additional hours *applied for* at premises were this data was available. In Nottingham there were 261 such premises. As baseline hours were not known, it was necessary to estimate the number of additional hours applied for, on the assumption in the baseline period that most pubs would have closed at 11.00pm and most clubs at 2.00am (traditional closing time). The difference between the traditional hours and the post implementation *applied for* hours generated the number of additional hours *applied for per week*.

The findings are presented in table 2.9. This shows that 36 premises (14%) did not *apply for* additional hours. These premises accounted for six percent of offences in the baseline and five per cent post implementation. 38 per cent of premises *applied for* between one and eight extra hours, these premises accounted for 26 per cent of offences in both periods. Just under half, 49 per cent of premises *applied for* over nine additional hours. These premises were responsible for 69 per cent of offences in both periods. The table shows there was little change to the proportion of violence against the person accounted for by premises *applying for* additional hours. This contrasts with the findings in table 2.8 and demonstrates the importance of analysing both hours *applied for* and hours *used*.

Table 2.9 Estimated additional hours *applied for* by all premises in Nottingham UA and violence against the person offences (average baseline and post implementation periods)

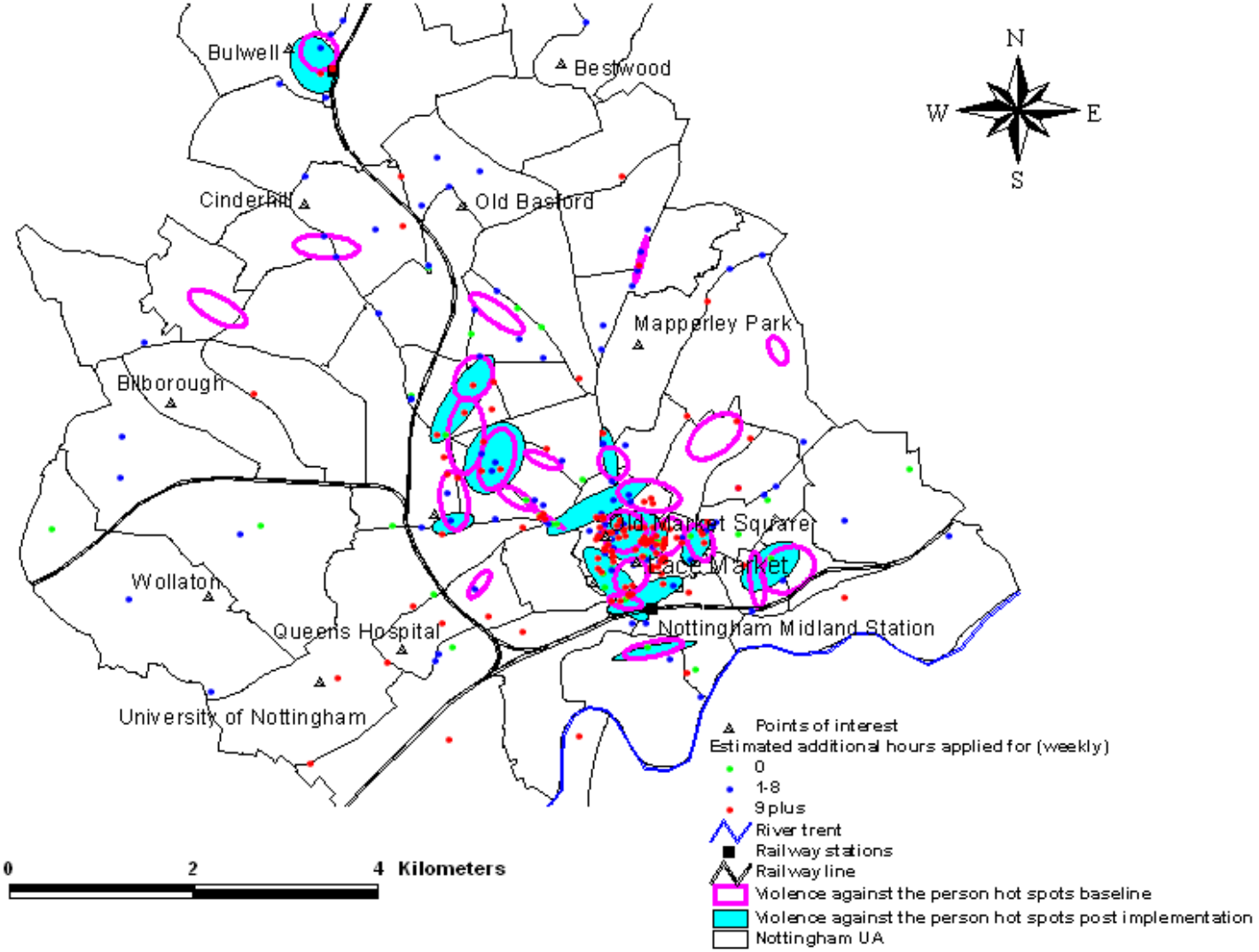
Additional hours (applied)	Number of premises	Violence against the person (average baseline)	Violence against the person (post implementation)
None	36	38	28
1 to 8	98	169	149
9 plus	127	442	406
Total	261	649	583

Additional hours (applied)	Percentage of premises	Percentage of violence against the person	
		Average baseline	Post implementation
None	13.8	5.9	4.8
1 to 8	37.5	26.0	25.6
9 plus	48.7	68.1	69.6
Total	100.0	100.0	100.0

Unfortunately the data structures make it very difficult to link changes in licensing hours to change in crime by location and time. The top 15 analysis uses recorded crime data (violence against the person offences) and extracts the premise name as a text field based on the number of times it appears (frequency). It is a complex process to link the frequencies generated on premise name back to the individual crime records to extract number of offences at each premise by time of day. It is suggested that future research here is necessary and that local authorities maintain a database of violence offences by premise which include the date and time of the offence, the name of the premise, and the premise opening hours at the time of the offence.

The map in Figure 2.16 plots the premises by the number of estimated additional hours applied for against violence against the person hot spots. There is a concentration of premises applying for additional hours around the City Centre particularly around the key drinking areas (Old Market Square and Lace Market). However, there are also premises applying for additional hours dispersed across the Nottingham area and a significant inter-dispersal of these premises with those which did not apply for extra hours. There is no evidence of new hot spots in around premises where additional hours were applied for.

Figure 2.16 Estimated weekly additional hours applied for by premises in Nottingham UA in the post implementation period



Accident and Emergency and ambulance data

Ambulance data was provided for Nottingham from November 2003 to the end of December 2006. Details of the information requested are provided in the technical annex. Incidents of assault were extracted and analysed by month, by hour of the day/night and by age and gender. The time periods covered were 10.00pm on Friday through to 4.59am on Saturday and 10.00pm on Saturday through to 4.59am on Sunday. Only those patients attending who were aged 17 to 35 were included in the data set. The accident and emergency data supplied was not suitable for the purposes of the research.

Distribution of incidents by month and year

In total, 810 ambulance assaults were available for examination covering the 38 month period. Subsets of police recorded crime data for violence against the person were produced to accord with the days and times covered by the assaults data. Thus, violence against the person offences occurring outside of weekend nights were excluded to allow a more meaningful comparison between recorded crime and assaults. However, changes in violence against the person on weekend nights were compared with overall violence against the person (i.e. that occurring at any time) to provide a broader context for the various analyses.

Caution must be exercised in comparing the results from the ambulance data with those on recorded crime. This is because the geographical areas covered by the ambulance service were not coterminous with police wards. Also, there are likely to be different interpretations of what constitutes violence against the person for police recording purposes and what constitutes an assault for ambulance service recording purposes. As police violence against the person and assaults recorded by the ambulance service use entirely different information systems it was not possible to link the two various data sets.

The original ambulance data that were supplied contained all hours from midnight Friday through midnight Sunday. There were 1106 records in this file. Records were removed for periods before 10.00pm on Fridays, between 5.00am and 9.59pm on Saturdays and after 5.00am on Sundays to accord with weekend nights. Once this was carried out, the number of assaults fell to 810.

Details of the number of cases of assault from the ambulance service and weekend violence against the person from the police appear in Table 2.10. The ratio between the number of assaults and the number of weekend violence against the person offences was higher than in other case study areas, averaging 7.4 in both the baseline and post implementation periods. Thus, there were over seven times more violence against the person offences than ambulance data assaults. Typical ratios for other case study areas were around 2.0.

Weekend violence against the person rose by 6.2 per cent between the baseline and the post implementation period. Assaults recorded by the ambulance service also increased over this time period but to a lesser extent.

The monthly distribution of ambulance service recorded assaults appears in Table 2.11 and in Figure 2.17. From Table 2.11 it is clear that most of the increases in assaults occurred in the second half of 2006. The early months of 2006 (with the exception of April) were characterised by reductions in the number of assaults. The turning point was in June when there appeared to be no change from the baseline.

Table 2.10 Violence against the person and ambulance response assault data in Nottingham (baseline and post implementation periods)

Category	Baseline year one December 2003 to November 2004	Baseline year two December 2004 to November 2005	Mean baseline	Post implementation December 2005 to November 2006	Percentage change mean baseline post implementation
Violence against the person weekend nights	1590	1961	1775.5	1896	6.2
Assaults (Ambulance)	290	191	240.5	254	5.8
Ratio of violence against the person to ambulance assaults	5.4	10.2	7.4	7.4	

Table 2.11 Ambulance response assault data in Nottingham (November 2003 to December 2006)

	Year				Post implementation percentage change (monthly average) [1]
	2003	2004	2005	2006	
January		26	9	18	2.8
February		15	15	11	-26.6
March		28	14	16	-23.8
April		24	17	32	56.0
May		32	14	17	-26.0
June		16	14	15	0
July		21	22	27	25.5
August		25	13	22	15.7
September		16	20	23	27.7
October		35	17	30	15.4
November	39	36	12	19	-20.8
December	16	24	24	36	20.0

[1] Note: The baseline period is an average of the two year period 2004/2005

Figure 2.17 compares the assaults following the implementation of the Act with the mean monthly totals in the previous two years. The baseline averages appear as a grey dotted line. The post implementation line tends to be below the baseline in the first half of the year and mainly above the baseline thereafter.

There was some correspondence between ambulance service assaults in the baseline and post implementation periods; the peaks and troughs coincided to a point (e.g. in February and in June, July, August and October) but not throughout the whole time period.

Figure 2.17 Ambulance response assault data in Nottingham (average monthly baseline periods and post implementation period)

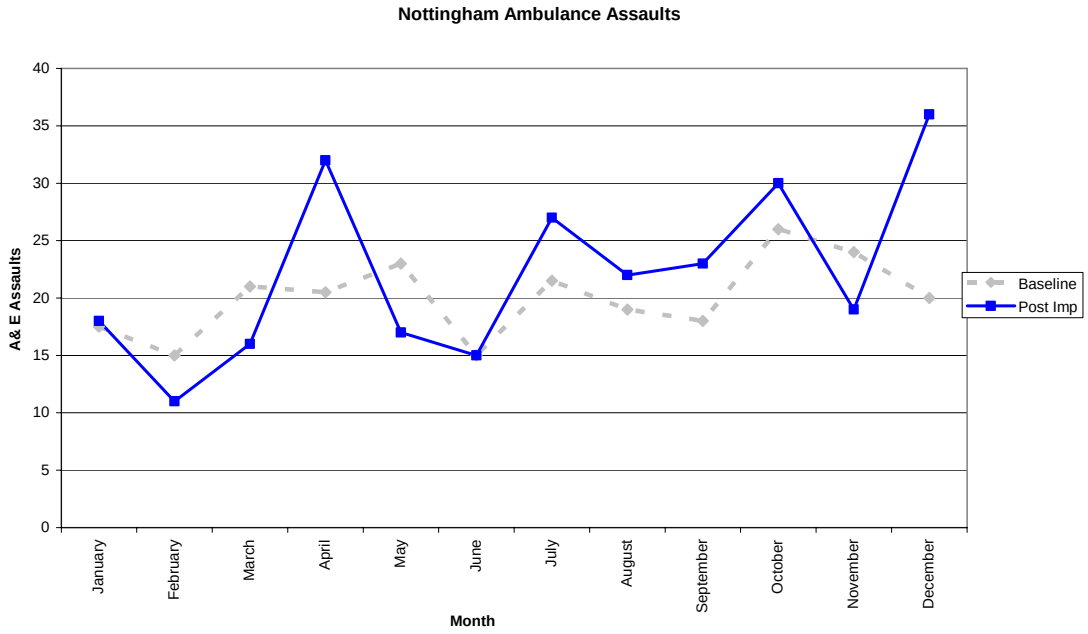


Figure 2.18 compares the monthly percentage change in ambulance data assaults (displayed in the grey bars) with that of police recorded violence against the person for weekend nights. The latter is shown in red where increased levels occurred compared with the same month in the previous two years and in blue when a reduction has taken place.

The picture that emerges from Figure 2.18 is one of increases in weekend violence against the person for most of the post implementation period; many of these were between 10 per cent and 20 per cent in terms of the volume of cases compared with the previous two year monthly averages. Both violence against the person and ambulance assaults displayed similar increases compared with the baseline in July through September 2006. In other periods it is a contrasting picture; ambulance assaults falling in March, May and November, whilst violence against the person increased.

Figure 2.19 compares baseline and post implementation monthly changes in weekend evening violence against the person with changes for all violence against the person taking place in Nottingham. The red and blue bars represent violence against the person on weekend nights and the clear white bars show changes in all violence against the person offences.

For seven out of the twelve months, both weekend violence against the person and overall violence against the person increased on baseline levels. The increases were generally higher for violence against the person at weekends than violence against the person overall.
February 2006 was the only post implementation month when both weekend violence against the person and overall violence against the person fell.

Figure 2.18 Percentage change in ambulance response assault data in Nottingham (average baseline to post implementation period change)

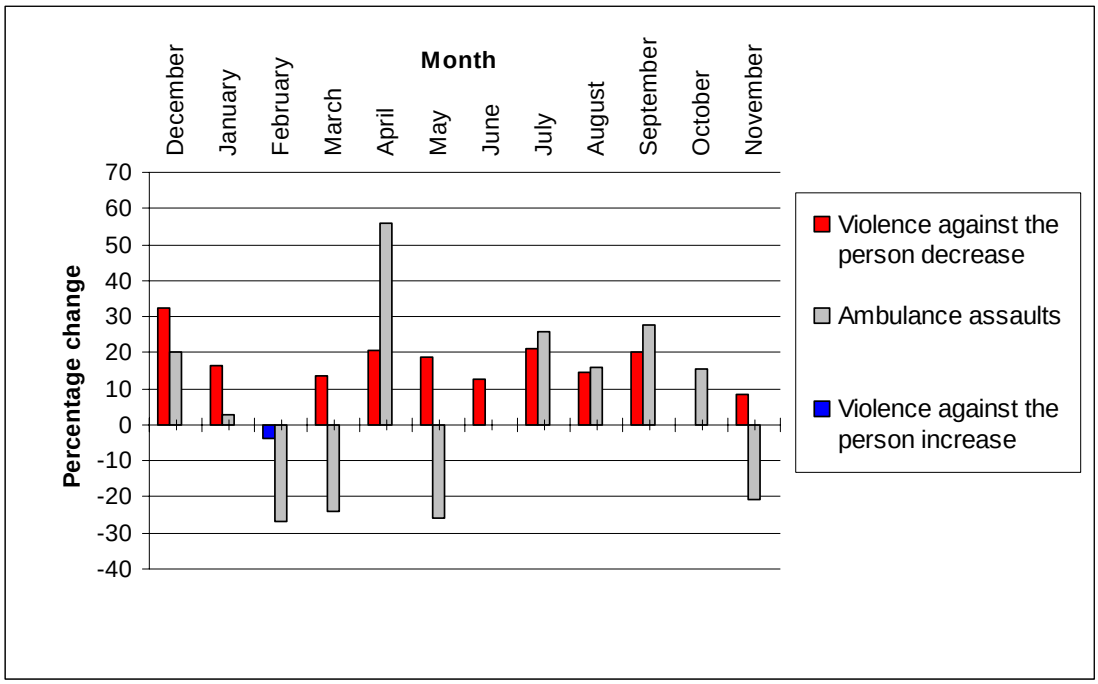
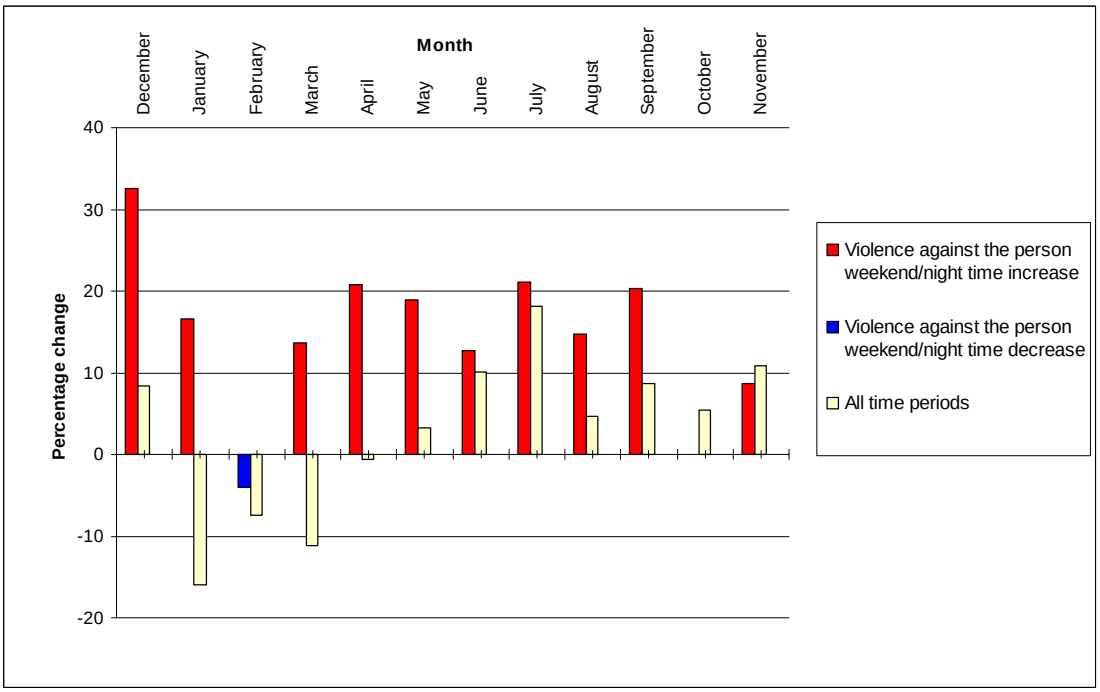


Figure 2.19 Percentage change in violence against the person occurring at weekends and violence against the person overall in Nottingham (average baseline and post implementation change)



Distribution of incidents by time of day

The timing of ambulance data assaults appears in Table 2.12. Frequencies of assault by time of day are shown for each baseline year individually, for the two years combined (the baseline average) and for the post implementation period. The baseline and post implementation change in assaults is displayed in the penultimate column and this is compared with changes in weekend violence against the person in the final column.

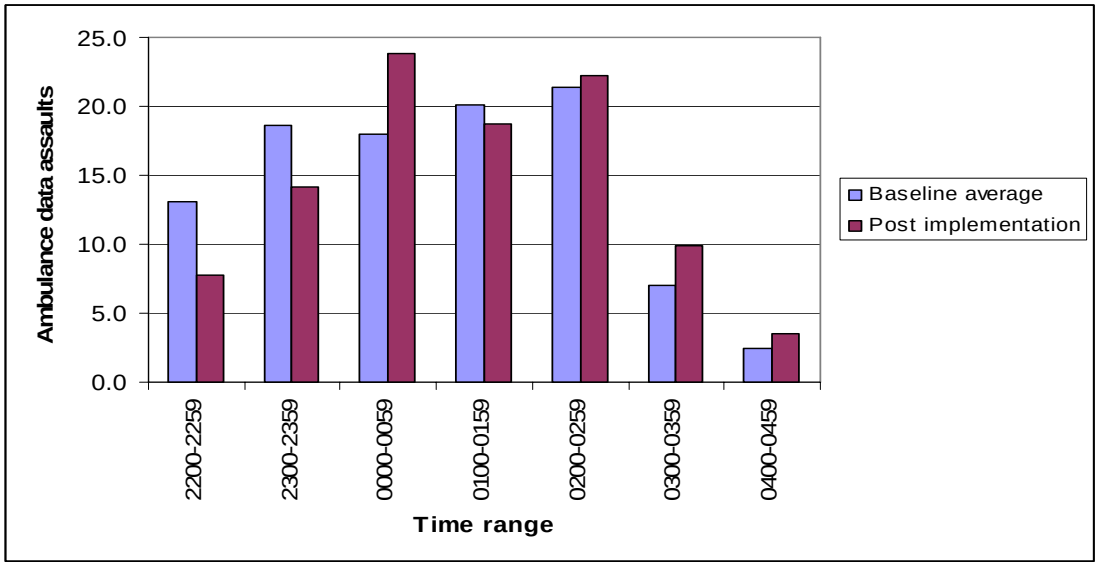
There were some marked differences between assaults and violence against the person in the timing of incidents post implementation compared with the baseline. The number of assaults occurring between 3.00am and 4.59am fell markedly whilst the number of violence against the person offences increased. There were sizeable reductions in assaults between 10.00pm and 11.59pm and between 2.00am and 2.59am, but little change in violence against the person.

Since the number of ambulance incidents was relatively small, these findings need to be regarded as a general indication, rather than a wholly representative picture of change.

Table 2.12 Ambulance response assault data by time of day in Nottingham (baseline and post implementation periods)

Time of day	Baseline year one December 2003 to November 2004	Baseline year two December 2004 to November 2005	Mean baseline	Post implementation December 2005 to November 2006	Ambulance assaults percentage change mean baseline post implementation	Weekend violence against the person percentage change mean baseline post implementation
2200-2259	20	11	15.5	9	-41.9	0.6
2300-2359	41	19	30	14	-53.3	-3.8
0000-0059	59	43	51	63	23.5	10.7
0100-0159	65	54	59.5	58	-2.5	12.4
0200-0259	74	46	60	27	-55	-0.3
0300-0359	25	12	18.5	11	-40.5	36.6
0400-0459	6	6	6	4	-33.3	13.2

Figure 2.20 Percentage of ambulance response assault data by time period in Nottingham (average baseline and post implementation period)



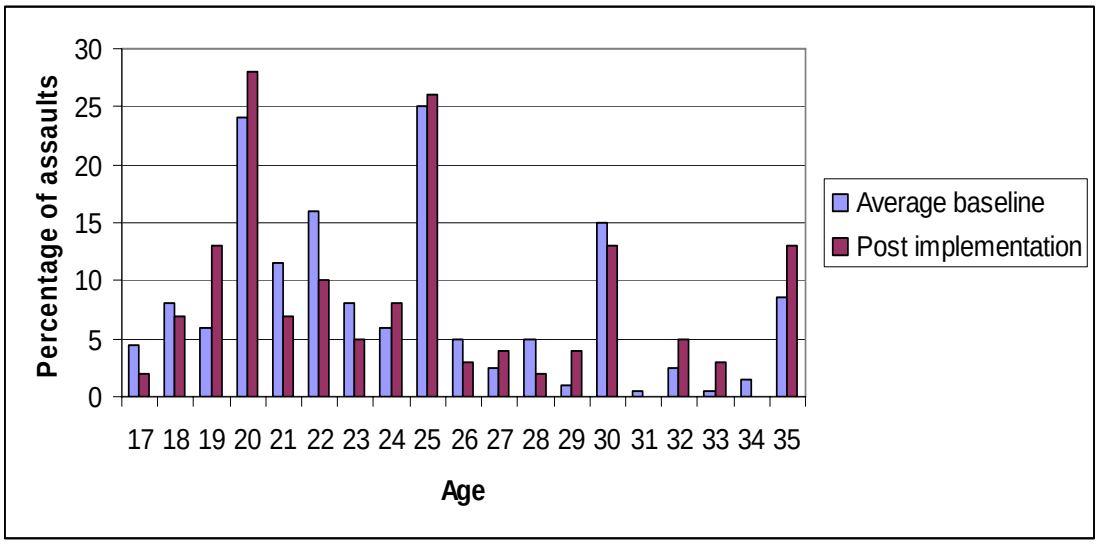
The proportion of assaults within each time band in the baseline and post implementation period are shown in Figure 2.20. This shows changes in the distribution of assaults throughout weekend nights.

The post implementation period saw a greater proportion of these incidents concentrated at three points during the night; between midnight and 12.59am and in the very early hours of the morning between 3.00am and 4.59am.

Victim profile

The results of an analysis of assaults by age appear in Figure 2.21. The age distributions were similar for each period apart from an increase in 2006 in the number of patients aged 19 and 20 and small reductions in the number in their early 20s.

Figure 2.21 Percentage of assaults in Nottingham by age of victim (average baseline and post implementation)



Summary of findings: violence against the person

- **There was a small increase in the average monthly count of violence against the person offences in Nottingham between the baseline period and post implementation periods.**
- **Violence against the person was lower in January, February, March and April of the post implementation period, compared to corresponding months of the baseline. For all other months of the post implementation period violence against the person was higher than baseline levels.**
- **Between 10.00am and 8.00pm a smaller proportion of violence against the person offences were recorded compared to the baseline. From 12.59am until 6.00am a slightly larger proportion of offences were recorded.**
- **In both the baseline period and the post implementation period the majority of victims of violence against the person were male.**
- **Analysis suggests that both male and female victims of violence against the person were younger in the post implementation period compared to the baseline.**
- **The proportion of violence against the person decreased with increased distance from licensed premises.**
- **In the post implementation period there was a small increase in the proportion of offences in the cluster area and within 50m of licensed premises (4% increase).**
- **Changes to the daily distribution of violence against the person across Nottingham were marginal. However, there was a tendency for changes to be more pronounced in the areas closest to licensed premises**
- **Geographical analysis identified hot spots of violence against the person around Nottingham City Centre and also concentrations around the Radford and Bullwell areas**
- **In the post implementation period hot spots of violence against the person persisted further into the early hours of the morning in the key drinking areas of Lace Market and Old Market Square, (although these hot spots had decreased in intensity.)**
- **In both periods the majority of the top 15 premises for violence against the person were located in hot spot areas, all were located in the vicinity of Old Market Square and Lace Market.**
- **There was an increase post implementation in terms of violence against the person offences for those premises *using* no additional hours and six or more hours, while all other premises reduced their share.**
- **There was little change to the proportion of violence against the person accounted for by premises *applying* for additional hours.**
- **There is no evidence of the emergence of new hot spots around premises where additional hours were applied for.**

- **Weekend violence against the person rose by 6.7 per cent between the baseline and post-implementation period. Assaults recorded by the ambulance service also increased over this time period, but to a lesser extent (5.6%).**

- **Most of the increases in assaults took place in the second half of 2006. The early months of 2006 were characterised by reductions, the turning point was in June 2006.**

- **There were some marked differences between assaults and violence against the person in the timing of incidents post implementation compared with the baseline. The number of assaults occurring between 3.00am and 4.59am fell markedly whilst the number of violence against the person offences increased. There were sizeable reductions in assaults between 10.00pm and 11.59pm and between 2.00am and 2.59am, but little change in violence against the person.**

- **There was a significant increase in offences during the first six months of the baseline period. During the first six months of the baseline this trend was reversed and there was a significant decrease (see supplementary annex).**

- **There were 42 less serious offences in the post implementation period (see supplementary annex).**

- **There was a small reduction in violence on weekdays between midnight and 1am but a slightly larger increase in the same hourly period at weekends and between 1am and 2am (see supplementary annex).**

- **The KDE synthesis maps showed reductions from 1.00am to 2.59am, and increases from 3.00am- 4.59am. These were concentrated around the key drinking areas. From 11.00pm to 2.59am there were increases in Lace Market area and reductions in Market Square area.**

3. Criminal damage

Criminal damage includes crimes such as arson, damage and vandalism to buildings, vehicles and other property and threat or possession with intent to commit criminal damage.

Vandalism recorded by the British Crime Survey has fallen by 19 per cent since its high point in 1995. Between 2004/5 and 2005/06 the British Crime Survey reported no significant change in criminal damage while police recorded figures showed a 1 per cent reduction. (Walker, Kershaw and Nicholas, 2006).

Nationally, criminal damage offences tend to peak in the spring months then fall in the summer months followed by another peak in autumn (Hird and Ruparel 2007).

The findings of this analysis are supported by additional analysis presented in the supplementary annex which examines criminal damage using statistical tests of change from the baseline to post implementation, weekend and weekday offences, and synthesis maps of hot spot change by time of day. The results of this are detailed in the supplementary analysis, and also included in the summary findings at the start of this annex, and concluding sections of this annex. The reader is also referred to the final report that summarises the findings of all five case study areas.

Macro level

Annual comparisons in the baseline period revealed an increase in offences from 11,853(year 1) to 13,431 (year 2). This trend was reversed in the post implementation period (11,210). Criminal damage in Nottingham reduced between the baseline and post implementation periods, with an average of 1054 offences per month during the baseline reducing to 934 in the post implementation period. Table 3.1 displays the number of criminal damage offences in Nottingham by month and year, the blue shaded area represents the post implementation period. The percentage change figure is the change between the number of offences in each month during the post implementation period, and the average number of offences in the two corresponding months from the two previous years in the baseline period. The table shows that in each of the 12 months of the post implementation period, the number of criminal damage offences was lower than the average recorded in the corresponding months of the baseline. March saw the greatest decrease with a 25 per cent reduction.

Figure 3.1 shows the monthly rate of criminal damage (per 10,000 persons) in Nottingham UA during the post implementation (blue line). The average monthly rate of criminal damage for the baseline period is shown as a dotted grey line. The Figure shows that the rate of criminal damage during the post implementation period was consistently lower than the average for the baseline period.

Table 3.1 Criminal damage monthly crime counts in Nottingham UA (November 2003 to December 2006)

	Year				Post implementation percentage change (monthly average) [1]
	2003	2004	2005	2006	
January		1024	1075	957	-8.8
February		946	1078	877	-13.3
March		1097	1344	915	-25.0
April		1027	1142	916	-15.5
May		994	1233	951	-14.6
June		970	1066	939	-7.8
July		916	1031	895	-8.1
August		832	1100	915	-5.3
September		1028	1006	893	-12.2
October		1018	1255	1010	-11.1
November		1083	1017	981	-6.6
December	918	1084	961	908	-4.0

[1] Note: The baseline period is an average of the two year period 2004/2005

Figure 3.1 Criminal damage crime rates in Nottingham UA (average monthly baseline and post implementation periods)

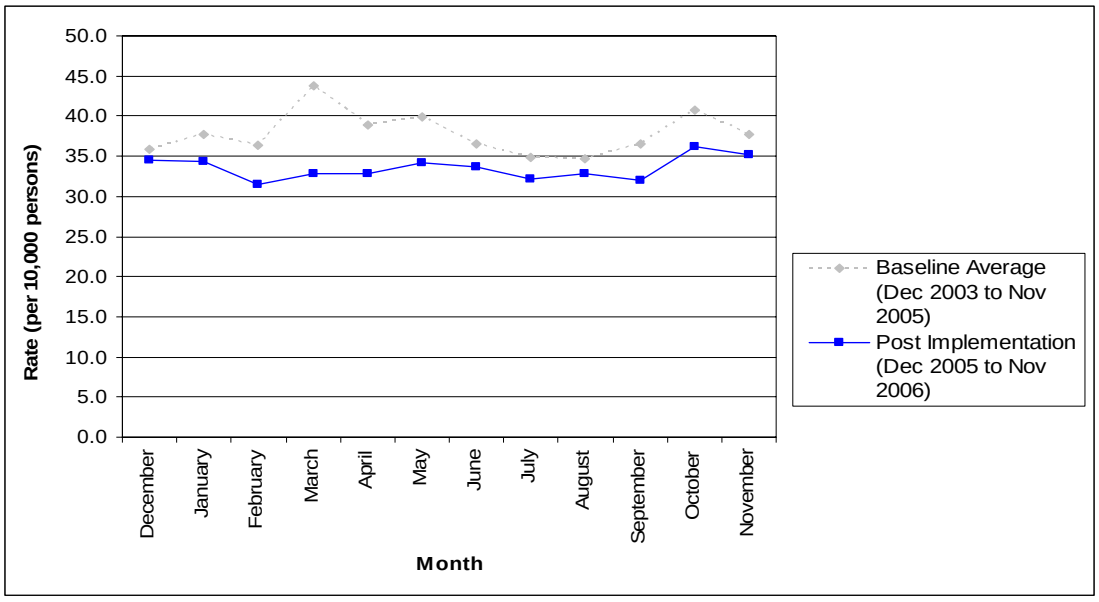
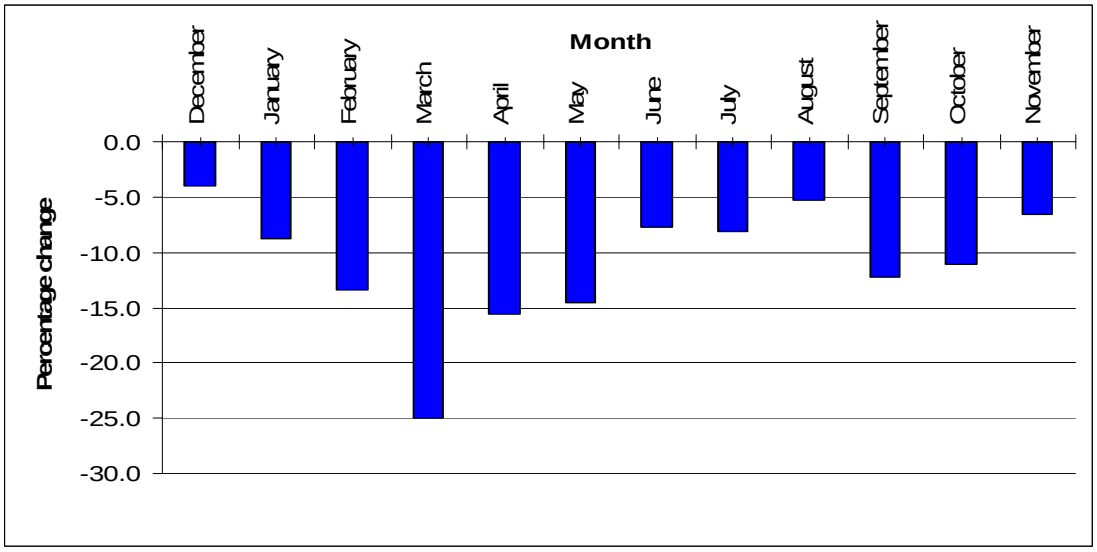


Figure 3.2 shows the percentage change between the average monthly frequency of criminal damage offences during the baseline period, and the monthly frequencies of such offences during the post implementation period. The graph highlights the consistent reductions across the 12 month period, the largest of these reductions occurred in March.

Figure 3.2 Percentage change in criminal damage offences in Nottingham UA (average monthly baseline to post implementation period change)



Distribution of offences by time of day and day of week

Table 3.2 displays the number of criminal damage offences by time of day for each of the three year periods examined. The average percentage change reflects the change between the average baseline period frequency of criminal damage (year one and year two for each time interval) and the frequency of such offences post implementation for each time interval. The table reveals that criminal damage in Nottingham UA has retained a similar daily distribution in both the baseline and post implementation periods. The number of criminal damage offences begins to increase from 6.00am, rising steadily until 5.00pm at which point it stabilises until midnight when the number of offences recorded begins to fall once more. Throughout most time periods in the post implementation period there was a decrease in the number of criminal damage offences compared to the average baseline period. The most notable reductions occur in the time slots between 3.00pm and 5.59pm (each around 20%) and between 7.00pm and 8.59pm (20%). However there were also marked increases in the number of offences occurring between 3.00-3.59am and between 4.00-4.59am (32.8% and 39.8%).

Table 3.2 Criminal damage offences by time of day in Nottingham UA (baseline and post implementation periods)

Time of day	Baseline year 1 frequency	Baseline year 2 frequency	Post implementation year 3 frequency	Percentage change (average baseline to post implementation period)
0900-0959	359	439	324	-18.8
1000-1059	241	289	245	-7.5
1100-1159	272	264	248	-7.5
1200-1259	410	458	376	-13.4
1300-1359	369	382	312	-16.9
1400-1459	401	444	384	-9.1
1500-1559	494	524	406	-20.2
1600-1659	552	665	487	-20.0
1700-1759	887	940	740	-19.0
1800-1859	957	1094	880	-14.2
1900-1959	972	1091	823	-20.2
2000-2059	1018	1237	903	-19.9
2100-2159	905	1000	828	-13.1
2200-2259	937	1043	887	-10.4
2300-2359	778	881	714	-13.9
0000-0059	843	1108	935	-4.2
0100-0159	372	402	403	4.1
0200-0259	282	312	305	2.7
0300-0359	203	187	259	32.8
0400-0459	95	111	144	39.8
0500-0559	73	87	90	12.5
0600-0659	65	69	75	11.9
0700-0759	120	144	122	-7.6
0800-0859	204	337	292	7.9

Figure 3.3 shows the percentage of criminal damage offences in each time interval for each year. For the baseline period this is averaged over the two year period. There is also a smoothed trend line[2] for each of the two time periods under consideration.

The peak time for criminal damage offences during the baseline period was between 8.00pm and 8.59pm, in the post implementation period a greater proportion of offences occurred during later periods, with the peak time for criminal damage falling between midnight and 0.59am. The trend lines reveal that between 2.00pm and 10.00pm the proportion of criminal damage offences reported in the post implementation period was lower than the baseline average. In contrast, the proportion of offences reported between midnight and 7.00am was higher in the post implementation period. It is difficult to detect any change in criminal damage offence peaks by time of day post implementation.

[2] Two month moving average.

Figure 3.3 Proportional changes to criminal damage offences by time period in Nottingham UA (average baseline and post implementation periods)

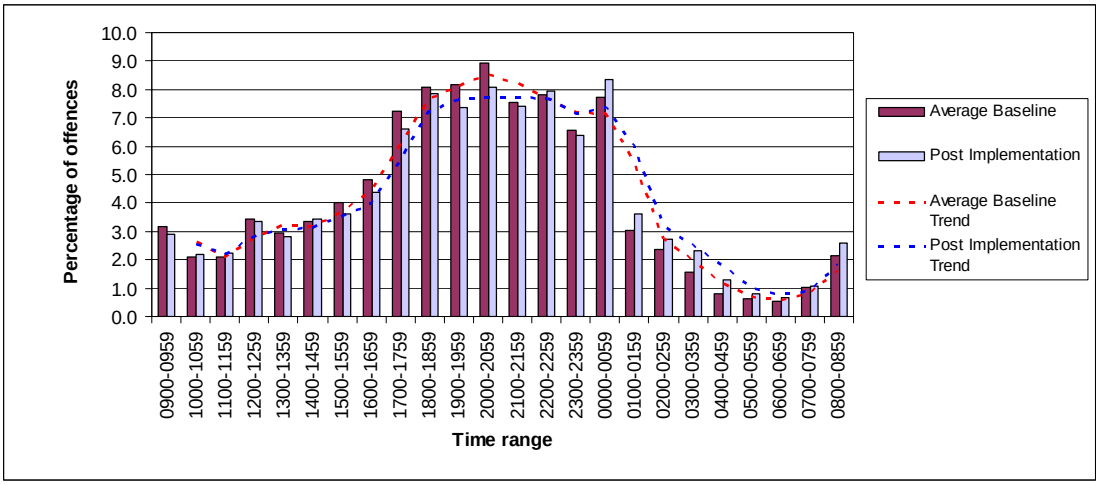
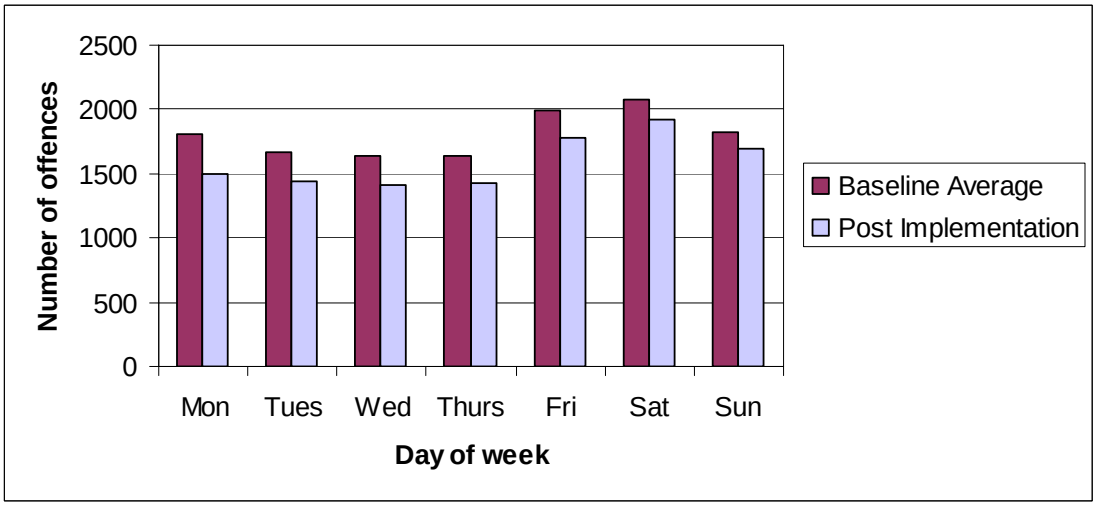


Figure 3.4 portrays the frequency of criminal damage offences by day of week for the baseline period and post implementation periods. The baseline period is an average for the two years. The graph shows that the reductions in criminal damage are distributed evenly throughout the days of the week. In both time periods, the number of offences recorded increased from Thursday until Saturday, with a peak number of offences recorded on a Saturday. In each time period the number of criminal damage offences recorded then decreased from Sunday to Monday.

Figure 3.4 Criminal damage offences by day of week in Nottingham UA (average baseline and post implementation periods)



Meso and micro level

In order to examine change in more detail, the frequency of criminal damage offences were examined for specifically defined zones within the case study area. These were 50m concentric buffer zones surrounding licensed premises (pubs, bars and clubs) and also cluster areas (areas with high densities of licensed premises). The methodology for constructing these zones is described in more detail in the technical annex. The frequencies of criminal damage offences in each individual zone were calculated for the baseline period and post implementation period and are reported in Table 3.3. The table shows that seven per cent of criminal damage occurs in the

cluster area and six per cent occurs within 50m of licensed premises. Criminal damage appears to be less concentrated around licensed premises than violence against the person. There was little change evident between the baseline and post implementation periods.

Table 3.3 Proportional changes to criminal damage offences in the buffer zones and cluster area in Nottingham UA (average baseline and post implementation periods)

	Area					
	Cluster	0-50m	50-100m	100-150m	150-200m	Nottingham UA
Percentage baseline	7.6	6.6	8.8	9.4	9.0	100
Percentage post implementation	7.7	6.5	9.8	9.4	9.1	100
Proportional change	0.0	-0.1	1.0	0.0	0.1	

Daily distribution of criminal damage in specified zones

The frequency of criminal damage offences in each individual zone was divided by time of day into twenty-four one hour time intervals. The percentage of offences in each time interval for the baseline period (average over two years), and also the post implementation period was then calculated. From this a percentage change could be generated for each time interval in each individual zone, from the average baseline to the post implementation periods. The result of this proportional change analysis is depicted in Table 3.4. This table also includes volume change in addition to the proportional change that represents the actual change in numbers.

The table confirms that across Nottingham UA and within each of the specified zones, changes to the daily distribution of criminal damage offences were marginal. The most noticeable changes were increases in the number of criminal damage offences between 3.00-3.59am occurring within 50m of licensed premises (2.4%) and in cluster area (3.1%). A number of the changes to criminal damage occur during the day, at times when they are unlikely to be influenced by the new opening hours as a result of the Act. It is recommended that further contextual data, for example land use, be incorporated into future analysis to examine this further. Reasons why this has not been done in this research project are described in the final report and technical annex

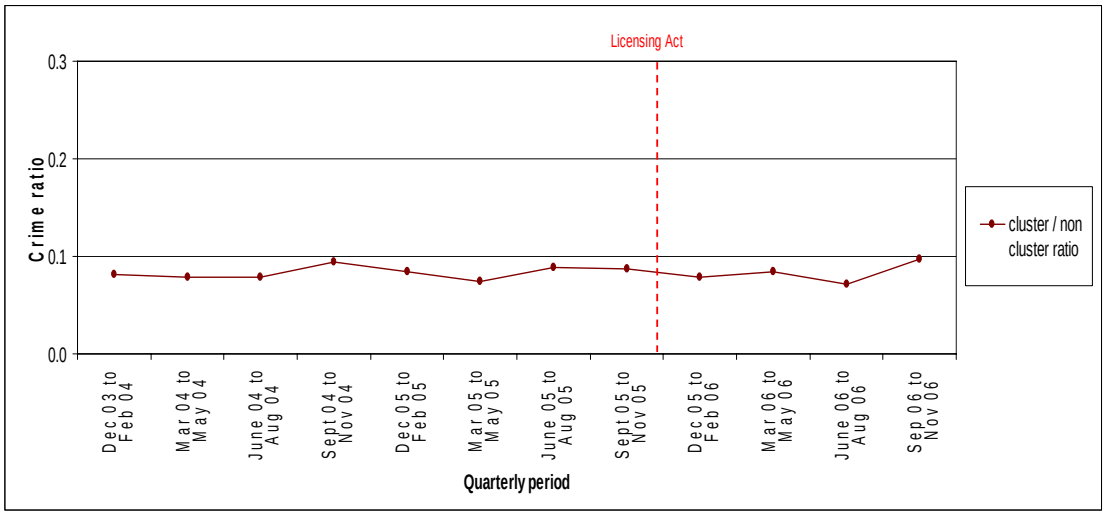
Table 3.4 Proportional changes to criminal damage offences by time of day and location in Nottingham UA (average baseline and post implementation periods)

Time of day	Area											
	Cluster		0-50m		50-100m		100-150m		150-200m		Nottingham UA	
	Proportion	Volume	Proportion	Volume	Proportion	Volume	Proportion	Volume	Proportion	Volume	Proportion	Volume
0900-0959	1.7	12	0.7	2	1.6	17	-1.1	-17	-0.7	-12	-0.3	-75
1000-1059	0.1	-2	-0.4	-5	0.1	1	-0.3	-7	-0.6	-9	0.1	-20
1100-1159	0.1	-2	0.6	3	-0.2	-3	0.3	1	-0.1	-4	0.1	-20
1200-1259	-0.1	-5	0.3	0	0.5	5	0.4	-1	0	-5	-0.1	-58
1300-1359	-0.6	-9	0.5	1	-0.2	-3	-0.4	-8	-0.7	-11	-0.2	-64
1400-1459	-0.6	-9	0.5	2	0.2	2	-0.9	-15	0.8	5	0.1	-39
1500-1559	0.9	6	1.7	11	0	-1	-0.5	-10	-0.9	-15	-0.4	-103
1600-1659	-0.3	-7	-0.4	-7	-0.9	-11	0	-6	0.4	-3	-0.5	-122
1700-1759	-1.4	-22	-1	-16	-0.8	-11	-0.1	-12	-0.5	-13	-0.6	-174
1800-1859	1.2	2	-0.3	-10	0.7	7	-0.2	-14	1.1	2	-0.2	-146
1900-1959	-1.6	-22	0.8	1	-1.7	-19	0	-10	-0.8	-18	-0.8	-209
2000-2059	0.4	-4	0.4	-5	-0.9	-11	-0.1	-12	-0.5	-18	-0.8	-225
2100-2159	0.5	-1	-1.5	-18	0.2	1	0.9	-1	-1.1	-21	-0.1	-125
2200-2259	-0.9	-15	-1.9	-21	-0.7	-9	-0.4	-17	0.7	-3	0.1	-103
2300-2359	-2.2	-27	-3.7	-36	-1.2	-15	-0.5	-14	0.5	-2	-0.2	-116
0000-0059	0.5	-6	-0.5	-14	-0.3	-5	-0.3	-15	1.3	4	0.7	-41
0100-0159	-0.6	-11	0.4	-3	0.6	6	0.8	5	-0.1	-5	0.5	16
0200-0259	-0.4	-10	1.2	4	0.2	2	0.4	0	-0.3	-6	0.4	8
0300-0359	3.1	24	2.4	15	0.5	5	1.4	13	0.5	4	0.8	64
0400-0459	0	-2	0	-2	0.8	9	0.6	6	0.4	3	0.5	41
0500-0559	-0.1	-2	0.2	1	0.7	8	0	-1	0.2	1	0.2	10
0600-0659	0.2	2	0.1	0	0.7	8	-0.1	-2	0.3	3	0.1	8
0700-0759	0.2	1	-0.1	-1	0.2	3	-0.5	-8	-0.3	-5	0.0	-10
0800-0859	-0.1	-4	0.1	-2	-0.2	-2	0.5	4	0.5	2	0.5	22

Proportion of criminal damage in the cluster area

Figure 3.5 plots the criminal damage ratio produced by dividing the monthly counts of offences in the cluster area with counts in the remainder of the Nottingham UA area. A crime ratio of 1.0 indicates an even distribution (same proportion in the cluster area and the remainder of the Nottingham area). Figure 3.5 tracks the changes to monthly crime ratios for the analysis period. This illustrates whether the proportion of Nottingham's criminal damage occurring within the cluster area has changed over the baseline and implementation periods. Figure 3.5 shows that the crime ratio has fluctuated across the period between 0.05 to 0.1 but overall the ratio has remained stable overtime suggesting that criminal damage has not become more concentrated in the cluster area (high density of pubs, bars and clubs).

Figure 3.5 Criminal damage crime ratio in Nottingham UA (December 2003 to November 2006)



Geographical distribution of criminal damage

Two methods were used to generate hot spots and these are detailed in the technical annex. The NNI statistic (also described in the technical annex) shows that there is evidence of clustering in the criminal damage data, above the clustering exhibited by premises themselves, and that hot spot analysis is an appropriate technique to use.

Figure 3.6 maps the hot spots of criminal damage (derived through NNHC) in Nottingham UA in the baseline and post implementation periods. This technique is discussed further in the technical annex. The purple ellipses represent the baseline hot spots and the blue the post implementation period. These hot spots do not account for the timing of the offences, but consider the overall concentration of offending over the 12 month period (post implementation) and over two years (baseline period). The map shows that in both the baseline and post implementation periods criminal damage was concentrated around Nottingham City Centre. There were also hot spots around the Radford, Bestwood, Bullwell and Cinderhill areas. Hot spots in the post implementation period were consistent with those in the baseline period suggesting there has been little change between the two periods. The map indicates that criminal damage is more dispersed throughout Nottingham UA than violence against the person. Criminal damage appears to be concentrated around fewer areas during the post implementation period (this may be a result of having two years data for the baseline and one for post implementation).

The maps which follow, in Figure 3.7, show criminal damage hot spots by time of day. KDE (explained in the technical annex) is used to derive hot spots. The timing of offences has been

grouped into four periods, namely 9.00pm to 10.59pm, 11.00pm to 0.59am, 1.00am to 2.59am and 3.00am to 4.59am. The decision to concentrate on these hours was made for two reasons. Firstly, the hours between 9.00pm and 5.00am account for the majority of all crimes of violence. Secondly, this period covers the hours when any changes to premises opening hours would occur.

For each of the pairs of maps, the left hand side represents the baseline period, while the right hand side represents the post implementation period. The maps show that for each time interval the pattern in the post implementation period remains very similar to the baseline trends. Offences of criminal damage build up from 9.00pm and are concentrated in Bullwell, the east of city centre and between Cinderhill and Bilborough. From 11.00pm to 00.59am a hot spot becomes more evident around the city centre but concentration dispersed throughout UA persist. From 1.00am to 2.59am criminal damage becomes far more concentrated in the city centre and less apparent in the rest of the borough. From 3.00am criminal damage begins to reduce, although in the post implementation period small hot spots persist in the city centre (north of Old Market Square).

Figure 3.6 Criminal damage hot spots (NNHC) in Nottingham UA (average baseline and post implementation periods)

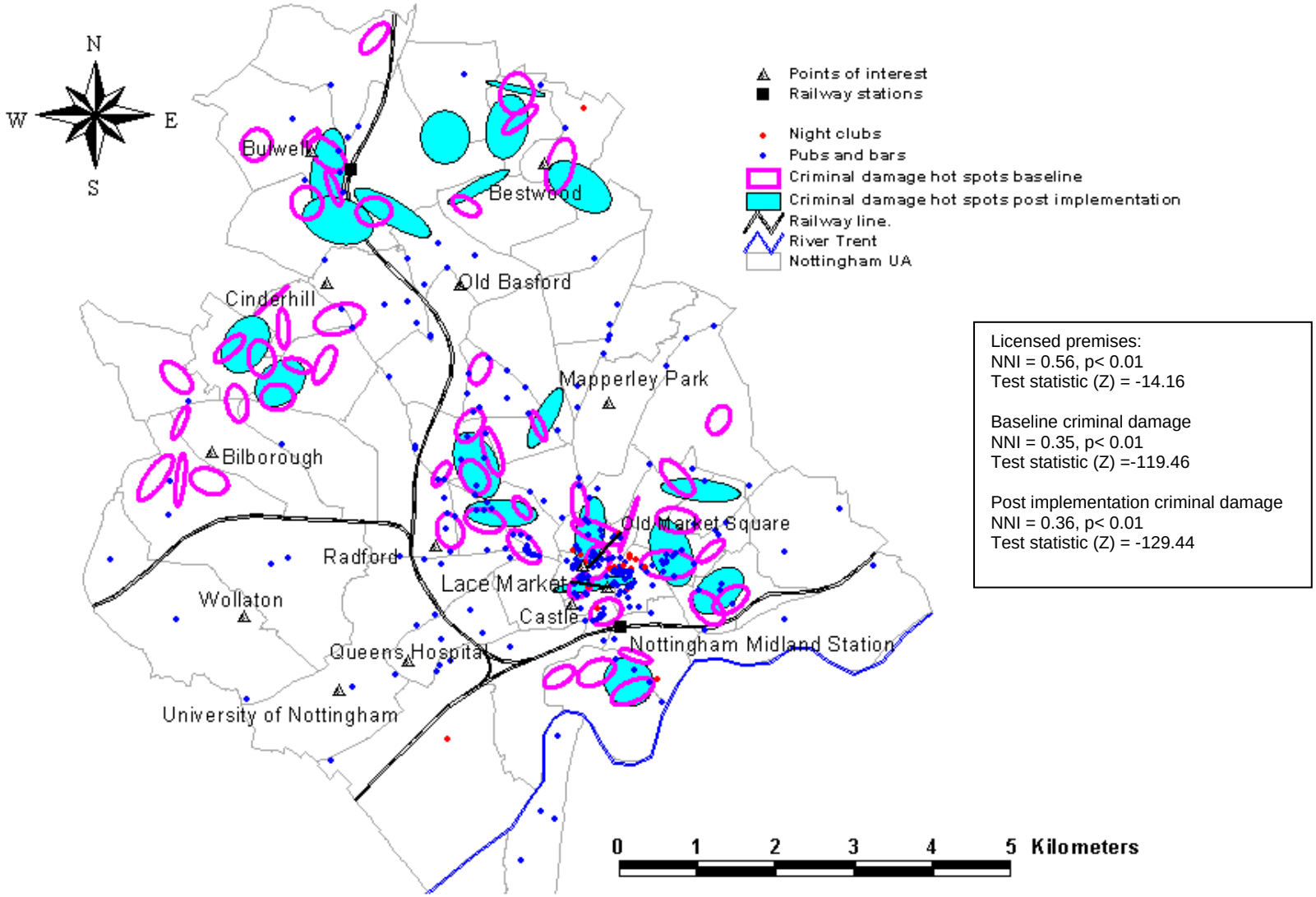
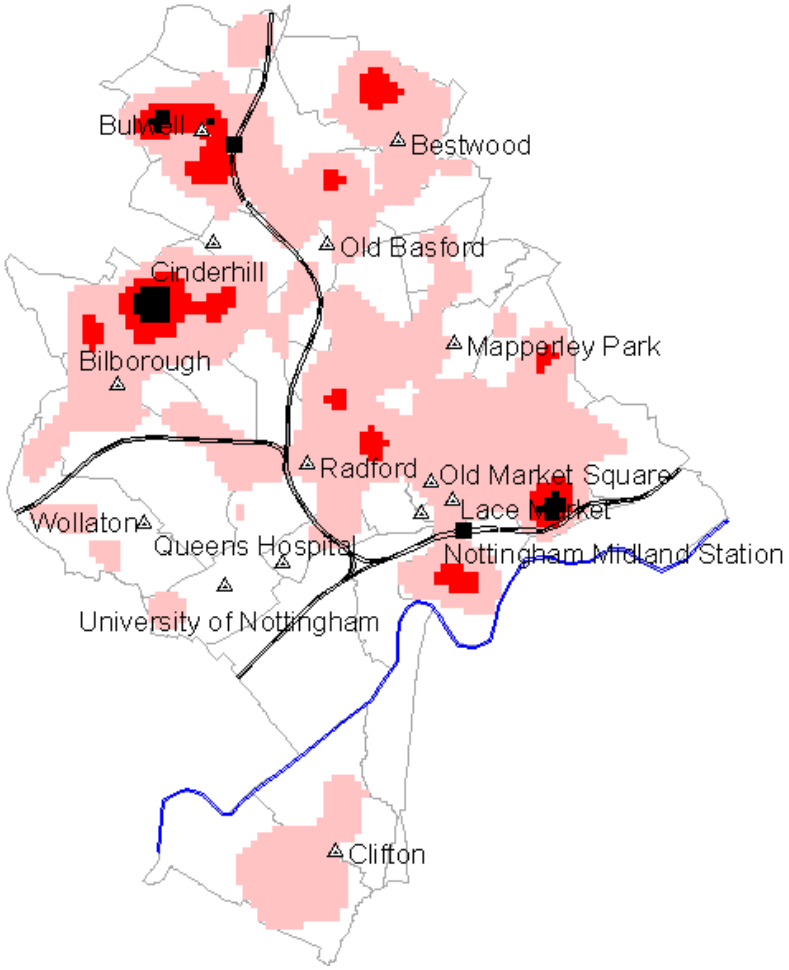
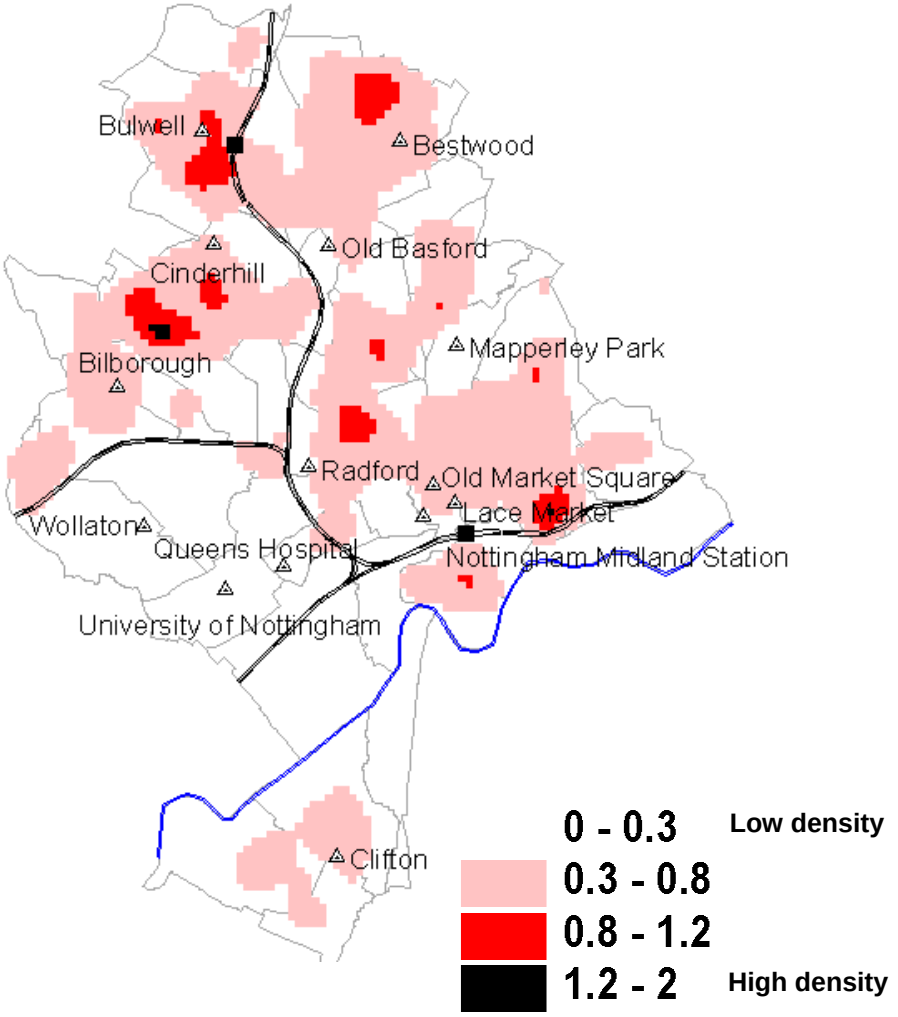


Figure 3.7 Criminal damage hot spots (KDE) by time of day in Nottingham UA (average baseline and post implementation periods)

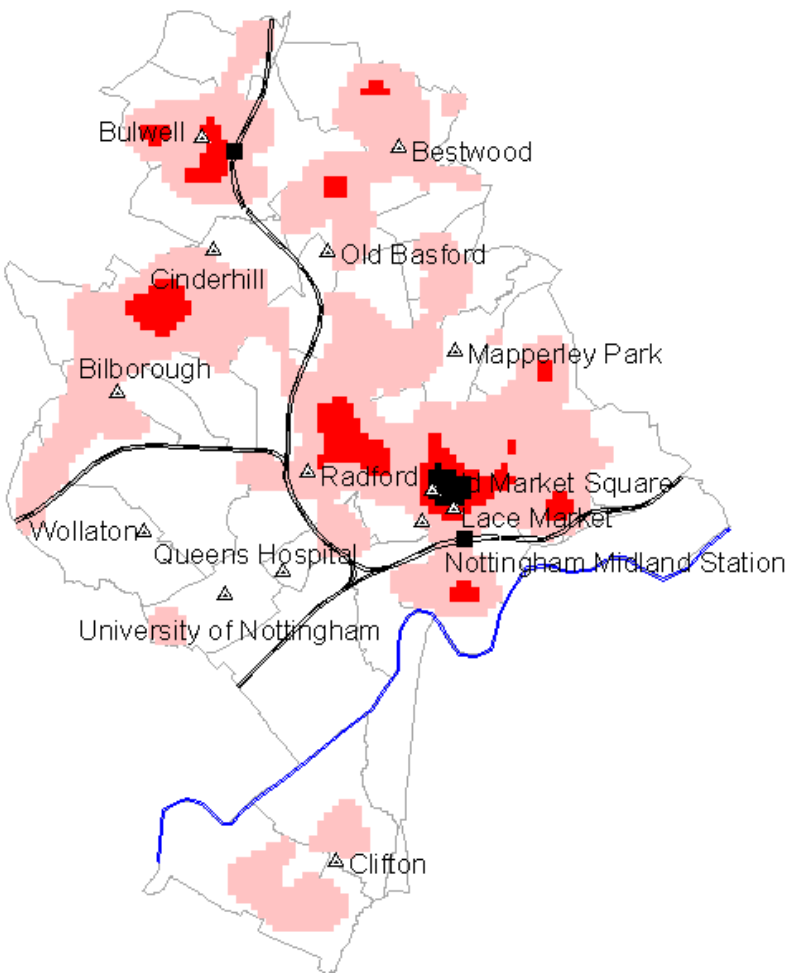
a) Baseline period (9.00pm - 10.59pm)



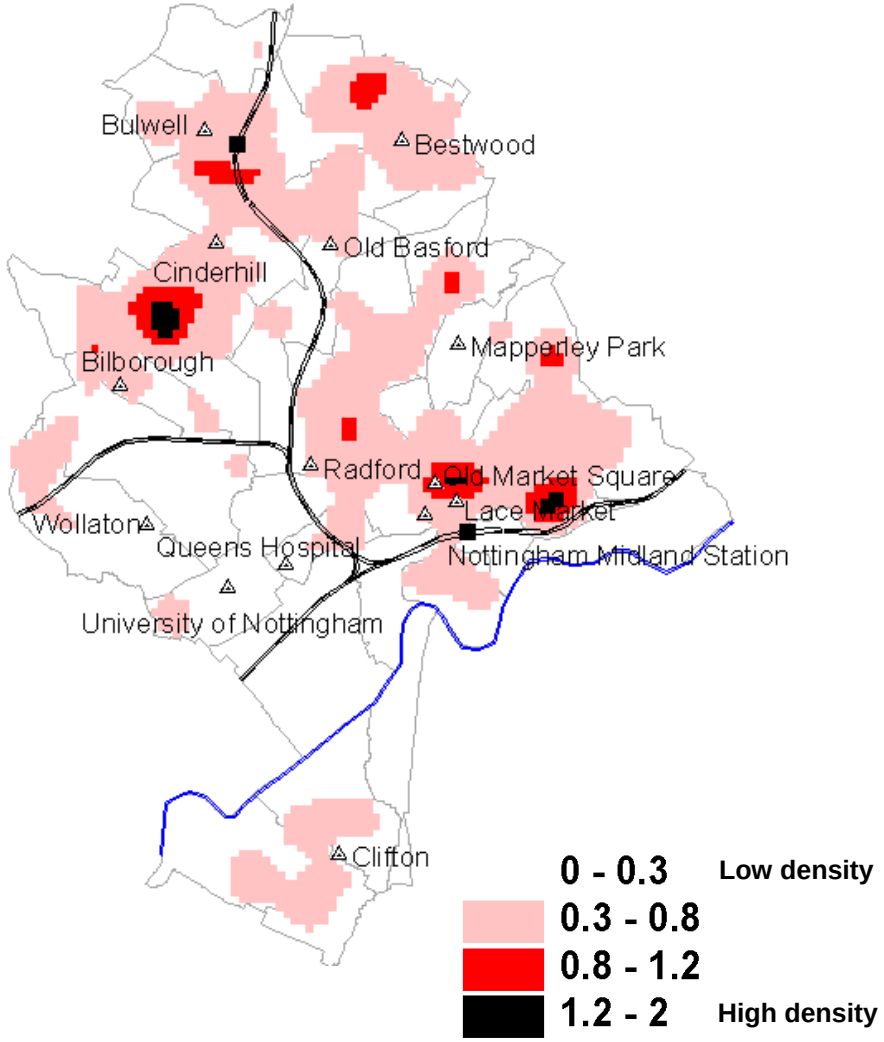
Post implementation period (9.00pm 10.59pm)



b) Baseline period (11.00pm - 0.59am)

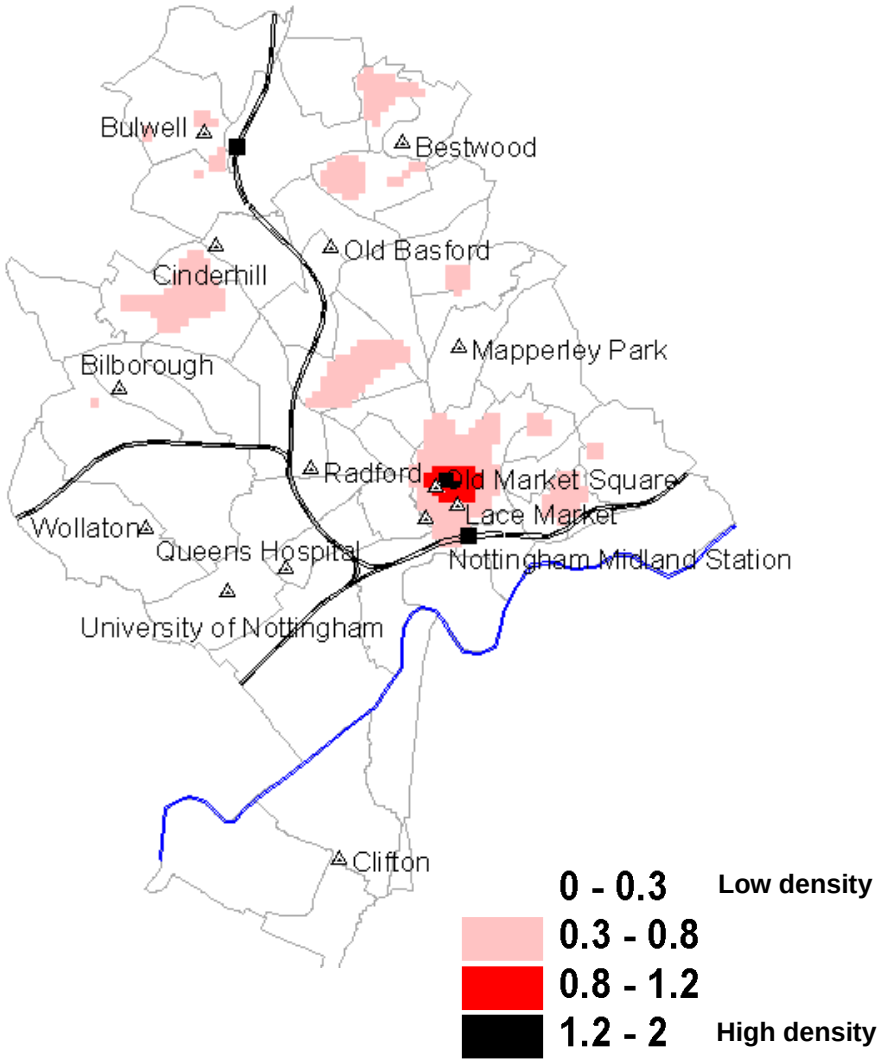


Post implementation period (11.00pm - 0.59am)



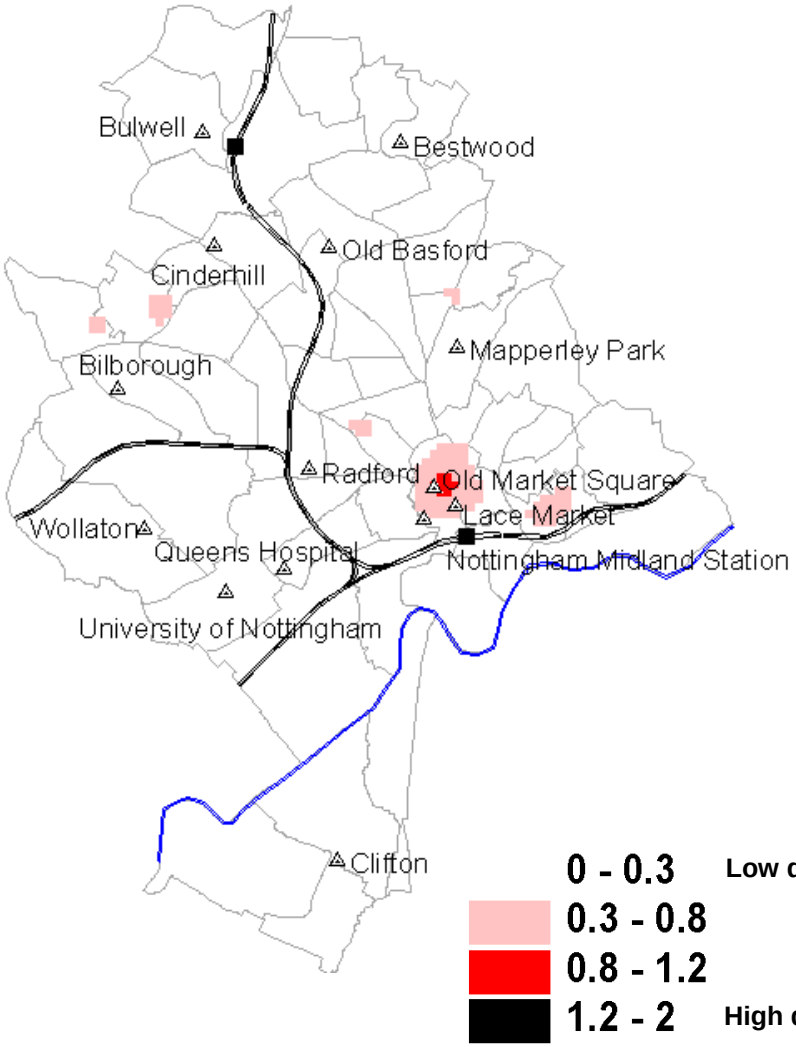
c) Baseline period (1.00am - 2.59am)

Post implementation period (1.00am - 2.59am)



d) Baseline period (3.00am - 4.59am)

Post implementation period (3.00am - 4.59am)



Summary of findings: criminal damage

- **Criminal damage in Nottingham reduced between the baseline and post implementation periods.**
- **In each month of the 12 months post implementation period, the number of criminal damage offences was lower than the average recorded in the corresponding months of the baseline.**
- **Criminal damage in Nottingham has retained a similar daily distribution in both the baseline and post implementation periods.**
- **The proportion of criminal damage offences reported in afternoon and evening periods of the post implementation period (between 2.00pm and 10.00pm) was lower than the baseline average. In contrast, the proportion of offences reported between midnight and 7.00am was higher in the post implementation period.**
- **Criminal damage appears to be less concentrated around licensed premises than violence against the person. There was little change evident between the baseline and post implementation periods.**
- **Criminal damage is more dispersed throughout Nottingham UA than violence against the person.**
- **There is no evidence to suggest that criminal damage has become more concentrated in the area with a high density of pubs, bars and clubs.**
- **Offences of criminal damage build up from 9.00pm and are concentrated in Bullwell, the east of City Centre and between Cinderhill and Bilborough**
- **In the baseline period criminal damage began to reduce from 3.00am. This remains the case in the post implementation period but small hot spots still persist in the city centre (north of Old Market Square).**
- **In the baseline period there were significant increases in offences for the first and second six months. In the post implementation period, both for the first and second six months, significant reductions could be observed (see supplementary annex).**
- **Weekday criminal damage reduced in the post implementation period for all twelve months (see supplementary annex).**
- **There were fewer criminal damage offences between 9pm and 1am on week day nights and a fairly modest increase between 1am and 3am at weekends (see supplementary annex).**
- **KDE synthesis maps revealed there were some reductions between 1.00am and 2.59am that corresponded with the key drinking areas (see supplementary annex).**

4. Sexual offences

Sexual offences include sexual assault, rape and gross indecency. Not all sexual offences are violent. Analysis of police recorded crime data (Walker, Kershaw and Nicholas 2006) has found that:

- The number of police recorded sexual offences in England and Wales changed little between 2004/05 and 2005/6 (from 62,084 offences to 62,081).
- The number of police recorded indecent assaults declined by seven per cent between 2004/05 and 2005/06.
- The number of police recorded rapes increased by three per cent between 2004/05 and 2005/06.
- Sexual offences follow seasonal patterns with a large peak in the summer (Hird and Ruparel 2007).

It is important to note that the number of sexual offences reported are relatively low (compared to violence against the person and criminal damage offences). Thus the analysis could not be performed at areas smaller than the macro level, and care should also be taken in interpreting the findings due to small numbers.

Macro level

The average monthly count of sexual offences per month remained relatively stable in Nottingham between the baseline and post implementation periods with 45 offences per month in both periods. However this average hides some important monthly fluctuations. Table 4.1 displays the number of sexual offences in Nottingham UA by month and year, and the blue shaded area represents the post implementation period. The percentage change figure is the change between the number of offences in each month during the post implementation period, and the average number of offences in the two corresponding months from the two previous years in the baseline period. The table shows that in the months following the introduction of the Act there was a decrease in the number of sexual offences compared to the corresponding period the previous year. From April to July there were increases in the number of sexual offences recorded. The largest increase of 72.6 per cent was in May. From August to November offences were lower than corresponding months in the baseline, with the most notable decrease occurring in November (57.1%).

Table 4.1 Sexual offences monthly crime counts in Nottingham UA (November 2003 to December 2006)

	Year				Post implementation percentage change (monthly average) [1]
	2003	2004	2005	2006	
January		44	54	34	-30.6
February		24	49	29	-20.5
March		32	53	35	-17.6
April		36	45	46	13.6
May		36	59	82	72.6
June		47	46	74	59.1
July		46	37	54	30.1
August		56	52	39	-27.8
September		48	62	40	-27.3
October		36	45	52	28.4
November		33	65	21	-57.1
December	28	48	40	27	5.3

[1] Note: The baseline period is an average of the two year period 2004/2005

Figure 4.1 shows the monthly rate of sexual offences in Nottingham UA (per 10,000 persons) during the post implementation period (blue line). The average monthly rate of sexual offences for the baseline period is shown as a dotted grey line. The graph shows that in the post implementation period, there was an increase in the number of sexual offences recorded from February, with a peak number of offences recorded in May. The number of offences recorded then decreased until August, with a slight increase in offences in October. This pattern contrasts with that of the average baseline period during which the rate of recorded sexual offences remained stable.

Figure 4.1 Sexual offences crime rates in Nottingham UA (average monthly baseline and post implementation period)

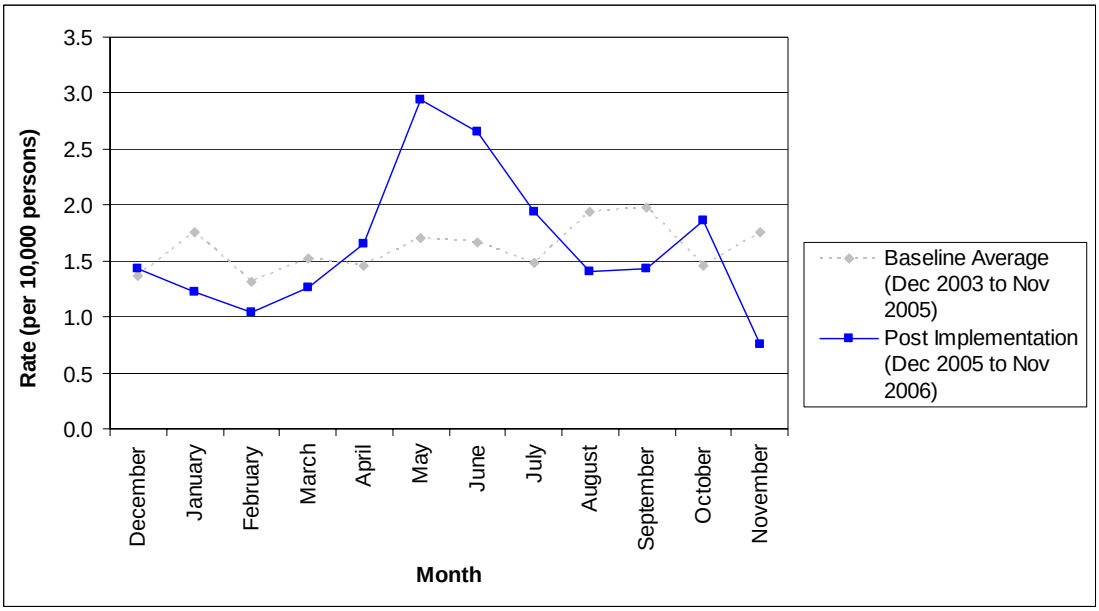
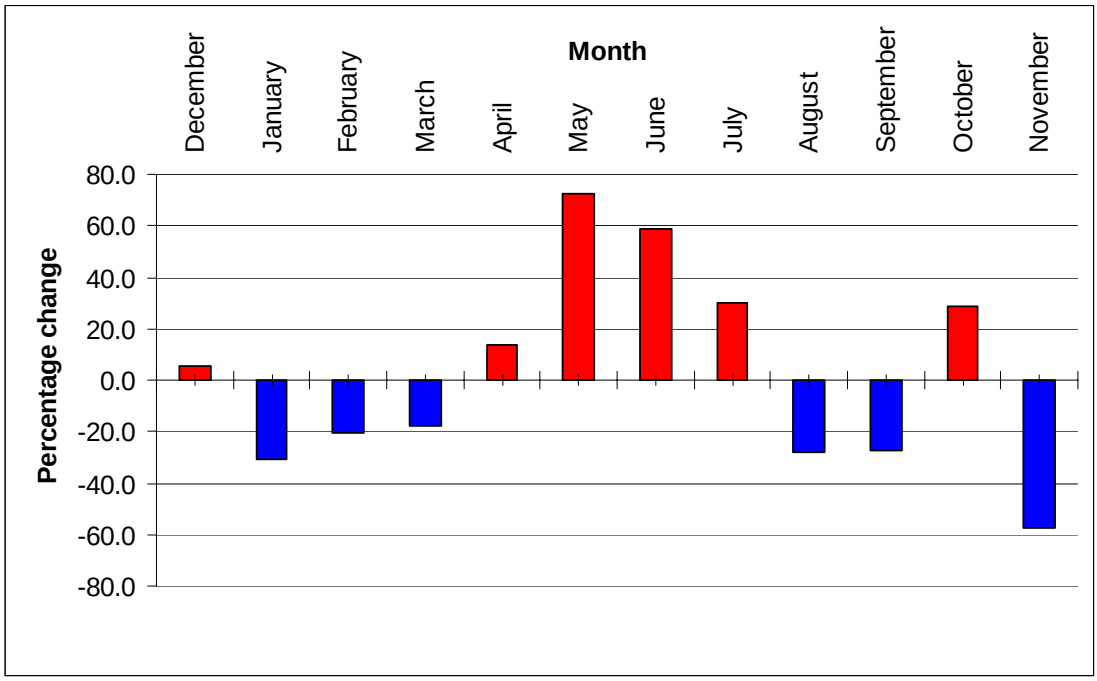


Figure 4.2 shows the percentage change between the average monthly frequency of sexual offences during the baseline period, and the monthly frequencies of such offences during the post implementation period. The graph highlights increases in sexual offences occurring in the summer months compared to the baseline period.

Figure 4.2 Percentage change in sexual offences in Nottingham UA (average monthly baseline to post implementation period change)



Distribution of sexual offences by time of day and day of week

Table 4.2 displays the number of sexual offences by time of day for each of the three year periods examined. The average percentage change reflects the change between the average baseline period frequency of sexual offences (year one and year two for each time interval) and the frequency of such offences post implementation for each time interval. The table shows that the number of sexual offences recorded throughout the day retained a similar distribution in the post implementation period to the baseline. With the number of offences increasing gradually between 7.00am and 10.59pm before a sharp increase to form a clear peak in offences between midnight and 0.59am. The number of sexual offences falls dramatically between 1.00am and 1.59am before reducing gradually until 6.59am. It should be noted that given the small number of offences in each time period, presenting change in percentage terms may appear to inflate the degree of change. Bearing this in mind the most notable changes in the distribution between the baseline and post implementation periods were an increase in the number of sexual offences recorded between 1.00am and 4.59am, including an increase of 125 per cent between 3.00am and 3.59am. The largest percentage decrease in the number of sexual offences recorded was between 10.00am and 10.59am.

Table 4.2 Sexual offences by time of day in Nottingham UA (baseline and post implementation periods)

Time of day	Baseline year 1 frequency	Baseline year 2 frequency	Post implementation year 3 frequency	Percentage change (average baseline to post implementation period)
0900-0959	18	20	16	-15.8
1000-1059	12	15	5	-63.0
1100-1159	6	10	14	75.0
1200-1259	12	20	16	0.0
1300-1359	17	22	16	-17.9
1400-1459	14	23	19	2.7
1500-1559	17	17	17	0.0
1600-1659	28	21	24	-2.0
1700-1759	18	17	20	14.3
1800-1859	19	14	19	15.2
1900-1959	19	21	20	0.0
2000-2059	25	36	30	-1.6
2100-2159	33	43	31	-18.4
2200-2259	24	41	40	23.1
2300-2359	28	55	52	25.3
0000-0059	96	117	96	-9.9
0100-0159	27	38	41	26.2
0200-0259	20	29	33	34.7
0300-0359	9	7	18	125.0
0400-0459	2	9	6	9.1
0500-0559	5	4	3	-33.3
0600-0659	4	4	3	-25.0
0700-0759	4	6	2	-60.0
0800-0859	11	15	17	30.8

Figure 4.3 shows the percentage of sexual offences in each time interval for each year. For the baseline period this is averaged over the two year period. There is also a smoothed trend line[3] for each of the two time periods under consideration. The figure shows that in both the baseline and post implementation periods the majority of sexual offences were recorded between midnight and 12.59am. However there was a decrease in the proportion of offences recorded in this time period in the post implementation period.

The average baseline and post implementation trend lines are similar from 11.00am until 8.00pm. A smaller proportion of offences were recorded in the post implementation period between 8.59pm and 10.00pm compared to the baseline period. A larger proportion of offences were recorded from 10.59pm through until midnight and between 1.59am to 5.59am in the post implementation period. It is difficult to detect any changes to the peaks of sexual offences by time of day post implementation.

[3] Two month moving average

Figure 4.3 Proportional changes to sexual offences by time of day in Nottingham UA (average baseline and post implementation periods)

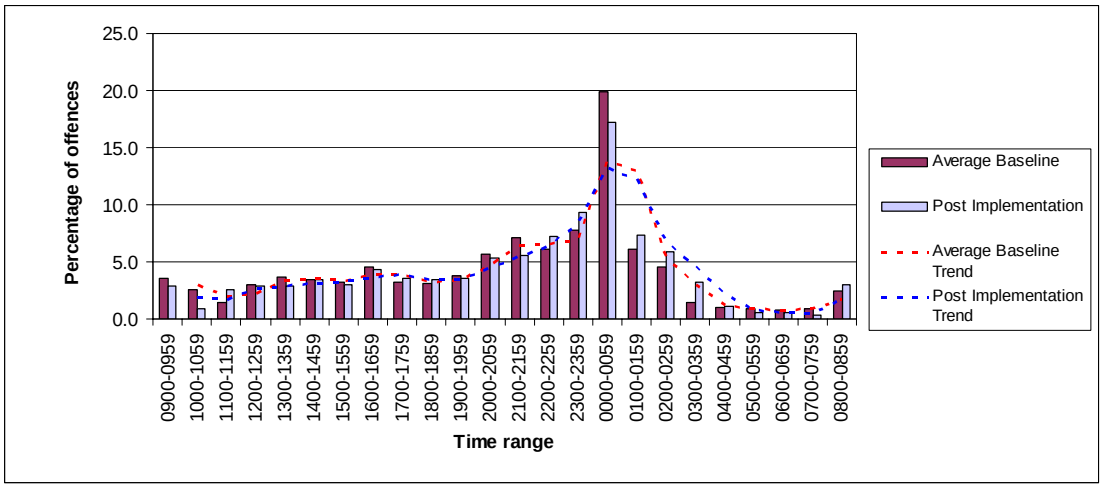
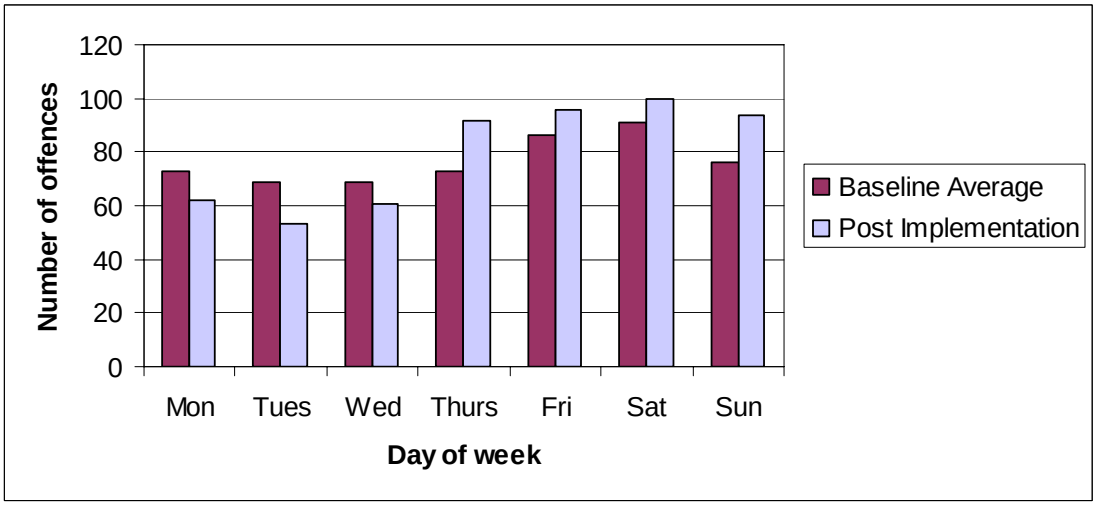


Figure 4.4 portrays the frequency of sexual offences by day of week for the baseline period and post implementation periods. The baseline period is an average for the two years. The distribution of offences across the week was similar in both periods, although there was an increase in the number of offences recorded between Wednesday and Saturday and a decrease in the number of offences recorded between Monday and Tuesday.

Figure 4.4 Sexual offences by day of week in Nottingham UA (average baseline and post implementation periods)



Victim profile

Figure 4.5 displays the gender of victims of sexual offences during the baseline and post implementation periods. The gender for the baseline period is an average over the two years. In both the average for the baseline period and the post implementation period, the majority of victims of sexual offences were female (over 60% in both periods). The gender of victims was not recorded in 34.9 per cent of sexual offences in the post implementation period, compared to 27.6 per cent in the average baseline period. This makes it difficult to comment on change between periods. It is essential to consider the impact of the 'not recorded' field (missing values) when interpreting the findings of this section of the analysis.

Figure 4.5 Sexual offences by gender in Nottingham UA (average baseline and post implementation periods)

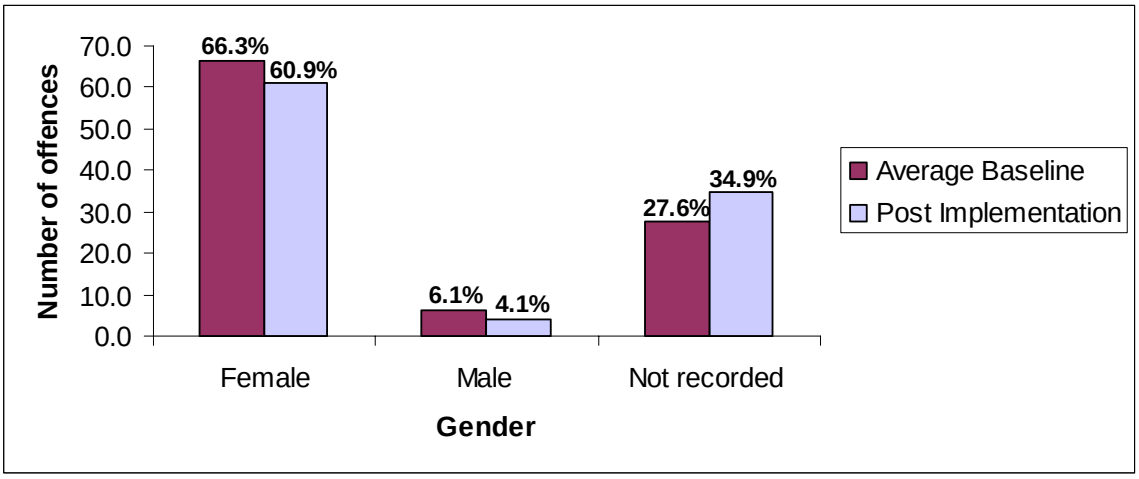
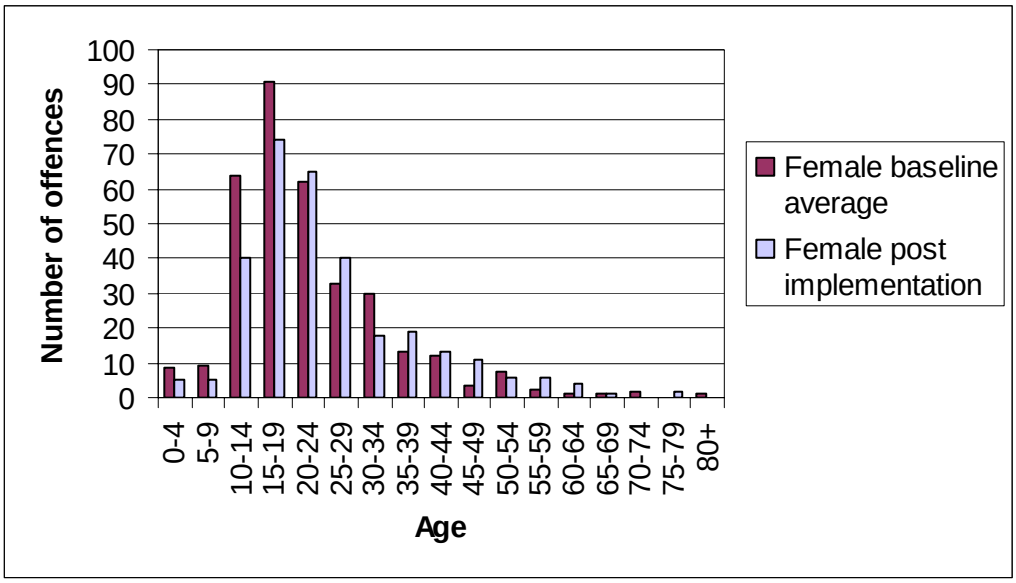


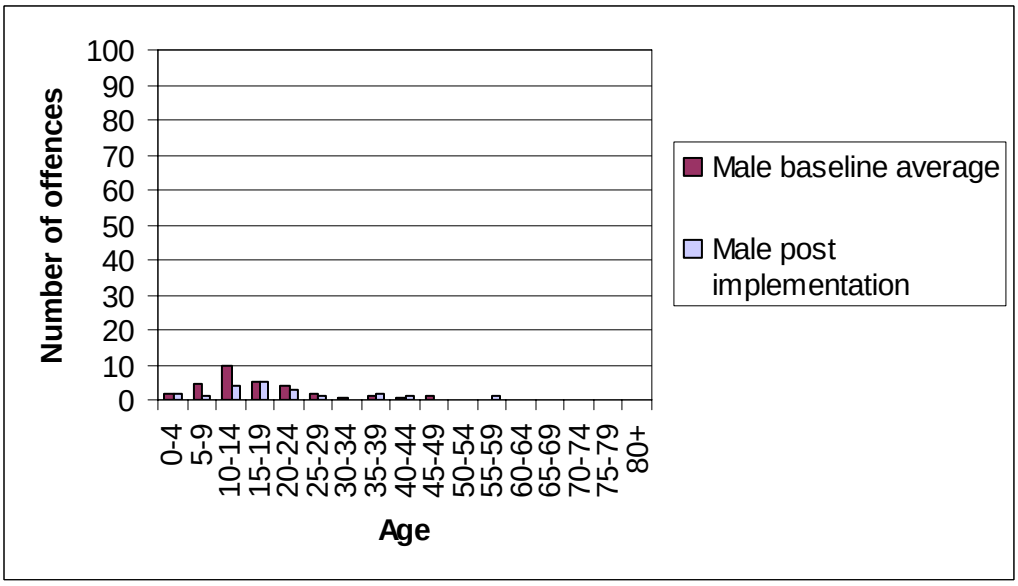
Figure 4.6 displays the gender and age of victims of sexual offences during the baseline and post implementation periods. The gender and age categories for the baseline periods are an average over the two years. The peak age for female victims of sexual assault was 15-19 in both periods. Figure 4.6(a) suggests that female victims were older during the post implementation period with a decrease in the number of victims aged between 0-19 and increases in the number of victims aged 20 and 49. Figure 4.6(b) shows that the peak age for male victims of a sexual offence was 10 to 14 years in baseline period, increasing to, 15 to 19 years in the post implementation period.

Figure 4.6 Sexual offences by age and gender in Nottingham UA (average baseline and post implementation periods)

(a)



(b)



Summary of findings: sexual offences

- **The average monthly count of sexual offences per month remained relatively stable between the baseline and post implementation period. However this average hides some important monthly fluctuations.**
- **The number of sexual offences increased during May, June and July compared to the baseline period.**
- **The distribution of sexual offences across times of the day remained relatively unchanged between the baseline and post implementation periods. With a clear peak in offences around midnight**
- **A smaller proportion of offences were recorded in the post implementation period between 8.59pm and 10.00pm compared to the baseline period. A larger proportion of offences were recorded from 10.59pm through until midnight and between 1.59am to 5.59am in the post implementation period.**
- **The majority of victims of sexual offences were female (over 60% in both periods).**
- **The peak age for female victims of sexual assault was 15-19 in both periods.**
- **The peak age for male victims of a sexual offence was 10- 14 years in the baseline period, increasing to, 15-19 years in the post implementation period.**

5. Calls for disorder

Calls for disorder include incidents such as disturbances in public places, disturbances in licensed premises, drunkenness and noise nuisance. This data on incidents recorded by the police is not crime per se, but calls made by the public for police assistance. This data is often used as an alternative to police recorded crime data, as it provides a measure of the volume of calls made to the police, and as a proxy to measure the publics' perception of crime and need for police assistance.

The findings of this analysis are supported by additional analysis presented in the supplementary annex which examines calls for disorder incidents using statistical tests of change from the baseline to post implementation and weekend and weekday incidents. The results of this are detailed in the supplementary analysis, and also included in the summary findings at the start of this annex, and concluding sections of this annex. The reader is also referred to the final report that summarises the findings of all five case study areas.

Macro level

The calls for service data in Nottingham is not consistent over the baseline and post implementation periods. There was a change in the codes used, and thus the disorder categories extracted (see technical annex for details) are not consistent before and after this data. This can clearly be observed in table 5.1. Consequently, there is not a comparison of two years of baseline data with one year of post implementation data. Instead, the following analysis uses an eight month baseline period (April 2005 to November 2005) and an eight month post implementation period (April 2006 to November 2006). Although this does not provide a full 12 months of post implementation data, it does allow comparisons to be drawn between data recorded in a consistent manner. This is more robust than using data that has not been captured consistently as any changes observed may be due to a change in recording practices.

The average number of calls for disorder per month changed little between the two periods analysed. However, this hides some interesting monthly fluctuations. Table 5.1 displays the number of calls for disorder incidents in Nottingham UA by month and year, and the blue shaded area represents the post implementation period. The percentage change figure is the change between the number of calls in each month during the post implementation period, and the number of calls in the corresponding month in the baseline period. This shows that of the eight months analysed four months saw an increase compared to the corresponding month in the baseline and four months saw a decrease. The largest increase was in July (52.2%) the largest decrease was in October (36.5%)

Table 5.1 Calls for 'disorder' monthly incident counts in Nottingham UA (eight month baseline and eight month post implementation)

	2005	2006	Post implementation percentage change (monthly average)
April	433	356	-17.8
May	349	354	1.4
June	388	434	11.9
July	358	545	52.2
August	380	333	-12.4
September	390	357	-8.5
October	460	292	-36.5
November	253	290	14.6

Figure 5.1 shows the monthly rate of calls for disorder (per 10,000 persons) in Nottingham UA during the post implementation (blue line) and the baseline period (dotted grey line). The graph shows that calls for disorder remained fairly stable throughout the months of the baseline, although there was a sharp reduction in November. In the post implementation period calls for disorder increased steadily from April to July before reducing once more throughout the period.

Figure 5.1 Calls for 'disorder' incident rates in Nottingham UA (eight month post implementation and eight month baseline periods)

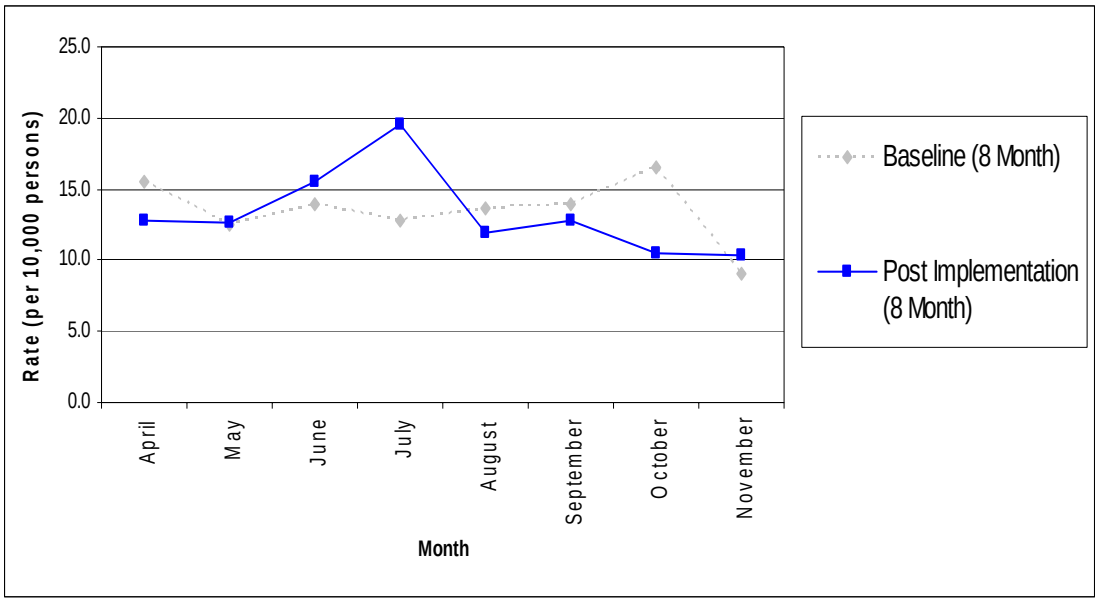
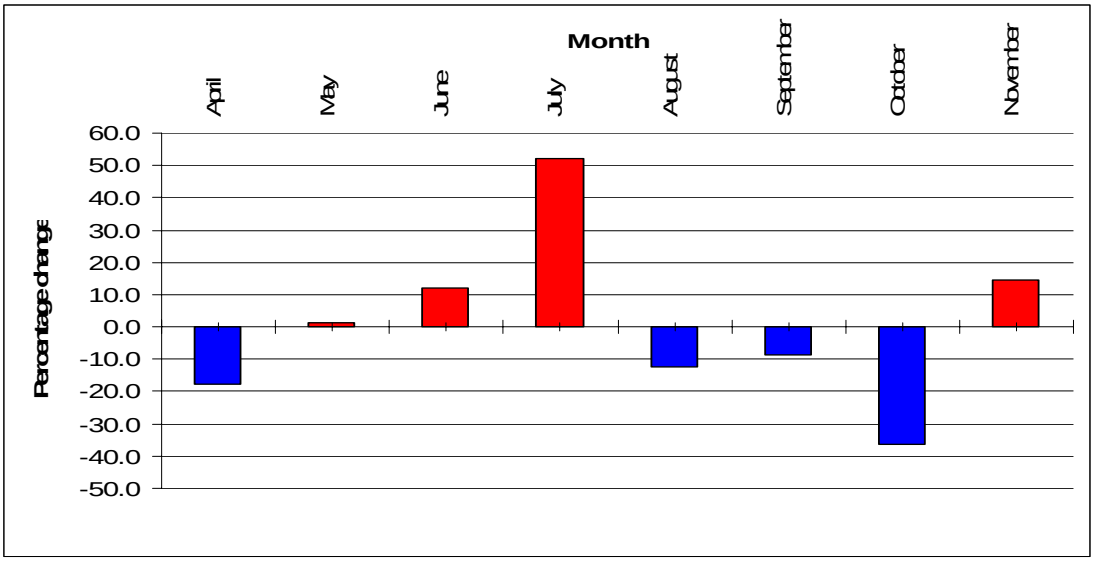


Figure 5.2 shows the percentage change between the monthly frequency of calls for disorder during the baseline period, and the monthly frequencies of such incidents during the post implementation period. This highlights the percentage increases in the summer months, with a marked increase in July compared to July in the baseline period. This is followed by decreases between August and October.

Figure 5.2 Percentage change in calls for 'disorder' in Nottingham UA (eight month baseline to eight month post implementation period change)



Distribution of calls by time of day and day of week

Table 5.2 displays the number of calls for disorder incidents by time of day for each of the two periods examined. The average percentage change reflects the change between the baseline period frequency of calls for disorder incidents and the frequency of such incidents post implementation for each time interval. The table indicates that the distribution of calls across times of the day has changed little between the baseline and post implementation periods. With the number of calls increasing gradually from 7.00am until reaching a peak at between 8.00pm and 8.59pm and then gradually decreasing until 6.59am. The table shows that there were notable increases in the number of calls for disorder made between 7.00am and 10.59am, between 1.00pm and 3.59am and again between 4.00am and 4.59am. There were reductions in the number of calls for disorder between 4.00pm and 12.59am

Table 5.2 Calls for 'disorder' incidents by time of day in Nottingham UA (eight month baseline and eight month post implementation periods)

Time of day	Eight month baseline frequency	Eight month post implementation frequency	Percentage change (eight month baseline to eight month post implementation period)
0900-0959	42	58	38.1
1000-1059	63	75	19.0
1100-1159	91	87	-4.4
1200-1259	113	102	-9.7
1300-1359	91	104	14.3
1400-1459	109	129	18.3
1500-1559	132	145	9.8
1600-1659	146	127	-13.0
1700-1759	187	166	-11.2
1800-1859	197	176	-10.7
1900-1959	265	262	-1.1
2000-2059	293	283	-3.4
2100-2159	247	220	-10.9
2200-2259	268	255	-4.9
2300-2359	249	229	-8.0
0000-0059	187	175	-6.4
0100-0159	108	122	13.0
0200-0259	91	89	-2.2
0300-0359	51	51	0.0
0400-0459	20	31	55.0
0500-0559	22	20	-9.1
0600-0659	12	10	-16.7
0700-0759	8	17	112.5
0800-0859	19	28	47.4

Figure 5.3 shows the percentage of calls for disorder incidents in each time interval for each year. There is also a smoothed trend line[4] for each of the two time periods under consideration. The graph confirms that in both periods the peak time for calls for disorder is between 8.00pm and 8.59pm. The proportion of calls made between 10.00am and 3.59pm was higher in the post implementation period compared to the baseline. Between the 4.00pm and 12.59am the proportion of post implementation calls was lower than the baseline. The proportion of calls made between 6.59am was similar in both periods. It is difficult to detect any change in the peaks of calls for disorder incident post implementation.

Figure 5.3 Proportional changes to calls for 'disorder' by time of day in Nottingham UA (eight month baseline and eight month post implementation periods)

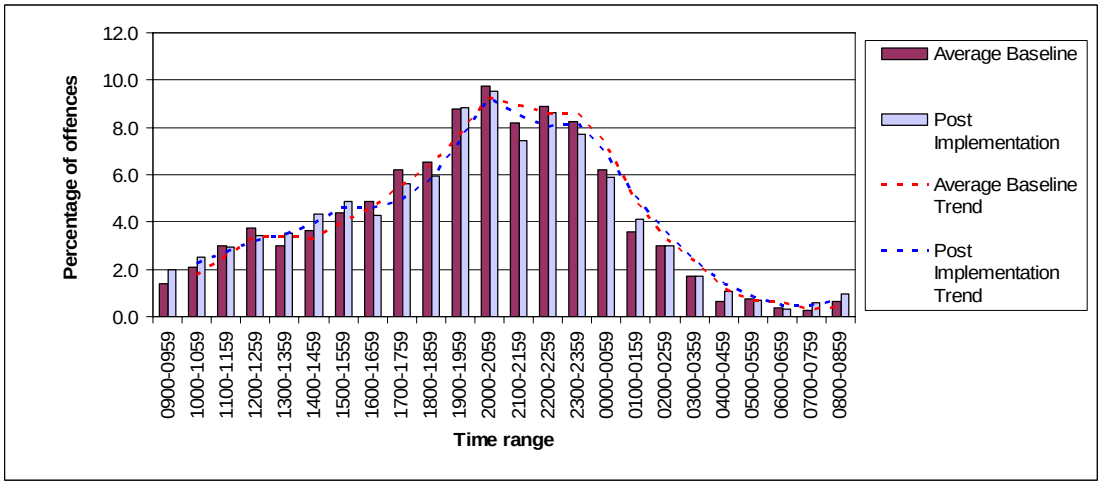
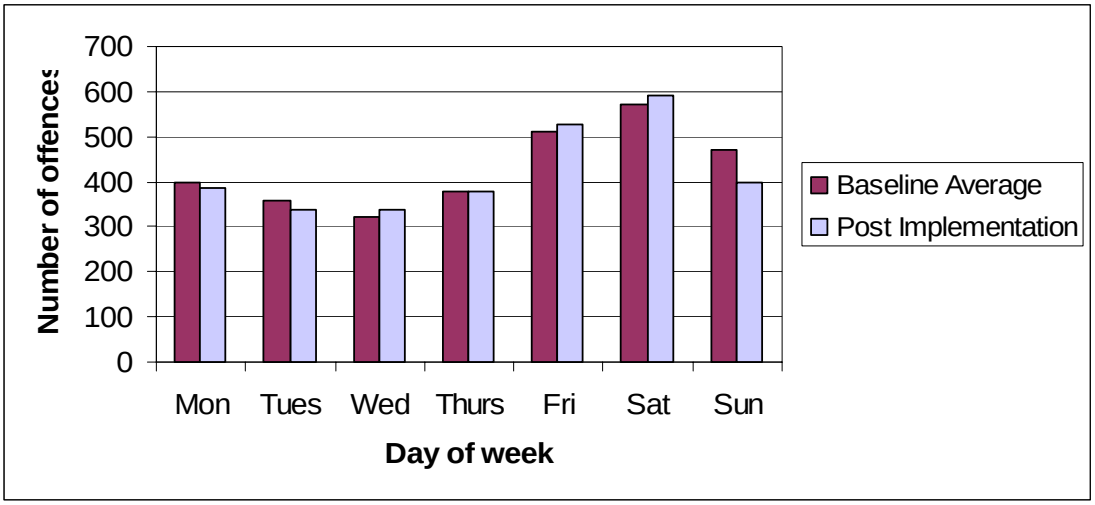


Figure 5.4 portrays the frequency of calls for disorder incidents by day of week for the baseline period and post implementation periods. The distribution of incidents is similar in both periods with the number of calls increasing from Thursday to Saturday then decreasing between Saturday and Wednesday.

Figure 5.4 Calls for 'disorder' by day of week in Nottingham UA (eight month baseline and eight month post implementation periods)



[4] Two month moving average

Meso and micro level

In order to examine change in more detail, the frequency of calls for disorder incidents were examined for specifically defined zones within the case study area (see figures 2.10and 2.11). These were 50m concentric buffer zones surrounding licensed premises (pubs, bars and clubs) and also cluster areas (areas with high densities of licensed premises). The methodology for constructing these zones is described in more detail in the technical annex. The proportion of calls for disorder incidents in each individual zone is reported in Table 5.3.

Table 5.3 shows some concentration of calls for disorder around Nottingham's licensed premises with 14.3 per cent of baseline calls for disorder made in the cluster area, and 11.6 within 50m of a licensed premise. The proportion of calls decreased slightly with distance from licensed premises. The levels of concentration around premises were lower than for violence against the person and criminal damage. The table shows that the proportion of calls for disorder shared by each of the zones was broadly similar in both periods.

Table 5.3 Proportional changes to calls for 'disorder' incidents in the buffer zones and cluster area in Nottingham UA (eight month baseline and eight month post implementation periods)

	Area					
	Cluster	0-50m	50-100m	100-150m	150-200m	Nottingham UA
Percentage eight month baseline	14.3	11.6	12.9	9.1	10.8	100
Percentage eight month post implementation	12.7	11.0	11.3	10.1	9.7	100
Proportional change	-1.6	-0.5	-1.6	1.0	-1.2	

Daily distribution of calls for disorder in specified zones

The frequency of calls for disorder incidents in each individual zone was divided by time of day into twenty-four one hour time intervals. The percentage of incidents in each time interval for the baseline period (average over two years), and also the post implementation period was then calculated. From this a percentage change could be generated for each time interval in each individual zone, from the average baseline to the post implementation periods. The result of this proportional change analysis is depicted in Table 5.4. This table also includes volume change in addition to the proportional change that represents the actual change in numbers.

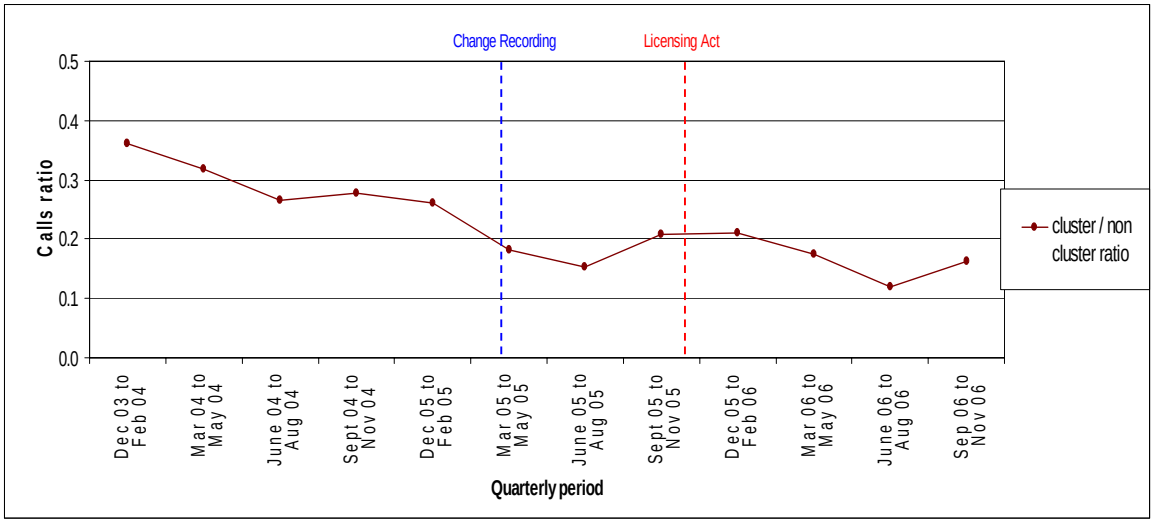
The changes to the daily distribution of calls were small (less than one percentage point change) although there was a tendency for changes to be more pronounced with proximity to licensed premises.

Table 5.4 Proportional changes to calls for 'disorder' incidents by time of day and location in Nottingham UA (eight month baseline and eight month post implementation time periods)

Time of day	Area											
	Cluster		0-50m		50-100m		100-150m		150-200m		Nottingham UA	
	Proportion	Volume	Proportion	Volume	Proportion	Volume	Proportion	Volume	Proportion	Volume	Proportion	Volume
0900-0959	1.6	13	1.0	5	0.6	-2	1.3	2	-0.6	2	0.0	0
1000-1059	0.5	12	0.2	0	0.3	2	1.8	8	1.7	4	0.4	11
1100-1159	0.4	0	0.1	-1	1.2	3	0.5	6	-0.9	-10	-0.1	-2
1200-1259	1.0	-14	-0.4	-2	2.0	6	-0.8	-3	-0.9	-11	-0.1	-2
1300-1359	0.5	12	1.8	9	-1.3	-2	0.1	-7	2.5	1	0.3	9
1400-1459	1.8	20	0.7	3	0.7	0	-0.4	-1	1.1	-2	0.3	9
1500-1559	1.1	14	0.0	5	1.5	2	-2.1	4	1.3	-2	0.6	16
1600-1659	-1.9	1	-1.3	-10	-1.1	-14	-2.4	-12	-0.1	-3	0.4	12
1700-1759	1.5	-15	1.8	-3	0.9	-13	0.7	5	0.3	-1	-0.1	-4
1800-1859	0.2	-17	1.2	-8	-0.1	-1	-2.5	-4	-0.8	4	-0.3	-11
1900-1959	1.2	-2	0.9	4	0.6	-4	-0.1	3	0.4	3	0.5	13
2000-2059	0.8	-8	0.0	-7	-0.3	-5	0.8	3	-1.6	-7	0.7	20
2100-2159	-1.2	-24	-1.7	-14	0.2	-5	-0.9	0	-1.0	-5	0.5	13
2200-2259	-1.4	-8	-1.2	-10	-1.8	-4	0.2	8	-1.3	-1	-0.6	-19
2300-2359	-3.4	-12	-3.1	-3	-1.1	-3	0.0	-4	0.0	3	-0.6	-21
0000-0059	-2.4	-1	-1.3	0	-0.1	-13	1.9	13	-2.2	-6	-0.6	-21
0100-0159	-0.5	24	1.5	3	-1.1	-2	0.6	-3	1.9	5	0.0	-3
0200-0259	-4.7	7	-4.4	-4	-2.5	-2	-1.8	-2	0.4	0	-0.2	-10
0300-0359	2.8	-9	2.9	6	0.9	-1	1.2	5	-0.5	-1	-0.8	-27
0400-0459	1.2	6	1.4	8	-0.5	-4	0.5	1	0.4	-1	-0.3	-13
0500-0559	-0.1	3	0.2	1	0.0	-2	0.0	-1	0.1	1	-0.5	-20
0600-0659	-0.1	-1	0.2	-1	-0.4	-1	-0.3	-1	-0.6	-3	-0.3	-12
0700-0759	0.5	6	-0.2	0	0.6	3	1.2	4	-0.2	1	0.5	14
0800-0859	0.5	10	-0.2	-1	0.7	-1	0.3	-1	0.3	2	0.0	-2

Proportion of calls for disorder in the cluster area

Figure 5.5 Calls for 'disorder' incident ratios in Nottingham UA (December 2003 to November 2006)



Calls for disorder ratios were calculated by dividing the monthly counts of calls in the cluster area with counts for the remainder of Nottingham UA. The calls for disorder ratios can then be used to examine how the proportion of Nottingham's calls for disorder in the cluster area has changed over the analysis period. The graph shows during the baseline period the disorder ratio reduced steadily. However since the change in recording practices the ratio has remained stable. The graph does not suggest that calls for disorder became more concentrated in the cluster area following the introduction of the Act.

Summary of findings: calls for disorder

- **There was little change to the average number of calls for disorder per month between the baseline and post implementation periods. However, this hides some monthly fluctuations.**
- **During the eight months analysed, four months saw an increase compared to the corresponding month in the baseline and four months saw a decrease.**
- **The distribution of calls across times of they day has changed little between the baseline and post implementation periods, with calls peaking between 8.00pm and 8.59pm.**
- **The proportion of calls made between 10.00am and 15.59 was higher in the post implementation period compared to the baseline. Between 4.00pm and 12.59am the proportion of post implementation calls was lower than the baseline.**
- **The levels of concentration around licensed premises were lower than for violence against the person and criminal damage. The table shows that the proportion of calls for disorder shared by each of the zones was broadly similar in both periods.**
- **There were no significant changes observed in the eight months post implementation compared to the eight month baseline period (see supplementary annex).**
- **There was virtually no change in the timing of disorder incidents either during the week or at weekends (see supplementary annex).**

6. Findings from qualitative analysis

As was outlined within the methodology section of the main report, participant observation and interviews with bar and door staff took place at key premises before the Act was implemented (November 2005), approximately two months after the Act came into force (between January and March 2006) and one year post implementation (January 2007).

As the venues visited as part of the fieldwork were selected based upon their level of recorded violence against the person offences (top 15 premises), the same 15 premises were not automatically included in the three phases. However, there is some level of consistency which will allow before and after comparisons.

Table 6.1 displays the premises visited in phases one, two and three and the colour coding identifies the premises which were visited in either one, two or three of the phases.

Table 6.1 Premises visited in phases one, two and three in Nottingham UA (January 2007)

Premises visited in phase one (baseline period)	Premises visited in phase two (2 months post implementation)	Premises visited in phase three (12 months post implementation)
G	G	G
S	S	S
B		B
P	P	
V	V	
	U	U
	N	N
	T	T
W		
X		
Y		
Z		
AA		
D		
A		
I		
AB		
AC		
AD		
AE		
AF		
L		
AG		
AH		
K		
AI		
K		
AJ		
	AK	
	AL	
	AM	
	AN	

	AO	
	AP	
		O

Red shading denotes premises visited across three phases
Blue shading denotes premises visited across two phases

Findings from fieldwork conducted at key licensed premises

Findings from fieldwork conducted baseline and two months post implementation

The findings here present those from the initial visits to the case study areas. Interviews occurred in the first two months post implementation. However it is not possible to distinguish whether observations occurred in the initial visit (baseline period) or subsequent visits (post implementation).

Context

The sample of those who participated in the semi-structured interviews comprised of bar staff, bar managers and license holders. Those interviewed had worked at their premise for between one and seven years. The length of time that those interviewed had worked in the trade varied from two years (bar staff) to 22 years (general manager). The majority of managers interviewed had worked at other licensed premises within the city centre. Bar staff (who tended to have worked in the trade the least) had generally not worked at any other premise within the city centre. Most of the sample currently lived within the local area.

Establishment and clientele

The premises visited as part of the research appeared to cater for a variety of clientele. This included students, locals and young professionals. Participants acknowledged that the clientele at most premises varied according to the day of the week and time of day/evening.

Several of the licensed premises had drinks offers for the most popular drinks. One premise gave a free bottle of champagne to groups of six or more. Several premises had DJs or live music on Friday, Saturday and/or Sunday nights. One premise held a 'ladies night' on Wednesdays. All of the premises visited served food.

The majority of premises had a clear ID policy. This involved asking those who looked under 21 to prove their age. There were clear signs in most premises to support these policies. The majority of premises in Lace Market only accepted passports or driving licenses as acceptable forms of ID. Premises in Market Square were more likely to accept proof of age cards and other forms of ID. One premise had a 'Club Scan' system in which ID was needed to get in (passport or driving license) and was then scanned onto a database. This assisted the control of clientele and allowed trends in clientele to be identified.

Violence and disorder

There did not appear to be any consensus amongst participants regarding levels of violence and disorder within Nottingham. A small number of those interviewed felt that there had been no change in levels of violence during the past two years or in the two month period since the Act. As one member of bar staff highlighted: *"The new licensing laws have not made a difference to violence."*

Three of those interviewed felt that levels of violence and disorder had actually decreased since the introduction of the Act. They felt that people seemed calmer and more relaxed and that the

staggering of closing times was an important factor in this change. One member of bar staff stated that: "*People are not having to drink to a certain time."* A general manager stated that: *"There is no traffic of people at certain times as they are not forced out of premises or wandering around. The friction has gone – people are in control of where they want to go."*

In contrast, a large number of those interviewed felt that levels of violence and disorder within Nottingham city centre had increased both in the last two years and also since the start of the new Act (although not necessarily as a result of the Act). One bar manager stated that: *"Violence has increased in the past two years – not necessarily related to alcohol or the extended hours, just degradation of society in general. There has been no change in levels of violence and disorder since November 2005, just an increase in general."* A deputy manager agreed with this statement suggesting that: *"Violence and disorder has increased in recent years – November 2005 is irrelevant to the levels."*

Several of those interviewed felt that violence in the city had increased because of an increase in the use of weapons and a weapon carrying culture. Whilst the majority of those interviewed felt that bottles and glasses were not a problem outside of premises (as door staff prevent them from leaving the premise) knives were seen by many to be a major problem in the city. Participants felt that the use of firearms was related to drugs and gangs which was limited to nightclubs on the outskirts of the city.

All but one participant expressed the view that Nottingham city centre is a safe place. When asked whether their opinions were influenced by the Act, all stated that they were not.

Problematic times and groups

There was a consensus amongst all those interviewed that weekends are the most problematic time for violence and disorder. Participants felt that the period between 10.00pm to 2.00am, when people are moving between premises or waiting for taxis, were the most problematic.

A variety of problematic groups were identified by the participants. One manager suggested that during the week most trouble was caused by students, whereas locals cause the most trouble at weekends. In general, those interviewed suggested that the most problematic groups were males aged 18-35. A number of participants, however, did suggest that women are increasingly contributing to levels of violence and disorder.

Door supervision

All except one premise employed door staff at some point during the week. The majority of premises did not employ door staff Mondays to Thursdays, except on student nights. All except one premise employed door staff for Friday, Saturday and Sunday nights. It was the policy of the majority of premises to have door staff both on the door and also within the premise.

Relationship with police

The majority of participants stated that they talk to the police on a regular basis. Most of those interviewed claimed that their premise was part of the Pubwatch scheme (meaning that there is regular contact with licensing officers and other premises). The majority of premises also had some form of radio link, panic buttons and/or CCTV. One licensee stated: *"Through the Pubwatch meetings we have regular contact with licensing officers and the police which we never used to have. We have also been given a contact phone number for the police and a radio link shared with pubs and shops."*

The majority of participants suggested that there was more contact with the police and a greater police presence since the introduction of the Act. Whilst the majority of those interviewed felt that the police helped their job, some of those interviewed felt that the police could be a hindrance.

> *"The police help my job, they educate people in the industry and define what they want people to do – we have to work with police"* (General Manager).
> *"The police help my job, they seem to be more supportive and I have a more respectful view of the police since November 2005 as they are more visible"* (Bar Manager).
>
> *"There is regular contact with the police and more contact since the Act and more police presence – they do make life a little easier"* (Bar staff).
>
> And
> *"The police are both a help and a hindrance – this has not changed since November 2005"* (Deputy Manager).
>
> *"I suppose the police are good and bad. I have never had to deal with the police before but now we have to"* (Licensee).

Extended hours

All premises visited had been granted extended licenses and none of those interviewed mentioned problems in obtaining the extended license. As one Assistant Manager stated: "*Licenses are being handed out like sweets."* Most premises had only applied to open an hour earlier or to close an hour or two later. The majority of premises had conditions placed on their licenses. These included serving food, introducing/increasing door staff and containing noise levels.

The majority of premises did not use the extended hours which were available to them, rather they allowed flexibility at the discretion of the manager.

Although most of those interviewed felt that the introduction of the Act had resulted in staggered closing times, most premises still appeared to have similar closing times, especially when they were not using the full hours granted.

The majority of those interviewed felt that people were now (post implementation) drinking later. For example, people tended to go home after work and then go into town, rather than going into town straight after work. As one Bar Manager stated: *"Some people are drinking more responsibly. It is less busy at 1/2am as people are going out later. It is blanket busy rather than busy at one particular time."*

The majority of those interviewed claimed that they were not making any additional profit from extended drinking hours. The most commonly mentioned effects of the extended hours on peoples' jobs were that they had to work more and longer hours. As one assistant manager stated: *"We are working longer hours for no more profit."*

Reducing alcohol related crime and disorder

There were differences in opinion about how alcohol related crime and disorder should be reduced. Suggestions included improving education to encourage people to drink more responsibly, better transport systems, banning alcopops, increasing drink prices and more police resources.

Table 6.2 Participant observation of individual premises in Nottingham UA (January 2007)

Name	Food served	Capacity	Dress code	Age of clients	Entertainment facilities	Promotions/ entertainment	Door staff	Management of area by staff	Safety initiatives
U	Yes	120	None	30-35	Large TV	DJ	N/K	None	CCTV
B	Yes	N/K	Smart/casual	N/K	Fruit machines	Sports and DJ	N/K	None	Plastic glasses at weekends
G	Yes	450	No caps or sportswear	N/K	Fruit machines	DJs at weekends	N/K	None	None
T	Yes	470	Selected trainers, no caps, hats or hooded tops	18-40	TV screen	DJ every night	Friendly	None	CCTV
N	Yes	400	No caps	18+	Fruit machines, TV screens	No	N/K	None	CCTV
O	No	100	No hats, hoods or tracksuit bottoms	18+	Fruit machine	DJ	N/K	None	CCTV
S	Yes	400	No caps	18-50	Fruit machine	DJ	Friendly	None	CCTV

Table 6.3 Baseline licensing hours for licensed premises in Nottingham UA

Premise	Mon - Wed	Thurs	Fri	Sat	Sun
S	10.30-23.00	10.30-23.00	10.30-23.00	10.30-23.00	10.30-23.00
N	10.00-22.30	10.00-22.30	10.00-22.30	10.00-22.30	10.00-22.30
O	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN
T	11.30-0.00	11.30-1.00	11.30-1.00	11.30-1.00	12.00-1.00
U	12.00-23.00	12.00-23.00	12.00-0.00	12.00-0.00	UNKNOWN
B	12.00-2.00	12.00-2.00	12.00-2.00	12.00-2.00	12.00-0.30
G	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN

Table 6.4 Post implementation licensing hours for licensed premises in Nottingham UA

Premise	Mon - Wed	Thurs	Fri	Sat	Sun
S	Mon: 10.00-23.30 Tue: 10.00-23.30 Wed: 10.00-0.00	10.00-0.00	10.00-0.30	10.00-0.30	11.00-23.30
N	8.00-23.00	8.00-23.00	8.00-0.00	8.00-0.00	10.00-23.00
O	Mon: 12.00-23.00 Tue: CLOSED Wed: 12.00-18.30	12.00-23.00	12.00-0.00	12.00-0.00	12.00-0.00
T	11.30-2.00	11.30-2.00	11.30-2.00	11.30-2.00	12.00-2.00
U	12.00-23.00	12.00-23.00	12.00-1.00	12.00-1.00	10.00-22.00
B	12.00-2.00	12.00-2.00	12.00-2.00	12.00-2.00	12.00-0.30
G	12.00-0.00	12.00-0.00	12.00-1.00	12.00-1.00	12.00-0.00

Interviews with bar managers, licensees and door supervisors

Contextual information

Unfortunately the 12 month post implementation phase of the fieldwork proved to be less successful than the earlier phase and although a great deal of effort was put into attempting to recruit 15 participants for the interviews, only seven were willing to take part. Therefore, the findings discussed below relate only to the views of seven participants (as opposed to the desired 15).

The participants who took part in this phase of the research had worked at the premise in question for between two months and two years and experience in the licensing trade ranged from two years to 16 years. Most of those interviewed lived within close proximity of the premise they worked at and some managers actually resided at the premise. This allowed participants to answer questions about the area surrounding (as well as within) the venue.

Type of establishment

Most of the premises included in this phase of the research opened between 10.00am and 12.00pm. Closing hours varied according to the night of the week with some premises closing at 11.00pm/12.00pm during the week, others staying open until 1.00am/2.00am. All premises closed later at the weekends, but this extension was never more than one or two hours. None of the premises interviewed closed later than 2.00am on any night of the week.

The capacity of the premises varied from 120 to 850. Most of the premises served food and for these premises this had not changed since the introduction of the Act.

A large proportion of the premises offered some form of entertainment. This included large screens, fruit/game machines, live music and DJs. DJs tended to be present on Thursday, Friday, Saturday and Sunday nights and start at approximately 8/9.00pm. None of the premises offered happy hours, although most did offer some form of drinks promotions.

All except one venue employed door supervisors. Only one venue charged for entry. Charges only applied on Thursdays, Fridays and Saturdays (£2 before 11.00pm on a Friday and Saturday or £1 before 11.00pm Thursdays; £3 after 11.00pm on Fridays and Saturdays and £2 after 11.00pm on Thursdays). The most popular drinks at the seven premises visited were spirits, lagers, and cocktails.

The majority of premises had heard of and had signed up to government schemes such as Best Bar None and the Portman group. The most popular scheme seemed to be the Pubwatch scheme where licensees meet regularly to discuss/attempt to resolve problems within the area. All of the premises had CCTV cameras in operation and many had radio links with the police and other local premises.

Most of those interviewed did not feel that their target market, management of their premise, use of drinks promotions or use of live entertainment had changed since the introduction of the Act. However, one respondent did state that they ensure that they have more door staff and management on duty at weekends since the introduction of the Act.

Clientele

The clientele varied by premise, however, the majority attracted a large number of students. Policies on admittance were fairly standard across all premises. Customers had to be 18, but those who looked younger than 21 (and in some venues 25) would be asked for identification. Accepted forms of identification were driving licences or passports and in some circumstance an officially approved proof of age card.

All premises had a zero tolerance drugs policy, with those found contravening the policy referred to the door staff or police. Similarly, customers deemed to be intoxicated would not be served alcohol and could be removed from the premises if door staff deemed this to be necessary.

Levels of violence and disorder

When asked about levels of violence and disorder both within their premise and in Nottingham as a whole, opinions varied. Some participants felt that levels of violence had not changed since the introduction of the Act; some felt that levels had increased; others felt that they had decreased. Those who felt that violence and disorder had decreased since the introduction of the Act felt that this was due to the staggering of closing times and the reduction of people congregating in Market Square at the traditional closing time. Others felt that the decrease was due to an increased police presence, less queues for taxis and people drinking more responsibly/slowly. Most of those interviewed described the city centre as a safe place.

Participants stated that the main weapon used to commit violence within the city centre was knives (more so than bottles and glasses). Participants expressed the view that crime prevention measures (not allowing glass outside premises, use of plastic or toughened glass) by door staff and management had been very effective in preventing bottles/glasses being used as weapons.

Most of those interviewed felt that there was a greater risk of violence at weekends and at closing time. Participants also highlighted Christmas and the football season as periods when the risk of violence was increased. In terms of problematic groups, the general consensus amongst respondents was that young women cause the most trouble in terms of violence and

disorder (although this can often be verbal rather than physical and can be the instigation of violence rather than the actual physical involvement).

Relationship with police

The majority of participants spoke highly of the police and stated that they see the police on a regular basis both formally - weekly or monthly, or informally - on a daily basis. Most participants expressed the view that their contact with the police had increased since the introduction of the Act and that the city centre definitely had a greater police presence.

On the whole participants felt that the increased police presence assisted them; only two felt that the police had a negative impact on their job. The explanation for this view was that the type of people frequenting their premise did not get on well with the police and felt uncomfortable with the increased police presence.

Participants spoke highly of the radios provided by the police which enabled them to liaise with the police and with other venues in the city. Participants felt that this helped them to prepare for known troublemakers or to warn other venues of individuals who may cause problems. Only one premise did not have the radio link (they felt it was too expensive) but did have a direct telephone number for the police.

Extended hours

Of the premises that were interviewed, most had already been granted the extended hours which they had applied for. These extensions were generally between one and two hours, although one premise was awaiting a decision for an application for a 24 hour license. None of those interviewed mentioned difficulties in obtaining the extended hours and in general licensees had been granted the hours they had applied for.

Participants expressed mixed views regarding the impact of extended hours. Some participants felt that nothing had changed since the introduction of the Act; others felt that it had impacted upon the behaviour of customers with less rushing to consume drinks within a short amount of time.

When asked about changes in the area as a whole (as opposed to their premise), some participants felt that nothing had changed since the Act; others felt that the staggered closing times had resulted in less people congregating on the streets at the same time of the evening and that this in turn had reduced levels of violence and disorder.

In contrast to the other case study areas and to the views expressed in the first phase of the research, the majority of participants from Nottingham felt that the extension of licensing hours had resulted in increased profits.

When asked about their views of the Act in general, the majority of respondents felt that it had been a good policy. Reasons given were that it had placed pressure upon licensees to increase their standards of management, that people drink slower and more responsibly and that it had made the licensing industry more professional.

Reducing alcohol related crime

When asked how they felt alcohol related crime and disorder could be reduced, suggestions included: improving education to help people drink more responsibly, increased police presence, improving pro-active response by police and ensuring that those who work in the trade are aware of the consequences of excessive alcohol consumption.

Summary of findings from post implementation interviews

- **Seven participants took part in the post implementation interviews.**
- **When asked whether they felt that the levels of night-time violence *in their premise* had changed since the introduction of the Act, three (43%) felt that it had not changed, none felt that it had decreased and one (14%) felt that it had increased.**
- **When asked whether they felt that the levels of night-time violence *in the town/city* had changed since the introduction of the Act, four (57%) felt that it had not changed, one (14%) felt that it had decreased and none felt that it had increased.**
- **When asked whether they felt that the levels of drunk and disorderly behaviour had changed since the introduction of the Act, four (57%) felt that it had not changed, two (29%) felt that it had decreased and one (14%) felt that it had increased.**
- **When asked whether there had been a change in the use of bottles/glasses as a weapon since the introduction of the Act, two (29%) felt that there had been no change, one (14%) felt that there had been a small increase and one (14%) felt that there had been a small reduction.**
- **When asked whether there had been a change in the use of knives since the introduction of the Act, one (14%) felt that there had been no change, two (29%) felt that there had been a small increase and none felt that there had been a decrease.**
- **When asked whether there had been a change in the use of firearms since the introduction of the Act, one (14%) felt that there had been no change, none felt that there had been an increase and none felt that there had been a decrease.**
- **When asked whether they felt that the number of violent incidents which they had had to deal with had changed since the introduction of the Act, three (43%) felt that this level had stayed the same, none felt that it had decreased and none felt that it had increased.**
- **Seven respondents (100%) stated that they felt safe in the town/city where their premise was located.**
- **Five (71%) said that these feelings had not changed since the introduction of the Act, one (14%) said that they had.**
- **Four of the respondents (57%) felt that the Act had resulted in staggered closing times, two (29%) felt that it had not.**
- **One (14%) of the respondents felt that that extended drinking hours had led to people drinking more responsibly, five (71%) said that it had not.**
- **Six (86%) of respondents felt that the Act was a good policy, one (14%) felt that it was not.**
- **Of the seven, five *stated that* they had changed their hours, one suggested that they had not.**

7. Summary of findings

Introduction

Nottingham is a vibrant city with a population of 278,000, of which an estimated ten per cent are students, and 14 per cent are aged 20-24, compared to an average of 6.5 per cent in England. The key drinking areas are the Old Market Square and the Lace Market. It is estimated that within one mile of the Old Market square there are over 300 licensed premises, and this attracts approximately 50,000 persons during the evening.

Nottingham has a diverse night-time economy that caters for a range of target audiences including professionals, students and local residents. In September 2005, new street drinking byelaws were introduced to give additional powers to police and Street Wardens with a new Alcohol Designation Order, which makes it an offence to consume alcohol from a container when asked not to do so by an authorised officer in any street within the designated area. In conjunction with this the SAFE for Nottingham campaign was introduced as a multi-agency approach between the police, city council and partner agencies, which included Safer Streets teams of 15 uniformed police officers aiming to provide high visibility policing and reassurance.

Violence against the person

There was a significant increase in offences during the first six months of the baseline period. During the first six months of the baseline this trend was reversed and there was a significant decrease (see supplementary annex).

There were 42 less serious offences in the post implementation period (see supplementary annex).

There was a small (3%) increase in the average monthly count of violence against the person offences in Nottingham between the baseline period and post implementation periods. The monthly trend showed that the first few months post implementation saw fewer offences than in the corresponding months in the baseline; however, from May onwards rates of violence were higher post implementation. This suggests that if the Act was responsible for the initial decline in offences of violence against the person, this effect was short lived.

Between 4.00am and 5.59am a larger proportion of violence against the person offences were recorded compared to the baseline. The largest percentage decreases in the number of violence against the person offences recorded was between 7.00am and 7.59am (19.4%).

The distribution of offences across the week has not changed greatly between the baseline and post implementation periods, with Saturday being the peak day for offences.

For both the average baseline period and the post implementation period the majority of victims of violence against the person were male. However there was an increase in the number of offences for which gender was not recorded (from 16% to 22%). For both males and females the peak age of victimisation was 20-24, and there were no significant differences in the age distribution of victims post implementation.

In both the baseline and post implementation periods around seven per cent of offences were alcohol flagged. Males and females aged 20-24 were most likely to be victims of alcohol flagged violence, both in the baseline and post implementation periods.

Around seven per cent of offences of violence were flagged with domestic violence in the baseline and post implementation periods, with females by far the most likely to be victimised, particularly those aged 20-24. There was an increase in victimisation rates of females aged 40-44 post implementation.

In the baseline around 21 per cent of all violence against the person offences in Nottingham occurred in the cluster area, and 18 per cent of these offences were located within 50m of licensed premises. In the post implementation period these had increased to 25 per cent and 22 per cent respectively, indicating some concentration of violent offences around the cluster area post implementation.

The most notable spatio-temporal changes were a reduction in the proportion of violence against the person occurring in the cluster area between 2.00am and 3.00am and an increase in the following hour. The timing of this change is suggestive of an impact of changes in licensing hours.

There was a small reduction in violence on weekdays between midnight and 1am but a slightly larger increase in the same hourly period at weekends and between 1am and 2am (see supplementary annex).

There was a correspondence between hot spots of violence against the person and areas with high densities of licensed premises. The hot spots remained relatively stable over time with those evident in the baseline period remaining in post implementation period. Consequently there was little evidence of change in the geographical distribution of violence against the person. In the post implementation period hot spots of violence against the person persisted further into the early hours of the morning in the key drinking areas of Lace Market and Old Market Square.

The KDE synthesis maps showed reductions from 1.00am to 2.59am, and increases from 3.00am- 4.59am. These were concentrated around the key drinking areas. From 11.00pm to 2.59am there were increases in Lace Market area and reductions in Market Square area. This is a spatio-temporal change not detected by the time of day analysis, as there were different trends in the two key drinking areas. However from 3.00am to 4.59am there were increases in both of these key drinking areas.

In both periods the majority of the top 15 premises for violence against the person were located in hot spot areas and accounted for around 40 per cent of all offences of violence in both baseline and post implementation periods. The proportion of premises recording no offences increased from 28 per cent baseline to 40 per cent post implementation.

Of the seven premises visited by fieldworkers, six applied for additional hours but these premises used just 34 per cent of their additional hours, on average. Those using between one and five additional hours decreased their share of offences of violence post implementation, while all other premises increased their share.

There was little change to the proportion of violence against the person accounted for by premises *applying* for additional hours.

An examination of the relationship between violence against the person and additional opening hours using *estimates* for all pubs in the case study area revealed that the 49 per cent of pubs opened for more than nine additional hours accounted for over half of violence against the person offences in both the baseline and post implementation periods. Thus, using an estimate of the number of additional hours applied for, there was no obvious relationship between the number of hours and share of violence against the person offences. This contrasts with the findings based on actual hours used and demonstrates the importance of analysing both hours applied for and hours used.

Most of the violence against the person hot spots occurred in the vicinity of premises in the top fifteen. Some of the new hot spots coincide with premises which appeared only in the top fifteen in the post implementation period. There are also, however, a number of hot spot locations which did not coincide with any of the highlighted premises.

Accident and emergency

In Nottingham there were, on average, over seven times the number of violence against the person offences than assaults recorded by the ambulance service. This suggests that the analysis of ambulance data needs to be treated with caution. The A&E data provided for the research proved to be unusable, therefore placing total reliance upon the use of ambulance data.

Both assaults and violence against the person offences increased in volume compared with the baseline period. Although the increases in both were relatively modest, the volume of violence against the person was higher in all but one of the months following the implementation of the Act. This was in contrast to the changes observed in many of the other case study areas. Weekend violence against the person increased more than violence against the person overall.

Some moderate to sizeable reductions in assaults were observed in the early hours of the morning in both the baseline and post implementation periods, but these occurred against little change in violence against the person.

The analysis suggests that the period following the implementation of the Act saw a modest increase both in violence against the person at weekends, and in the number assaults. However, there was insufficient evidence to conclude how changes in police recorded violence against the person and assaults from ambulance data were related and how far the modest increases were attributable to changes in the Act.

Criminal damage

In the baseline period there were significant increases in offences for the first and second six months. In the post implementation period, both for the first and second six months, significant reductions could be observed (see supplementary annex).

Criminal damage in Nottingham reduced by 11 per cent between the baseline and post implementation periods, and was lower in all 12 month post implementation periods.

The proportion of criminal damage offences reported in afternoon and evening periods of the post implementation period (between 2.00pm and 10.00pm) was lower than the baseline average. In contrast the proportion of offences reported between midnight and 7.00am was higher in the post implementation period. The daily distribution of criminal damage retained a similar daily distribution in both the baseline and post implementation periods.

Criminal damage was much less concentrated around licensed premises than violence against the person (just 8% occurred in the cluster area). There was little change evident between the baseline and post implementation periods.

Changes to the daily distribution of criminal damage offences were small; the most noticeable changes were increases in the number of criminal damage offences between 3.00-3.59am within 50m of licensed premises (2.4%) and in the cluster area (3.1%).

Weekday criminal damage reduced in the post implementation period for all twelve months (see supplementary annex).

There were fewer criminal damage offences between 9pm and 1am on week day nights and a fairly modest increase between 1am and 3am at weekends (see supplementary annex).

KDE synthesis maps revealed there were some reductions between 1.00am and 2.59am that corresponded with the key drinking areas (see supplementary annex).

The proportion of Nottingham's criminal damage occurring within the cluster area has changed little over the baseline and implementation periods.

Offences of criminal damage build up from 9.00pm and are concentrated in Bullwell, the east of City Centre and between Cinderhill and Bilborough.

Sexual offences

The average monthly count of sexual offences remained relatively stable between the baseline and post implementation period with around 45 per month in each period. However this average hides some important monthly fluctuations; in particular increases post implementation in the summer months.

The distribution of sexual offences across times of the day remained relatively unchanged between the baseline and post implementation periods, although there was an increase in offences post implementation between 11.00pm and midnight and between 1.00am and 5.59am. There was an increase in the number of offences recorded between Wednesday and Saturday and a decrease in the number of offences recorded between Monday and Tuesday.

The majority of victims of sexual offences were female (over 60% in both periods) however, non recording of gender was high in both periods (28% and 35%).

The peak age for female victims of sexual assault was 15-19 in both periods, while 10-14 years saw a large reduction in the number of offences post implementation. The peak age for male victims of a sexual offence was 10-14 years in baseline period, increasing to 15-19 years in the post implementation period.

Calls for disorder

There were no significant changes observed in the eight months post implementation compared to the eight month baseline period (see supplementary annex).

A change in the recording system for calls for service data in Nottingham meant that full year on year comparisons were not possible. However, it was possible to compare eight months of the baseline with the corresponding eight months of the post implementation period.

There was little change to the average number of calls for disorder per month between the two periods analysed. However, this hides some monthly fluctuations; July for example saw a 52 per cent increase post implementation, while October saw a 34 per cent decrease.

There were no notable changes to the distribution of calls across times of the day between the baseline and post implementation periods, with calls peaking between 8.00pm and 8.59pm.The daily distribution of calls were very similar in both periods, with calls peaking on Saturdays.

There was virtually no change in the timing of disorder incidents either during the week or at weekends (see supplementary annex).

Around one in eight calls for disorder related to the cluster area in both periods, while the proportion of calls for disorder shared by each of the zones was also broadly similar in both periods. There was no evidence that calls for disorder became more concentrated in the cluster area post implementation.

Qualitative fieldwork

All of the respondents bar one believed that the levels of night-time violence in their premise had either decreased since the introduction of the Act or not changed. Of levels of violence in the city as a whole, none thought that it had increased.

Most respondents also believed that there had been no increases in the use of weapons including bottles, knives and firearms. All of the respondents felt safe in their city. Most believed that the Act had resulted in staggered opening hours, but most did not think that this had led to a more responsible drinking culture. The respondents, with one exception, believed that the Act had been a good policy.

8. References

Walker, A., Kershaw, C. and Nicholas, S. (2006) *Crime in England and Wales 2005/6*. Home Office Statistical Bulletin. London: Home Office.

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