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## A case study to demonstrate the use of health data in violence prevention within the voluntary and community sector: Local Solutions

Produced as part of the Department of Health funded project Optimising the use of NHS intelligence in local violence prevention and measuring its impact on violence

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July 2015

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ISBN: 978-1-910725-11-5 (web)



## 1. Background

Anonymised health data can play an important role in informing interventions to prevent violence. This data can be analysed to measure the type and extent of violence in a local area, and identify: long term trends; when assaults are most likely to occur; hotspot locations for violence; at-risk populations and communities; and the circumstances of assault (further information on how health data can be used within local violence prevention is available from: *A guide to using health data to inform local violence prevention*<sup>1</sup>).

Nationally, there has been a drive for statutory agencies to use health data to inform violence prevention activity. In 2010, to help target gun and knife crime, the UK Coalition Government made a commitment to accident and emergency department (A&E) data sharing<sup>2</sup>. This was accompanied by a national programme of work to support A&Es to collect additional information on violence and to establish data sharing pathways with community safety partnerships (CSPs) and police.

In 2014, an Information Standard<sup>3</sup> was developed by the Health and Social Care Information Centre (HSCIC) which outlined that for all attendances resulting from violent incidents, A&Es should collect a minimum set of data fields including:

- Date/time of assault;
- Date/time of A&E attendance;
- Specific assault location (e.g. street name); and,
- Weapon (or body part) used.

This follows recommendations for collaboration between A&E departments and CSPs to share non-confidential data on attendances made by the College of Emergency Medicine (CEM)<sup>4</sup>. The 'Cardiff Model', a data sharing system set up by the Cardiff Violence Prevention Programme, found that this approach led to a substantial and significant

reduction in hospital admissions related to violence<sup>5</sup>. Similar processes for the use of health data have been developed and implemented elsewhere (e.g. North West Trauma and Injury Intelligence Group [TIIG]<sup>6</sup>; Violent Crime Task Group [Cambridge]<sup>7</sup>). Examples of the use of health data within local violence prevention include informing: the targeting of alcohol licensing enforcement<sup>6</sup>; licensing reviews<sup>8</sup>; violence prevention initiatives<sup>9</sup>; identifying and supporting victims of domestic violence<sup>9-12</sup>; and supporting police operations<sup>11</sup>.

Many A&Es across England have adopted this approach to sharing health data for violence prevention<sup>8-12</sup>. Whilst the focus has been on sharing data with statutory agencies, in some areas data have been shared with voluntary and community groups to help inform their violence prevention activity and service planning. For example, health data has been used by non-governmental organisations to identify communities with high levels of self-harm to target mental health awareness and support services<sup>6</sup>. Voluntary and community groups implement a number of interventions to prevent violence and consequently there are benefits of sharing this information with them for their local prevention activity.

## 2. Accessing health data

To explore the potential use of health data in violence prevention activity by Local Solutions (see Box 1), a meeting was held between project researchers (based at the Centre for Public Health [CPH], Liverpool John Moores University) and the head of domestic abuse services at Local Solutions. The initial meeting highlighted the type, availability and accessibility of health data at a local level (i.e. Liverpool Local Authority [LA] Area; see Appendix 1), demonstrated what additional information health data could provide, and how it could be used by Local Solutions within their domestic violence support service. Although data on domestic violence is not routinely collected in A&Es, the large majority of A&Es collect information on injury location which includes the home as an option.

**Box 1: Optimising the use of NHS intelligence in local violence prevention and measuring its impact on violence, Local Solutions**

This case study forms part of a broader three year study (July 2012 to June 2015): *Optimising the use of NHS intelligence in local violence prevention and measuring its impact on violence*, of which Local Solutions is a partner and steering group member. The project aims to identify and support the use of non-identifiable health data in local violence prevention. In nine study sites across the North West of England and London, researchers have used health data to produce local violence profiles (see [www.cph.org.uk/optimising-the-use-of-nhs-intelligence-in-local-violence-prevention-and-measuring-its-impact-on-violence](http://www.cph.org.uk/optimising-the-use-of-nhs-intelligence-in-local-violence-prevention-and-measuring-its-impact-on-violence)) and produced case studies demonstrating how data sharing pathways have been developed and how health data have informed multi-agency violence prevention. This document outlines how health data has been used in violence prevention at a local level by Local Solutions, a voluntary and community sector organisation. The case study provides details of the A&E data that were accessed, analysed and shared with Local Solutions, how the data was used to identify where violence prevention and victim support activities could best be targeted and the outcomes of this.

Established in 1974, Local Solutions is a charity which aims to improve the quality of life for vulnerable and excluded people. Local Solutions deliver a range of services across the North West of England and North Wales which include providing support to victims of domestic violence e.g. an Independent Domestic Violence Advisory (IDVA) Service for all high risk victims/survivors of domestic violence, risk assessments, safety planning, crisis intervention, applications for target hardening, practical and emotional support, court support, and Multi-agency Risk Assessment Conference (MARAC) representation.

Thus, assaults occurring in the home were considered as a possible proxy measure for identifying potential cases of domestic violence. It was acknowledged that such A&E data would enable Local Solutions to gain more information on severe cases of violence occurring in the local area and enable interventions to be targeted more effectively. For example, data have the potential to identify both groups and communities that are most at-risk of an assault in the home leading to an A&E attendance.

Across Merseyside, where the Local Solutions domestic abuse services are located, A&Es routinely collect and share data on patients treated for assault-related injuries with local partners via the TIIG. Thus, following the initial meeting, data from the Royal Liverpool Hospital A&E and the University Hospital Aintree A&E (the A&Es within the LA) on assaults in the home were accessed from TIIG (situated within the CPH) for the period of January 2011 to December 2012. Whilst it is possible that Liverpool residents may attend A&Es elsewhere in the county, a large proportion of attendances to these A&Es are Liverpool residents<sup>13</sup>.

### 3. Analysis of health data

Analysis of data was completed by researchers at LJMU and a report was shared with Local Solutions. The report utilised different data sources including Hospital Episode Statistics (HES) data, ambulance call out data and A&E attendance data (see Appendix 1). The report outlined information on assaults, identifying: who violence affects (age group, gender and ethnicity); when violence takes place (attendance month and day); and where violence takes place (assault location: home, leisure facility, public place, work and other). Analysis also included attendances for assault by Lower Super Output Area (LSOA)<sup>a</sup> of patient's residence and a map detailing the location of ambulance call outs for assault.

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<sup>a</sup> LSOAs are a set of geographical areas across England and Wales that have a population size of roughly 1,500.

Researchers combined the data from the Royal Liverpool Hospital and the University Hospital Aintree (Liverpool residents only) for a more detailed examination of the demographics and area of residence of those treated for assaults that occurred in the home. Overall, between January 2011 and December 2012, 1189 residents of Liverpool were treated for an assault that occurred in the home (Table 1) across the two A&Es. Four in ten (43%, 509/1189) of attendees were female and the majority were aged between 15 and 49<sup>b</sup>, with a peak in the 20-24 age group for both females and males (Figure 1).

**Table 1: Assault cases presenting to the Royal Liverpool Hospital and the University Hospital Aintree, January 2011 and December 2012.**

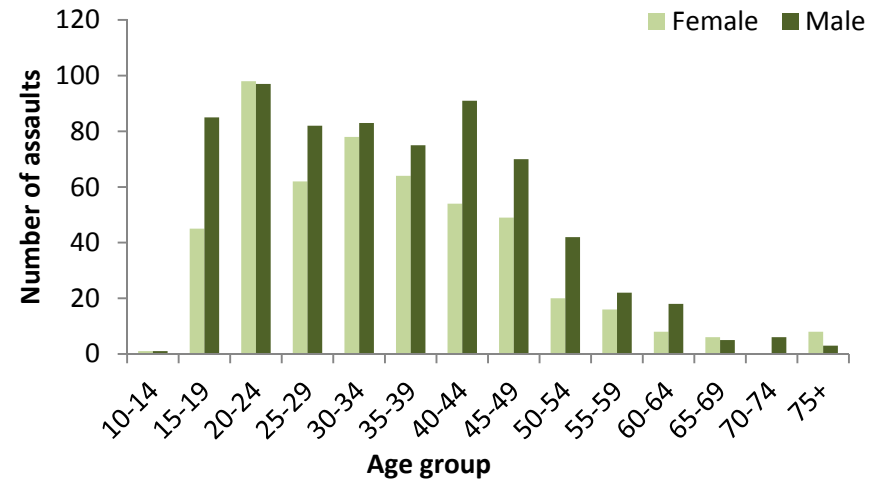
| Hospital                    | Number of assaults | Number (and %) of assaults that occurred at home | Number of Liverpool residents treated for an assault that occurred at home |
|-----------------------------|--------------------|--|--|
| Royal Liverpool Hospital    | 3879               | 897 (23%)  | 815  |
| University Hospital Aintree | 4291               | 951 (22%)  | 374  |
| <b>Total</b>                | <b>8170</b>        | <b>1848 (23%)</b>                                | <b>1189</b>  |

The A&E datasets include information on an attendee’s Middle Super Output Area (MSOA)<sup>c</sup>. The assault data was broken down by MSOA and rates of assault occurring in the home (per 100,000 population) for each area were calculated. Four MSOA’s were identified as having the highest rate of A&E attendances for an assault that occurred in the home.

<sup>b</sup> It is likely that attendees aged 15 or less will have attended Alder Hey Children’s Hospital for treatment (data not included in the analyses).

<sup>c</sup> A geographical area based on population size of 7,200. Within Liverpool Local Authority Area there are 59 MSOAs.

**Figure 1: Number of attendees for assaults in the home (Liverpool residents) presenting to the Royal Liverpool Hospital and the University Hospital Aintree, January 2011 to December 2012, by age group and gender.**



#### 4. Local Solutions use of health data within violence prevention

A meeting was held between LJMU researchers and the head of domestic abuse services at Local Solutions to discuss the findings from the data analysis. The data identified at risk groups, however Local Solutions were able to identify cases of assault that had occurred at the home (potentially domestic abuse incidents) that Local Solutions felt they may be otherwise unaware of. Thus, the A&E data was used by Local Solutions to support two areas of work including to: obtain a greater understanding of the extent of domestic abuse in the area and improve service referral from A&E; and highlight the need for domestic abuse services aimed at younger and older people.

#### **4.1. Improve service referrals from A&E**

Despite referral processes being in place between the University Hospital Aintree and Local Solutions, no cases had been referred to Local Solutions for this time period (during which there were 374 attendances for assaults that occurred in the home). Following the identification in the data of cases for assault in the home, a meeting was held between Local Solutions and the Safeguarding lead for the Hospital where Local Solutions presented the data they had received.

Discussions at this meeting focussed on ensuring that staff in the A&E were made aware of the referral pathways for cases of domestic violence, and their responsibilities in safeguarding and domestic homicide reviews. As a result of these discussions, a training programme was developed by Local Solutions, similar agencies from neighbouring LAs, and the hospital and delivered over five days to A&E staff. This training was attended by 150 staff members, from front line administrative booking in staff through to staff nurses, doctors and surgeons. Equivalent partner agencies to Local Solutions and Independent Domestic Violence Advisors (IDVAs) from neighbouring local authorities also delivered the training to ensure that referrals were made to the most appropriate service based upon their area of residence.

The training was interactive, covering: what domestic abuse is; the dynamics of domestic abuse; the impact of it on victims and their children; the risk assessment process; levels of risk; and referral pathways. The training also contained anonymised real life case studies and outlined what the Local Solutions service and equivalent partner services in neighbouring areas do and the response that they provide for cases of domestic violence from a multi-agency perspective.

As a follow up to the training programme a leaflet for A&E staff was compiled (see Appendix 2), which highlighted the IDVA service across Merseyside, referral pathways and the role of the MARAC (Multi-Agency-Risk-Assessment-Conference). This was created by Local Solutions with

input from partner services and was distributed to health professionals within Aintree Hospital. Subsequently as a result of the training and ongoing communication, referrals to Local Solutions increased. It is unknown if referrals have increased to other partner agencies in Knowsley and Sefton.

Consequently, stronger relationships have been developed and maintained between Local Solutions and Aintree Hospital. As a result of this the Safeguarding lead at Aintree Hospital is now a Clare's Law panel member (The Domestic Violence Disclosure Scheme<sup>d</sup>). It has also been recognised that there is potential to introduce an annual refresher session for this training due to staff turnover within the Hospital; discussions for this are ongoing.

#### **4.2. Highlight the need for domestic abuse services aimed at younger and older people, and develop referral pathways**

The data analysis identified a cohort of older (60 plus) Liverpool residents who had attended the Royal Liverpool Hospital or the University Hospital Aintree between January 2011 and December 2012 for assaults in the home. This was an 'unknown' cohort to the Local Solutions service and no referrals had been made amongst this age group in previous years. To address this, Local Solutions contacted the Liverpool 'older people's forum' and arranged to meet with the group to discuss the findings, available support and referral pathways. A formal presentation was provided followed by in-depth discussion of: the extent of domestic abuse amongst older people; issues in identification and reporting; signs of domestic abuse; and how partners could improve services and referral pathways to both identify and support victims.

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<sup>d</sup> The domestic violence disclosure scheme was implemented across England and Wales on 8th March 2014. For more information see <https://www.gov.uk/domestic-violence-and-abuse#domestic-violence-disclosure-scheme>

Discussions focused on the need to highlight the extent of domestic abuse amongst older people, so that agencies and those working directly with older people are aware of it and know how to recognise the signs of abuse. Specifically it was acknowledged that staff (e.g. carers) training may be required to ensure that they are aware that older people may be at risk of domestic abuse, are able to recognise the signs and know what to do if they suspect or are made aware of such abuse. Further, it was felt that more work was needed to raise awareness amongst older people of issues around domestic abuse and how they can access help and support. The links made between Local Solutions and the forum has meant that key partners involved in supporting older people are now more aware of the referral pathways. Consideration of domestic abuse amongst older people is also being included in future action plans developed by the group.

Young people were also identified as at risk of A&E attendance due to assaults occurring in the home. Whilst Local Solutions were aware of domestic abuse occurring locally amongst this age group, it was felt that more needed to be done at a local level to identify and support this cohort. Thus, findings were presented and discussed at the local Violence Against Women and Girls forum. This is a strategic group with representatives from Liverpool City Council, Merseyside Police, probation, Liverpool Charity and Voluntary Services, and Health (Liverpool Women's Hospital). The data was used to support discussions at the forum for the need to secure the provision of local services for young people.

## 5. Lessons learnt

The feedback from Local Solutions towards the use of anonymised health data was very positive. The service accepted that although the data for assaults in the home was only a proxy for cases of domestic violence, it flagged areas where work was needed to ensure that potential cases of domestic violence are referred to appropriate services. This was particularly so for groups at-risk of assaults in the home that had not been previously considered by Local Solutions. Finally, the process

identified the need to build stronger relationships with A&Es and other services, and share knowledge of the issues of domestic violence across the area, and available support and referral mechanisms. The examples of the use of health data by Local Solutions demonstrate how health data can be used by community and voluntary organisations at a local level within violence prevention activity to ensure that appropriate services and interventions exist for at risk groups.

*“The data provided by LJMU has been invaluable. The city of Liverpool has high numbers of reported domestic abuse which, as a city made up of some fabulous services, works hard to combat this. However, reviewing the data analyses has clearly demonstrated that even though we have high numbers reported this may not be fully reflective of the demographic impact of domestic abuse. This data has given us a clear indication of the work we now need to do to ensure that we are being fully inclusive and extending our reach as a service to those who may be invisible before it reaches hospital stage and that those who attend hospital are offered the support they need”.*

The Head of Domestic Abuse Services, Local Solutions

## 6. How to access health data

Health data sources available at a local level which can be useful to local violence prevention activity include: local A&E data; HES (Hospital Episode Statistics) experimental A&E data; HES hospital admissions data; and ambulance service data. The type of information collected through each source varies and each data source can be used in different ways (see Appendix 1). For further information on how health data can be accessed and used within local violence prevention, see: A guide to using health data to inform local violence prevention<sup>1</sup>.

## References

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## Acknowledgements

We would like to thank all partners involved in the project *Optimising the use of NHS intelligence in local violence prevention and measuring its impact on violence*, from which this case study has been developed for their time and support. We would like to thank colleagues from the Department of Health, and Local Solutions for comments on an earlier draft of this document. We would also like to thank Laura Heeks and Hannah Grey for their support in producing the final document.

## Appendix 1 – Data sources available for Liverpool Local Authority\*

| Data source   | Where data can be accessed?        | Relevant data fields  |
|---|------------------------------------|---|
| <b>A&amp;E data for assaults in the home</b>                                | Via <b>TIIG</b> .                  | <ul style="list-style-type: none"> <li>• Patient age</li> <li>• Patient sex</li> <li>• Ethnicity</li> <li>• LSOA of residence</li> <li>• Date and time of attendance</li> <li>• Injury location (e.g. home)</li> <li>• Assault location**</li> <li>• Relationship to perpetrator**</li> <li>• Assault weapon**</li> <li>• Location of last drink**</li> </ul> |
| <b>A&amp;E data for assaults from the HES National A&amp;E HES database</b> | Via <b>HSCIC</b> .                 | <ul style="list-style-type: none"> <li>• Patient age</li> <li>• Patient sex</li> <li>• Ethnicity**</li> <li>• LSOA of residence</li> <li>• Date and time of attendance</li> <li>• Injury location (e.g. home)</li> <li>• Source of referral</li> <li>• Electoral ward</li> <li>• Index of multiple deprivation</li> </ul>                                     |
| <b>Emergency hospital admissions for assault from HES admissions data</b>   | Via <b>Public Health England</b> . | <ul style="list-style-type: none"> <li>• Patient age</li> <li>• Patient sex</li> <li>• Ethnicity</li> <li>• LSOA of residence</li> <li>• Date and duration of admission</li> <li>• Electoral ward</li> <li>• Index of multiple deprivation</li> </ul>   |
| <b>Ambulance callouts for assault related incidents</b>                     | Via <b>TIIG</b> .                  | <ul style="list-style-type: none"> <li>• Patient age (around 20% unknown)</li> <li>• Patient sex (around 10% unknown)</li> <li>• Date and time of call-out</li> <li>• Location of call-out</li> <li>• Free text around the nature of the assault</li> </ul>   |

\* Relevant data fields were selected as they could help provide a greater understanding of violence in the area.

\*\*Completion rates for these fields are often low.



## Appendix 2 – Leaflet for health staff

### Independent Domestic Violence Advocacy Services

There are 5 IDVA Services across Merseyside

- All IDVA Services work with victims who've been assessed as high risk of serious injury or murder
- All follow the same basic principles when working with victims
- All work alongside the police and the majority of referrals to IDVA are from the police BUT any professional can refer to IDVA and MARAC if they believe the victim is high risk
- All IDVA Services work with Male & Female victims from the age of 16yrs (Liverpool also have a Young Person's IDVA)
- The main aim of IDVA Services is to assess, manage and reduce risk, safety plan, coordinate interventions to reduce risk and support victim by advocating on their behalf through the Criminal Justice System.

High risk cases are referred to **MARAC**. The aim of MARAC is to reduce domestic homicides, serious assaults and repeat incidents. MARAC's are an opportunity for agencies to share information, assess risk and plan for increased safety. The conference meetings also serve to improve agency accountability. The purpose of the meeting is:

- To share information to increase the safety, health and well-being of victims and their children
- To determine whether the perpetrator poses a significant risk to any particular individual or to the general community

- To jointly construct and implement a risk management plan that provides professional support to all those at risk and that reduces the risk of harm
- To reduce repeat victimisation
- To improve agency accountability
- To improve support for staff involved in high risk cases

**Sefton Vulnerable Victims Advocacy Team (IDVA/ISVA)**  
**0151 934 5142**

**Liverpool IDVAs**  
**0151 482 2497**

**Young persons IDVA**  
**0151 482 2496**

**Knowsley IDVAs**  
**0151 548 3333**

**Wirral Family Safety Unit IDVA team**  
**0151 606 5440**

**St Helens IDVA**  
**01744 743200**

**All IDVA services have agreed to answer queries and/or signpost to alternative services if they are not the appropriate service for callers.**

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#### Disclaimer

This report is independent research commissioned and funded by the Department of Health Policy Research Programme (Optimising the Use of NHS Intelligence in Local Violence Prevention and Measuring its Impact on Violence, 115/0002). The views expressed in this publication are those of the author(s) and not necessarily those of the Department of Health.



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