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Accident and Emergency department data sharing to support violence prevention in Wigan*

Accident and Emergency department (A&E) data can play a key role in understanding and preventing violence, yet are often under-utilised by local partners. The government has prioritised work to improve A&E data sharing for violence prevention[1]. Based on interviews with local partners (i.e. public health team, Royal Albert Edward Infirmary A&E, Wigan Building Stronger Communities Partnership, Wigan police licensing, Wigan Drug and Wigan Council) in September 2013, this case study outlines how data sharing pathways have been developed in Wigan, how partners were working to overcome some of the barriers to data collection, and how A&E data have informed multi-agency violence prevention work (Box 1).

1. Overview

In Wigan local authority (LA), violence prevention is addressed through a range of interventions delivered through the Community Safety Partnership (CSP), which brings together police, probation, council services, the fire and rescue service and health partners. Health and police data suggest that levels of violence have been reducing in Wigan LA over the last few years[2]. However, whilst police-recorded violence rates are below national averages, rates of A&E attendances and hospital admissions for assault in Wigan remain higher than those for England overall[3]. At the time of interviews, a number of violence prevention issues were being prioritised in Wigan including domestic abuse (and the links with substance misuse and mental health), violence in night-time economy areas, alcohol-related violence and hate crime.

The Royal Albert Edward Infirmary (RAEI) Emergency Care Centre (formally the A&E and the Medical Admissions Unit) is located within Wigan LA. The hospital is part of the Wrightington, Wigan and Leigh NHS Foundation Trust. At the time of interviews the A&E collected and shared a range of data on assault patients, including fields recommended by the CEM[4]. Data were used within Wigan in a variety of ways to support local violence prevention (see Section 3). The government is working to ensure that all A&Es

Box 1: Summary

- In September 2013, A&E data on assault patients, including fields recommended by the CEM[4], were being collected, shared and used by local partners to support violence prevention activity.
- Examples of data use included: identifying groups at risk of alcohol use and violence to enable targeted interventions; identifying shortfalls in referrals to the Youth Justice Liaison and Diversion (YJLD) programme; and contributing to needs assessments for violence.
- Successful features of the data sharing system included: strong relationships between partners; the existence of data sharing partners to facilitate access to data; and training of A&E staff in data collection.

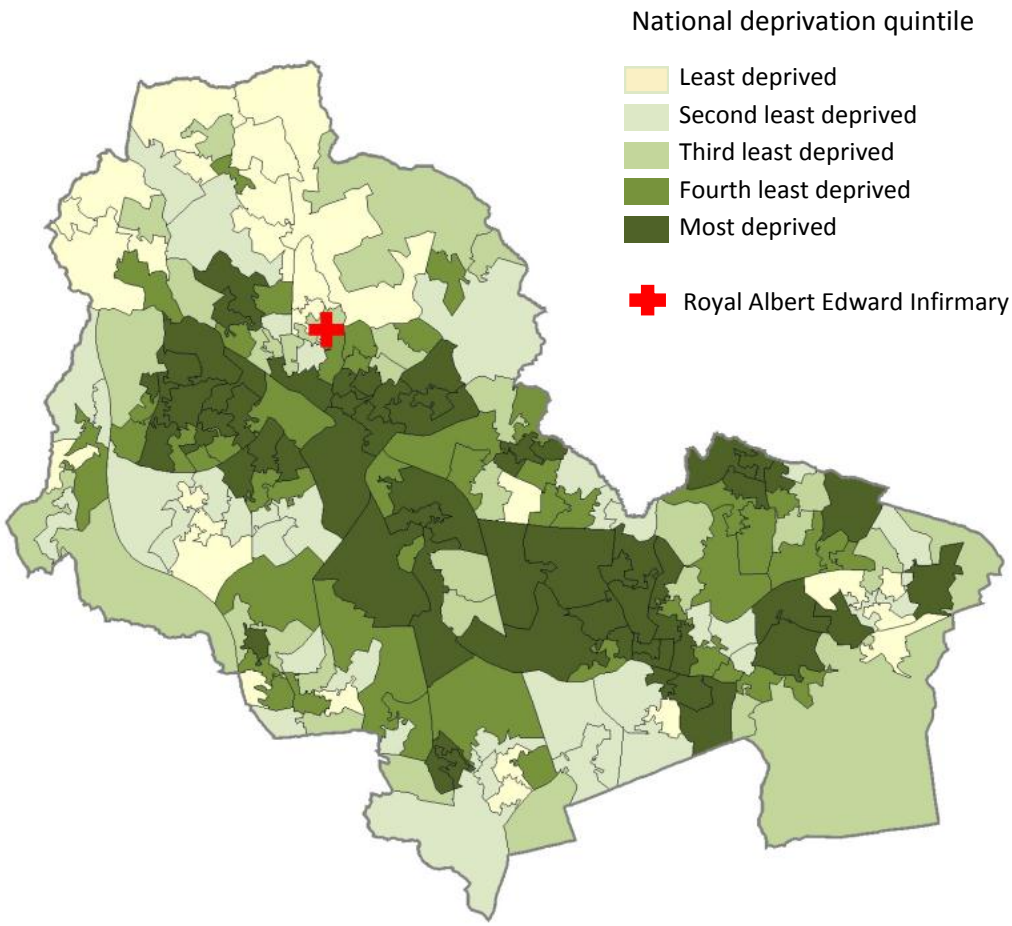
*A case study produced as part of the **Optimising the use of NHS intelligence in local violence prevention and measuring its impact on violence project** funded by the Department of Health. Wigan is one of nine LAs participating in the project. For more information on the project visit http://www.cph.org.uk/optimising-the-use-of-nhs-intelligence-in-local-violence-prevention-and-measuring-its-impact-on-violence/

collect information from assault patients based on CEM-recommended data fields[4] (see Box 3) through their standard IT systems and share it routinely with local partners to support violence prevention (see Box 6).

Box 2: Wigan local authority area

Wigan LA is situated in the borough of Greater Manchester in the North West of England and has a population of approximately 318,700. Life expectancy at birth is 77.1 years for males and 80.8 years for females (2008-2010), lower than that of 78.6 and 82.6 years respectively across England[5]. Wigan LA has a higher than average level of deprivation (see Figure 1) and is ranked the 85th most deprived LA in England (out of 326 LAs; based on the Index of Multiple Deprivation 2010[6]).

Figure 1: Deprivation profile of Wigan LA by Lower Super Output Area[a]



[a]Lower Super Output Areas (LSOAs) are a set of geographical areas across England and Wales that are defined by population size (average population is 1,500).

2. Development of data sharing

How A&E data sharing was established

The RAEI has been sharing A&E data with local partners since 2010. Initially, meetings were held between health and criminal justice agencies to assess the feasibility of setting up a Greater Manchester-based injury surveillance system, led by the Trauma and Injury Intelligence Group (TIIG[b]; which systematically collects and shares injury data from A&Es across the North West of England). Following these meetings, TIIG engaged with A&Es across Greater Manchester (including the RAEI) to highlight the benefits of data sharing and to set up a data sharing process. An information sharing protocol was developed that governed the exchange of data between A&Es, TIIG and local agencies.

Enabling the systematic collection of data on assaults, including CEM-recommended data fields

Recognising the potential benefits of including more detailed information on assaults within existing A&E datasets, meetings were held between the A&E and TIIG to discuss updating the existing IT system with fields on violence and alcohol consumption. These included the fields recommended by the CEM (see Box 3). In 2011, the IT system at the RAEI (MSS software) was updated to include the additional data items (Table 1). This was conducted as part of the regular service development of the IT system at no additional cost. Following discussions between the A&E and local partners about the use of the data, two additional data items were added to the dataset in 2013: a) an option to record whether an assault occurred inside or outside a venue (to improve the accuracy of the assault location information), and b) an option to record the basic location of assault as an off-licence. Changes to the IT system were made by staff at the A&E at no additional cost.

Box 3: College of Emergency Medicine (CEM) guideline on assault data[4]

All A&Es collect a core dataset on assault patients, such as patient demographics and the time of presentation. The CEM recommend collecting an additional set of data items on assault victims at patient registration (by A&E receptionists). The CEM recommend including the following fields:

- Date and time of the assault
- The location of the assault
- Weapon used

How CEM-recommended assault data were collected

At the time of interviews, all assault questions were asked at reception on booking in. Reception staff received training on: the information required for each question; where the fields were located on the system; and how the data would be used within crime and violence prevention initiatives. This training was then extended out and offered to Emergency Nurse Practitioners, Advanced Nurse Practitioners, Consultants and Junior Doctors. Training was extended to these groups as it was recognised that a lack of privacy within the reception area was a potential barrier to collecting the extra data from assault victims. Extending the training to other staff groups enabled a further opportunity to collect the data if it could not be collected during the booking in process.

[b]Co-ordinated by the Centre for Public Health at Liverpool John Moores University, TIIG was established initially in Merseyside to routinely collect data on intentional and unintentional injuries from a range of local agencies, including A&Es. Developed in 2001, TIIG has expanded to include data from all A&Es within the North West of England. For further information see http://www.tiig.info/

Table 1: Fields on violence and alcohol collected by RAEI A&E and average completion rates (%), April 2012 - March 2013 and April 2013 - March 2014.

Field	2012/13	2013/14
Location of assault (e.g. home, public place)	100%	100%
Basic location of assault in public place (e.g. pub, street)	9%	26%
Other assault details (including the specific location of assault e.g. name of street)	9%	15%
Weapon of assault (e.g. blunt object, body part)	9%	26%
Date of assault	9%	26%
Time of assault	9%	26%
Relationship to attacker (e.g. friend, partner)	9%	26%
Have police been informed?	9%	26%
Has alcohol been consumed in the past 12 hours?	100%	100%
Location of last drink purchase/consumption (e.g. pub, supermarket)	40%	64%
Frequency of consuming an alcoholic drink[+]	55%	87%
Average number of units consumed in one drinking session[+]	55%	87%
Frequency of consuming (on any single occasion) 6 units (if female) or 8 units (if male) of alcohol[+]	55%	87%

Source: Trauma and Injury Intelligence Group (TIIG) http://www.tiig.info/
[+]Collected as part of an alcohol screen.

At the time of interviews, completion rates for the CEM-recommended data fields were low. However, a clear action plan focussing on the improvement of the collection of assault data was put in place in November 2013 and completion rates have improved (Table 1).

How A&E data were shared

At the time of interviews, assault data were sent from the A&E to TIIG on a monthly basis using a secure on-line drop box and subsequently cleaned by TIIG. Initially, TIIG would share the data on a monthly basis with local partners in an Excel spread sheet via an online SharePoint. But since 2013, TIIG have shared the data with New Economy (see Box 4), a Manchester-based company owned by the 10 local authorities in Greater Manchester and supporting work on A&E data sharing and violence prevention. The data were shared on a monthly basis with a one month time lag. Where possible, New Economy then supplemented the data with additional geography before uploading it to their online SharePoint-based portal for stakeholders to access. A password was required to access the portal. Within the portal, New Economy provided data on a Greater Manchester basis, including data from the fire service, police and the North West Ambulance Service (NWAS). All data sharing was covered under a broader information sharing agreement between New Economy and local partners. If separate information sharing schedules were needed between organisations these were set up individually.

Box 4: New Economy

New Economy is a company limited by guarantee that aims to provide economic intelligence and evidence to inform the development of policy to support Manchester's economy. Owned by the Greater Manchester combined authority they receive funding from the 10 councils.

New Economy works with a specific focus on policing and crime in a multi-agency context. Data is collected from a variety of sources with the aim to share data in a more integrated way. New Economy is trying to improve acute trust relationships in terms of public health research and analysis. A commitment was made in February 2013 by New Economy to look at A&E data sharing, especially the use of this data for violence prevention.

Overcoming barriers to data sharing

The development of data sharing in Wigan faced a number of barriers, many of which have been overcome. These included: the perceived reluctance of health partners to share A&E data; no set timescales for sharing data; and problems with IT systems accurately recording information. Resolutions to these barriers were aided through strong relationships that existed between partners. Regular strategic group meetings were held with representatives from public health, the CSP, New Economy, the NHS Foundation Trust, the A&E, police and TIIG. These meetings examined information sharing, allowed discussion around the improvement of data collection and sharing, and enabled closer partnership working. Box 5 details the resolutions found to the initial barriers faced.

Data sharing issues

While some barriers to data sharing were overcome in Wigan (see Box 5), partners continued to work to resolve other concerns that could hamper the full benefits of data sharing. These included low completion rates of some fields (see Table 1) and limited feedback to the A&E on how partners were using A&E data.

Box 5: Resolutions to data sharing barriers in Wigan

Perceived reluctance of health partners to share A&E data
Meetings were held between the A&E and partners to highlight the importance of collecting and using the A&E data. A parliamentary undersecretary also wrote to all A&Es in England about the importance of data sharing which helped the A&E engage with data collection.

No set timescale for data sharing
Partners recognised that the usefulness of the data increased when data were received on a regular basis. An arrangement was put in place so that A&E data were shared within agreed timescales on a monthly occurrence rather than being 'drip fed' to partners.

Problems with IT systems accurately recording information
Analysis of the A&E data showed an improbable number of people who had drunk alcohol in the last 12 hours attending the A&E. It was recognised that there was an error within the IT system whereby all presentations were being recorded as having received an alcohol screen. Changes were made within the system to correct this fault.

3. The use of health data in violence prevention

Although low completion rates limited use of the CEM-recommended assault data, A&E data on violence and alcohol were still being used in a variety of ways by partners in Wigan. This section highlights examples of its use across a range of areas of work.

Increasing awareness of domestic violence

Each month the strategic business manager for domestic and sexual violence (Wigan Council) was provided with a breakdown of domestic abuse-related assaults from the A&E data. This was inferred from assailant type (i.e. other relative/partner) and location (i.e. home). The A&E data provided additional information on domestic abuse to that available through police records. The A&E data evidenced the need for a pathway to be in place for domestic violence referrals at the A&E. When consent was given, nurses could contact Victim Support who would undertake a risk assessment and either refer patients to the Integrated Safeguarding and Public Protection Team (ISAPP; if high risk), or deal with them in-house (if lower risk). The ISAPP triaged all risk-assessed crimes and incidents on a daily basis to place appropriate care pathways around the victims of violence.

At the time of interviews partners were also hoping to utilise A&E data to inform future domestic violence interventions. A domestic violence assertive outreach worker was commissioned to work with ISAPP clients (both perpetrators and victims) identified as having a substance misuse need to engage them in treatment. Partners planned to use the A&E data to help evaluate the pathway in relation to wider health outcomes.

Conducting needs assessments

A&E data have shown that increasing amounts of violence were occurring outside of the night-time economy in Wigan. This information was used in a needs assessment of violence in Wigan, which recommended further examination of non-nightlife A&E assault cases to better understand violence. Additionally, A&E data were used to supplement other data sources for a domestic violence needs assessment in Wigan.

Monitoring and addressing alcohol and violent crime

Quarterly A&E figures on assaults where alcohol has been consumed in the last 12 hours were used in the Drug and Alcohol Action Team (DAAT) performance monitoring framework. The framework was used to monitor the outcomes of programmes set under the drug and alcohol agenda.

Additionally, a breakdown of A&E data was used within an alcohol audit to identify groups at risk of violent crimes/alcohol use and monitor trends. These groups were then targeted with resources/interventions (e.g. targeted outreach or awareness campaigns).

At the time of interviews it was also hoped that the A&E data would be used alongside wider alcohol recording within the A&E department for RADAR (Rapid Alcohol Detoxification Acute Referral). This involved the rapid transfer of suitable patients from the RAEI to an acute specialist alcohol detoxification unit. The objectives were to reduce acute medical bed days and reduce alcohol related re-admissions.

Identifying shortfalls in referrals

A summary of the A&E data for patients under 18 years of age was provided to the Youth Justice Liaison and Diversion team (YJLD) and

the Targeted and Specialist Commissioning team in Wigan Council's People Directorate - Children, Families, and Adults. YJLD had a presence within the A&E and the information shared highlighted the number of referrals (in relation to mental health and alcohol) that were not being directed to YJLD. The data therefore helped to identify any shortfall in referrals.

Streamlining data collection with other agencies

Having examined the A&E data, Wigan police and partners from the Building Stronger Communities Partnership discussed how partner data could be collated to improve intelligence on violence. The police were re-designing their data collection process for policing the night-time economy so that data collection fields align with data collection implemented by the A&E and other agencies. It was hoped that this would make data sharing between agencies easier, allow for violence to be more easily identified, and enable data to be used more efficiently by analysts.

Supporting licensing interventions

There were plans to use the location of assault data alongside a range of additional data (including crime incidents, reports from trading standards and environmental protection data) at Multi-Agency Licensing Team (MALT) meetings to help identify problematic licensed venues. These premises would then be visited by the MALT and interventions put into place where needed.

4. Partner attitudes towards sharing and using A&E data

At the time of interviews, there were positive attitudes to the use of the A&E data in local violence prevention activity across partners in Wigan LA. Partners recognised that the data had potential in aiding violence prevention and supplementing police data on assaults.

At the time of interviews, partners in Wigan LA were considering the expansion of data collection through the addition of further fields to the data set (e.g. the facility to record suspected drink spiking and extending data collection to a walk-in centre).

5. Summary

> *'We have always had an interest in getting better data out of the health economy because we know and we realised the models of best practice in terms of Cardiff … it can transform both your strategic and your tactical approaches in the ways in which you manage the night-time economies'*
>
> Wigan CSP

Within Wigan, A&E data on assaults were being collected, shared and used within local violence prevention. Although completion rates for the assault data fields were low, steps were being taken to improve data quality to enable greater use of the data. The system operating in Wigan had several strong features that have contributed to its success, including:

1) Strong partner relationships. There were very strong relationships between partners in Wigan including the police, CSP, public health and A&E. Partners held regular meetings to discuss data sharing issues and were pro-active in working to improve data completion rates.

2) Training of A&E staff. To improve completion rates, staff from the A&E and the DAAT facilitated training sessions with A&E receptionists and other staff responsible for

collecting data. There was a willingness of partners to assist in improving the collection of A&E data.

3) The existence of data sharing partners such as TIIG and New Economy. These partners facilitated multi-agency communication and increased capacity for health data to be accessed easily and in a timely manner.

Box 6: National policy around health data sharing

There is a Coalition Government commitment for hospitals to share data to prevent knife and gun crime[1]. In September 2014, the Health and Social Care Information Centre developed a new information standard on A&E information sharing to tackle violence, which will help with consistent gathering of CEM-recommended assault data fields, along with the time and date of the A&E attendance[7]. Anonymising this data and sharing regularly with local partnerships will help local areas to prevent violent crime and its health impacts.

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Disclaimer

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