



# **Characteristics of domestic abuse and predictors of repeat victimisation in North Lincolnshire**

**Prepared for Safer Neighbourhoods North Lincolnshire**

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## Summary of findings

- Between 2008/09 and 2012/13, the rate of domestic abuse in North Lincolnshire fell from 4.3 to 3.1 incidents per 1,000 population per year.
- There were consistent decreases in police-recorded domestic abuse in North Lincolnshire each year between 2008/09 and 2012/13. Some of these decreases, particularly in 2011/12 and 2012/13, are likely to be artefacts of changes to the definition of domestic abuse at the force level. This change in definition prohibited the ability to compare rates of domestic abuse in Humberside Police Force area with rates in other forces.
- The decreases in the rate of domestic abuse in North Lincolnshire reflected the decrease in the incidence of domestic abuse across Humberside Police Force area.
- Females were more than three times as likely to report domestic abuse than males.
- The median age of victims of domestic abuse was 26 years.
- Three out of every five domestic abuse incidents resulted in injury to the victim.
- Alcohol was involved in approximately half of the domestic abuse incidents.
- One in five victims reported more than one domestic abuse incident.
- Repeat victimisations accounted for approximately one-quarter of the domestic abuse incidents reported to the police.
- The age, proportion of male and female victims, proportion of alcohol-involved incidents and proportion of victims who reported more than one victimisation were consistent between North Lincolnshire and Humberside Police Force area.
- On average, incident seriousness was lower for victims in North Lincolnshire than for Humberside Police Force area as a whole.
- On average, male victims of domestic abuse were older and experienced more serious violence than female victims.
- On average, female victims of domestic abuse were almost three times as likely to report a second victimisation than males.
- There was no difference between genders in the likelihood of alcohol use by the victim or perpetrator immediately prior to or during a domestic abuse incident.
- For both males and females, the age of greatest risk for reporting repeat victimisation was between 26 and 35 years.
- In general for both males and females, risk of being reporting a second victimisation decreased with age.
- There was no statistically discernible effect of neighbourhood or neighbourhood deprivation on likelihood of repeat victimisation for male or female victims.

## **Report aims**

This brief statistical report describes the characteristics of victims and incidents of domestic abuse in North Lincolnshire when the incident was reported to the police. The report also attempts to identify predictors of repeat victimisation for both males and females within a limited time frame and compares the characteristics of domestic abuse victims and incidents in North Lincolnshire to the characteristics of domestic abuse victims and incidents in Humberside Police Force area.

## **Research context**

North Lincolnshire Local Authority covers an area of 486km<sup>2</sup>. The mid-2012 population estimate for the Local Authority was 168,372. The area is organised into 17 electoral wards, with an average population of 4,888 people per ward. The median age for the area is 41 years, which is slightly higher than the national median (39.6 years)<sup>1</sup>.

North Lincolnshire Local Authority lies within the Humberside Police Force area, which comprises of North Lincolnshire Local Authority, North-East Lincolnshire Local Authority, East Riding of Yorkshire Local Authority and City of Kingston-upon-Hull. The mid-2012 population estimate for this area was 921,190 and the median age for the area is 41 years. North Lincolnshire accounts for approximately 18% of the total population of Humberside Police Force area.

## **Data set**

The data set included all offences reported to Humberside Police that were classified as 'Crimes involving domestic abuse'. The initial data set detailed 20,918 offences against 14,902 complainants between 1st April 2008 and 31st March 2013. This was reduced to include just Crimes against the person (Appendix One).

The data set variables were age of victim at time of incident, date of birth of victim, victim gender, date of incident, Home Office classification of incident, time of incident, date that incident was reported to police, whether the incident involved the use of alcohol by the victim or the perpetrator, ward name and ward code.

## **Method of analysis**

The data were extracted by Humberside Police under a data sharing agreement between Humberside Police and the author. The data were transformed from Excel format to Stata format and analysed using Stata 13. Index of mass deprivation scores (2010)<sup>2</sup> were assigned to wards.

In order to isolate the characteristics of incidents and victims for North Lincolnshire, the data set was cleaned so that it only detailed offences against the person against

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<sup>1</sup> <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcn%3A77-310118>

<sup>2</sup> <https://www.gov.uk/government/publications/english-indices-of-deprivation-2010>

residents of this area. An alternative version of the data was retained in order to compare North Lincolnshire to Humberside Police Force area as a whole.

Univariate statistics were performed to describe the data. Bivariate analysis was used to explore differences associated with the gender of the victim. The characteristics of incidents and victims in North Lincolnshire were compared to those of Humberside Police Force area as a whole using bivariate statistical analysis.

In order to compare the experiences of male and female victims of domestic abuse in North Lincolnshire, the characteristics of victims and incidents were compared by sex. Bivariate statistical analyses were undertaken to test for differences between the groups.

Finally, the data were split by gender and multilevel multiple regression analyses were used to identify statistically significant predictors of repeat victimisation and to adjust the standard errors to control for the potential effect of clustering within neighbourhoods.

It is necessary to note that some analyses refer to 'individuals', with whom more than one incident can be associated, and 'incidents', which are individual reported cases. The distinction between these two is made throughout as required using the terms 'individual victim(s)' or 'incident(s)'.

It should be noted that the time frame of the data set is finite. Therefore, it is inevitable that the prevalence of repeat victimisation will be underestimated as incidents of domestic abuse that were reported outside the time frame may not be considered.

## Results

Firstly, this section will describe the characteristics of domestic violence reported to the police.

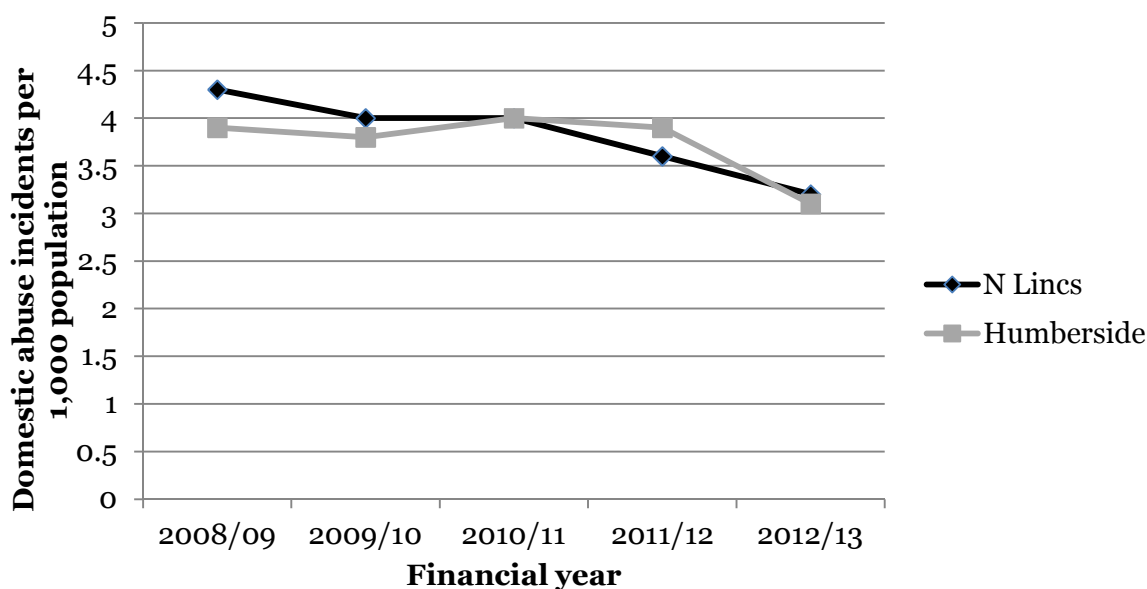
### Prevalence and incidence

The final data set detailed 3,222 offences against 2,433 individuals. The prevalence of domestic abuse during this time frame was 1.4%. This prevalence rate appears to be approximately similar to the national prevalence<sup>3</sup>. However, as police-recorded domestic abuse rates are not published as national statistics and the definition of incident regarded as domestic abuse may vary, it was not possible to verify this.

	North Lincolnshire		Humberside Police Force area	
Year	Count	% change*	Count	% change*
2008/09	726	.	3555	
2009/10	670	-7.7	3518	-1.0
2010/11	669	-0.1	3729	6.0
2011/12	614	-8.2	3594	-3.6
2012/13	543	-11.6	2854	-20.6

**Table 1.** Reported incidents of domestic abuse per financial year

\*In 2012, Humberside Police Force changed their definition of domestic abuse to exclude incident involving family members<sup>4</sup>



<sup>3</sup> <http://www.ons.gov.uk/ons/about-ons/business-transparency/freedom-of-information/what-can-i-request/previous-foi-requests/crime-and-justice/the-number-of-recorded-cases-of-domestic-violence-against-women-in-england/index.html>

<sup>4</sup> HMIC (2014). Humberside Police's approach to tackling domestic abuse. London: HMIC. Accessed 2 July 2014: <http://www.hmic.gov.uk/wp-content/uploads/2014/03/humberside-approach-to-tackling-domestic-abuse.pdf>

**Figure 1.** Trends in rate of domestic abuse incidents North Lincolnshire and Humberside Police Force Area, 2008/09–2012/13

### Gender of victim

Approximately 80% of individual victims were female. The prevalence of domestic abuse for females was 2.25% and for males, 0.6%.

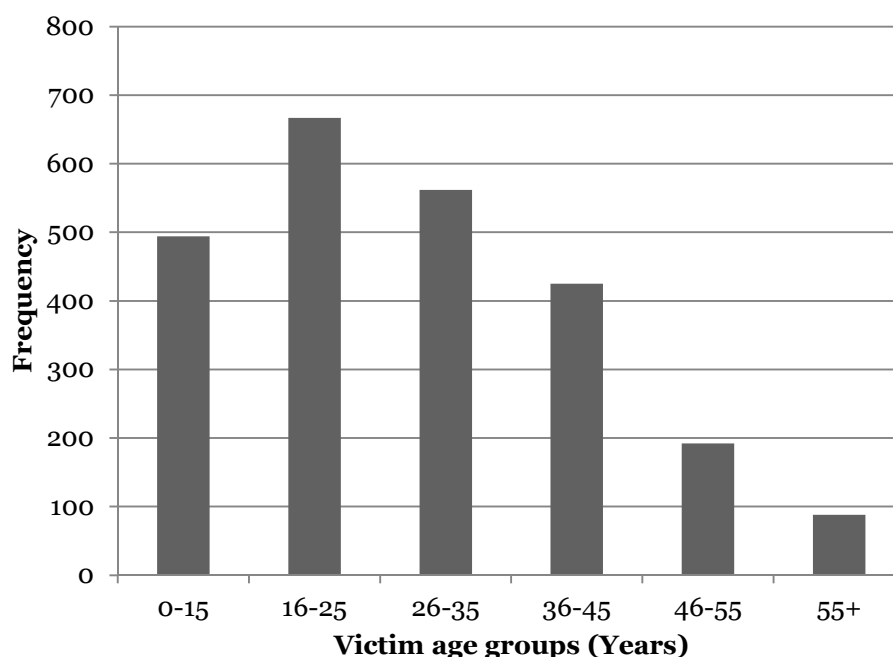
At the incident level, 82% of victims were female. In 0.06% of cases, gender was unspecified. This may have been the result of data entry error or an inability of the data system to record transgender.

### Age of victim

The median age of individual victims (at first reported incident) was 27 years. The age range of individual victims was 1 to 91 years. At the incident level, the median age of victims was 26 years.

Age group	Number of individual victims	%
0-15	494	20.4
16-25	667	27.5
26-35	562	23.2
36-45	425	17.5
46-55	192	7.9
56+	88	3.6
<b>Total</b>	<b>2,428</b>	<b>100.0</b>

**Table 2.** Age of individual victims at time of reporting first incident



**Figure 1.** Bar chart of age groups of victims at time of reporting first incident

### **Incident seriousness**

While there were a wide range of offences against the person within the data set, the vast majority (88%) of offences were classified as 'Common assault' or 'Wounding'. Of these incidents, 38.3% were classed as 'Common assault' and 61.8% were classed as 'Wounding'. These two types of violence can be broadly characterised as assault without injury and assault with injury, respectively<sup>5</sup> and were used as a proxy indicator of incident seriousness in the later analyses.

### **Alcohol involvement**

Alcohol was involved in approximately half (50.03%) of the incidents.

### **Repeat victimisation**

Victims reported an average of 1.32 victimisations. Approximately 19% (n=473) of the sample reported more than one victimisation within the time frame. Approximately 24% of incidents reported to the police were against victims who had previously told the police about domestic abuse against them.

The median time between first and second incidents was 297 days.

<b>Time</b>	<b>Count</b>	<b>Cumulative %</b>
Up to 1 day	14	3
Up to 1 week	30	6
Up to 4 weeks	65	7
Up to 1 year	279	59
Over 1 year	473	100

**Table 3.** Time between first and second incidents

### **Reporting victimisation to the police**

The median length of time between the first incident taking place and its being reported to the police was 1 day.

<b>Time</b>	<b>Count</b>	<b>Cumulative %</b>
Up to 1 day	1677	69
Up to 1 week	2134	88
Up to 4 weeks	2252	93
Up to 1 year	2399	99
Over 1 year	34	100

**Table 4.** Time between first incident and reporting of first incident

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<sup>5</sup> Offences against the person, incorporating the Charging Standard: Accessed 26 June 2014: [http://www.cps.gov.uk/legal/l\\_to\\_o/offences\\_against\\_the\\_person/](http://www.cps.gov.uk/legal/l_to_o/offences_against_the_person/)

## Comparison with Humberside Police Force area

The following results present the data for North Lincolnshire compared to Humberside Police Force area as a whole (i.e. including North Lincolnshire).

### Gender of victim

	% Male      Female	
<b>North Lincolnshire</b>	21.2	78.8
<b>Humberside Police Force area</b>	17.2	79.6

**Table 5.** Proportion of gender of victims by area

A chi-square test indicated that there was no statistically significant difference in the proportion of female victims between the two areas,  $\chi^2 = 0.69$ ,  $p=0.41$ .

### Age of victim

	Mean age (years)	Standard deviation
<b>North Lincolnshire</b>	32.6	0.25
<b>Humberside Police Force area</b>	32.9	0.11

**Table 6.** Average age of victim by area

A *t*-test indicated that there was no statistically significant difference in the average age of victims at time of reporting first incidents between the two areas,  $t=0.95$ ,  $p=0.34$ .

### Incident seriousness

	% Common assault      Wounding	
<b>North Lincolnshire</b>	38.3	61.8
<b>Humberside Police Force area</b>	34.5	65.5

**Table 7.** Proportion of seriousness of assaults by area

A chi-square test indicated that there was a statistically significant difference in the proportion of Wounding assaults between the two areas,  $\chi^2 = 14.5$ ,  $p<0.001$ . On average, domestic abuse assaults in North Lincolnshire were less serious than assaults in Humberside Police Force area as whole.

### Alcohol involvement

	% Alcohol involved      Alcohol not involved	
<b>North Lincolnshire</b>	50.8	49.2
<b>Humberside Police Force area</b>	50.0	50.0

**Table 8.** Proportion of alcohol involvement by area

A chi-square test indicated that there was no statistically significant difference in the proportion of alcohol-involved incidents between the two areas,  $\chi^2 = 0.62$ ,  $p=0.43$

## Repeat victimisation

		%
	Repeat victim	Not a repeat victim
North Lincolnshire	20.1	79.9
Humberside Police Force area	20.4	79.6

**Table 9.** Proportion of victims who reported more than one assault by area

A chi-square test indicated that there was no statistically significant difference in the proportion of repeat victims between the two areas,  $\chi^2 = 0.10$ ,  $p=0.76$

## Comparison by Gender – bivariate

The average age of male victims was 31.2 years, while the average age of female victims was 27.0 years. This was a statistically significant difference ( $t=6.1$ ,  $p<0.001$ ). On average, the first reported incident of violence (Common assault or Wounding) was more serious for males than for females ( $\chi^2=9.4$ ,  $p<0.01$ ). Sixty-eight per cent of males and sixty per cent of females reported wounding as opposed to common assault.

Females were 2.7 times more likely than males to report a second incident of victimisation (Odds ratio 2.7, 95% Confidence Intervals 2.0–3.7).

There was no difference between genders in the likelihood of alcohol involvement in the assault ( $\chi^2=0.04$ ,  $p=0.8$ ).

## Repeat victimisation – multilevel analyses

### Female victims

Victims aged between 26 and 35 years were at greatest risk of reporting a second victimisation. There was a negative linear relationship between age at first reported victimisation and likelihood of reporting a second victimisation suggesting that, on average, older women were less likely to report a second victimisation.

The involvement of alcohol in the first victimisation did not affect the likelihood of reporting a second victimisation (OR 1.25, 0.99–1.59).

The severity of the first incident did not predict the likelihood of reporting a second victimisation.

Within these wards, the likelihood of a victim reporting a second victimisation ranged between 10% (Axholme South) and 31% (Frodingham). However, statistically, no ward was more strongly associated with repeat victimisation than average and there was limited evidence of any shared propensity to report repeat victimisation within wards (Variance Partition Coefficient = 1.3%).

Ward index of mass deprivation score did not predict likelihood of repeat victimisation.

### **Male victims**

Victims aged between 0 and 16 years were at greatest likelihood of reporting repeat victimisation, but there was no statistically significant relationship between age and likelihood of reporting a second victimisation.

The involvement of alcohol during the first victimisation did not affect the likelihood of reporting a second victimisation (OR 1.8, 95% CI 0.9–3.6.).

The severity of the first incident did not predict the likelihood of reporting a second victimisation.

Within the wards, the likelihood of a victim reporting a second victimisation ranged between 0% and 15%. However, little should be interpreted by these seemingly large percentage differences as the small number of repeat victimisations across this sub-sample can lead to unstable estimates when a large number of covariates (e.g. 17 wards) are included in the analysis. Statistically, no ward was more strongly associated with repeat victimisation than average and there was limited evidence of any shared propensity to report repeat victimisation within wards (Variance Partition Coefficient = 1.7%).

Ward index of mass deprivation score did not predict likelihood of repeat victimisation.

## Conclusion

This report summarises a number of characteristics of victims and incidents of domestic abuse in North Lincolnshire Local Authority that were reported to the police between 2008/09 and 2012/13. The prevalence and characteristics of incident and victims in this area were found to be largely typical of the characteristics of incidents and victims in Humberside Police Force area, of which North Lincolnshire constitutes approximately 18%. There was a consistent decrease in reported domestic abuse across North Lincolnshire during this timeframe. However, it is unclear whether this resulted from an actual decrease in the incidence of domestic abuse or was a systematic decrease that resulted from a redefining of the inclusion criteria for domestic abuse by Humberside Police Force in 2012.

Nationally, approximately 27% of female and 10% of male victims of domestic abuse report this violence to the police<sup>6</sup>. Therefore, this data set is inevitably a biased underestimate of the extent of the problem. Furthermore, the number of incidents described in this data set is far smaller than the number of police-recorded incidents of domestic abuse<sup>7</sup>, suggesting that there are inconsistencies in the way that domestic abuse is defined within the force.

Accepting the limitations of the data, the results indicate that the characteristics of incidents and victims of violence in North Lincolnshire are similar to national and international trends in these characteristics. Females were more likely to report domestic abuse and the peak age for abuse was in the late-20's. Repeat victimisation was frequent and accounted for a large proportion of the incidents dealt with by the police. Likelihood of repeat victimisation did not cluster within neighbourhoods, regardless of relative deprivation, which demonstrates that domestic abuse is more dependent on the characteristic of the victims and the offenders than on their socioeconomic circumstances. This phenomenon makes prevention more difficult as social marketing, awareness campaigns and hot-spot policing cannot be targeted to high-risk areas. This means that domestic abuse prevention services must address this violence at the individual victim level rather than the community level.

Unfortunately, coming to the attention of such services usually requires at least one precipitatory experience of victimisation, making these services largely reactive rather than proactive in their prevention activities.

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<sup>6</sup> Office for National Statistics (2014). Chapter 4 – Intimate Personal Violence and Partner Abuse. London: Office for National Statistics. Accessed 3 July 2014: <http://www.ons.gov.uk/ons/rel/crime-stats/crime-statistics/focus-on-violent-crime-and-sexual-offences--2012-13/rpt---chapter-4---intimate-personal-violence-and-partner-abuse.html>

<sup>7</sup> <http://www.ons.gov.uk/ons/rel/crime-stats/crime-statistics/focus-on-violent-crime-and-sexual-offences--2012-13/rft-table-2.xls> Table 4.07

## **Appendix One**

Offences against the person eligible for inclusion within the data set.

Abandoning a child under two years of age, Abuse of children through prostitution and pornography, Aggravated burglary in a dwelling, Aggravated vehicle taking, Attempted murder, Child abduction, Common assault, Criminal damage endangering life, Cruelty to and neglect of children, Harassment, Hate incident - Not a Crime (Racial, Religious, Homophobia, Transphobia, Disability); Incest or familial sexual offences, Indecent assault female, Indecent assault male, Kidnap and false imprisonment, Miscellaneous harassment and public order, Murder, Other miscellaneous sexual offences, Racially or religiously aggravated crime, Racially or religiously aggravated harassment, Rape, Robbery, Sexual activity involving a child, Sexual activity involving a child under 13, Theft from the person, Threats and conspiracy to murder, Wounding or other act endangering life, Woundings - Injury - Firearms - Weapons – Harassment.

## **Appendix Two**

North Lincolnshire wards

Ashby; Axholme Central; Axholme North; Axholme South; Barton; Bottesford; Brigg and Wolds; Broughton and Appleby; Brumby; Burringham and Gunness; Burton upon Stather and Winterton; Crosby and Park; Ferry; Frodingham; Kingsway with Lincoln Gardens; Ridge; Town.