

Process evaluation of data sharing between Emergency Departments and Community Safety Partnerships in the South East

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Background

- This report summarises a process evaluation of an initiative to encourage data sharing between hospitals and local Community Safety Partnerships (CSPs) in the South East. Between 2006 and 2008 the Government Office for the South East region funded data sharing schemes across the region's Emergency Departments (EDs).
- The initiative was designed to encourage closer working relationships between hospitals and CSPs. Specifically, as it is well known that not all incidents of violent crime are reported to the police, the hope was that the collecting and sharing of depersonalised ED assault data with CSPs would provide a fuller and more accurate picture of the violent crime in local areas, and, by allowing a more targeted police/partnership response, contribute to reductions in violence.

- Previous local studies which have examined the overlap between ED and police records of violent crime have generally asserted that the same incidents of violent crime do not appear in both data sets. However, the evidence is not consistent. Bespoke analysis of the 2009/10 British Crime Survey suggests that, nationally, the majority of assaults which end up in ED have been reported to the police.

Aims and methods

- The study sought to identify the approaches taken by a number of EDs to collecting data and sharing it with CSPs; the extent to which the data were being used to guide CSP responses; to identify the main barriers (and enablers) to effective implementation; and to assess overall progress of the initiative.

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Keywords

Information sharing
Emergency departments
Assault
Health
Partnerships

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- Much of the existing evidence around ED data sharing focuses on experience of a single location (Cardiff) where data sharing featured as part of a wider violence reduction strategy. The initiative was subject to a high degree of support within the hospital. This study adds to this evidence base by looking at ED data sharing in a wider range of ED contexts. The range of experiences described here are more likely to reflect the reality of challenges to implementing data sharing on a larger scale.
- Ten EDs which were identified as having more established schemes were selected for detailed study. The study findings are based on a series of 28 face-to-face interviews carried out with both hospital (project leads and data collectors) and CSP staff (analysts and community safety managers) involved in the data sharing process.

Set up and working arrangements

- The way hospitals implemented their ED data sharing scheme was found to vary widely. Schemes generally defined eligible patients as those who had been physically assaulted. The main exception to this was one ED which restricted the definition to cover individuals involved in 'alcohol-related' assaults.
- Amongst the ten hospitals reviewed, eight reported using paper based collection systems, one used electronic data collection and one used both methods concurrently. Although most areas had considered collecting the data electronically, the practicalities of altering existing Information Technology (IT) systems and the roll out of National Health Service (NHS) Connecting for Health were cited as reasons for rejecting this approach.
- All EDs collected data using a modified version of a form used as part of the well-established Cardiff data sharing model. Across the ten sites, information was collected from assault patients by either receptionists and/or medical staff (usually triage nurses).
- Although Council of Emergency Medicine guidelines on the sharing of depersonalised information between EDs and CSPs did not require formal information sharing arrangements, many interviewees described undertaking additional steps to ensure that proposed data sharing arrangements did not contravene protocols.

Barriers to high quality data collection

Two common concerns were identified by interviewees in relation to the quality of the data collected on assault victims. First, staff in most areas did not believe their scheme had been successful in capturing the total number of assault patients passing through the ED. Second, in terms of the quality of information collected on individual assault patients, location of the assault was often perceived to be poorly recorded. For example, location details were often recorded in general terms (an area of a town or city rather than a specific pub or bar).

A range of factors were identified as being barriers to collecting high quality data by EDs. Some EDs which had adopted paper-based data collection systems believed that this method was the major barrier to effective data collection. However, elsewhere, electronic systems did not necessarily guarantee success.

The physical location where data were collected was identified as an issue in some hospitals, with the public nature of the reception area making the collection of potentially sensitive data difficult.

The very nature of EDs was also identified as a challenge to good data collection. EDs were often busy in high pressure environments, particularly on Friday and Saturday nights, when a large proportion of the target population would be attending. Against this background, identifying and collecting additional information on potential assault victims was not always a priority.

The different characteristics of subgroups of assault victims were also identified as presenting a series of challenges to collecting data. These included the willingness of some victims to disclose potentially sensitive information about the circumstances of an injury and the effects of alcohol on memory and recall around providing details of an assault.

The impact of high staff turnover amongst those collecting the data (particularly among non-receptionist staff), and wider issues of motivation were also cited as factors inhibiting the quality of data collection.

Interviewees did, however, identify a range of approaches to improve the quality of data collection through focusing on the motivation and commitment of data collection staff. These included: encouraging two-way feedback between data collectors and data users; training sessions; raising and maintaining awareness of the scheme; and working to improve motivation of staff.

Analysis and use of data

Of the ten areas, only three CSPs were actively making use of the ED data at the time of the interviews, with only one area using the data for targeted resourcing of problem licensed premises.

The main barriers to the use of ED data were identified by interviewees as: the absence of a dedicated partnership analyst; the low number of cases received from the ED limiting the analysis that could be undertaken (linked to the partial coverage of the eligible assault population) and the accuracy and detail of the data provided (specifically around location of assault). For some CSP analysts these factors simply undermined confidence in the data and consequently they turned their back on trying to use the data.

However, not all partnership staff took this view. While willing to acknowledge the weaknesses of the data, a handful of analysts (and non-specialist partnership staff) took a more pragmatic approach. They sought to extract whatever marginal value they could from the ED data as a means of supplementing and enhancing other data sources (mainly from police recorded crime).

Several areas decided to use 'off the shelf' health data (which were already routinely collected by the hospital or ambulance service) as an alternative to using data collected through the data sharing initiative. This approach was adopted after the data collected by the bespoke ED data sharing scheme was not deemed to be of high enough quality to be useful.

In some areas, hospitals made use of the data within their own hospital setting but this practice was generally not common.

Making ED schemes work better

- Mainstreaming data collection: other research on the nature of information sharing between agencies has pointed to the importance of mainstreaming the process to ensure success, turning data sharing into 'business as usual'. For most of the ED schemes, the very complex nature of the data sharing in this setting meant that this was far from the case. Seeking ways to mainstream the data collection by embedding it into the routine practice of the staff within the ED was perceived as central to making the process effective in the long term.
- A commonly held view was that had the collection of data become more routine, the proportion of data collected from the eligible patient population would have been greater. This, in turn, would have built greater analyst confidence in the data and allowed it to be more applied in an operational setting. One mechanism through which it was thought this might be achieved was through the provision of a system which enabled the data collectors to automatically have access to the assault form and for this form to have to be completed before the consultation could continue.
- Increasing buy-in from staff responsible for collecting the data: three ways identified for improving this were: having a 'scheme champion' who could work to link together not only different partners but also staff within the hospital; having close and supportive input from the CSP analyst; and, finally, having project leaders who were fully aware of, and engaged with, all aspects of the ED data sharing process.
- Increasing the level of understanding of what was required by the CSP and the ability to be able to translate these requirements into practice; this involved knowing who to get on board with the initiative and how to communicate effectively with the different people involved. However, a 'Catch 22' situation existed. While schemes continued to work sub-optimally, and analysts were not using the data to influence operational decisions, it was hard to demonstrate the potential benefits on offer to those involved in data collection.

Discussion points

- Across many areas in the South East it was evident that various aspects of the data sharing process were either not working or that barriers existed to successful implementation. However, although there were difficulties, interviewees were keen to stress the potential of the schemes, and the possibilities for the uses of the data when these schemes were further developed and more successfully implemented. Interviewees also described a range of broader benefits arising from the ED scheme (mainly that the data sharing approach had helped build stronger relationships between hospitals and CSPs).
- Data sharing between EDs and CSPs is complex. It covers several distinct, but linked, stages: data

collection, data extraction and sharing, data analysis and application. In this sense, the descriptive label 'data sharing' is inaccurate since for most of the schemes, the initiative actually required new data collection processes to be introduced (i.e. it does not just involve the sharing of existing data).

- Each of the distinct stages of the data sharing process has its own set of vulnerabilities, with few under the control of a single entity or person. It is only when each of these stages is undertaken successfully that the full benefits of data sharing can be realised.
- The study highlights the asymmetrical nature of ED data sharing. The effort required by EDs to collect and process data is often considerable and the short-term benefits (in terms of improved analysis and consequent targeting of resources) seem to be more clearly realised by the CSP. There may be some benefits for EDs in terms of potential reductions in assault victims and understanding more about their assault population. However, these are generally not quick wins and have to be viewed against the large throughput of non-assault cases.

Recommendations

This report offers a number of recommendations.

- **Hospitals and CSPs should consider reviewing the breadth of ED data collected for their data sharing schemes reflecting on the benefits of collecting accurate key location data rather than concentrating efforts on collecting a range of supporting data.** Accurate data on the location of the incident are perceived to be a key criterion for success of ED data sharing schemes. Concentrating efforts on collecting key location data is likely to increase the quantity and accuracy of data collected. The sharing of higher quality geographic data would better enable analysts to undertake robust analysis in order to better target resources and tackle violent crime in an area.

- **A package of analytical examples should be developed which demonstrate how ED data have been used creatively in local areas to supplement police recorded crime data.** The development of such a package would help aid the analytical community with understanding the potential of using ED data to gain a better picture of violent crime in an area. It would also provide a mechanism for those involved in the process to see the potential of the schemes and what data would need to be collected in order to achieve the desired analytical output.
- **Further research should be undertaken to look at a range of local schemes in order to better understand the relationship between the coverage of assaults in ED data and in police recorded crime records.** This would enable a better understanding of the potential of ED data to enhance knowledge of the levels and nature of violent assaults in an area than that derived from police records alone. Depending on the outcome of this work, consideration should be given to further exploring the isolated impact of ED data sharing schemes on levels of violent crime in an area and resultant hospital attendance.