

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

Tonia Davison, Lauren van Staden, Sian Nicholas and Andy Feist

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.

Contents

1	Introduction and background to data sharing	1
2	Set up and initial working arrangements	4
3	Data collection in practice	9
4	Data transfer from Emergency Departments to Community Safety Partnerships	12
5	Analysis and use of Emergency Department data	14
6	Discussion	17
	Appendix 1 Information on data sharing models	22
	Appendix 2 Summary to show the stages of development within hospitals and CSPs	23
	Appendix 3 Sample interview topic guide	25
	Appendix 4 Depersonalised minimum dataset	29
	Appendix 5 Considerations for practitioners	30

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.

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I Introduction and background to data sharing

Introduction

Community Safety Partnerships are required to share routinely collected information at regular intervals with partner agencies (Crime & Disorder Act, 1998). The sharing of data between agencies allows a more comprehensive picture of crime and disorder in a local area to be built up and this can, in turn, assist in identifying local priorities and improving the effectiveness of partner action. While the benefits of sharing data are well recognised, the process of sharing this information between partner agencies can be complex (Steel *et al.*, 2010; Office for Public Management, 2008).

The problems of generating a comprehensive picture of all offending is particularly well illustrated in relation to violent offences. Police recorded crime captures only a proportion of violent offences; the 2009/10 British Crime Survey showed that only 45 per cent of incidents of all violence were reported to the police (Flatley *et al.*, 2010).

One potential way to help address the gap in a local area's understanding of violent crime is by supplementing police recorded crime with Emergency Department attendance on assaults. Regardless of whether or not an incident is reported to the police, if the consequences of an assault are severe enough, it is likely that the victim is likely to attend the ED for treatment. Sharing information with partnerships on all victims of violence who present themselves to an ED could help to provide a fuller and more accurate picture of violent crime in local areas. This will provide the analytical platform for a more targeted police/partnership response, and, hopefully, contribute to reductions in violence.

This report summarises the findings of a process evaluation undertaken on an initiative designed to expand data sharing between EDs and partnerships in South East England. Between 2006 and 2008, the Government Office for the South East region (GOSE) made £10,000 available to all 32 Emergency Departments in the South East to assist with the setting up of ED data sharing initiatives between the hospitals and local CSPs. Twenty-five EDs took up the offer of funding.¹ The scheme aimed to improve working relationships between CSPs and EDs, and in doing so, bring down the rates of violent crime as a result of data sharing across the region.

While the study focuses specifically on the experiences of the South East region the lessons learnt are likely to be applicable to other areas.

What is ED data sharing?

ED data sharing covers several distinct but linked stages. The process includes identifying assault victims on their attendance at an ED, collecting and recording a range of information from them (relating to their assault, location etc). Data are then usually anonymised and shared with CSP analysts on a routine basis. The analyst is then able to combine police and ED data and produce appropriate reports which help to target appropriate action to tackle the issues they identify. The best known data sharing scheme of this type in the UK is the 'Cardiff Model' (Shepherd, 2007). The stages are all linked and should occur in a circular fashion.

Data sharing enables a fuller and more detailed analysis to take place at the local level which in turn allows for efficient and effective targeting of police and other agency resources to tackle violent crime (Sutherland *et al.*, 2002;

¹ Where hospitals declined to take part, in the main this was because there was no senior sign off for the initiative; it was not felt that the initiative was a priority for an already busy hospital.

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Shepherd 2007). Monitoring injury levels also provides a measure of violence which is independent of police data, which can be influenced by recording changes, reporting levels and targeted police operations (Shepherd, 2000).

Data sharing – existing research

The relationship between ED assaults and police recorded crime

The precise proportion of assaults captured by EDs that are also reported to the police is not clear. Data from the Cardiff Model suggest that little community violence appears in the records of both EDs and the police (Sutherland et al., 2002), with estimates suggesting that only 25 per cent to 50 per cent of offences identified in EDs also appear in police records (Shepherd, 2001; Sutherland et al., 2002; Warburton and Shepherd, 2004). However, a bespoke analysis of the 2009/10 British Crime Survey (BCS) suggests that nationally, 84 per cent of all BCS violence where there was a visit to an ED department within 24 hours of the incident was also reported to the police.²

Several factors may explain the discrepancy: the 16 and over coverage of BCS victims may be one factor. The likelihood of an individual seeking assistance for a minor injury (which makes up a large proportion of all violent crime) is also likely to vary according to the location of an ED (Shepherd and Sivarajasingam, 2005) suggest that proximity to an ED can influence a victim's decision on whether or not to attend an ED; more accessible EDs may treat more victims of minor assaults and therefore record a smaller overlap with police recorded crime).

The data collected by EDs should therefore have greater potential to enhance knowledge of the level and nature of violent assaults than that derived from police records alone. However it is worth acknowledging that there remains some uncertainty around the size of this added value (and this is likely to differ between areas) assuming that EDs are effective at capturing information on a high proportion of the eligible assault population.

2 This is based on an unweighted base of 119 violent incidents requiring hospital treatment. It should be noted that the sample size is small and smaller sample sizes are subject to larger confidence intervals (the range in which the true value is likely to lie). Estimates taken over three years are however fairly consistent with figures for previous sweeps of the BCS identifying similar proportions: 2007/08; 76 per cent (unweighted base; 112). 2008/09; 80 per cent (unweighted base; 118). Unpublished data.

Outcome studies

While the principles behind ED data sharing are reasonably clear, there have been few studies which have successfully sought to identify the benefits of data sharing per se on violent crime in an area. An evaluation of the Cardiff Model did find a reduction in assaults but ED data sharing was part of a more comprehensive approach to tackling violence in the city; the evaluation was not able to isolate the contribution of ED data sharing to the overall reduction seen in levels of recorded violent crime (Maguire & Nettleton, 2003).³

In the North West region the Trauma and Injury Intelligence Group (TIIG) has been established to encourage and promote access to injury information.⁴ Here the data collected are combined with fire service and ambulance data to produce monthly reports identifying key priorities for tackling violent crime. A recent review of the approach found a 33 per cent reduction in assault attendance,⁵ although here too the authors were not able to isolate the effect of ED data sharing from other programmes of activity happening in the area. More information on both models can be found in Appendix I.

Factors associated with data sharing

While outcome studies are not plentiful, there is a growing research literature on the nature and implications of data sharing by public agencies. For instance a Communities and Local Government (CLG) commissioned study (OPM/Local Futures Group 2008) examined approaches by a wide range of public agencies to sharing personal data. Successful data sharing schemes were generally characterised by the presence of a number of enabling factors at the following stages of the data sharing journey.

- Success at the initial vision stage depended on building and communicating a persuasive evidence base, funding to kick-start the process and/or pre-existing information systems which were compatible for data sharing.
- Effective *scoping* benefited from having internal capacity to design a system, along with the presence of a new (or existing) project group to oversee it.

3 However, in contrast during the same period (July 2000 to June 2001) there was a 49 per cent increase in incidents of alcohol-related disorder (i.e. incidents in which violence had not occurred).

4 More information on this approach can be found at: <http://www.tiig.info/default.aspx>

5 http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_114061.pdf A&E Serious Youth Violence Data Sharing Initiative, Case Study: TIIG Wirral Project.

- At *pre-implementation*, apart from basic project management arrangements and appropriate resourcing, partnership buy-in for the initiative was identified as an important ingredient.
- At *implementation* the main barriers were cultural resistance (a reluctance to change existing working practices) and the challenge of simply maintaining momentum. The dissemination of positive messages about the perceived benefits of the initiative was identified as one way of tackling this, particularly if championed by senior staff. Compensating for the effects of staff turnover was also important.

Getting the initiative mainstreamed (so that the initiative effectively becomes the 'day job' or 'business as usual') was identified as the critical final step of the data sharing journey.

Studies which have focused specifically on sharing of data on violent crime between health and other partners (much of it built around the Cardiff Model) have echoed these findings. ED-focused studies have, for instance, also highlighted the importance of advocacy and leadership of senior staff (to ensure that necessary procedures were established for data collection; to foster the development of effective working relationships with partner agencies; and to generate buy-in across the wider ED workforce) (Shepherd, 2007).

Front-line ED staff who feed data into information systems have been found to be critical in ensuring data quality. Trying to ensure that these individuals' commitment to the scheme starts high, and remains so, requires suitable training, education and guidance, as well the provision of regular opportunities for staff feedback and consultation (Shepherd *et al.*, 2000). A failure to ensure data quality can undermine the entire system; Edwards and Anderson (2009) observed that any ED data sharing system is only 'as useful as the quality of data which it receives'.

The pivotal role of the receptionist in data collection was highlighted in research into the Cardiff Model (Shepherd, 2007). Data collection by reception staff reduces the abstraction of medical staff from their core clinical duties. Receptionists have immediate access to patients as soon as they attend the ED, and the required IT systems are easily accessible as part of their standard role. At least one study has suggested that data collection may be further enhanced if medical practitioners also enquire as to the nature of injuries during treatment (Howe and Crilly, 2002). Dual systems of data collection could reduce the risk of missing assault victim patients.

Finally, ED-based studies have generally identified electronic data capture systems as more effective than alternatives (Howe and Crilly, 2002). Paper forms may be mislaid (or not completed) due to the hectic nature of EDs (Goodwin & Shepherd, 2000). Paper-based data collection systems have also been shown to result in delays (due to the time taken for data to reach a centralised collation point). This can make linking the data to a variety of sources more complicated (Kellerman *et al.*, 2001).

Research aims and methodology

An evaluation was commissioned to understand more about the processes and mechanisms of the ED data sharing schemes that had been implemented across the South East region.

The aims of the evaluation were:

- to obtain an overview of progress with the roll-out of ED data sharing across the South East;
- to identify the approaches taken by EDs to data collection, the methods for sharing the data gathered with CSPs, the use of these data by CSPs and any early impacts of the sharing of data;
- to capture the lessons learned from the large-scale roll-out of data sharing schemes across the South East.

A series of short telephone interviews were undertaken to establish which of the 25 hospitals which had received funding were the furthest advanced in the data collection and sharing process.⁶ A study sample of ten hospitals was selected on this basis. The sample included initiatives that had been running since 2004 (i.e. before the funding was made available) with the last scheme set up in 2008. There was no apparent relationship between the length of time the scheme had been running and the maturity of the data sharing process. Appendix 2 gives a summary of the progress that had been made by the study sample at the time of interview.

The main component of the study was a series of face-to-face interviews carried out with both hospital and CSP staff involved in the data sharing process. Several roles were identified as being influential in the data sharing initiative:

⁶ Although there was no intention to select hospitals on the basis of rates of police recorded violence against the person (VAP) in the CSP area, the range of VAP rates in the ten areas was found to be broad.

- the project lead within the hospital;
- those individuals responsible for actually collecting the data (i.e. people who questioned the patients on their assault injury);
- the CSP analyst; and,
- the person identified from within the CSP who acted upon the data received.

The personnel responsible for these roles varied between areas. Where possible, these roles were identified in both hospitals and CSPs within the sample and the relevant people invited to take part in the study.⁷

Two Home Office researchers conducted semi-structured interviews on a face to face basis.⁸ Four interview topic guides were developed, one for each of the roles identified above (see Appendix 3 for example guide). The questions asked were a mixture of factual and attitudinal. Topics included: the participant's background and training; the set up of the scheme; collection of data; data entry; data storage, transfer and analysis; reporting and impact; lessons learned and potential improvements for the future.

All interviews were voluntary and no invitees refused to take part. Twenty-eight interviews were completed between October 2008 and February 2009: 18 with the hospital staff and ten with the CSP staff. On six occasions, interviews with personnel working either in the same hospital or CSP were conducted together if interviewees recommended that this would be beneficial.

The first wave of interviews was conducted with hospital staff. Once these had been completed, contact information was requested for the appropriate CSP staff in order to organise interviews with those who received and acted on the data.⁹ All face-to-face interviews were recorded and transcribed. Each interview transcript was summarised by four researchers using a thematic matrix designed specifically for the study. Two of the researchers

who conducted the interviews were responsible for the systematic analysis which was conducted both within and between individual cases. An initial analysis of the data allowed the wide ranging views and experiences of individuals involved in the programme to be mapped, whilst further exploration identified key themes which appeared to be influencing perceptions. Two people from the project team analysed the data, noting the general patterns and themes emerging from the interviews. These patterns and themes were discussed with the rest of the project team and then refined and grouped into clear themes relating to each stage of the process. This iterative process allowed overall themes to emerge from the analysis and ensured a consistency of approach to analysing the data from all interviews in the study. The report was sent to a sample of people interviewed in order to validate the thematic analysis undertaken.

Structure of the report

The report discusses the views and perceptions of those interviewed and is structured around the main stages of the data sharing process. Chapter two examines the set up of the scheme; Chapter three considers data collection; Chapter four considers data transfer and Chapter five focuses on data analysis. Chapter six outlines overarching themes and changes that were thought to have had an impact on all stages of implementation of the data sharing scheme.

Quotes are used throughout the report for illustrative purposes, that is, to give a flavour of the language that respondents used during the interviews. The quotes are attributed either to a partnership or a hospital interview; they are not attributed to individuals in order to preserve the anonymity of respondents.

7 In some cases it was not possible to conduct all the planned interviews, for example, where the partnership did not have an analyst. In other cases, additional people were interviewed, for example, in one hospital the ED consultant involved in setting up the scheme was also interviewed.

8 In three cases, where face-to-face interviews were not possible, a telephone interview was conducted with data collectors.

9 Some partnerships were served by more than one hospital. Therefore, partnerships could, in theory, receive data for their location from more than one hospital if all hospitals in their area were involved in data sharing.

2 Set up and initial working arrangements

This chapter describes in brief the nature of the ten schemes which were subject to detailed interviews. It focuses on the goals of the schemes, the use of funding, initial set up and data collection processes. Information is drawn from across all interviewees, but predominantly from hospital staff.

Perceptions of the scheme's objectives

Other studies which have examined data sharing have highlighted the fact that data sharing needs to be about identifying the intended outcomes and beneficiaries. This allows the building of a coherent business case to help generate the necessary buy-in from all stakeholders (OPM/ Local Futures Group, 2008).

When participants in this study were asked to describe the initial stages of implementation, they perceived the goals of the data sharing scheme to be focused on realising some mutual benefits that the initiative could bring to both the hospital *and* partnership. Partnership agencies would benefit by having an increased knowledge base from which to tackle problems associated with the night-time economy. Hospitals would, eventually, benefit through a reduction of attendances for alcohol-related assaults.

However, it was acknowledged that this commonly held view had changed as the schemes bedded down. Once the initial engagement from agencies had been secured, almost all of those interviewed, including hospital staff, viewed the principal benefits to be around contributing to reductions in crime. Much less emphasis was placed on effects that this might have on related hospital admissions. The position taken by hospital staff therefore became more couched in terms of 'helping' the partnership, rather than through any anticipated impact on hospital admissions.

Beneath the over-arching aim of reducing violent crime, perceptions of the specific operational benefits of the initiative varied across and between local areas, but could be grouped under three main headings.

- Providing data on the location of the assault, which could then be used to inform partnership activity; this was particularly focused on hot spots and licensed premises
- Providing data on the extent and nature of assaults which may not have been reported to the police.
- Improving the understanding of domestic abuse in the locality.

As the schemes developed and the practical problems of data collection emerged there appeared to be a further re-calibration of many participants' perceptions of the goals of the schemes. While almost all of those involved in the data collection scheme could see the *potential* of collecting data which were not only of good quality but also covered the

majority of assaults seen at EDs, this had not yet occurred in many areas. Even in some EDs where the schemes had been running for a number of years, data sharing initiatives were not sufficiently developed to the point at which the data collected were used to consistently inform the analytical process or to routinely direct partnership activity. As a result, many participants re-aligned their expectations to reflect the scheme as it worked in practice. In these instances the achievable goal became re-focused on improving data collection so that robust analysis could be undertaken (rather than on what the information could be used for once it had been collected).

Funding

GOSE made £10,000 available to all hospitals in the South East region to be used for the set up or maintenance of an ED data sharing scheme. By no means all participants considered the provision of modest amounts of bespoke funding to be a critical factor in the development of local data sharing, and not all areas in the study drew upon the funding on offer. This was because either a data sharing scheme of some kind was already in place, or because it was not possible to produce a plan to access monies within designated timescales. Where the funding was drawn upon, in most cases it was to assist with the development of IT systems and the training of ED staff in the collection of data from patients. Other ways in which the funding was used included part funding a nursing post and using small amounts of the funding to assist in the development of domestic violence protocols.

No other funding, apart from that provided by GOSE, was identified by interviewees as being sought in support of local schemes. Rather, both CSPs and hospitals described ways in which existing resources were 'squeezed' in order to provide any additional resource that may have been required.

Getting started

There was no uniform approach to setting up the schemes across the ten EDs. How individual EDs went about setting up schemes was dependent on local circumstances: who was driving the scheme forward; which agency had been awarded the grant (both hospitals and CSPs could be the recipients of the funding); and which partners were involved in the project board or steering group. The critical factor interviewees identified as influencing how schemes were initiated was the extent of existing relationships between EDs and CSPs, and more specifically, amongst staff within the hospital itself.

Where pre-existing partnership relationships were strong, schemes developed without requiring the creation of new formal structures; informal contact was seen as sufficient. This would usually take the form of a lead person taking responsibility for initiating the scheme and seeking input from other partners, as and when required. For example, in one hospital, the project leader simply linked in with relevant personnel on an ad hoc basis within the structure of existing hospital meetings.

Where no prior relationship was in existence, dedicated project groups or steering boards were established. These usually involved both hospital staff (often senior matrons or consultants) and partnership staff who had a direct interest in the scheme (local authority officials, police, licensing officers). These groups were responsible for developing a strategy for implementing the scheme. They also provided a forum to discuss and resolve any difficulties that were being faced in setting up the initiative. In many cases, the police and CSPs influenced questions that would be asked of assault victims as they were widely perceived to be the principal end-users of the data.

In several areas, interviewees talked positively about the role of local ‘champions’ in taking schemes forward. These individuals were described as working behind the scenes, using existing relationships to increase the profile of the scheme once it had been established. They would focus on increasing the level of data collection by reminding staff of the scheme, acting to persuade staff of the benefits of data collection, and occasionally initiating sometimes difficult conversations with staff to convince them of the benefits of data collection. Once the schemes were established, champions were thought to be instrumental in maintaining their momentum (a key challenge during the implementation phase [OPM/Local Futures Group 2008]). In short, these individuals were perceived to be key to motivating staff.

“I think it’s helpful that... you’ve got the dedicated people involved. ... It’s about individuals, really, in terms of [person from CSP] and [hospital project leader], and then a few other people that they then work with to make it happen. And then without those individuals I think it wouldn’t happen...”

Partnership (1)

The champion role could exist both at a senior level, within the decision making structure in the ED, or at a more ‘hands on’ level. On the ground, it was also claimed that progress was dependent upon high levels of personal buy-in from operational staff, ensuring that new staff were informed of the scheme, and actively encouraging new and existing staff to undertake data collection diligently.

Setting up a data collection process

The remainder of this chapter deals with the details of how schemes set up their data collection processes. It covers the following components:

- how, practically, data are collected;
- from whom the data are collected;
- who collects the data;
- ethical and consent issues around collecting data.

Data collection

Interviewees described two ways in which hospitals went about recording assault data:

- by hand, on a paper form; or,
- electronically, by adding additional questions to the existing software or by modifying drop-down menus.

Within the ten hospitals covered by the study, eight described using a solely paper-based collection system and two ran an electronic data collection system (one of which also had a paper-based system running in tandem). In most cases, the paper-based system required the completion of a loose sheet of paper that was added to a patient’s hospital notes. The form required mostly ‘tick box’ answers but also had scope for collecting limited free text information (for example, information on location of the incident). In one hospital, the questions were routinely incorporated into the patients’ notes by overprinting the notes page with the questions rather than having a separate detached questionnaire. The receptionist asked the initial demographic details and the reason for attendance. The overprinted form would then be completed by medical staff and returned to the receptionists for the data to be loaded on to a computer-based system.

Electronic data collection systems (whereby data are typed directly on-screen) were used in only two areas.¹⁰ These had been set up through their IT system ‘Symphony’ (one area by adding an electronic assault form to the IT system and another by using a free text drop-down box to record the location data).

Most participants who described using paper forms had considered collecting the data electronically. However, they

¹⁰ In one of these hospitals, paper forms were also available at reception for patients to complete themselves, but the electronic forms were completed by the receptionists and triage nurses. In the other hospital, the receptionists were responsible for collecting information through modified drop-down menus. However, if a patient was later identified as an assault patient, it was not possible to go back into the IT system and add in assault location information retrospectively.

generally identified two main barriers to implementing electronic data collection. First, there were practical difficulties associated with easily amending existing IT systems (e.g. by incorporating new fields into existing patient databases or adding new bespoke databases, designed solely for the scheme). The data that was needed for the scheme could not be incorporated onto existing systems.

“...unfortunately, our computer systems are so old that trying to collect it electronically would slow the whole thing down, and slow the triage process down.”

Hospital (3)

Secondly, NHS Connecting for Health,¹¹ which at the time of the research was in the process of being implemented nationally, was identified by some as an additional barrier to electronic solutions to the data collection process. Either areas were waiting for their existing IT system to be altered, or where the system had already been changed, were seemingly unable to add additional data fields for data collection into their newly installed system. In one hospital where the computer system had changed, it was still not possible to collect the data electronically; the challenges associated with maintaining paper-based systems were clearly evident

“...and having such an un-malleable and unhelpful system there. There was no way that IT can help us collect the data, so it is purely manual; and that is, of course, fraught with difficulty and error and whim.”

Hospital (2)

When describing their ‘ideal’ data collection method, most hospital interviewees talked about electronic data collection (along the lines of the Cardiff Model). Indeed, where electronic data collection had not been possible, some ED interviewees perceived that this had been the single most important factor constraining effective data collection (see Chapter 3).

“If we could do it within our current booking-in system it would be a lot easier. I know that (hospital) can, they actually have a field where they can put in that it was an alcohol-related assault, and all the sort of questions we ask on our form can all be in-putted onto that and so it’s simple to produce the data, to collect the patient (data) very easily and to capture it and that’s why their figures are very, very high at (hospital) and ours are so low ...”

Hospital (4)

¹¹ This came into operation in April 2005 to support the NHS by delivering computer systems and services that aimed to improve how patient information was stored and accessed.

However, as we go on to discuss, it would be incorrect to conclude that paper-based systems could not function effectively under the right circumstances. Nor was it the case that electronically-based data collection systems guaranteed success.

Early refinements to the data collection process

Few areas reported having a formal pilot period for testing the process. Rather most described an informal approach to setting up the scheme, with adjustments being made as the scheme progressed. In most instances any changes made related to either the data collection process (that is, how data were collected) or what questions were being asked of patients. Whilst the rationale for changing questions varied, the most common reasons were: a need for further data for analysis; simplification of questions to make them easier to ask; changes to questions to reduce free text options; and adding questions that could expand the information provided on the assault. In addition, it was also possible to change when data were collected. For example, one hospital moved to limiting the days data were collected to those days where people were more likely to be out drinking.

Where minor changes were made to the scheme there was often a small re-launch of the initiative in order to ensure that everyone was aware of the changes. This resulted, in some cases, in a series of ‘false starts’, in which the scheme was re-launched successively over a period of months. On each occasion, participants described how they were hopeful that the scheme would now run more successfully (often only to find that the changes that had been made did not have the desired impact). Only one area reported a major change after the initiative had started. This involved changing data collection from an IT to a paper-based system, on the grounds that this would be easier to use.

Designing the data collection form

The Cardiff Model minimum data set (Appendix 4) was commonly used as a starting point when deciding on data fields and data to collect. However, almost all schemes made amendments to accommodate local circumstances and needs. ED staff acknowledged that agreeing the design of the form was a balancing act between what the partnership felt were key questions to facilitate useful data analysis, and, what hospital staff felt were appropriate or feasible questions to ask of assault victims. This often led to compromises over the scope of the data collection form. It was usually the project groups that acted as a forum for resolving these issues.

Deciding on who was to be covered by data collection

Schemes were encouraged by GOSE to apply the broad definition of 'assault' of the Cardiff Model, although here too they could adapt this to reflect local priorities. In all but one hospital, there were no specific criteria defining what constituted 'assault'. The decision regarding who to include in the study was reliant on either the judgement of the hospital staff and/or the patient's perception of the incident. For the exception, additional criteria were used to capture 'alcohol-related' assaults. For these, patients were only considered eligible if they were drunk and had been assaulted, or if they had been assaulted by someone who they thought had been drinking.

"... if a patient comes in and they're badly beaten about and ...they're drunk or whatever, or they appear to be drunk, then that is a way of thinking, oh, well, this could be a possible alcohol-related assault, so they [receptionists] put the paperwork in and obviously then it's for the nursing staff and the doctor to establish if that definitely is the case."

Hospital (4)

Even for the EDs which applied the broad category of assaults, identifying assault victims was not necessarily straightforward. For example, patients might attend the ED with an injury but the link may not be made between the injury and an assault.

"...we don't know the actual numbers of assaults that come in because the problem is that people book in, they'll say, I've hurt my hand, and so what it will say on the casualty card, when it prints off, is, right hand injury, it won't say assault. And it's not until the nurses start asking the questions that they realise that they were punched or they were trodden on or, or something like that."

Hospital (8)

Who identifies eligible patients, and who collects the data

Across the study sample, personnel involved in the data collection process were described as receptionists, medical staff (usually triage nurses) or a combination of both. The decision regarding who was responsible for data collection was closely linked to decisions about the location where data collection would take place.

In half of the EDs, interviewees described a process by which combinations of hospital personnel were responsible for completing different parts of a single form. Where this composite approach was adopted, receptionists (who were the first point of contact with patients when they presented themselves at the ED) would make a decision on patient

eligibility and complete part of the assault form in the reception area. The form would then be put in the patient notes and medical staff (usually a triage nurse) would be responsible for completing the remaining sections when undertaking the patient's medical examination. This would often take place in an examination room.

The Cardiff Model clearly defined the role of the receptionist as collecting the full data set from eligible patients on their arrival at the ED. However, within the South East schemes, the role of receptionists was found to be more diverse. In the majority of hospitals, the receptionists' roles were described as including at least one of the following tasks: identification of eligible patients; obtaining verbal consent from the patient; completing assault forms; ensuring that forms were included in the patient notes; and, electronically inputting data from the forms onto a spreadsheet (or downloading data). And while in almost all hospitals, the role of the receptionist was considered to be central to functioning of the initiative, in only one was the receptionist solely responsible for data collection.

Trained medical staff were solely responsible for data collection in four hospitals. This was mainly undertaken by triage nurses rather than doctors. In these cases the nurse alone would be responsible for identifying eligible patients and also completing a paper-based form.

Information sharing agreements and consent

According to the guidelines on data collected on ED assault victims issued by The College of Emergency Medicine, formal information sharing agreements between the ED and CSP are not necessary.¹² Whilst almost all hospitals had considered the issue of ethics approval and the need to ensure that the regulations in relation to data protection were being followed, it was felt that formal ethics approval from an ethics committee was not needed.¹³ Nevertheless, many interviewees described using additional mechanisms to ensure that the data sharing was in line with current regulations, or was covered by existing information sharing protocols. These included: contacting the Caldicott Guardian¹⁴ to seek approval and advice about sharing certain data with the police; developing formal information sharing

¹² However, the data that are shared should be anonymous and in aggregate form, according to *Guideline for information sharing to reduce community violence*, issued by The College of Emergency Medicine: secure.collemergencymed.ac.uk/asp/document.asp?ID=4881

¹³ One Project Leader was not in post at the start of the initiative and was unable to say whether or not ethics approval had been sought.

¹⁴ The Caldicott guardian is a senior person within the hospital who provides advice to hospital staff regarding the sharing of identifiable information.

protocols between the hospital and partnership (including reference to what would be shared, with whom and how it should be stored); and gaining specific approval from the Trust that as long as the data were anonymised, they could be shared. These additional processes were seen as a way of double checking that those responsible for setting up the scheme had alerted the necessary channels and ‘ticked all the right boxes’, rather than being seen as a barrier to the implementation of the scheme.

Overwhelmingly, the data that were being shared through the scheme consisted of depersonalised data.¹⁵ Consequently, formal consent procedures were not needed and no hospitals asked for written consent in order to collect data on the assault. However, several interviewees indicated that they did seek to gain verbal consent from patients. Elsewhere, interviewees described a process by which patients were informed of the reasons for data collection (in one ED, the receptionist would tell the patients about the initiative and ask if they were happy to answer questions related to their assault). In others, permission was simply sought in order to ask additional, non-medical, questions.¹⁶

3 Data collection in practice

In this chapter, the focus turns to how, in practice, data were collected from assault victims, and critically, what factors influenced the quality of data collection. Implicit in many of the interviews with partnership staff were concerns about the quality of data collected through the schemes. Within the framework of this initiative, ‘high quality data’ almost certainly meant different things to different people. From the point of view of the receptionist or triage nurse collecting the data, ensuring that a high proportion of questions were answered on the data collection forms constitutes good data collection. However, from the point of view of the analyst using the data, the notion of high quality data may be much broader. This extended to how many of the patients who attended

¹⁵ Only one hospital collected data which the police had requested should be matched with their own data. This meant the sharing of personalised data in order to match cases between data sets. Because of potential issues with data protection, the Project Leader sought the advice of a team in another ED who had already discussed this with the Information Commissioner.

¹⁶ In some cases, the information that was being collected specifically for the scheme was kept on a different database from the hospital system. In one instance, a hospital had deliberately developed this method in order to ensure that there was no possibility of linking hospital records with the additional data collected.

the ED were correctly identified by the data collectors as ‘assault patients’ and of those, how many answered questions from the assault questionnaire (in other words, what was the ‘coverage’ of the eligible ‘assault population’). In addition, the perceived accuracy and completeness of individual entries was important to analysts. If there are many tick box fields with missing data or if the answers to free text questions are not sufficiently specific, this may well compromise the quality and subsequent use of the data.

Failure to capture the eligible population of assault patients

It was not possible to undertake, as part of this study, an audit of the percentage of the eligible population captured. Interviews with hospital staff suggested that only a proportion of eligible patients were perceived to have been ‘captured’ by the data collection schemes in each hospital.¹⁷ Views on the percentage of eligible patients missed in the process ranged widely from ‘quite small’ to around 90 per cent. The following quote from a hospital interviewee highlights the potential problem of missing large swathes of the assault population:

“We can’t guarantee 100% compliance. So if the medical staff can’t be bothered, isn’t interested, or is busy, or it’s a serious emergency, or it’s an ambulance case that just needs to be treated and they can’t collect the data because the patient’s unconscious, so we can’t guarantee 100 per cent that anybody coming through with an assault will have these data collected for them; but we will at least capture some of it.”

Hospital (1)

Failure to capture accurate details on location of assault

Although ‘location’ of the assault was perceived to be of most use to CSPs – it could be used to map incidents and locate problem areas for targeted action – it was often identified as the data field which was most poorly completed. One partnership opted not to use the data received from the ED because the location data could not be mapped:

“...it’s got to be accurate data to be able to pinpoint it on a map and if it doesn’t come with exact locations then it’s of no use, it’s of no value.”

Partnership (6)

¹⁷ In one hospital which used an electronic system of data collection, the data had not been extracted from the system and so the data were not available for assessment.

Most partnership staff indicated that assault location data was often missing, incomplete, not specifically described, or, where names of licensed premises/venues were given, they were often incorrectly spelt. In some areas, participants had stated that they had considered including a list of night-time economy venues, but this was usually rejected because it was felt that the list would be too long to be helpful, or would require updating too frequently. Areas therefore generally tended to opt for free text boxes.¹⁸

“... the part they’re very bad on and despite me rewording it several times to try and make it .. clearer, is where the assault occurred. They’re quite often still writing [area X] or [area Y], I mean, you know, there’s millions of places in [area X], it’s a big area, it’s got lots of night clubs, lots of public houses, which one is it? Just to tell us [area X], is absolutely useless. As [CSP contact] has said, the police can’t go to every single night club there, we need to know which night club it is ...”

Hospital (4)

Barriers to good data collection

Many areas described a range of data collection issues that adversely affected data quality. These included problems with the data collection process itself, including difficulties associated with completing the questionnaire through to the attitudes of those providing and collecting the data. However, given the range of barriers that were identified, it was apparent that failure could manifest itself at any point in a patient’s journey through the ED. A widely-held view was that good data collection was difficult to achieve, and could be derailed at any one of a variety of sticking points within the process. While participants were able to list specific solutions which had been tried to overcome specific issues, it appeared that no hospital had developed a comprehensive way of tackling all barriers in a way that was wholly satisfactory.

The ease with which good quality data could be collected appeared to be affected by four main issues:

- where data were collected;
- the nature of EDs;
- the nature of the assault population; and
- staff collecting the data.

¹⁸ Where postcode information was given, this raised issues over confidentiality and this was addressed in some cases by recording only the first four digits of the postcode or extracting the identifiable information before sharing the data.

Where data were collected

Some hospitals collected at least part of the relevant data from assault victims in ED reception areas. Interviewees indicated that the public nature of the reception area was far from suitable for collecting answers to what could, under some circumstances, be quite personal questions. This either meant that receptionists might sometimes refrain from asking questions, or it led to concerns that some genuine assault patients might not admit to having been assaulted (because this information would be disclosed openly in the reception area). As one hospital worker described:

“The reception area is very small and it’s quite tight and there would be issues and I think the receptionists have said this to me. They would be concerned about asking questions that could be confidential, the patient may not wish to give answers in an environment where the answers wouldn’t be entirely private, because there might be other patients waiting behind them also to be booked in”

Hospital (1)

Indeed some of the concerns around collecting data effectively from victims in the reception area of EDs had led some hospitals to adopt alternative locations for collecting the data.

“We chose to do it ...in triage, not in reception, because our reception is very open ... And, it was...we thought we’d get more honest answers if they were in an enclosed triage environment.”

Hospital (3)

Those EDs which chose to use a combination of reception and medical staff to complete the forms did so in part because it provided two opportunities to capture data (and so reduced the risk that eligible patients might be overlooked). In particular, the fact that medical staff were able to have a one-to-one encounter with the patient was felt to have provided an opportunity to obtain more honest answers about whether an assault had taken place.

A minority of interviewees talked about the difficulties around recording an assault late in the patient’s journey through the ED (both within the paper-based systems and electronic systems). For example, it was suggested that if an assault had been ‘identified’ after the point at which it was generally expected to be classified as such, staff might be unwilling to spend the time repeating the collation of the information on separate assault forms (which may not be located with the notes).

The nature of EDs

The nature of a typical, hectic ED environment was also identified as a factor which constrained the process of collecting information from assault victims. Friday and Saturday nights were often busy and coincided with the time when a majority of assault patients (many of whom will be under the influence of alcohol) will attend. In addition, the existence of targets for waiting times was identified as a further pressure on ED staff. These factors conspired to ensure that the ED environment was far from the ideal setting in which to collect additional data from an assault victim. One interviewee summarised the general environment of an ED as follows:

“...the whole dynamic in an A&E department is sort of busy, busy, busy, got to get the next patient through, four hour waiting targets, can't be waiting around, you know, getting information that isn't immediately of interest to us. And that's, you know, that's a general dynamic in all A&E departments.”

Hospital (2)

The nature of the assault population

It was acknowledged that different groups of assault victims (e.g. domestic abuse victims, victims of pub fights, stranger assaults, elder abuse and so on) presented specific challenges to effective data collection. The specific characteristics of an assault victim might influence levels of victim co-operation or, in some instances, the determination of staff to elicit accurate information from the patient.

Particular challenges were identified around assault victims who may have had close links with offenders – this might encourage them to be reluctant to disclose detailed information (for fear of reprisal).

“...I had a patient come in who'd been caught up in a riot in a really, what sounds like quite a dodgy pub, and, and he told me quite a number of things that sounded quite bad about the pub, but he didn't want to disclose [the pub] to the police because he didn't want to get caught up in any reprisals from the main troublemakers.”

Hospital (9)

There was also the more general problem of those who were drunk and/or those who had taken drugs, and could not therefore recall accurately details of their assault.¹⁹ In these instances, either sections of the form or the whole form would not be completed.

¹⁹ It is not possible to determine how many patients fell into this category.

Staff collecting the data

A final issue affecting the quality of data collection was the commitment and ability of those individuals responsible for collecting the information. There were two main issues: staff motivation and staff turnover. It is self-evident that the individual commitment of data collectors to the initiative was perceived to vary: some individuals responsible for data collection were perceived by their project leaders to be highly committed to the initiative and determined in their approach to collecting data; other individuals were much less so.

“I think the weaknesses are just...are...are the fact that... our greatest weakness is staff apathy about doing it, I would say. I think when it works, it works very well.”

Hospital (3)

With respect to staff turnover, the main issue was around new staff not being made aware of the requirement to collect data from assault victims. High turnover was perceived to be a particular concern in the handful of areas where doctors played a central role in the data collection process. Doctors were generally described as being subject to a much higher rate of turnover than either reception or nursing staff. Indeed, one interviewee contrasted doctors on a four-month rotation with receptionists, many of whom had been at the hospital for over 20 years.

Attempts to improve the quality of data collection

Some of the barriers to high quality data collection were permanent and not easy to solve: EDs would always be busy places, and the nature of the assault population was a given. Participants were, however, able to cite some staffing issues – particularly awareness and motivation – which they believed had been tackled during the life cycle of the schemes. There were examples of both the hospital, and less frequently, the CSP playing an important part in seeking to motivate staff.

Within hospitals, the methods used to raise awareness amongst front-line staff included: holding group meetings with data collectors; arranging additional training sessions; putting up posters; staff reminders; and appointing scheme champions. Reminders to hospital staff about the scheme took a number of forms, ranging from frequent verbal, written or emailed reminders through to more ad hoc approaches (e.g. intensive departmental-wide campaigns). Key personnel were identified who were considered to be instrumental in motivating front-line staff and who personally championed the scheme throughout the department.

“So I do keep prompting. I do keep reminding...But at the end of the day, if a medical staff member’s got a patient in front of them and the treatment, you know, is urgent, then they just may not do it.”

Hospital (1)

From the perspective of partnership staff, the main contribution to improving motivation was through creating a feedback loop about how the data were used. One area produced newsletters for the hospital on a quarterly basis providing basic analysis of the data that had been collected.²⁰ This was considered to be part of a two-way communication exchange: the CSP fed back how the data had been used to the hospital; hospital staff were able to feed back any difficulties that they had experienced in the data collection process.

However some partnership personnel identified a ‘Catch 22’ situation which seemed to put a brake on increasing awareness and motivation. The full value of the initiative would only be demonstrated to hospital staff once the data collected by the scheme was of sufficient quality that robust analysis could be undertaken. If the data were poor, it was hard to make a convincing case.

“...it was suggested that we go back and we say to all the clinical ...staff and tell them how we use the data and how it’s, you know, making a difference. But it was a chicken and egg thing... we didn’t have robust enough data to actually use to help us to do any kind of, you know, hot spotting or anything like that....we were a bit stuck, you know, we could tell them what we wanted to do with it, but we couldn’t show them how it was being used because it wasn’t able to be used, it wasn’t good enough quality ...”

Partnership (8)

Presentations about the value of the initiative before this stage was reached were difficult to deliver unless the presentations focused purely on the *potential* benefits of data (rather than the actual/realised ones). Finally, the point was made by some that enhancing the motivation of hospital staff had its limitations. As hospital staff were primarily focused on patient care, the collection of assault data would always sit as a secondary aspect of this role.

Some of those interviewed identified that the key was to incorporate the data collection into ‘business as usual’ by embedding data collection into the routine practice of the staff within the ED. This was, however, an aspiration. In most areas, irrespective of how long the scheme had been

running, the data collection process was *not* perceived by those within the ED to be part of their normal routine when attending a patient. Furthermore, none of those interviewed were able to suggest a system, other than new IT programmes, through which a ‘business as usual’ approach could be implemented.

4 Data transfer from Emergency Departments to Community Safety Partnerships

This chapter considers the process by which data were collated and ‘cleaned’ by hospitals and transferred from EDs to CSPs.

Collation and storage of data

In EDs where paper forms were used, interviewees described a process by which anonymised data were manually entered (or paper sheets were scanned) to create Excel spreadsheet versions of the data. This process was usually undertaken once a month or more, either by receptionists at the ED or by IT staff based in the hospital. However, in the main, hospital staff indicated that in order for this task to be completed, time had to be diverted from existing activities. In hospitals where the resources to support the initiative were limited, this had the potential to cause interruptions to the regularity with which the data were sent to CSPs.

Data cleaning

Before sending data to CSPs, a number of types of different data ‘cleaning’ were undertaken by hospitals. Most hospital participants described a routine process to ensure that the data were anonymised before being sent to the partnership. A minority of hospital staff also described a process of ‘eyeballing’ the data to increase the ease of use by a partnership analyst. The sort of improvements undertaken included: correcting pub names; adding in data on location fields; where these were known (for example, adding the name of the town connected with the pub name); and converting date of birth to age group. This was described as a particularly time-consuming task.

²⁰ The interviewee gave no evidence regarding the impact of the newsletter.

“I couldn’t give it to the police in the format it came because it, it just needs a bit of recasting and, you know, if they’ve put in the name of a bar and it’s misspelt, then I just need to make sure the spelling’s correct, just so it’s consistent. ...it just needs cleaning and tidying up really so actually you’re making the most out of the information that’s been collected.”

Hospital (1)

No-one interviewed described having a process that checked whether manually inputted data had been entered correctly onto the spreadsheet.

Extraction of data

Once the data had been entered and collated, it was usual to extract this data set and transfer it electronically to the data user (usually an analyst in the relevant CSP). This either involved tacking a snapshot of the database into which the paper forms had been entered, or sending the whole, updated, spreadsheet to the data user.

Even within the two hospitals which had developed IT-based approaches to data collection and where it might be assumed the process of extracting data was somewhat more straightforward interviewees identified issues with extracting the data from the hospital IT system. In one case, it had not been possible to write a data extraction programme, so although the hospital had electronically collected data specifically for the scheme, they were unable to access these data until the software had been upgraded.

In a second ED, although the IT department initially produced the data report, this responsibility was subsequently passed back to the receptionist supervisor.

“...the supervisor then had to, you know, draw off the information and run this sort of research programme or macro... to draw off the information and then, and then send it on to us. And.... we then entered this phase where it’s very erratic; we get it some days and sort of, you know, hit and miss.”

Partnership (9)

Sending data to CSPs

This seemingly straightforward process of transferring data from hospital to partnership was described as occasionally being vulnerable to poor communication between partners. The frequency with which data were transferred

ranged from weekly to six monthly.²¹ Exactly what level of frequency was achieved depended in part on: the capacity available within the hospital to clean and extract the data; the workloads of key staff; and the analytical needs of the CSPs. Decisions on the frequency were usually reached by mutual agreement. Ultimately, however, any agreements regarding the regularity of sending of data tended to be informal. There were occasions when a handful of CSPs felt that they had to chase or request data which had not been sent across; the consequent delays were seen as having negative effects on the way in which the data could be incorporated into analysis.

Where the transfer of data between hospitals and CSPs was working well, interviewees stressed the importance of good communication and a mutual understanding between partners. For example, one partnership staff member was able to describe an ongoing positive dialogue between the partnership and the hospital: problems were discussed, solutions were found and there was respect for what the hospital was trying to achieve on behalf of the partnership. The two groups were working well together and ensuring that they kept in touch.

While the majority of hospital project leaders felt that they knew which agencies (usually the police, CSP and/or local council) were in receipt of the data collected, this basic level of understanding of data usage was not universal. In one extreme example it was evident from interviews that collected data through a paper-based system were not, in fact, being shared.

Using the data within the hospital setting

It was rare for hospital staff to describe situations where the hospital itself used the data collected. This partly reflected the fact that the primary goal was to collect data to assist the partnership. However, there were two exceptions to this rule. In one hospital, where the project leader was in fact a health analyst, a report was produced on potential domestic abuse cases which drew upon cumulative data from the initiative. This report was shared within the ED, the security lead at the Primary Care Trust (PCT), environmental health and the ambulance service. It was prepared by analysing demographic characteristics and location data, using as a proxy measure assaults carried out at a home address being domestic in nature.²²

²¹ No indication was given of the time lag between collecting the data and sending these data to partnerships.

²² While it is recognised that not all domestic abuse is perpetrated at home and that not all injuries sustained in the home are domestic in nature, the approach adopted by the partnership was thought to reflect a pragmatic view of data analysis.

In another hospital, data collected on the characteristics of female victims were shared with the obstetrics and gynaecological unit.

5 Analysis and use of Emergency Department data

The final stage in the data sharing process is for a member of staff, usually the CSP analyst, to synthesise the data generated and incorporate into the broader crime analysis process. At its best, this process leads CSPs to better identify locations which constitute high-risk places for violence in order to better target resources.

In spite of the fact that the study had deliberately sought to include more mature schemes, the extent to which the interviews revealed that data analysis was undertaken was in practice patchy. Across all of the ten sites only six had a dedicated analyst in post at the time of interview. Furthermore, only a minority of areas could be described as making constructive use of the ED data provided.

Analysing the data

In total, only three areas could be described as actively making use of the data at the time of the interviews. Of the three 'analysis using' CSPs, the level of usage varied. Only one area used the data for targeted resourcing for problem licensed premises. This partnership used the data to populate a risk assessment matrix (as described in Chapter one)²³. The risk assessment would then be used to target interventions and provide advice to those deemed in most need of intervention, that is, the 'red risk' premises. The second CSP found that analysis was limited because of poor quality/ low quantity of the data provided, but nevertheless produced a report based on the data provided and used the data in its strategic assessment. The third CSP simply went through the process of 'eye-balling' the data. In this area – which at the time had no resident analyst – the Community Safety

²³ Scoring matrices were used by more than one partnership but they tended to draw on a range of data sources which did not include ED data; only one area actually used ED data within a multi-sourced matrix. The ED data were identified as a source that would have the potential to inform the scoring system, but was not included because of its perceived lack of robustness due to the low volume and low coverage of incidents recorded.

Manager (CSM) met with the police on a weekly basis and took along the raw ED data to use in conjunction with the police data. No prior 'systematic analysis' was undertaken; rather the CSM selected what she thought was of value from the spreadsheet and this was used alongside the police data.

Five CSPs were not using the data (although two were planning to do so), one was not receiving any data and in another it was not possible to make contact with anyone using the data (although the data were collected by the hospital).

More general hot-spotting and temporal analysis was identified by interviewees as an area of potential development. No areas could describe a working model but talked about this approach as an aspiration:

"...first of all you'd identify your hot spot, and then you'd go into that and determine like, the victim and then work out if there's any patterns in the offenders that are being recorded. And then you tie it all together at the end, I'd say, and then give your recommendations."

Partnership (9)

Factors inhibiting the analysis of ED data

Interviewees often argued that the level of analysis was constrained considerably by the quality of the data available. CSPs could best be described as making partial, marginal use of the data, or, in the majority of cases, not using the data provided in any meaningful way. The reasons for 'analysis failure' are, however, complex, with a range of factors contributing.

When asked to consider factors that influenced the current analytical process, interviewees generally were, predictably given the usage, more likely to identify barriers to data analysis than facilitators; some highlighted the existence of multiple barriers which prevented the data from being used effectively. Several of these barriers mirror concerns already highlighted in this study over the quality of ED data and can be grouped under three headings:

- the absence of a dedicated partnership analyst;
- low absolute numbers of cases received from the ED on which analysis could be undertaken (linked to the partial coverage of the eligible assault population);
- accuracy and specificity of data (specifically 'location' data).

The role of partnership analysts

In at least three areas, there was no dedicated partnership analyst in place. This was potentially a major inhibitor to maximising the value of the scheme. The impact of not having an analyst was potentially felt at several stages of the initiative (e.g. aside from end user, the lack of an analyst would clearly restrict analyst input into the design of the data collection form).

While the lack of a partnership analyst might be considered as an insurmountable hurdle in the ED process, the experience of one area which appeared nonetheless to be getting value from the data suggested that this was not always the case. In this area, the absence of a partnership analyst was largely compensated for by the presence of a health analyst attached to the hospital. She ensured that the data were provided in a way which was user friendly to non-specialists.

Where data were transferred to the partnership and an analyst was in post, the analyst often played a key 'gatekeeper' role, assessing the overall quality of the data provided, before deciding whether or not to use the data as part of the suite of analytical products to inform partnership activity. There was some evidence that the 'gatekeeper' role applied meant that use of ED data was limited or non-existent. Although valued for applying a quality control threshold, analyst users could sometimes be described as adopting something of a purist approach to using the data, rejecting completely data sets they viewed as partial, incomplete or of poor quality. By contrast, in CSPs where analysts were not in post, other partnership staff were found to be making efforts to get at least some utility from the ED data they were in receipt of. These users were inclined to adopt a more pragmatic approach to using the data.

Poor coverage

The perceived failure to cover the eligible population was cited by some of the analysts as a reason for using the data sparingly:

"...since we started the project [end of May]... we've had a total of 73 [assaults], and 31 of those were in September, so. We had three this month and one last month, so there, as I say, are significantly low numbers... So at the moment it's almost making the project worthless, which is a shame because I feel it's a good project."

Partnership (7)

For these participants, small numbers of cases equated to poor data coverage and was perceived as symptomatic of a weak and therefore unreliable data set. In short, the

failure to capture a significant proportion of the eligible population meant the data could not be used to inform meaningful analysis. And rather than extracting the marginal value of an incomplete data set, at least one partnership opted to reject the data completely.

"... it's no point highlighting one or two premises' names, when actually, there could have been 50 of somebody else's names....., but we didn't know that. So, it was actually becoming unreliable to use [from] an analytical point, for us to put that into a meeting ... because we didn't know what else was going on and it could have skewed the premises to look at..., because there wasn't enough consistent data coming through."

Partnership (10)

The view that low coverage of the eligible population and/or low numbers of cases made the data of no value was not, however, universal. Some partnership staff – including those with and without professional analyst backgrounds – while acknowledging the limited coverage, still endeavoured to extract value. They were quick to outline what additional intelligence the data could provide, and specifically, felt that ED data could sometimes be used to 'enrich' a picture they had of an area from other sources.

"... always believed that it [ED data] had to be used intelligently, that you have the information and you'd then be able, you know, form judgements about it from the other information you had ..."

Partnership (9)

Poor location data

The final commonly cited barrier to using the data in a partnership context was the accuracy and level of detail provided on individual cases. Analysts commented that while many of the fields in ED data sets were of poor or variable quality, poor location data were commonly seen as one of the most limiting features of ED datasets.

Analysts placed special emphasis on the value of high quality geographic data; indeed quality geographic data were often considered to be a key criterion for the scheme's success. Consequently, weaknesses in the completion of these fields were seen as especially frustrating. Furthermore, the location field was a free text box which, as well as being more time consuming to complete, could be completed to varying degrees of specificity.

“...where there is free text [for location data], there’s quite a wide variety of unusual locations which...probably down to spelling..or maybe just no local knowledge...[you still don’t know] where that place is. ...one we get commonly is that the [xxxxx] [This is] is quite a large entertainment area, but everybody just refers to it as [name of complex]’. And it could be any number of individual premises that the incident took place in or around, but people will say: ‘I was at [xxxxx]’...funneling down to individual premises, it’s kind of what we hoped we would be able to do.”

Partnership (8)

Finally, even for the diligent data collector, obtaining location data in sufficient detail to be useful to the partnership analyst when the victim was under the influence of alcohol, could be challenging. One partnership commented:

“... difficulty of asking someone a question...where were you when this happened, when they’re probably in a state of distress anyway, and they’re probably under the influence of ...alcohol...it’s going to be difficult to keep asking lots and lots of questions to narrow it [location] down...”

Partnership (8)

Other sources of health data

Although some analysts turned their back on data collected by the schemes, others nevertheless looked to other sources of health data to enhance their understanding of local crime patterns. Two examples are worth highlighting. One partnership’s desire to get hold of detailed location data for mapping purposes led it to obtain data on assaults recorded by the ambulance service. This data set had postcodes for all ambulance call outs. The analyst explained:

“It’s got the date, precise location, it’s got their record number, times, it’s got Eastings and Northings so you can precisely map it and a full address and that was all I wanted. It’s also got a code as to the type of assault and so it covers, well, it’s every assault that is attended by, the South, what is it, the South East Ambulance Trust.”

Partnership (6)

In a second site, an analyst wanted comprehensive figures for assault cases involving alcohol. Rather than using data collected through the scheme from paper forms, the analyst used admittance data alone; an electronic data extract from the PCT data was created covering admissions flagged as ‘alcohol’, ‘assault’, ‘spiked’ or ‘premises’ (licensed premises). It was claimed that the extracted data gave better coverage of the population of interest than the data collected specifically for the initiative.

“...we decided to try to get some better use out of the PCT data by looking at some fairly specific fields within the notes field. So, it’s their A&E system that the PCT... have use of, and we decided, for the purposes of the [name of report] report, and it’s very much tailored towards [name of area], this information; we would look specifically at alcohol, assault, spiked, and premises.”

Partnership (10)

In both instances, whilst the hospitals linked to the CSPs were still collecting data under the auspices of the initiative, the CSP explored, and ultimately set up, alternative arrangements for collecting data. In both cases they considered these data sets better suited to their requirements and therefore opted not to use the data collected via the ED scheme.²⁴

Data usage in the health context

Few areas gave initial thought to the way in which the data might be applied in the health context. For many, the perception was that the primary goal of the exercise was an attempt to gather data to share with partner agencies. However, a handful of hospitals did make use of the data collected. One such use was to identify the prevalence of particular types of victim within the general ‘assault population’. Indeed, the data were used to support a business case for the creation of specialist vulnerable adults/alcohol worker posts within the PCT or hospital.

In addition, some interviewees ascribed some broader developments within the hospital as being in part the consequence of the ED’s involvement with the scheme. One such development was around relationship building with partner agencies for delivering health interventions such as alcohol support services or Domestic Abuse support services. Another was the development of processes for sharing data which then assisted with the improvement of other data sharing arrangements as staff were more amenable to collecting other data:

“... this [the data sharing initiative] has actually opened some doors in terms of getting people to think about these issues [children and alcohol] and be more ready to contemplate ticking an extra box actually to get some better epidemiological information.”

Hospital (1)

²⁴ In one ED, the scheme was terminated when this became known. In the other, rather than stopping the initiative, the hospital had plans to improve it by making preparations to change from the paper method of data collection to an electronic method.

6 Discussion

This chapter brings together the main findings from the study. Whilst the situation in the South East was dependent upon the provision of modest amounts of funding, the findings provide useful information for other EDs considering setting up similar schemes. A document setting out practical tips for those setting up similar data-sharing schemes is given in Appendix 5 at the end of the report.

The process of data sharing is complex and not symmetrical

The concept of data sharing is simple. It implies a straightforward process by which data collected by organisation A is shared with organisation B in a way which adds value, ideally to the benefit of both organisations. The evidence provided by this evaluation suggests, however, that the process of data sharing between EDs and CSPs is complex. The umbrella term of 'data sharing' actually covers several distinct, but linked, stages: data collection; data extraction; data sharing; analysis and application. This study has depicted how each of these stages has its own set of unique vulnerabilities, and few are under the control of a single entity or person. Moreover, effective data sharing involves the bridging of institutional (and cultural) gaps both *between* and *within* organisations. As we will go on to describe, successful data sharing requires that each stage functions effectively, and joins seamlessly with the subsequent stage (in a way which allows constructive, two-way feedback).

Additionally, this study highlights the asymmetrical nature of ED data sharing. While the 'up-stream' effort required by EDs to collect and process data is often considerable, the short term benefits (in terms of improved analysis and consequent targeting of resources) are more clearly realised by the CSP. Although there may be some collateral benefits for EDs in terms of understanding more about their assault population, and potentially reductions in assault victims, these are generally not quick wins and have to be viewed against the large throughput of non-assault cases. Specialist surgeons might see a reduction in serious assaults, but those responsible for collecting the additional information from patients are unlikely to see a return on their own personal investment.

The approach to data sharing was different in each ED setting

The second main finding is around the variety of approaches used in each of the ten EDs studied. Although

the intention had been to adopt the kernel of the Cardiff Model's approach to collecting and sharing data, no EDs managed to embrace this approach in its entirety.²⁵ In fact, no two hospitals implemented and operated the ED data sharing scheme in exactly the same way.

Generally, responses to the challenge of devising data sharing schemes were in part conditioned by the situational constraints of the ED settings. This included the physical layout of the hospital, the constraints or possibilities afforded by the existing IT infrastructure (and the anticipated effects of future changes), and how some of these factors interacted with decisions around who collected the data. Inevitably some decisions around how the data sharing process was constructed reflected the preferences of those charged with executing the task.

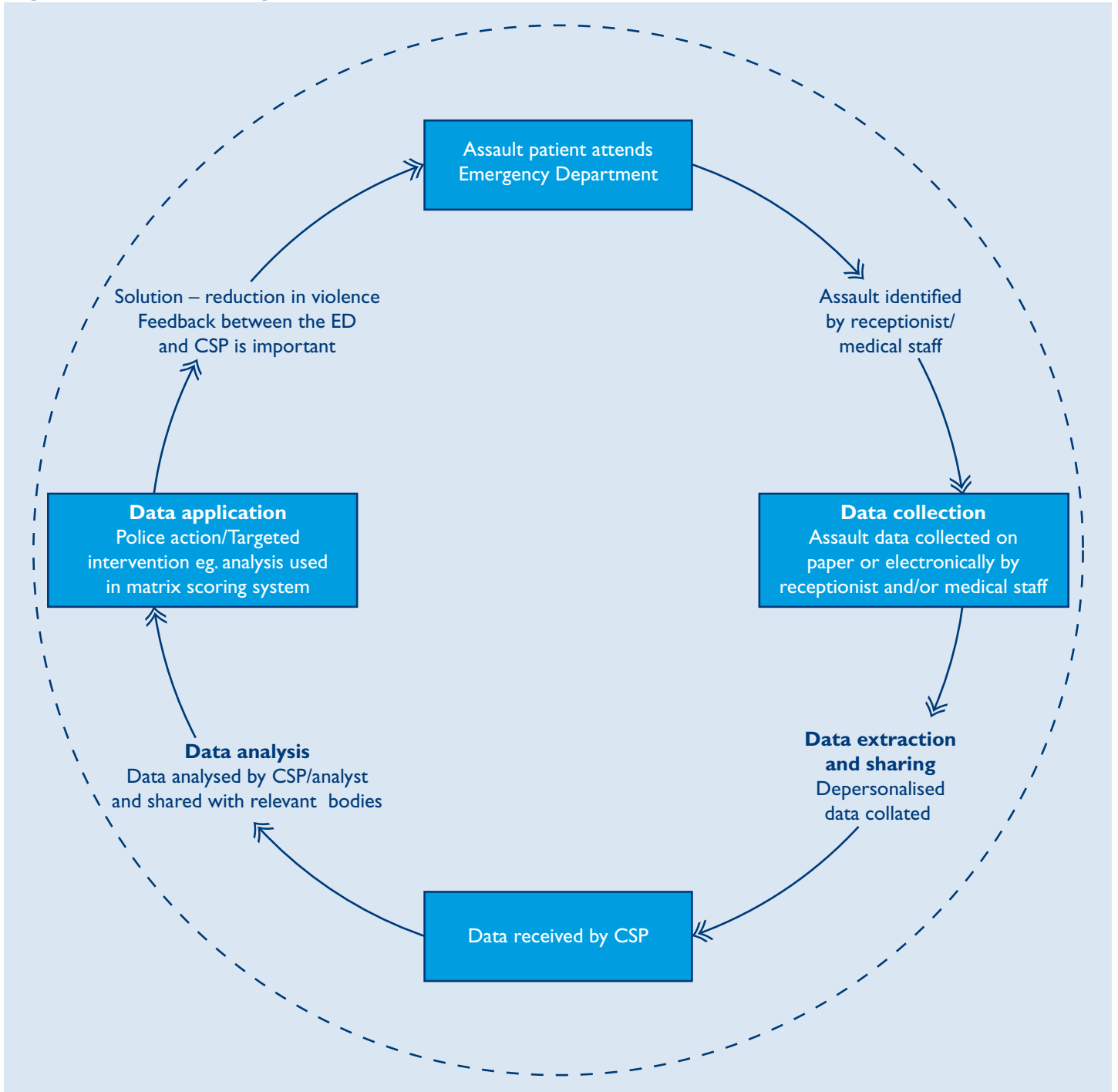
ED data sharing could be described as working in only a minority of locations

As noted in Chapter five, only a minority of the schemes examined could be reasonably described as functioning at a basic level, which would entail a notional 'circle' of activities – all critical to the data sharing process – being both in place and fully joined up, so that data were collected, transferred and analysed, and then used by analysts or others to inform tactical decisions aimed at reducing violence. While this might on the face of it seem to suggest implementation failure, this was not a perception that the areas themselves held. Despite only one area having fully completed the data sharing circle, most of those interviewed were still able to see the future potential of the scheme and were still working towards achieving this, even in areas where the scheme had been running for several years. Many areas also acknowledged the broader benefits of the scheme that had already been achieved.

Few, if any, of the areas felt that the scheme had contributed to a reduction in crime in their local area. The experience of the South East initiative is probably more likely to reflect the 'normal' scale of challenges around setting up data sharing (Steel *et al.*, 2010). It is important to note that this process evaluation took place relatively soon after the South East initiative had started. However, in some cases the scheme had been running for several years prior to GOSE funding being made available. Many of the barriers identified in longer running schemes mirrored those found in the less mature schemes.

²⁵ Of course, as highlighted in Chapter 1, the Cardiff data sharing Model was only one aspect of a wider approach to violence reduction in Cardiff.

Figure 1 Data sharing circle



Adapted from a diagram produced by a local Community Safety Team in the South East.

Where the data sharing initiative was working well

What this study has however revealed is the extent to which the success of data sharing is dependent upon all elements of a 'data sharing circle' functioning well. Through the interviews it was clear that only one area seemed to have all parts of this 'circle' linked effectively. Areas recognised the *potential* of the scheme, however, at the point of conducting the process evaluation, many felt that this potential had yet to be reached.

Where the initiative was working well, there was good communication between the various groups and a respect for the difficulties that each 'element' faced. Connected with this was an 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. In addition, the CSP was making effective use of the data provided. There was also a sense of working together for a common good rather than working in silos with limited communication.

Where the data sharing initiative was not working

Various aspects of the data sharing process were identified by those interviewed as either not working or as presenting a barrier to successful implementation. What was clear was that critical failure could occur at any point in the process; all parts of the circle needed to be intact and working in synergy before there could be a usable product.

Few areas recorded precisely the same set of barriers and the study has identified significant hurdles to successful implementation, with some themes present in the entire process of data collection. These are brought together in Table I below:

Where the initiative was not working well, communication was not seen to be particularly effective and people were not necessarily listening to or hearing the feedback given. Feedback was important but where there were problems with the smooth running of the initiative and feedback was

negative or ineffective, there were difficulties in both the giving and receiving of this information.

In some areas, training was considered to be an important element in motivating and engaging staff within the hospital (although in others the simplicity of the form meant that they decided against providing formal training). Whilst the focus of the training provided was generally on form completion, a specific element of the data collection process that seemed to be an issue was the disconnect between what the hospital and the CSP considered to be good quality data. Both in this evaluation and in previous research, data quality has been identified as a hurdle in successful implementation of data sharing schemes (Edwards and Anderson, 2009). Training of hospital staff would provide one opportunity to address this gap in understanding by including information on how the data would be used and thereby illustrate the importance of accuracy of particular fields, particularly location data. The perception in this study was that unless those who were collecting the data were fully aware of and understood why certain fields were important, there would be no enthusiasm to improve the quality of the data.

Table I Summary of barriers to implementation

Set up	Difficulties engaging partners in process
Data collection and extraction	<ul style="list-style-type: none"> Difficulties associated with paper or IT data collection system Being unable to manipulate the IT system to incorporate an electronic system of assault data collection Physical layout of reception 'Busyness' and high pressure atmosphere of ED Difficulties for staff in identifying and collecting data on the complete 'assault population' Staff motivation/apathy towards data collection/high staff turnover/competing internal priorities Difficulties around collecting data from certain patient groups Inability to extract data from IT system
Data analysis	<ul style="list-style-type: none"> Low quality and quantity of data Incomplete data sets – missing fields (particularly 'location' field) and missing eligible population Lack of analyst in some areas Professional attitudes of analysts towards using data
Overall barriers	<ul style="list-style-type: none"> Difficulties of getting scheme incorporated into 'business as usual' and building sustainability into the initiative once funding has expired Difficulties of sustaining momentum when scheme champions move on Where hospital serves more than one CSP, difficulties in getting all CSPs coordinated Ineffective feedback loop between hospital and CSP Understanding different work cultures Lack of time to give to the initiative Waning motivation to continue with the initiative

'Business as usual'

The perception of those interviewed was that one of the keys to success was implementing the scheme as 'business as usual'. In the vast majority of EDs, this was not how the scheme was presently perceived. The data collection process was considered to be an addition to the normal workload of both hospital staff and partnership analysts. This meant that the attitudes of, and relationships between, those involved were key to the successful running of the scheme. Essentially, as hospital staff were responsible for data collection, lack of buy-in at this level ultimately resulted in the failure or partial failure of the data collection process. Had the collection of data become routine, the perception was that the proportion of data collected from the eligible patient population would have been greater, which would have increased the usefulness of the data to the analyst within the CSP.

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. Specific ways suggested for improving buy-in were: having a 'scheme champion' who could work to link together not only different partners but also staff within the hospital; having a supportive and engaged analyst; and, finally, having engaged project leaders. The perception from the interviews was that when these were in place, the scheme would run more smoothly.

Other options for Accident and Emergency Data

A handful of areas in the study decided to use 'off the shelf' health data (i.e. that which was already routinely collected by the hospital or ambulance service) instead of collected through the ED.²⁶ It has been shown that basic ED data can be useful for the long-term prevention of violence, in particular, monitoring trends and identifying at risk groups and communities for violence (Sivarajasingham *et al.*, 2009).²⁷ This approach was adopted after the data collected by the bespoke ED data sharing scheme was deemed to be of too low a quality to be useful. The use

26 Two areas found alternative sources of data to that provided by the initiative. One hospital provided an electronic data extract covering attendances flagged as 'alcohol', 'assault', 'spiked' or 'premises' to the CSP. One CSP used data on assault recorded by the ambulance service.

27 See also: Assaults in Merseyside: an analysis of emergency department and ambulance data, January 2007 to December 2009, <http://www.tiig.info/details.aspx?pid=50&id=420>

of data already routinely collected by hospitals would significantly decrease the burden on health partners; however, previous research has also demonstrated significant challenges both in coverage and quality of these additional data sources.²⁸

Although this approach shares some of the challenges identified in bespoke data collection initiatives, partnerships may want to give consideration to these alternative data sources, either as a way of providing data that requires little input (as it is already collected) or as a data source that can enhance the picture provided by that collected by EDs.

Broader benefits

While it was evident that many areas had not yet reached their primary aim of collecting quality data in order to contribute to a reduction in violent crime, hospital and partnership staff identified wider benefits of the scheme.

Primarily, the main unintended benefits were around the relationships that had been built up between the hospital and the CSPs. Many CSPs suggested that previously relationships between the CSP and health department in their local area had been difficult to foster. The benefits were not just one-sided: by engaging different groups in dialogue about the data collected, hospitals also described a situation of improved relationships, for example, with Multi-agency Risk Assessment Conferences (MARACs). This mirrors the findings of previous research into the effectiveness of partnership working which found that the provision of a common focus enabled a more effective relationship between partner agencies to develop.²⁹

In some cases the ED process acted as a mechanism for further work and a 'snowballing' effect occurred, whereby specific issues, particularly domestic violence, were discussed by partners and plans developed to address these. This included developing specific protocols for the ED around domestic violence as well as developing support services for victims. This led to the development of new data sharing arrangements around these different issues. In this way the scheme could be seen as an enabler of broader partnership working arrangements.

28 The Cardiff Model analysed ambulance data in conjunction with ED data (rather than using it as an alternative data source) and demonstrated that ambulance data only contained around 30 per cent of all assault patients that attend EDs (Warburton & Shepherd, 2004), which would present a significant gap in the assault picture if used on its own.

29 Partnership Rapid Evidence Assessment.

Recommendations

This report offers three 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 is 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.
 - **Consideration should be given to undertaking further research looking at a range of local schemes 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.
 - **Consideration should be given to producing a package of analytical examples demonstrating how ED data has 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.
-

Appendix I Information on data sharing models

The 'Cardiff Model'³⁰

The 'Cardiff Model' was set up in 1996, to collect and share ED patient derived data on the circumstances of a violent incident with the police and local partnership in order to contribute to a reduction in violent crime. It is important to distinguish between the data sharing element of the scheme in Cardiff, and the wider initiative overseen by the Cardiff Violence Prevention Group (CVPG). The aim of the initiative set up by GOSE was to replicate, as closely as possible, this data sharing element of the CVPG across the South East region; it was not intended to replicate the totality of the Cardiff Model.

In the data sharing element of the Cardiff model (Warburton & Shepherd, 2004), information on assault victims was initially collected by doctors using a paper form when they were attending patients. However, when the ED was relocated to a new fully computerised facility, it became possible to integrate the data collection system into the IT system so the data could be collected by receptionists at the point of patients presenting at the ED. This was perceived to be an improvement on the previous paper-based system (because the assault questionnaire was simply incorporated into the patient admission software programme). Information collected was subsequently shared with the partnership and included data on assault type, location, assailant(s) and where applicable what weapon was used. (Appendix 4 gives a summary of the components of the depersonalised minimum data set). 'Assault' was defined by the patients themselves.

Each month, a raw set of anonymous data were formatted and passed to a CSP analyst who would then combine the data with police data. A summary of the results was then presented to the CSP Violence Tasking Group, consisting of senior police, local authority and ED practitioners, who would implement and update a violence prevention action plan, as well as look at long-term violence trends.

Once the data collection process had been established, the remit of the group widened. In 1997/98, a three-officer task force was established and was made responsible for co-ordinating and managing a nine-month initiative in which licensed premises identified as hot spots of violence were targeted. The targeting was based partly on data collected by the ED initiative. The work was further expanded in 2000 to support a large-scale project designed to target alcohol related street crime (TASC) in Cardiff city centre and Cardiff Bay. The project was subject to a Home Office evaluation (Maguire & Nettleton, 2003). The analysis undertaken by the TASC officers was conducted using a range of data sources, including four police data sources (incident records, custody handling records, crime records and closed circuit television (CCTV) records) as well as ambulance attendance data and ED data in order to provide a wider picture of alcohol-related street crime in Cardiff. (This data collation process required substantial time-limited Home Office funding) The analysis then fed into the TASC project which included a raft of multi-agency interventions. (Warburton & Shepherd, 2004) The TASC project was estimated to have contributed to an eight per cent decrease in the level of violent incidents in the city, which it is thought prevented about 100 assaults. By contrast, during the same period (July 2000 to June 2001) there was a 49 per cent increase in incidents of alcohol-related disorder (i.e. incidents in which violence had not occurred) (Maguire & Nettleton, 2003).

The Trauma and Injury Intelligence Group³¹

A key aspect of the TIIG is an Injury Surveillance System (ISS) which routinely collects injury data from local EDs as well as the ambulance, fire and police services across the North West. The main focus is prevention and it is aimed at community intervention. The TIIG uses the data to produce monthly reports which are available through their website, as well as a number of reports covering key themes which are made available to key partners to inform their activity. Over the life of the TIIG project 2003/04 to 2008/09, Arrowse Park ED has seen a 33 per cent reduction in assault attendances and a 41 per cent reduction in alcohol-related assaults.

30 Summary of Cardiff/SE Regional Violence - Emergency Department Information Sharing Project:
<http://www.gos.gov.uk/497648/docs/300069/EDDataSharing>

31 http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_114061.pdf, A&E Serious Youth Violence Data Sharing Initiative, Case Study: TIIG Wirral Project.

Appendix 2 Summary to show the stages of development within hospitals and CSPs

Hospital/ Area	Set up	Data Capture	Data Analysis
1	Scheme running since 2006 GOSE funding used to overprint patient notes with questionnaire Ethics approval not sought but consulted Caldicott Guardian	Eligibility criteria – Assault Paper form overprinted on patient notes Receptionists and medical staff collect data Data inputted onto computer system by receptionists	Data received every six months Data used in matrix to identify top ten problem licensed premises Data used in strategic assessment
2	Scheme running since 2005 No GOSE funding used Ethics approval not sought	Eligibility criteria – Assault Paper form Doctor or nurse collect data Data inputted onto computer system by receptionists	Not much data are received Data ‘eye-balled’ and used in meetings, but not ‘analysed’ as it does not have geo-coding
3	Scheme running since 2006 GOSE funding was received and used by the council in connection with domestic abuse Ethics approval not sought	Eligibility criteria – Assault Paper form Triage nurse collects data Data inputted into excel spreadsheet by project leader	Data were originally sent on monthly basis but council no longer receive data No data analysis is conducted
4	Scheme running since 2006 GOSE funding was returned because they could not use it within the financial year Ethics approval – unknown (project leader not in post when study started)	Eligibility criteria – Alcohol-related assault Paper form Receptionist & triage nurse/doctor collect data Data inputted into excel spreadsheet by data co-ordinator	Not much data is received No data analysis conducted (no analyst in post)
5	Scheme running since 2008 GOSE funding used to upgrade IT system to incorporate data collection form Ethics approval not sought	Eligibility criteria – Assault Paper and electronic form used at the same time Receptionists and then triage nurse collect data Not possible to identify who collated and inputted data	Until the IT system was upgraded, data could not be extracted Paper forms were apparently collected from the hospital but it was not possible to identify who collected the forms and therefore no data analysis was able to be identified
6	Scheme running since around 2006 GOSE funding used on IT, staff training and input of data from paper forms to the IT system Data sharing protocol developed and approved by Head of Knowledge and Data Protection Team	Eligibility criteria – Assault Paper forms Receptionists, triage nurses and doctors collect data Data inputted into excel by receptionist team leader	Data received but not used by CSP as analyst could not map the data Alternative data from ambulance data are used to map locations

Hospital/ Area	Set up	Data Capture	Data Analysis
7	<p>Scheme running since 2008</p> <p>GOSE funding used for setting up database and training nursing staff</p> <p>Caldicott approval secured for the study</p>	<p>Eligibility criteria – Assault</p> <p>Paper form</p> <p>Triage nurses collect data</p> <p>Data inputted into Excel by IT department</p>	<p>Data transferred monthly to CSP</p> <p>Analysis limited due to low quality/ quantity of data</p> <p>Data included in strategic assessment and used at police tactical meetings</p>
8	<p>Scheme running since 2007</p> <p>GOSE funding used to set up database</p> <p>Ethics approval not sought</p>	<p>Eligibility criteria – Assault (patients who have been assaulted or who have assaulted someone else)</p> <p>Paper form</p> <p>Triage nurses collect data</p> <p>Data inputted into excel by audit department</p>	<p>Data transferred monthly to CSP</p> <p>Data capture not consistent enough for meaningful data analysis</p>
9	<p>Project started in 2005</p> <p>GOSE funding used for IT and training</p> <p>Ethics approval not sought but study discussed with Information Governance Team</p>	<p>Eligibility criteria – Assault</p> <p>IT system booking in programme adapted</p> <p>Receptionists collect data</p> <p>IT system collects data</p>	<p>Data transferred weekly to CSP</p> <p>Data initially analysed weekly and monthly to inform licensing teams but this stopped when analyst left</p> <p>Problems with consistency of data transfer halted data analysis, but there were plans to use the data when it started to come through again</p>
10	<p>Scheme running since 2004</p> <p>GOSE funding used to fund a part-time seconded nursing co-ordinator post responsible for running the initiative</p> <p>Ethics approval not sought</p>	<p>Eligibility criteria – Assault (with a particular interest in the contributing factors, for example, alcohol- or drug-related assault)</p> <p>Paper form</p> <p>Data collected by receptionist and nurses</p> <p>Data entered by nursing co-ordinator</p>	<p>Analyst stopped using data collected through scheme found a more reliable source of data</p> <p>Alternative data source (running search term through hospital attendance database) used instead to provide data</p>

Appendix 3 Sample interview topic guide

Background information

Aim: To build up a picture of the interviewee and others involved with the data sharing scheme.

Thinking about your role in the initiative.

- Please can you tell me the ED you work for.
- Describe your key roles and responsibilities and in particular, your role in relation to the data sharing scheme. Does this person oversee the day-to-day running of the scheme? If not, then who does?
- Approximately how long have you personally been involved with the scheme?

Thinking about the start-up of the scheme.

- Can you describe the process by which this ED became involved in the data sharing scheme?
Who was responsible for the initiative happening?
What were the main goals that this particular scheme was intending to address?
Why did your ED focus on these goals?
What data did you decide to collect from what kind of patients?
- When did the hospital receive funding from the Government Office?
- Did the scheme draw on other funds at the time it was set up? And now?
- What difference did the Government Office money make to the setting up of the scheme?
- Can you describe how the Government Office funding was used, i.e. what sort of things it funded?
- Were any other uses of the money considered?
- Since it was initially set up, can you describe any major changes in the way it has operated?
- Why have these changes come about?

At the start of the scheme.

- Can you describe your own personal view of the scheme (its value, usefulness)? Why is this?
- Has this changed at all during the lifetime of the scheme?
- And what of the view of your colleagues? (Probe: extra burden of data collection through this initiative.)
- Has this view changed?
- How important do you think the attitude of the whole ED is to the success of the scheme?
- Why?

Thinking about the day-to-day running of the scheme.

- In simple terms can you describe the overall data sharing process as you see it? Can you provide a flow diagram?
- Ask about approximate timings.
- Please can you describe who are the key people involved in delivering the data sharing process within the hospital, e.g. receptionists, nurses, consultants, ambulance crew?
- Could you briefly describe their roles and responsibilities in relation to the scheme?

Preparatory work involved before the first data were collected

Aim: To gain an understanding of what had to be done in order for the scheme to get up and running.

What preparatory work did you have to do before you were ready to collect the first data?

- **Ethics approval** – Was a proposal submitted to the hospital ethics committee?
Were any problems encountered with the proposal?
- **Priming of staff** – How were staff introduced to the scheme?
Were there any problems with the selection of staff to administer the scheme?
- **Training of staff** – Was any training provided to people taking up key roles in the process?
What training?
Who provided it?
Does this training have to be repeated?
- **Preparatory discussions** – were there any discussions with other members of the ED or with Partnerships before collecting the first set of data?
Do meetings still take place?
What is discussed?
- Has there been any amendment to existing IT systems?

Thinking about data collection in more detail, are the data collected initially on paper or electronically?

If on paper

- Was the questionnaire designed from scratch or did you make use of materials from other sources? (eg. Cardiff)
- Were the questions piloted?
- Have the questions changed in any way since the first data were collected and if so, why?

Request a blank copy of the data collection form

If electronically

- Could you describe how the additional questions are presented electronically (drop down menu or separate questionnaire?) Was this designed from scratch or adapted from another hospital?
- What process did you go through to get the questions added on to the hospital system?
- Were the questions tested out first?
- Do you foresee a time when the hospital system will change and you will no longer be able to ask these questions?
- Do you have a contingency plan if that is the case?
- Have the questionnaires/electronic questions been changed in any way since the first data were collected – why and how have they been changed?

Request a blank copy of the data collection form

- Have there been any problems with regard to data collection along the way? Why do think this was?
- Has anything gone particularly smoothly with regard to data collection? Why do you think this was?

Data collection process

Aim: To understand the different stages of the data collection process.

Please describe each stage for the patient, from entering the ED to leaving the hospital, if he or she is eligible for the scheme.

- **Eligibility criteria** - What are they (in detail)?
How were they decided?
Who makes the decision regarding whether the patient is eligible for the scheme, and how is this decision made; does the patient have to admit to being a victim?
Have eligibility criteria been constant? If not, how have they changed?
Where are the data collected?
Is the patient told about the scheme? Gives consent at any stage?
Special issues for child victims? (There will probably be a need to ask this on a number of occasions.)
Can you describe your own views on the effectiveness of the eligibility criteria in practice?
- **Data collection** Who collects these initial data; receptionists, nurses, doctors, ambulance service? A combination?
Typically how long does it take for any paperwork/electronic information form to be completed for a single eligible patient? Confidence in this estimate?
Are the data collected at different points in the patient's journey through the ED? Why?
Can you describe your own views on the effectiveness of the mechanism by which data are collected? Weaknesses/ strengths?
- **Data quality** – How complete are the data for an individual case?
Are some fields repeatedly missed and why?
Are the questions answered properly?
Has the quality of data changed during the course of the project?
What factors do you believe most influence the quality (completeness) of individual cases?
- **Coverage** What percentage of eligible patients do you believe are captured through current arrangements?
On what basis do you make this assessment?
Do you perceive that the coverage of eligible patients has changed during the course of the project?
What factors do you believe most influence the coverage of eligible patients?
- **Supplementing data** – Are the data supplemented in any way after the initial data collection process?
(specifically probe ambulance service data)
If yes, how?
What kind of data are added?
By whom?
What is the intention of adding these data?
- **Data storage** – How are the data stored?
Are there any protocols in place for data storage?
- **Data analysis** – Are the data analysed and used within the hospital?

Once the data have been collected on the questionnaires/hospital system, what happens in order for the data to be ready for transfer to Partnerships?

If the data were initially collected on **hard copy**:

- Are the data transferred to a spreadsheet? (Excel by hand, or is a scanner used?)
- How long does this take?
- Who does it?
- Are the data checked? (For accuracy of transfer.)
- At what stage are the data anonymised?
- How well do you perceive this process to have worked?

If the data were initially collected **electronically**:

- Are the data transferred from the hospital system to a spreadsheet? How is this done?
- How long does this take? Who does it?
- Are the data checked? (For accuracy of transfer.)
- At what stage are the data anonymised?
- How well do you perceive this process to have worked?

Data Transfer

Aim: To find out where the data are sent and how the data are used.

To whom and where are the data sent? [{organisation/role} (need contact details)]

How are the data transferred?

Are there any protocols in place for transfer of data? Describe.

When did data transfer begin?

Frequency/time from patient arrival – data transfer.

Do any hospital departments receive the data? If so, what is it used for and who analyses it? (Try to speak to this person to find out: what information is most useful, whether they feel that there are other data fields that could be usefully collected (and why) and whether the data are analysed independently or in conjunction with other data sources.)

Have you had any feedback regarding how the data are used? (Positive and negative feedback, suggestions on changes to the data collected.)

Do you know of any changes that have taken place, either in the hospital or in Partnerships, as a result of the scheme?

Routine contact with data users?

Improvements to the data sharing scheme

Aim: To explore the Project Leader's views on whether anything could have been improved.

Thinking about the scheme as a whole, is there anything that you would have done differently?

- Data capture and transfer
- Relationships with ED, Partnerships
- Communication
- Suggestions for improvements

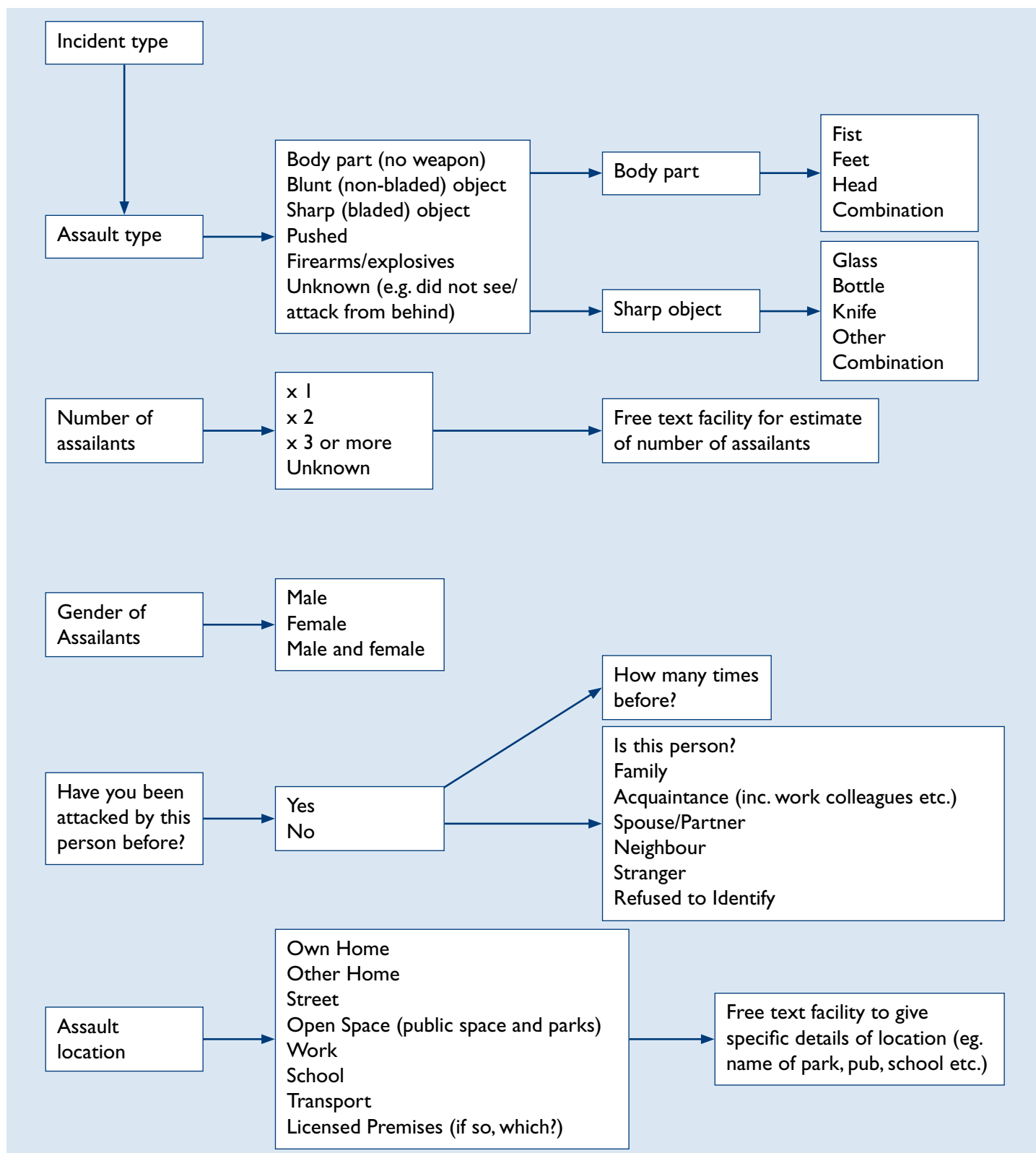
I have asked you everything that I wanted to; is there anything that you would have liked to have talked about? Do you have any questions yourself?

Thank the interviewee and close the interview

Appendix 4 Depersonalised minimum dataset

Based on the data collected by receptionists in the ED of the University of Wales Hospital Trust.

(Date, time, demographics)



Appendix 5 Considerations for practitioners

Information on the Guide

A process evaluation was undertaken looking at data sharing between EDs and CSPs. The evaluation sought to identify the approaches taken by local areas in setting up a scheme to collect, share and analyse assault patient data and to identify the main barriers and enablers to successful implementation of this scheme. (The findings from this research can be found in the main report.) The information below builds on this research and summarises the findings for practitioners.

The Annex identifies key areas for consideration, outlining what the research found in relation to these points and the implications for local areas when considering setting up schemes of a similar nature in their locality.

The information contained is not exhaustive and there will be other areas of consideration when setting up a data-sharing scheme. However, it provides a useful tool for those who are going through the process of setting up a data-collection scheme in their local area.

Consideration One *Running a pilot before formally starting a data-sharing scheme*

Rationale	Running a pilot gives an opportunity to find out how your own scheme will work in practice and allows you to test different models in order to identify which is best suited to your local area.
Research findings	<p>The research found that few areas had a formal pilot period for testing the mechanics of the data-sharing scheme.</p> <p>Most described an informal approach to setting up the scheme, with adjustments being made as the scheme progressed.</p> <p>Where changes were made to the scheme there was often a small re-launch in order to ensure that everyone was aware of the changes that had been made.</p> <p>This resulted, in some cases, in a series of ‘false starts’ in the process, in which the scheme was re-launched successively over a period of months.</p> <p>Multiple ‘false starts’ had an effect on the morale and buy-in of staff involved which, in some cases, resulted in their disengagement from the process.</p>
Considerations	<p>Agree a time period for the pilot with all partners, giving time for a full cycle of data collection, sharing and analysis to take place.</p> <p>During the pilot build in review periods; formulate a series of questions for partners with the aim of identifying potential improvements or changes in the process. Implement the changes during the pilot period and undertake a subsequent review to assess their impact.</p> <p>Ensure that those involved in all stages of the scheme are fully aware of the pilot and have an opportunity to feed back their comments.</p> <p>Delay the formal launch of the scheme until the design and implementation process has been finalised and agreed by all partners following an evaluation.</p>

Consideration Two *Identifying data already routinely collected*

Rationale	Collecting additional data on assault patients may not be necessary if the data required are already routinely collected.
Research findings	<p>A handful of areas in the study decided to use 'off-the-shelf' health data (i.e. data which were already routinely collected by the hospital or ambulance service).³²</p> <p>This approach was adopted after the data collected by the bespoke ED data-sharing scheme were deemed to be of too low a quality to be useful.</p>
Considerations	<p>Before starting the scheme take time to speak to the relevant hospital staff, including the hospital IT department, to see if there are any specific data sets already collected which could be of use.</p> <p>Make contact with the relevant ambulance service in order to discuss the potential of utilising the data that they routinely collect, considering any amendments you might make to these data to assist in meeting your data analysis requirements.</p>

Consideration Three *Deciding on the most appropriate data-collection method*

Rationale	There are two main possible data-collection methods; paper-based forms or IT-based systems. Your choice will be dependent on circumstances specific to your ED and you will need to decide what process is most suitable for your local area.
Research findings	<p>Electronic systems were used in just two out of the ten hospitals; one area had added an electronic assault form to the IT system and the other had used a free text drop-down box to record location data.</p> <p>Almost all areas favoured an IT-based approach; however, many experienced practical difficulties in easily amending existing IT systems. In addition, NHS Connecting for Health³³ was being implemented nationally at the time of the research and was identified as being an additional barrier to being able to instigate an electronic system of data collection.</p> <p>In the main, paper-based data collection consisted of a loose piece of paper in the patient hospital notes.</p> <p>Those who used a paper-based system noted that it was relatively quick and easy to implement. However, many felt that the process of data collection was more time consuming than using an IT system and concerns were raised that patients could be missed. It was felt that this possibility would be reduced when using IT-based collection systems.</p>
Considerations	<p>As a first step, meet with the IT department and investigate the feasibility of either incorporating assault questions into an existing data-collection tool or adding an assault questionnaire to the IT system.</p> <p>Find out whether the IT system is due to be changed or upgraded; this will have an impact on data collection.</p> <p>Find out whether there is appropriate software to download the collected information and whether or not personnel are available who have the time and expertise to produce a report from the system.</p> <p>If IT collection is not feasible, work with nurses, receptionists and doctors to decide on an appropriate paper-based approach.</p> <p>Regardless of the data-collection system chosen, consider the following questions; who will be responsible for collecting the data, how and where will this be undertaken and how will the data be sent to the CSP? These questions will all need to be addressed before implementing the data-collection system.</p>

32 Two areas found identified data sources outside of the ED data-sharing scheme which fulfilled analysis requirements. One hospital provided an electronic data extract covering admissions flagged as 'alcohol', 'assault', 'spiked' or 'premises' to the CSP. One CSP used data on assault recorded by the ambulance service.

33 This came into operation in April 2005 to support the NHS by delivering computer systems and services that aimed to improve how patient information was stored and accessed.

Consideration Four Deciding which data should be collected

Rationale	The value of a data-sharing scheme is dependent on the type, reliability and usefulness of the data it collects.
Research findings	<p>In most areas, the ‘Cardiff model’ minimum data set was used as a starting point when deciding which data fields to include. However, almost all schemes made amendments to accommodate local circumstances and analytical requirements.</p> <p>ED staff acknowledged that agreeing the design of the assault form was a balancing act between what the CSP felt were key questions to facilitate useful data analysis, and, what hospital staff felt were appropriate or feasible questions to ask of assault victims.</p> <p>Accurate data on the ‘location’ of the incident were perceived to be a key criterion for success of ED data-sharing schemes and where these data were not well collected analysts often discounted the entire dataset.</p> <p>However, ‘location’ data were often identified as the data field which was most poorly completed and CSP staff indicated that assault location data were often missing, incomplete, or were not specifically described.</p> <p>Some areas had considered overcoming issues with location data by including a list of night-time economy venues, but this was usually rejected because it was felt that the list would be too long to be helpful, or would require updating too frequently.</p> <p>Overall, difficulties around patients recalling details of the assault incident created difficulties for ED staff when completing the form. There were also ethical issues to take into consideration, particularly around whether or not an incident had been reported to the police.</p> <p>These barriers often led to compromises over the scope of the data-collection form. Where these problems were discussed, this was usually done in a meeting of the project group which acted as a forum for resolving these issues.</p>
Considerations	<p>Before starting data collection decide on which data fields are essential, which would be desirable and which are not needed. For guidance use the Cardiff Minimum dataset and the guidance produced by the College of Emergency Medicine in 2009.</p> <p>It is important to give thought to the data you want to collect and crucially, how the data will be used. Bear in mind the burden of data collection within the hospital setting and set this against the data that are actually going to be used by the analyst in the CSP.</p> <p>Think laterally about whether the data being collected could also be made use of within the hospital. If hospital staff are able to see immediate effects of the data they collect being used, it may encourage the collection of better quality data and greater coverage of the assault population.</p> <p>Specific concerns around the sharing of data collected by hospital staff may be discussed with the Caldicott Guardian (a senior member of NHS staff who is appointed to protect patient information).</p>

34 More information can be found in the ‘Guideline for information sharing to reduce community violence’: www.collemergencymed.ac.uk/asp/document.asp?id=488

Consideration Five *Deciding who will be responsible for data collection*

Rationale	Deciding on who will be responsible for data collection will have an impact on where and when the data are collected and may also affect the quality of the data.
Research findings	<p>Across the study sample, various personnel were described as being involved in the data-collection process: receptionists, medical staff (usually triage nurses) or a combination of both.</p> <p>The decision regarding who was responsible for data collection was closely linked to decisions about where data collection would take place, for example, at reception by receptionists or in an examination room by medical staff. In addition, what data-collection method was chosen also influenced where the data would be collected.</p> <p>Some hospitals collected at least part of the relevant data from assault victims in ED reception areas. However, some interviewees did not think that the open nature of a reception area was appropriate when asking personal questions. Those interviewed indicated that this could result in either receptionists not asking some questions, or some assault patients not acknowledging that they had been assaulted because of the public nature of the reception area.</p> <p>Ultimately, the data-collection method chosen could have an impact on the coverage of the assault population achieved.</p>
Considerations	<p>Identify a member of reception staff and a nurse who can be involved in the planning process to ensure the practical issues of data collected are considered.</p> <p>Consider the physical layout of the ED and whether or not this will have an impact on who collects the data. For example, there may be issues around confidentiality if data are collected in an open-plan reception.</p> <p>When considering who will collect the data, take into account the method of data collection (paper or electronic) as this may affect the range of options available.</p> <p>Consider whether or not more than one person can be involved in data collection and whether or not retrospective entries onto the data-collection form can be made.</p>

Consideration Six *The role of the data analyst*

Rationale	The role of the data analyst is crucial both in developing the data-collection process and in understanding the data collected.
Research findings	<p>Not all CSPs had an analyst in post at the time of setting up the scheme and/or once data collection had begun.</p> <p>Where an analyst was in post it was felt that they could make a valuable contribution when setting up the scheme, identifying which data fields would be of most use and how they might be amended for particular local circumstances. In some instances where an analyst was not in post at the start of the scheme, they provided this input later in the process.</p> <p>Analysts were often perceived to act as 'gatekeepers' for the data, making decisions on whether or not the data were 'fit for purpose' and ultimately whether or not the data should/could be used.</p> <p>Where analysts were not in post CSP staff were often responsible for 'eyeballing' the data once they had been collected, but no further analysis was undertaken.</p>
Considerations	<p>Involve analysts early in setting up the scheme. As they will be involved in analysing the data it will be important to consider their views on form design, form completion, key variables and the mechanics of data collection.</p> <p>Ultimately, the role of the analyst will be critical in deciding if, and how, the data collected may be used. The analyst may also be responsible for assessing whether or not the data are 'fit for purpose'. Build in mechanisms for regular communication between data collectors and the data analyst in order to develop a constructive feedback loop which should facilitate the production of a better analytical product.</p>

Consideration Seven Integrating the data collection into ‘business as usual’

Rationale	In order for a good quality data-collection scheme to be sustained it needs to be integrated as ‘business as usual’ for both hospitals and CSPs.
Research findings	<p>In most cases the data-collection process was not perceived by hospital staff as part of the normal routine when attending an assault patient; it was not ‘business as usual’.</p> <p>None of those interviewed was able to suggest a system, other than new IT programmes, through which this ‘business as usual’ approach could be implemented.</p> <p>Quality of data collection was perceived to be affected by the impact of staff turnover (mainly concerning new staff not being made aware of the requirement to collect data from assault victims).</p> <p>Staff motivation to collect the data was not uniform within hospitals and enhancing staff motivation was considered a key factor in successful implementation of a scheme, although this had its limitations. Overall, the primary concern of ED staff was patient care. Those interviewed felt that this ultimately meant that the collection of assault data would necessarily be a secondary aspect of their role in the ED regardless of how motivated staff were regarding the scheme.</p>
Considerations	<p>Create and maintain a feedback loop which enables the data-collection and sharing process to be refined and improved on an ongoing basis.</p> <p>If using an IT-based collection system, consider building a mechanism into the program that prevents staff from continuing to book in a patient or undertake a consultation before all questions are completed.</p> <p>Build in an evaluation process to identify whether or not the data-sharing scheme is achieving its aims and objectives and use this both to refine the scheme and motivate those involved to continue collecting and using the data.</p> <p>Put processes in place to ensure that new staff are aware of the data-collection scheme.</p> <p>Consider ways of keeping staff motivation and engagement with data collection high; give examples of impact from the police; invite someone from the CSP to speak to ED staff about how the data are being used; produce newsletters or progress reports.</p> <p>Identify a scheme champion to promote data collection and ensure that the data collection is routine.</p> <p>Ensure that there are good feedback loops between the ED and CSP so that staff are kept well informed of how data sharing is progressing.</p>