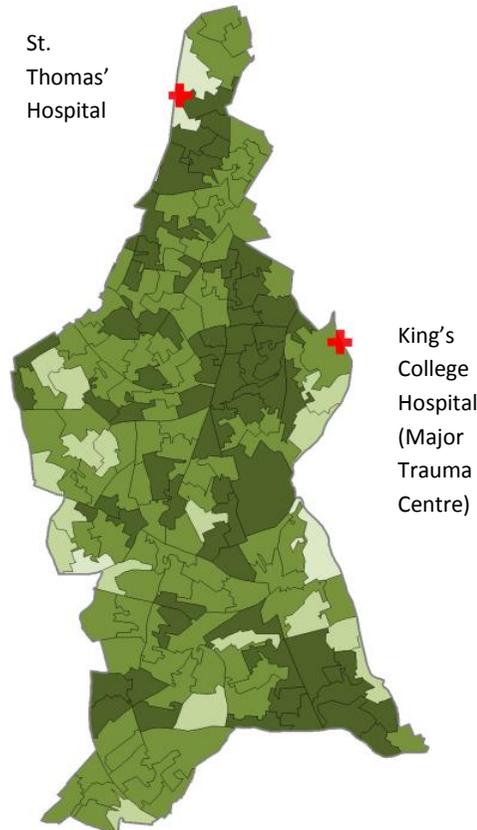
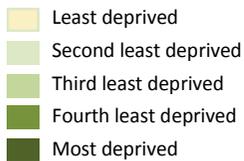


# Violence profile: Lambeth

## Use of NHS data in local violence prevention

This profile utilises five sources of NHS data to present a picture of violence in Lambeth local authority (LA). The profile aims to provide health and other professionals involved in violence prevention with an understanding of NHS data sources and their potential for informing local violence prevention initiatives. The profiles examine the extent of violence, trends, at-risk groups and communities, and circumstances of assault. The profile focuses on NHS data and does not therefore provide a full picture of violence within Lambeth.

*Figure 1: Lambeth LA by Lower Super Output Area (LSOA\*) showing variation in deprivation and the location of King's College and St. Thomas' hospitals.*



\* LSOAs are a set of geographical areas across England and Wales that are defined by population size (average population is 1,500).

### Box 1: Key findings

- In general, levels of violence have been decreasing for Lambeth LA in recent years. However, rates of violence were higher than the England average for a number of indicators.
- Assaults occurred most frequently from April to October (ambulance, A&E and hospital admissions data).
- Violence was most likely to occur on Saturdays and Sundays and between the hours of 4pm and 4am, largely reflecting assaults occurring on Friday and Saturday nights (ambulance and A&E data).
- Assaults were most likely to occur in public places (56%) or in the home (34%) (A&E data).
- The most frequent weapon used in an assault was a body part such as a fist or foot (43% of assaults; A&E data). Around 9% of ambulance call-outs for assault reported the use of a sharp object or a gun in the incident notes.
- The majority of people treated for assault-related injuries were male (~70%) and aged 10-39 (~30% were 20-29, ~20% 10-19 and ~20% 30-39) (ambulance, A&E, hospital admissions and TARN data).
- There was a concentration of assaults occurring within Clapham, Brixton and Vauxhall (ambulance data).
- Areas of Lambeth with higher deprivation levels also had significantly higher rates of A&E presentations for assault and hospital admissions for assault.

The NHS data sources used are: 1) ambulance service call-outs; 2) attendances to King's College Hospital Accident and Emergency Department (A&E); 3) Hospital Episode Statistics (HES) experimental A&E data; 4) HES hospital admissions; and 5) reports from the Trauma Audit and Research Network (TARN; clinical reports of severe trauma). For more information about the data sources used, see Table 2.

## Summary of violence

A summary of violence is presented in Table 1. Mortality data and police data have been presented alongside the NHS data sources to provide a rounded picture of violence. TARN data is not included in the summary table since there are known problems with the level of reporting (see page 8 for more information). “Hospital-based” A&E data refers to attendances to King’s College Hospital (regardless of a patient’s area of residence). Data from St. Thomas’ Hospital A&E has not been included in the summary table or throughout this report due to difficulties accessing this data source. “Residence-based” A&E data refers to attendances reported to the HES experimental A&E database and covers all attendances to an A&E department for residents of Lambeth LA (regardless of which hospital they attended). For more information about the data sources see page 8.

Table 1: Indicators of violence for Lambeth local authority.

	Number	Rate per 1,000 pop	England rate per 1,000 pop	% Change from previous 2 years	Direction of change
<b>Ambulance call-outs for assault-related incidents (2012/13)<sup>1</sup></b>	2458	7.92	na	-19.93	↓
<b>A&amp;E attendances for assault (hospital-based) (2012/13)<sup>3</sup></b>	2990	na	na	-16.20	↓
<b>A&amp;E attendances for assault (residence-based) (2010/11)<sup>2</sup></b>	1797	<b>6.31</b>	3.60	na	na
<b>Emergency hospital admissions for assault (2011/12)<sup>3</sup></b>	309	<b>1.01</b>	0.64	4.75	↑
<b>Deaths from assault (2011)<sup>4</sup></b>	<5*	nc	0.01	nc	nc
<b>Police-recorded violent crime (2011/12)<sup>5</sup></b>	7112	<b>25.00</b>	13.60	-8.80	↓
<b>Police-recorded sexual crime (2011/12)<sup>5</sup></b>	509	<b>1.79</b>	0.96	-9.11	↓

1. Data from the London Ambulance Service (NWS). Crude rate per 1,000 population (mid 2012 estimates, ONS), 2012/13.

2. Data from King’s College Hospital A&E. Attendances for assault (regardless of patient residence), 2012/13.

3. Data based on Hospital Episode Statistics (HES) A&E experimental dataset; experimental data created by the former North West Public Health Observatory ([www.eviper.org](http://www.eviper.org)). First attendances for assault by residents of Lambeth local authority, 2010/11. Crude rate per 1,000 population (mid 2010 estimates, ONS). Percent change has not been calculated since the adjusted data is only available for the one year.

4. Data from HES admitted patient care. Emergency hospital admissions for assault (ICD-10 codes X85-Y09) by residents of Lambeth local authority, 2011/12. Directly Standardised Rate per 1,000 population (mid 2011 estimates, ONS).

5. Data from ONS mortality database. Deaths from assault, 2011. Percent change has not been calculated due to very low numbers.

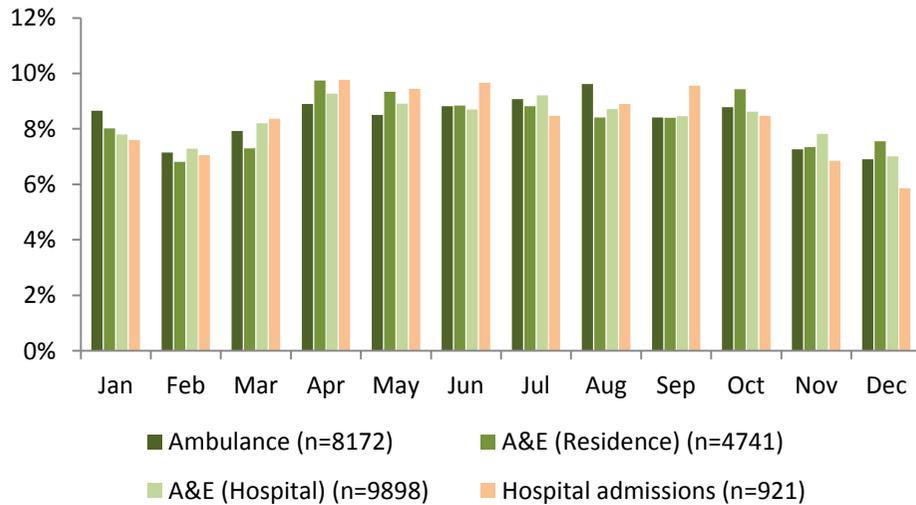
6. Data from police-recorded crimes, crude rate per 1,000 population (mid 2011 estimates, ONS), 2011/12.

Data in **red text** indicate that the value is significantly higher (statistically) than the England average. \* low numbers have been suppressed; na = not available; nc = not calculated.

## When is violence most likely to occur?

Figure 2 shows the percentage of assault-related incidents that fall within each month by data source. TARN data is not included due to problems with the level of reporting (see page 8). For all included data sources, the number of assaults appeared higher from April to October.

Figure 2: Percentage of assault-related incidents by data source, by month (three years combined data [see Table 2]).



Information on assault timings can be generated from calls to ambulance services. The time of presentation to the A&E can also be a proxy for assault time. The College of Emergency Medicine (CEM) recommend collecting information on assault time and date at A&E presentation (see Box 2), which would allow a more accurate understanding of the timings of assault. However, at the time of analysis this information was not collected by King's College Hospital A&E. The available data sources show that assaults took place most frequently between the hours of 4pm and 4am (Figure 3). Assaults occurred most frequently on Saturdays and Sundays (Figure 4), which reflects assaults occurring on Friday and Saturday nights.

Figure 3: Percentage of assault-related call-outs/attendances by data source, by hour (three years combined data [see Table 2]).

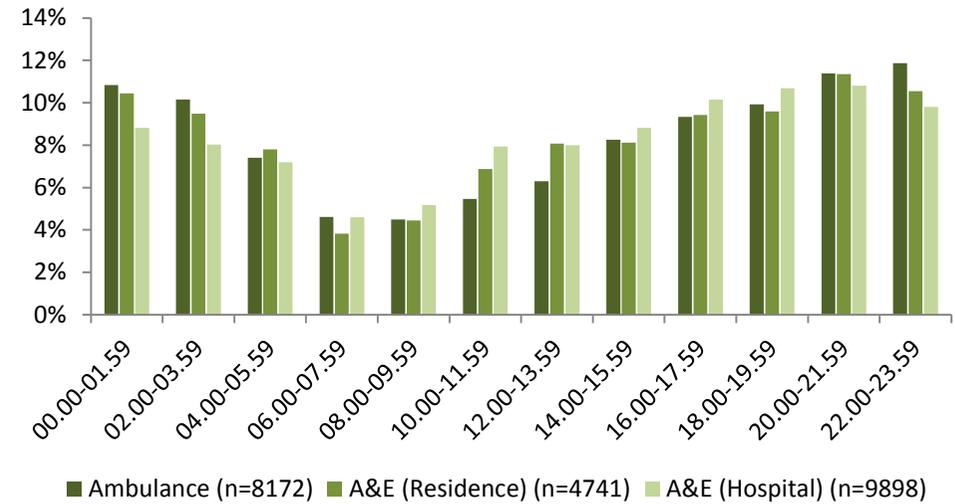
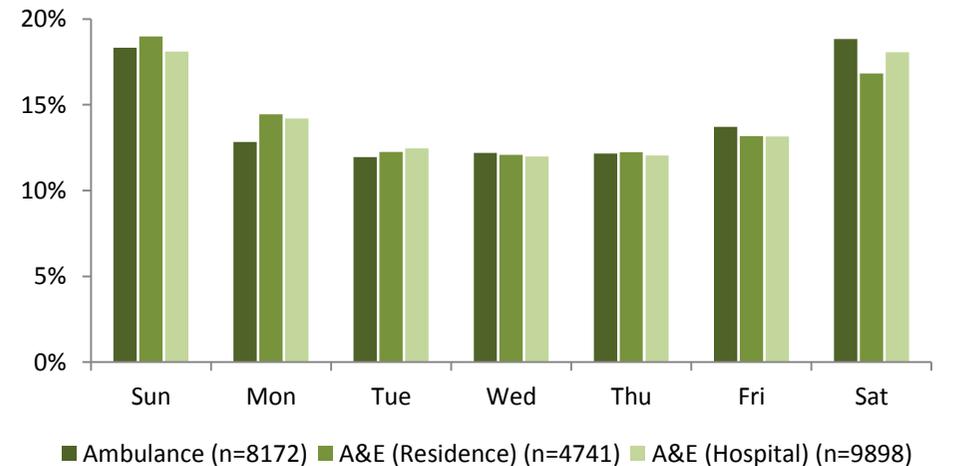


Figure 4: Percentage of assault-related call-outs/attendances by data source, by day (three years combined data [see Table 2]).



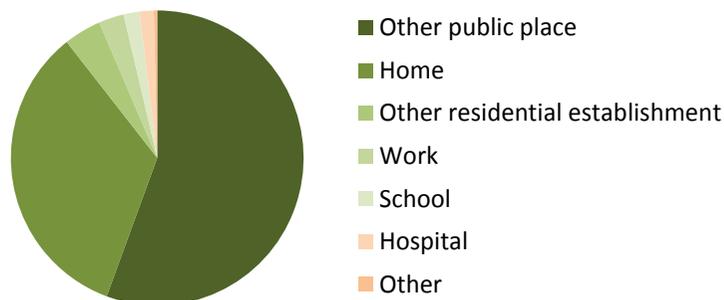
## Circumstances around violence

Information on the circumstances of violence can be obtained from King's College Hospital A&E, which collects CEM-recommended data (see Box 2) on all assaults treated at the department. Information can also be obtained from ambulance service data and through TARN.

### Location of assault

Data from King's College Hospital A&E records that where assault location was known (94%), the majority of assaults occurred in either a public place (56%) or at home (34%; Figure 5). TARN data (n=529) show that where assault location was known (86%), over half (54%) occurred on a road, a quarter (23%) within another (unspecified) public area, 16% at home and 7% in another (unspecified) location.

Figure 5: Location of assaults for presentations to King's College Hospital A&E (three years combined data; n=9898 [see Table 2]).

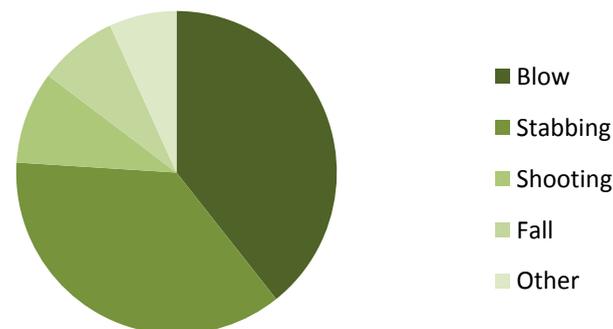


### Weapons used in assaults

Information on the weapons used in assaults can be extracted from King's College Hospital A&E, TARN and the ambulance service. Data from the A&E show that 43% of all assault attendances were caused (or partly caused, each presentation may record more than one weapon) by a body part (e.g. fist or foot). Almost a fifth of

assaults (18%) were caused by a blunt object, 11% by a knife, 7% through pushing or grabbing, 5% by a fall, 3% by glass and 2% by a bottle. For severe assaults (TARN data; Figure 5), the majority were caused either by a blow to the body (39%) or by a stabbing (37%). A further 9% were caused by a gun, 8% by a fall and 7% by another (unspecified) cause. Additionally, around 9% of assaults recorded by the ambulance service reported use of a knife or gun in the incident notes.

Figure 5: Mechanism of severe assault reported through TARN at King's College and St. Thomas' (three years combined data; n=529 [see Table 2]).



### Box 2: CEM-recommended data at King's College Hospital and St. Thomas' Hospital Accident and Emergency Departments

The College of Emergency Medicine (CEM) has produced guidelines for information sharing at A&Es to reduce community violence. These guidelines promote collection of the following additional data fields by receptionists: the **date and time** of assault, the **location** (name of pub, school or street) and the **weapon** used. In September 2014, the Health and Social Care Information Centre developed an information standard on A&E information sharing to tackle violence<sup>1</sup>, including the CEM-recommended questions, along with the time and date of the A&E attendance. At the time of analysis, both King's College and St. Thomas' Hospitals collected information on the weapon used and the location of assault (although King's College Hospital A&E contained more detailed location information). St. Thomas' Hospital A&E collected information on the time since the assault (e.g. less than 6 hours, 6-15 hours, 15-24 hours) which can provide some indication of when the assault took place.

<sup>1</sup>Available from: <http://www.isb.nhs.uk/documents/isb-1594/amd-31-2012/1594312012spec.pdf>

## At-risk groups

Health data can be used alongside police data on victims and offenders (Box 3) to better understand which groups of the community are most affected by violence. Figures 7 and 8 show that the majority of people treated for assault-related injuries were male, with data for the most severe cases (hospital admissions and TARN) showing slightly higher percentages for males than other sources. The majority of assault victims were aged between 10 and 39 years of age, with the highest frequency of cases seen in the 20-29 age group.

Information on ethnicity can be extracted from hospital admissions data and show that where ethnicity is known (85%), 42% of assault patients were White (23% British, 19% other White background), 41% were Black/Black British (12% Caribbean, 8% African, 21% other Black background), 5% were mixed race, 4% were Asian/Asian British and 8% were of another ethnic group.

Figure 7: Percentage of assault-related incidents by data source, by sex (three years combined data [see Table 2]).

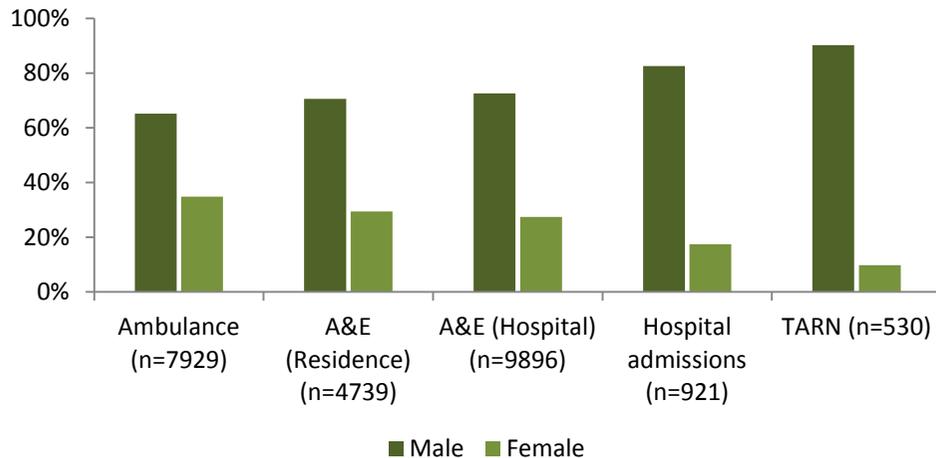
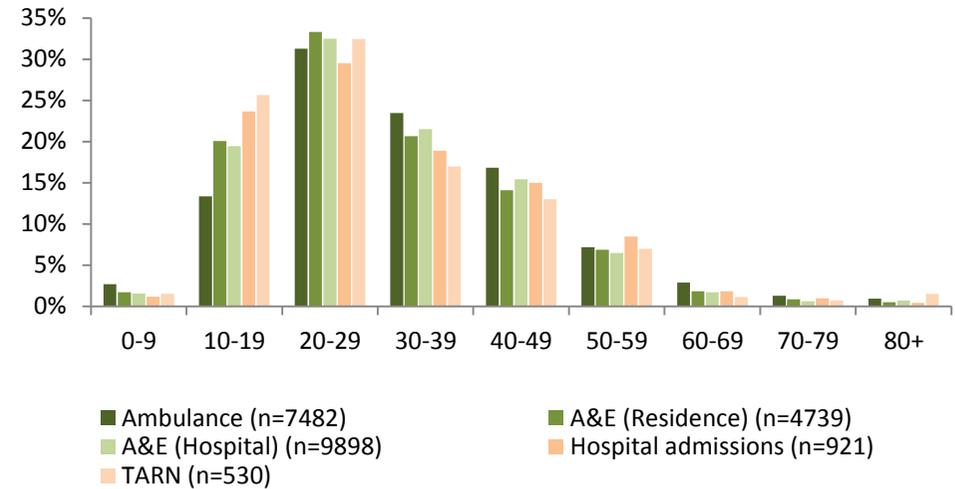


Figure 8: Percentage of assault-related incidents by data source, by age-group (three years combined data [see Table 2]).



### Box 3: Police data for perpetrators and victims

Data from London Metropolitan Police show that the majority of assault perpetrators and victims were aged 10-39 years (76% and 72% of cases respectively). The most frequent age category for both perpetrators and victims was 20-29 years (31% for both groups). Although the ethnicity of victims was unknown in about half of cases, the ethnicity of offenders was largely complete (95%). Here, 54% of offenders were Black/Black British (25% Caribbean, 15% African, 14% other Black background), 33% were White (19% White British, 14% other White background), 7% were of mixed race, 3% were Asian/Asian British and 3% were of another ethnic background.

## At-risk locations and communities

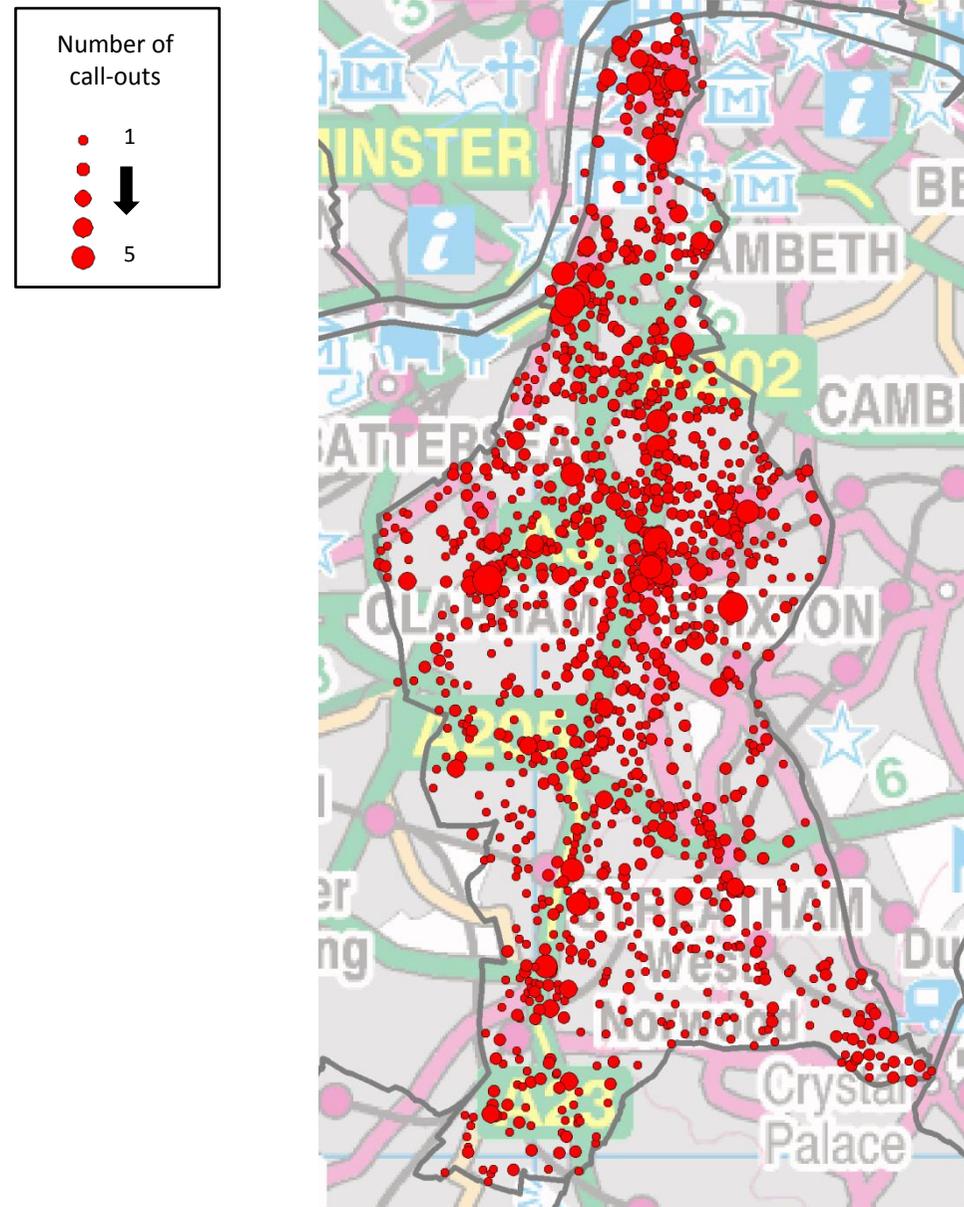
Health data can be used to identify where assaults take place and which communities are most at risk. Data from the ambulance service (Figure 9) records the location of call-outs for assault-related incidents. This map shows a wide spread of assaults across the local authority but a concentration of assaults in Clapham, Brixton and Vauxhall. CEM-recommended data from both King's College Hospital and St. Thomas' Hospital A&E also have the potential to identify the location of assault and so hotspot areas for intervention. However, this would require further work to identify x and y co-ordinates from the location descriptions (see Box 4).

Figures 10 and 11 show the rate of A&E presentations for assault and the rate of hospital admissions for assault by Lower Super Output Area (LSOA) of residence. These maps can help identify areas of Lambeth that would benefit most from violence prevention initiatives. Areas of Lambeth with higher deprivation levels (Figure 1) also have significantly higher\* rates of A&E presentations for assault and hospital admissions for assault.

### Box 4: Mapping the location of assaults from CEM-recommended A&E data

At the time of analysis, a pilot was being undertaken with the GLA (Greater London Authority) SafeStats to convert the information recorded in the location of assault field (collected through CEM-recommended A&E data) into x and y co-ordinates. This will allow assault locations to be mapped and enable hotspot locations for assault to be identified. This project includes data collected from King's College Hospital A&E, St. Thomas' Hospital A&E and Homerton University Hospital.

Figure 9: Location of ambulance call-outs for assault-related incidents within Lambeth LA, 2012/13.



\* Using Analysis of Variance (ANOVA).  $F=32.56$  ( $p<0.01$ ) for A&E presentations and  $F=9.68$  ( $p<0.01$ ) for hospital admissions.

Figure 10: Crude rate of A&E attendances for assault by LSOA of patient residence within Lambeth LA, 2009/10-2011/12.

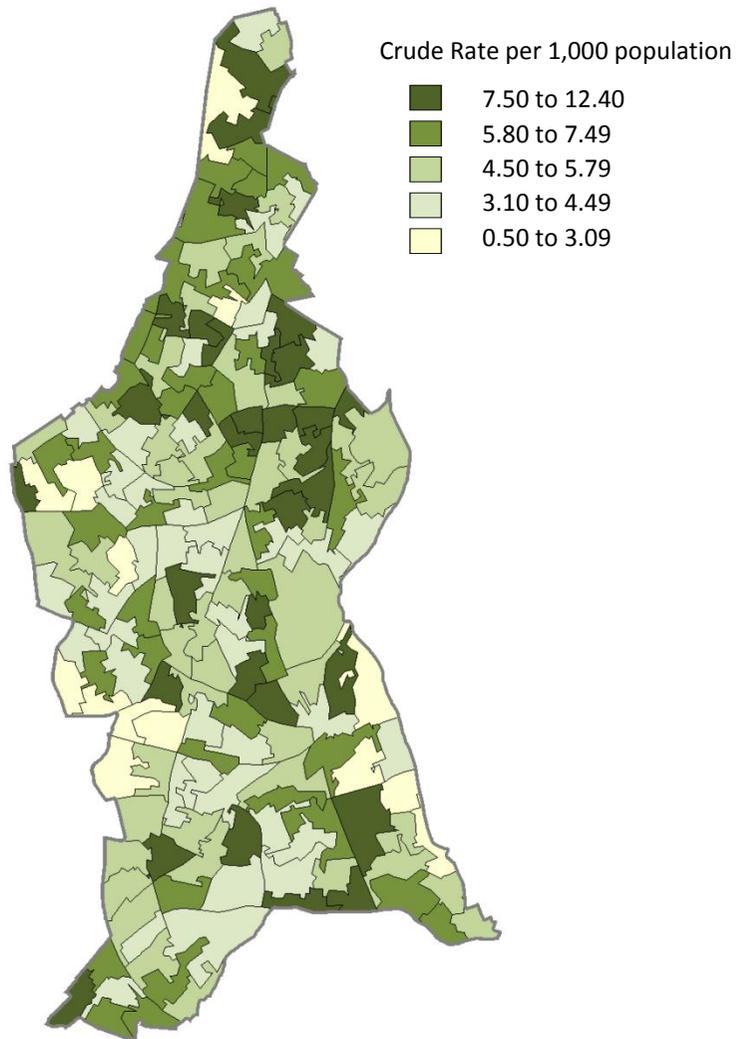
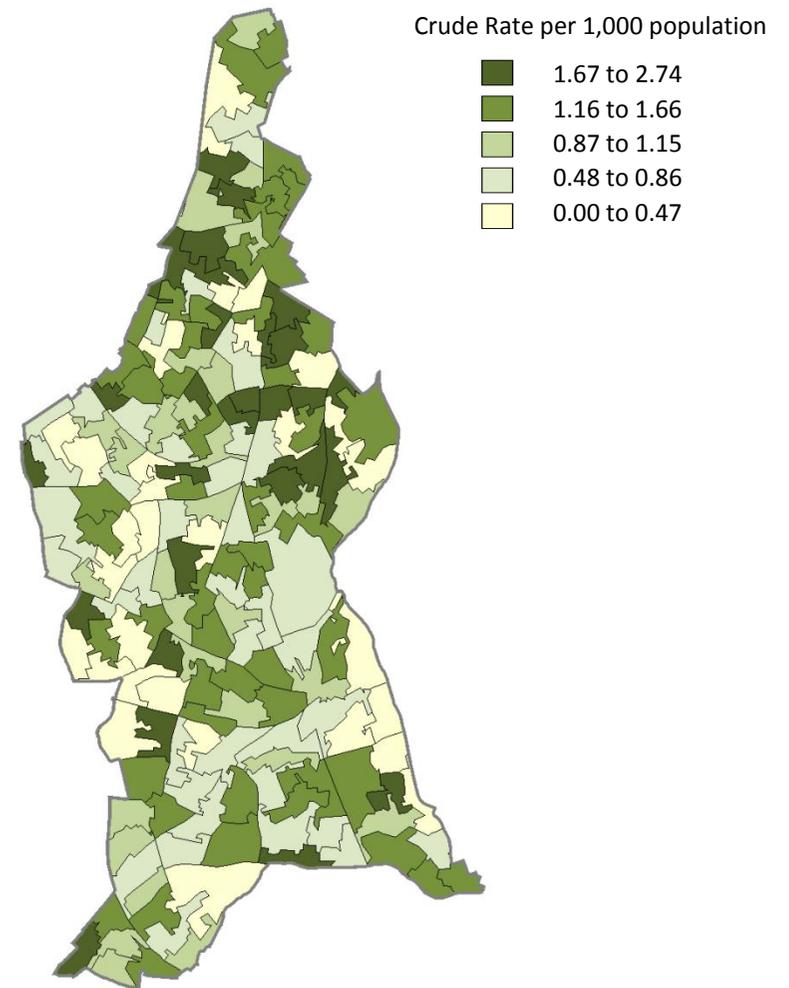


Figure 11: Crude rate of hospital admissions for assault by LSOA of patient residence within Lambeth LA, 2009/10-2011/12.



## NHS data sources

A summary of the data sources used in this report is shown in Table 2, based on information from: Quigg et al. *Health data for violence prevention manual: A manual for community safety partnerships and other violence prevention partners, 2013.*

Table 2: Summary of NHS data sources.

Data source	Availability and access	Data fields available	Notes
1. Ambulance call-outs	Data available via the North West Ambulance Service.	Variables include patient demographics, reason for the call-out, call-out time and date and call-out location	Years 2010/11 to 2012/13. Analysis was restricted to all ambulance call-outs within Lambeth local authority for “assault” or “stab/gunshot”.
2. King’s College Hospital A&E (A&E hospital)	Data are shared regularly with local partners (e.g. CSP, public health and police). Bespoke data extracts are available from the A&E.	Variables include patient demographics, date and time of presentation, assault location and assault weapon.	Years 2010/11 to 2012/13. This dataset includes all patients presenting to King’s College Hospital A&E regardless of their area of residence. Analysis was restricted to all patients presenting with an injury caused by assault.
3. HES experimental A&E database (A&E residence)	Local authority level data are available via the Violence Indicator Profiles for England Resource (VIPER) <a href="http://www.evipер.org.uk">www.evipер.org.uk</a> . Bespoke data extracts/analyses are available via the Health & Social Care Information Centre (HSCIC) <a href="http://www.hscic.gov.uk/hes">www.hscic.gov.uk/hes</a> .	Variables include patient demographics, incident type, date and time of presentation and LSOA of residence.	Years 2009/10 to 2011/12. This dataset is published as experimental since although coverage was improving year on year, some data quality and coverage issues still remained. The data includes all Lambeth local authority residents presenting to an A&E in England regardless of which hospital they attended. Analysis was restricted to all patients presenting with an injury caused by “assault”.
4. HES Hospital admissions	Local authority level data are available via the Violence Indicator Profiles for England Resource (VIPER) <a href="http://www.evipер.org.uk">www.evipер.org.uk</a> . Bespoke data extracts/analyses are available via the Health & Social Care Information Centre (HSCIC) <a href="http://www.hscic.gov.uk/hes">www.hscic.gov.uk/hes</a> .	Variables include patient demographics, admission date and method and cause of hospital admission.	Years 2009/10 to 2011/12. This dataset includes information on all hospital admissions to NHS hospitals including private patients and admissions of NHS patients who are treated elsewhere. The data includes all Lambeth residents presenting to a hospital in England regardless of which hospital they attended. Analysis was restricted to ICD-10 codes X85-Y09 and emergency admissions only.
5. Trauma Audit and Research Network (TARN)	Bespoke data extracts are available from TARN <a href="http://www.tarn.ac.uk">www.tarn.ac.uk</a> .	Variables include patient demographics, type of injury (blunt or penetrating), injury mechanism (e.g. stabbing, shooting), and injury location (e.g. home, office).	Years 2010 to 2012. This dataset records clinical records of severe trauma (e.g. a length of stay in hospital of 72 hours or more). Analysis was restricted to patients where the cause of injury is assault or intent inconclusive. There are issues with data coverage: the number of cases recorded for King’s College Hospital and St. Thomas’ Hospital is lower than expected (69% of expected cases).

## About the profiles

Recognising the valuable role that NHS data can play in addressing the growing problem of gang and youth violence in some English cities, the Coalition Government has prioritised work to improve data sharing on violence within hospitals, and particularly A&Es. The Department of Health is currently running a programme to support A&Es with collecting a minimum data set (see Box 2) and sharing this with Community Safety Partnerships.

This violence profile forms part of a wider, three-year project funded by the Department of Health that aims to identify and support the optimum use of NHS data in local violence prevention, and to identify the impacts of local NHS data sharing on levels of violence. Nine local authorities in the North West and London are participating in the project. For more information visit: <http://www.cph.org.uk/optimising-the-use-of-nhs-intelligence-in-local-violence-prevention-and-measuring-its-impact-on-violence/>

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