TIIG

South Yorkshire Violence Reduction Unit

Violence Data Flow Position of the South Yorkshire Violence Reduction Unit

Final report

March 2023

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About this report

South Yorkshire was one of 18 areas across England and Wales which was allocated funding in 2019, and each year thereafter, to establish a Violence Reduction Unit (VRU). In 2022, South Yorkshire VRU commissioned the Public Health Institute (PHI), Liverpool John Moores University (LJMU), to assess the current violence data flows and position of the South Yorkshire VRU, and to support the VRU in making recommendations for future data sharing direction and requirements. This work is led by the Trauma and Injury Intelligence Group (TIIG). Based within PHI; TIIG is an injury and violence surveillance system, which involves systematic data collection across England and Wales, to support local partners involved in injury and violence prevention to access and use data within their work.

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Executive summary

South Yorkshire is one of 18 areas across England and Wales which was allocated funding in 2019, and each year thereafter, to establish a Violence Reduction Unit (VRU). The UK Government has encouraged these local partnerships to address serious violence using the World Health Organization's definition of a public health approach. This involves four key activities: surveillance (defining and understanding the problem), identifying risk and protective factors (finding out why violence occurs and who it impacts), developing and evaluating interventions (designing interventions to tackle violence and evidencing what works), and implementation (expanding and scaling up the benefits of successful intervention activities (World Health Organization, 2022).

In 2022, South VRU commissioned the Public Health Institute (PHI), Liverpool John Moores University (LJMU), to assess the current violence data flows and position of the South Yorkshire VRU, and to support the VRU in making recommendations for future data sharing direction and requirements in preparation for the Serious Violence Duty. This report presents findings from three stakeholder workshops (n=50) and 12 interviews, as well as desk-based review of available academic and grey literature. The report provides an overview of the current violence data sharing provision across South Yorkshire, and what improvements partners would like to see made.

Overview of the Serious Violence Duty

The Serious Violence Duty (The Duty) is guidance published as part of the Police, Crime, Sentencing and Courts Act in 2023. Draft guidance for The Duty was announced in response to a government consultation in 2019, to support a multi-agency approach to reduce serious violence. The guidance follows the publication of the Serious Violence Strategy in 2018, which outlined the Government's commitment to tackling serious violence. The Duty states that organisations such as the Police, Local Authorities, Criminal Justice, and Health Services need to work together collaboratively to reduce violence, with an emphasis on improved data sharing to inform targeted interventions to reduce and prevent incidents of serious violence. The Duty guidance recommends that data sharing includes aggregated and anonymised data; however individual-level data may also be shared, if necessary, to inform the response to serious violence within local areas.

Workshops overview

Three two-hour workshops were held between November 2022 and January 2023 with members of South Yorkshire VRU, Local Authority, Police, Health Services, Criminal Justice, and other support services (n=50 across the three workshops). Six key themes were identified relating to; (1) data currently being shared across South Yorkshire, (2) the value of effective data sharing, (3) limitations to current data provision,

Example of data sharing in South Yorkshire

In South Yorkshire data has been used to inform strategies to prevent violence. For example, the South Yorkshire knife crime strategy 2018/21 used data from a variety of sources (including NHS Emergency Department (ED) data, alongside police datasets) to illustrate the need for a preventative approach to be taken on knife crime in the area. The strategy promoted the use of NHS data alongside police data to provide a deeper understanding of the key locations, times, and risk factors for knife crime victimisation, particularly amongst individuals who do not report incidents to the police. The strategy further indicated that each dataset alone does not provide a full picture, with police data having an intelligence gap on 46% of victims of knife crime in the area. The objectives of the strategy set out the need for further data from a wider variety of sources within the area, such as schools, but also that wider data sharing needs to proactively take place with collaboration from partners from outside the area, such as other police forces.

(4) barriers to data use/sharing, (5) suggested improvements to data sharing, and (6) data dissemination. Overall, the workshops highlighted that whilst effective data sharing was taking place, this was often limited to sharing within organisations or an overreliance on one or two datasets, with external data often difficult to source (Figure 1). Barriers and limitations around data sharing were discussed at length with partners voicing concern regarding data quality and completion, particularly within health datasets, as well as a lack of granularity in data, i.e., often not provided at the level needed for analysis, such as anonymised record level or on occasion, personal level data. These limitations were identified at a local data sharing level but also for national data feeds, resulting in organisations often being measured against indicators that they could not access, such as hospital admissions data.

'Partner's data is something that has been quite a challenge for us for a number of years.' (Police)

'It does tell you the incident date and time and what the presenting factor is, but it doesn't give specific location. So, we're kind of limited in how we can use that information, nor does it break it down in terms of gender, age, etc. So, we can't kind of draw many conclusions from that information.' (Police)

'All HES will give us is the suppressed, anonymised surface level data, which is useful for very broad trends, but in terms of targeting and that more tactical or not tactical, but operational side to it, it's just not that useful, in that way.' (VRU)

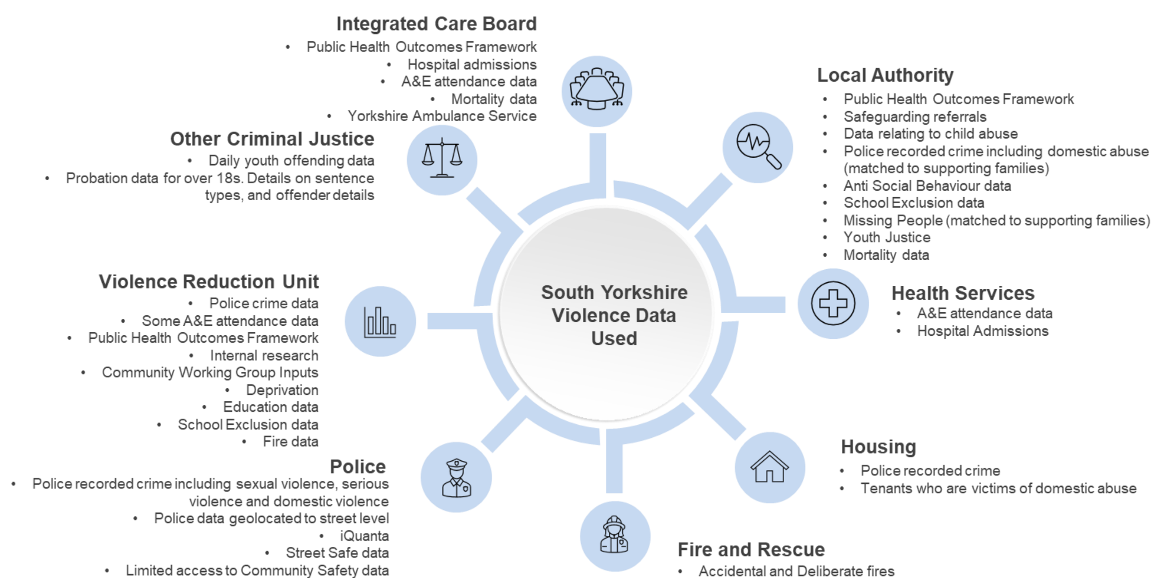

Figure 1. Violence-related data currently accessed by each sector (from Padlet exercise)

Overall, across all three workshops, it was evident that attendees wanted to be able to access more data; however, they struggled to know where to start in terms of which organisations hold which data and what types of data are collected. More fundamental was a requirement for a shared definition of violence as this can vary across different organisations. Attendees also acknowledged that even if more datasets were available, there were issues around capacity in terms of being able to produce meaningful analysis. Additional barriers related to the pressures on staff to collect data adequately particularly within health contexts e.g., Emergency Department (ED) settings and the need for staff

training to help improve this. The most frequently discussed barrier-related to governance, including justifying the reasons why data should be shared, identifying the right people to make those decisions, and a lack of senior leadership in agreeing a governance data sharing framework. However, it was also noted that often governance barriers were perceived rather than necessarily being the case. Additionally, because decisions to share data were often made at an individual rather than organisational level, this often resulted in nervousness around holding responsibility for sharing data.

‘So, I think some more strategic buy in and education around what can and can't be shared because it is quite complex…The barriers are a lack of understanding, in terms of having some of those conversations around what the process is, and what can and can’t be shared under what legislative frameworks.’ (Police)

There were, however, many suggested improvements for tackling some of these barriers, particularly relating to the governance elements. Attendees were conscious of not ‘reinventing the wheel’, but rather looking at what existing data sharing and data platforms were in place and using them as best practice or seeing if they already met needs. Most often mentioned though, was a desire for senior leadership in pushing violence data sharing forward and support for unblocking issues around capacity and data governance. One attendee from a Local Authority described how *‘if the leadership is great and there's good partnership, that level of that data sharing agreement discussion becomes easy’*. During the workshops, there were many comments that suggested attendees wanted discussions relating to violence data sharing to take a step back, and to focus instead on establishing better platforms to assist in the sharing of data. This included agreeing those shared definitions of violence, identifying which key datasets they already know are effective and building upon data sharing as opposed to a more ‘scattergun approach’, better partnership working, and shared data sharing platforms with agreed South Yorkshire wider governance protocols in place.

‘I think it’s focusing on what works. That’s kind of, I come from the kind of problem-orientated, problem-solving, kind of background, and it's a very kind of pragmatic approach to this kind of stuff. So, if we’ve got something we know works i.e. The Cardiff model or way version of that, that's the thing we need to implement first. Because we can show benefit to that, we can show the value and we have a model to follow.’ (Police)

‘Running around like headless chicken and then basically what you do is we just come back to the same place, because we've not paid attention to the value and how intelligently we can get the data to tell us how we deploy our resources? And yet that’s basically what the partnership is about, and we have the mandate to do this…I will forever and a day come up with very brilliant priorities and such a direction of travel, but we always go back to the same place, because everybody’s got busy. Because the data doesn't exist, we don't have data sharing agreements and I am well versed on trying to get people to agree some data sharing protocol at our level, takes ages!’ (Local Authority)

‘It's an emphasis about why we need to share our data and bring our data together. It's because we've got this objective that's in the ICP [Integrated Care Partnership] strategy that says we all have to come together to do it. So, it's maybe a way to help break the barrier if we're struggling to get buy in or leadership. Or reason for us all to come together as South Yorkshire.’ (NHS)

In terms of how data should be shared and provided, it was clear that different job roles and organisational responsibility meant that different levels of data access were required. Suggestions ranged from real time surveillance, open data feeds, regular data reports where individuals could

access record level data to allow for own analysis, and data dashboards comprising aggregated data. This was to allow for work which operated at a more holistic strategic level but also could be used to support in more tactical and 'on the ground' interventions. A dashboard was described which had a tiered approach to access, ranging from those who just required aggregate data down to those who needed record level or personal level data. Again, it was recognised that for this to occur, it required senior leadership, a shared data sharing governance platform, and wider support in ensuring partners have analytical capacity within their teams.

'It's just the analytic capacity to be able to retrieve it and present it in a format that is easy to use really for the kind of average non-analyst person who is part of our tactical groups and priority groups who need to plan the interventions. And that's been the biggest barrier for us really, we know it's frustrating because the data is there but it's just that capacity to be able to extract it and present it.' (Local Authority)

'I was just thinking about like a tiered approach to what is being produced, so whether it's the requirement of person level data. Do you know for I don't know, identifying cohorts? Or is it then you're very top tier, being just to build on what [name of participant] said, something that then you can share that will be minuted in public documents.' (Local Authority)

'There's got to be a real good strategic lead on this to ensure that that piece of work sits well above analysts, to ensure that the information just feeds into it.' (Fire and Rescue)

Interviews overview

Twelve interviews were carried out between December 2022 and February 2023 with members of South Yorkshire VRU, Local Authority, Police, Fire and Rescue Service, and Probation. Interviews were combined by sector type to provide case studies on perspectives from each of the key organisation types. There were differences between sectors in terms of what data they could currently access as well as how they wanted to see data sharing progress. However, there was a request across all sectors for additional data sources as well as support needed in navigating access and analytical capacity; as an interviewee from Probation describes *'it takes a huge amount of time getting that information backwards and forwards and the quality of that information so although that information is not necessarily missing, it's not readily available either.'* As in the workshops, governance was also identified as a key barrier, and this was both in terms of trying to access data but also sharing it. Interviewees from the Police described a lack of data literacy, in understanding what data could be used and shared, and this resulted in them being *'really reticent to share it with other agencies as well because of all the legislation around it.'*

Individuals interviewed who worked within Local Authority noted a reliance on publicly accessible data through national tools such as the Public Health Outcomes Framework, with other data sharing through local police and hospital trusts being ad-hoc. For example, hospital data can be limited by the quality, with one interviewee describing how *'ED [Accident and Emergency] data, all the health systems data actually, was quite poor in terms of actually collecting the data in the first instance*.' There was a recognition by Local Authority interviewees that data sharing needed to go beyond people being assaulted and also needed to comprise *'the wider determinants of health, housing, mental health to inform prevention activities.'* For other organisations, they also wanted better data access to inform more tactical work. For example, whilst police data sharing was seemingly fairly commonplace across sectors, there was a desire to expand upon the level of data being shared, either through it being shared more frequently or at a more granular level. Interviews with those working in probation highlighted that this would allow them to respond more quickly and allow for better planning of work, with one interviewee noting *'I would love to get access to police systems far more, to get live time*

tracking of offending rates, domestic violence call outs and that kind of thing so that we could, you know, be a bit more real time in our risk management planning, same with social care.' Across the interviews, most organisations were relying on their own internal data sharing alongside police data.

The need for shared systems and standardisation in how data was collected was noted across workshops and interviews, as described by probation interviewees: *'all the agencies predominantly are probably collecting the same information, but we're all storing it on our own individual systems. Where if we had a whole-system database, then it would negate the need for all that to and fro and requesting information.'* Shared goals around the mechanisms of data sharing through agreed governance protocols and not using GDPR as a barrier, but instead a tool to facilitate data sharing was also discussed; interviewees from the Fire and Rescue Service described what they thought the approach should be: *'Let's just get sharing. Let's remove the barriers … GDPR should be an enabler, not a preventer in sharing information. Just doing it right instead of not doing it at all,'* without this, there was thought to be a *'culture of rigidity'* (Local Authority) and an automatic response to just say no to any data sharing requests. These shared goals also need to consider what data is available, with people feeling that they could not progress data sharing because they felt *'it can be quite difficult to get hold of it without sort of specifically asking. And to do that, you need to know what you're asking for, which you don't always know'* (Local Authority). Similarly, the VRU interviewees described not knowing who the right person was to ask for data, and complexities around establishing where and with whom data ownership sits.

The final consideration was around how data sharing should look. Across both the workshops and interviews was a requirement for senior leadership, both in helping to remove data sharing blockages but also in ensuring that any data sharing which was set up, was implemented strategically, and came with an approach for sustainability. However, deciding where the responsibility for this should sit needed greater thought, given that the VRUs are currently only funded until March 2025. The VRU interviewees described this suggesting that whilst this work could initially sit with them, eventually it should move, potentially to under the ownership of the Community Safety Partnerships (CSPs): *'We've got to consider the longevity. We need some continuation of this and that I think will be the CSPs, I think it's got to be…Yeah, I think the VRU is a really good place to start because it's a single focused vision. But it can't be where it ends. It can't stop with us because this unit will go'* (VRU).

Conclusions and Recommendations

The findings demonstrate that across South Yorkshire, there is a commitment to reducing violence and following an evidence-based and data informed approach. There is also evidence of effective data sharing both within and across organisations. However, a number of barriers and limitations were identified which reduced the ability to share, use, and disseminate data in a more effective way. Furthermore, there is a lack of consistency concerning what data is being shared across South Yorkshire, concerns over what data can be shared, and issues relating to capacity, definitions, and data quality. Underpinning all of these concerns is a perceived lack of senior leadership and strategic oversight in addressing these issues and a sense of individuals and organisations working in silos. With the launch of the Duty which reemphasizes the importance of multi-partnership working, we propose the following activities:

Strategic

- Whilst all organisations hold responsibility for violence data sharing under The Duty, work needs to take place to determine which organisations will be responsible for its co-ordination and which individuals within organisations will be held responsible.
  - Establish senior leadership for each identified sector to commit to improving data sharing across South Yorkshire.

- Senior leaders to sign up and make a commitment to the data group as well as identifying issues within organisations relating to analytical capacity.
- Implementation of a strategic Violence Data Group to be set up across South Yorkshire. This will be led by senior leadership and needs to consider the longevity of the VRU funding. However, given that South Yorkshire VRU have oversight across the county, this should be initially led by the VRU with representatives from South Yorkshire Police and each of the CSPs. Terms of reference will need to be established and should include information on member roles and responsibilities and a clear action plan for the next two years and beyond, considering the potential for transition from VRU to a new structure.
- Consideration of Integrated Care Board role is ensuring any data sharing systems or mechanisms put in place are sustainable and do not duplicate already existing work.
- Liaise with other VRUs to share learning regarding data sharing processes.

Facilitating Data Access

- Develop a South Yorkshire-wide data sharing online portal. This should be open to all local partners working in a violence prevention or reduction role and include:
  - Development of a resource pack which reassures contributing partners around legal basis for sharing data and Data Protection Impact Assessment template.
  - Consideration of a multi-agency information sharing agreement or creation of a template information sharing agreement which can be adapted and edited depending on the data being accessed and the organisation making the request.
  - Overview of current violence data captured across South Yorkshire, including data fields and ownership and accessibility of data. Whilst this can start with data that is known to be effective in informing violence prevention work (e.g., police, health), it can be built upon and expanded over time. This should also include data on risk and protective factors for violence, such as data on education.
  - Streamline processes for sharing, cleaning, standardising and processing data to reduce duplication of effort but also to standardise data formats across South Yorkshire.
  - Consideration of the implementation of a shared data portal and organisational responsibility for this. This may require a tiered approach to access, dependent on level of data access requested and local need.
- Liaise with local partners from across all sectors to establish how violence is defined within their organisation to ensure clarity across organisations.
- Monitor and collaborate with existing workstreams where there are crossovers in data shared and used. Consider the roles and workstreams of CSPs and Local Authorities to ensure work is not duplicated.
- Provide clarity to data providers, particularly those from health services on:
  - Their legal responsibility in collecting and sharing data.
  - The value of the data being collected.
  - Why is it being requested and how it is being used.
  - Feedback on both completion of data recorded and quality of that information.
  - How data being shared is used and the impact of this.
  - Regular training sessions with data inputters.

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1. Introduction

1.1 Public Health approach to violence prevention

The UK Government has encouraged local partnerships to address serious violence using the World Health Organization's definition of a public health approach. This approach uses evidence-based and mixed analysis to prevent and reduce serious violence. This includes focusing on a defined population, working with and for the local community, working through organisational and professional boundaries, working towards short-term and long-term solutions, and identifying the burden on communities based on data and intelligence to reduce inequalities (World Health Organization, 2022). A public health approach to violence prevention involves four key activities: surveillance (defining and understanding the problem); identifying risk and protective factors (finding out why violence occurs and who it impacts); developing and evaluating interventions (designing interventions to tackle violence and evidencing what works); and implementation (expanding and scaling up the benefits of successful intervention activities; World Health Organization, 2022).

The Government recommends that organisations within local partnerships adopt this whole-system, multi-agency, public health approach to tackling serious violence. Public Health England published guidance for local partners in 2019 to support a multi-agency approach underpinned by five key principles. This includes collaboration, co-production, co-operation in data sharing, counter-narrative development, and a community consensus (Public Health England, 2019).

1.2 Serious Violence Strategy

Serious violence is a growing problem in the UK, for example, incidents involving knives or sharp instruments have increased by 84% across England and Wales from 2014 to 2020. In response to this growing issue, the Government published the Serious Violence Strategy in 2018, outlining their commitment to tackling serious violence. This strategy emphasised the importance of multi-agency partnerships in tackling violence, and highlighted the need for sectors such as education, health, social services, and youth services to play a key role in violence prevention.

The Serious Violence Strategy has four key aims including tackling county lines and drug misuse activities, promoting early intervention and prevention, supporting communities and partnerships, and ensuring an effective criminal justice approach to violence. Particularly prominent in the strategy is the need to positively engage youths, and tackling the root causes of violence, including the commitment of £11 million over two years through an Early Intervention Youth Fund, a £200 million Youth Endowment Fund (YEF), changes to the Crime and Disorder Act, and a combined Grip and VRU funding of £254 million (as of February 2023). In 2019, eighteen Police and Crime Commissioners across England and Wales were awarded funding to establish VRUs within their area. The aims of the VRUs are to tackle violent crime, adopting a whole-system public health approach, which utilise multi-agency working, are data and evidence led, engage young people and communities, and commission evidence-based interventions. VRUs are currently funded to March 2025.

In more recent years, the Government has drafted guidance for The Serious Violence Duty (The Duty), which was published in December 2022, and commenced in 2023, as part of the Police, Crime, Sentencing and Courts Act. The Duty aims to support a multi-agency approach to reduce serious violence, and through focusing on prevention and early interventions, reduce the impact serious violence currently has on local communities. Another aim of The Duty is to understand the causes of serious violence using a whole-system approach, for example, using an evidence-based analysis of serious violence in a local area and then formulating and implementing a strategy, detailing how to respond to incidents of serious violence.

1.3 South Yorkshire Violence Reduction Unit

South Yorkshire is a county with four local authorities – Barnsley, Doncaster, Rotherham, and Sheffield (with Doncaster and Sheffield being cities) – and is home to around 1.4 million residents. Analysis using Home Office crime data has shown that for all local authorities in South Yorkshire, rates of violent offences per 1,000 population have increased between 2010 and 2022, mirroring the situation in England overall. In 2021/22 all local authorities in South Yorkshire, except for Sheffield, had higher rates of violent offences per 1,000 than for England overall (Sheffield, 34.0; Rotherham, 37.7; Barnsley, 40.9; Doncaster, 47.0; England, 34.9; OHID 2022f).

South Yorkshire VRU follows a public health approach to violence prevention, working in partnership with all relevant agencies with a role in preventing violence. The VRU works to tackle serious violence, utilising evidence and intelligence to fund projects and initiatives that aim to tackle the root causes of violence, particularly those working with youths. The VRU has consulted community groups to co-create their strategy on violence reduction, ensuring that community priorities and ideas are at the heart of the VRU's approach. The VRU's strategy emphasises early intervention and prevention and disrupting violent crime through strengthening local multi-agency partnerships and developing joint strategies. The aimed outcomes of the VRU's work are safer communities across South Yorkshire with improvements across a range of factors which cause violent crime. One of the key steps of a public health approach to violence prevention is the use of evidence and data. South Yorkshire VRU requested an evaluation of their current data flows to assess its position with regard to relevant data and where data sharing can be improved. South Yorkshire VRU commissioned the Public Health Institute (PHI), Liverpool John Moores University (LJMU), to carry out an independent assessment of current and optimal data sharing practice across the county.

1.4 Project aims

This work has three main objectives which combined, explore current and optimal data sharing across South Yorkshire:

1) Scope what data is currently being shared across South Yorkshire and identify data gaps (considering a public health approach to violence prevention and the requirements of the Duty).
2) Explore the processes needed for optimal data sharing.
3) Feedback to local partners through recommendations for future data sharing practices.

1.5 Methodology

Ethical approval was granted by LJMU. A series of workshops and one-to-one interviews were carried out with South Yorkshire VRU and wider stakeholders to identify the key data sources across South Yorkshire relating to violence (and contributing factors), to provide an understanding of what data are available, existing data sharing practices, and what the barriers are to data sharing. Stakeholders were provided with an information sheet and consent form prior to taking part in either a workshop or interview. Stakeholders comprised:

- Those making use of data relating to violence (or who wish to make more use of violence data); this included police analysts, community safety partnership leads, licensing, local authority public health leads, outreach and community services, and members of the VRU steering group.
- Those who are responsible for or hold data relating to violence; this included staff from EDs (ED reception manager, business intelligence, governance), ambulance service, fire and rescue, and police (analyst/governance roles).
- Those who can facilitate access to data because they are already receiving violence-related data. This may include those working with local authority public health and CSPs.

Additionally, a desk-based review of available academic and grey literature[1] was conducted.

Three two-hour workshops between November 2022 and January 2023 with members of South Yorkshire VRU, Local Authority, Police, Health Services, Criminal Justice, and other support services (n=50 across the three workshops).

One-to-one interviews (n=12) between December 2022 and February 2023 with members of South Yorkshire VRU, Local Authority, Police, Health Services, Criminal Justice, and other support services.

Final face-to-face workshop to gain feedback on and inform recommendations.

[1] Literature produced outside of commercial or academic publishing, for example government reports, policy documents, evaluations etc.

2. Contextual overview

2.1 Use of data to inform Violence Prevention activity

Comprehensive data identifying trends and at risk groups and communities can inform violence prevention work. Official crime data as well as data from national surveys are both useful, with police data in particular allowing for populations to be looked at from both a perpetrator and victim profile. However, there is also a need to utilise data from other sources to help identify risk factors for violence, impact on communities, and effectiveness of interventions (Local Government Association, 2018). This section details examples from across England and Wales on how data, in particular health data, has been used to inform violence prevention work. Health data utilised alongside other datasets can give a richer understanding of the nature and prevalence of violence locally, helping to elicit risk and protective factors and to inform the design, implementation, setting of targets, and evaluation of violence prevention activities. The sharing of datasets among key stakeholders is critical for supporting such activities and promoting the achievement of positive public health outcomes.

Health data includes multiple sources of data such as: ED datasets; Hospital Episode Statistics (HES; both ED and hospital admissions datasets which are submitted to a national dataset); and ambulance service data (including information on callouts). Across different regions of the UK, such datasets have fed into violence prevention efforts in a number of different ways, including identifying key longer and shorter-term trends in violence, identifying groups that are at highest risk of violence victimisation, identifying hotspots of where and when violence is most prevalent, and identifying recurring circumstances around assaults.

2.1.1 Surveillance systems

Across England and Wales, there are different violence surveillance systems and methods of sharing data in operation. This includes London's Information Sharing to Tackle Violence (ISTV) programme (Box 1), West Midlands Injury Surveillance System (ISS), Wales Violence Surveillance and Analysis System (WVSAD) and the Trauma and Injury Intelligence Group (TIIG; Box 2). These systems work to provide access to multi-agency data to support understanding of the nature and extent of violence.

2.1.2 Health data within the UK

Nature, extent, consequences, and risk factors

Health data sharing relating to violence and injury prevention most commonly use data from hospitals, including EDs and admissions data, as well as data from ambulance services. Data usages tend to have two purposes; 1) using health data to explain the nature, extent, consequences, and risk factors relating to violence, which can help inform provision of interventions, and 2) to monitor and evaluate the impact and success of those interventions. Below are examples from across the UK of where data has been used effectively for these two purposes.

ED data

- In South Wales, ED data has been used alongside police data to provide higher quality intelligence on the true rates of violence with injuries. By combining ED data with police data, a 35.3% and 18.1% increase in violence with injury was seen for males and females respectively, compared to using police data alone, helping to provide a more accurate picture of the true scale of violence as a problem in the area (Gray et al., 2017).
- Data from across England has been used to illustrate the key demographics, and the impact of different times, events, and seasonality (e.g., weekends, football events etc.) of those presenting at ED during night-time hours following an assault (Bellis et al., 2012). This study further demonstrated how such data is critical in the design and planning of prevention and response efforts to violence.
- Data shared from multiple EDs and other key partners in North West England has been used to map and show key risk factors for violence, with additional ED data collected on alcohol and other violence-related factors providing greater insights. This work has helped to inform a range of targeted prevention activities, including local policing and licencing enforcement (Quigg et al., 2011).
- ED attendances for assaults have demonstrated increases in relation to football matches during the 2010 World Cup sporting event. This work illustrated the need for violence prevention activities and that prevention efforts need to be targeted around such football matches (Quigg et al., 2012).
- National ED data has been used to examine key temporal and demographic risk factors in different types of child injuries in England, demonstrating how useful such data systems can be to target prevention activities where most needed (Hughes et al., 2013).

Box 1. Information Sharing to Tackle Violence (ISTV)

ISTV forms part of NHS Standard ISB1594 and consists of record level data sharing from EDs to Community Safety Partnerships. Data should be provided on a monthly basis for violence-related attendances and consist of:

- Date and time patient presented at ED
- Date and time of incident
- Location of incident. This should be the specific location, e.g., name of street, pub etc.
- Means of assault, e.g., weapon, fist etc.

ISTV was initially launched in 2014 and whilst it will be deprecated in July 2023 and fully retired in July 2024, the data will continue to be collected as part of the Emergency Care Dataset (ECDS v4.0).

Box 2. Trauma and Injury Intelligence Group

TIIG sits within the Public Health Institute at Liverpool John Moores University and provides access to reliable violence and injury information from EDs, walk-in centres, Ambulance Services, Police, and Fire and Rescue Services across areas within England and Wales. TIIG enables the identification and monitoring of trends in intentional and unintentional injuries, providing rich and timely data which are not available from alternative sources. TIIG data relates to all injury types including falls, deliberate self-harm, road traffic collisions and assaults. Beyond this, TIIG are commissioned by a number of VRUs across England and Wales to provide bespoke violence-related data hubs which bring together multiple data sources allowing for identification of at-risk groups for violence, monitoring of trends and to target and evaluate interventions accordingly.

- The National Violence Surveillance Network uses data from over 100 EDs to demonstrate the prevalence of violence, and key demographic risk factors for England and Wales, obtaining data from over 119,000 ED attendances in 2020 (Sivarajasingam et al., 2021).
- The Trauma Audit and Research Network was used in the Severn region to inform violence reduction interventions for penetrating trauma locally. This work helped to describe longer-term trends of penetrating trauma in the area, and describe who was most at risk, including the characteristics of individuals who had multiple incidences of victimisation, and described the characteristics of hotspot areas. Such information was seen as vital to implementing a proactive approach to preventing penetrating trauma in the area (Hodgson et al., 2022).
- The National Violence Surveillance Network also uses the data it collects from over 100 EDs in England and Wales to monitor trends in violence prevalence over time (Sivarajasingam et al., 2021).

Ambulance data

- In the North West of England ambulance callout data was used to understand the prevalence, demographics, and types of violence that occur in the region to inform effective prevention activities (Quigg et al., 2017). Ambulance callout data was further used in the North West to provide more accurate epidemiological support, specifically in the surveillance of child injuries including both accidental and non-accidental injuries (Critchley and Quigg, 2019).
- In Peterborough, ambulance callout data has been used alongside police data to map key hotspots of assault-related incidents requiring emergency services assistance. This identified that while there are key crossovers in the mapping of violence between such datasets, around half of assault locations were unknown to the police, and that for patients with the most severe injuries from assaults, the assault took place in high-crime areas (Ariel et al., 2013). As such, data sharing was viewed as essential to allocating resources to prevent violence in the community.
- In the West Midlands ambulance data was used alongside police and ED data to show the number of violent incidents that go unreported to police, with medical data from ambulance and ED adding around 15-20% more incidents of violence than police records show alone (Sutherland et al., 2021).
- In the North East of England ambulance callout data has also been utilised alongside ED data to better understand the costs and the nature of alcohol-related emergency calls, estimating that around 10% of ambulance callouts were alcohol-related and that such incidents cost £9 million in the region annually (Martin et al., 2012).

Data from across multiple systems (including healthcare, policing, and criminal justice) has been used to estimate the overall economic and social costs of violence in different areas. In Merseyside in 2019/20 violence had an estimated cost of £185.4 million to the policing, criminal justice, and healthcare systems, with further costs through lost productivity (Jones et al., 2021). Health data in Wales from 2018/19 was used to estimate the costs of violence specifically to the healthcare system. Estimates showed that the short-term healthcare responses to violence cost the healthcare system in Wales £46.6 million annually, while longer-term responses to adverse childhood experiences cost £158.8 million annually through factors such as harmful alcohol use, illicit drug use, anxiety, and depression (Jones et al., 2020). Similar work undertaken in Lancashire in 2020 found that violence cost the healthcare system £23.1 million annually (Jones, 2021).

2.1.3 Benefits of health data sharing

The Cardiff Model to violence prevention is a multi-agency approach prioritising data sharing between healthcare and law enforcement to improve the targeting of community violence prevention activities and programmes. Evaluations of this model have shown significant reductions in hospital admissions for violence and in police recorded wounding in the area implementing the model, compared to 14 ‘similar’ comparison cities in England and Wales (Florence et al., 2011). Further, another evaluation of

this model found significant economic benefits, with a £6.9 million reduction in the economic and social costs of violence compared to if there were no data sharing interventions in place, including £1.2 million in savings for health services and £1.6 million for the criminal justice system (Florence et al., 2014). Further, a meta-analysis of evaluations of injury and violence observatories found that implementing ISS addressing violence prevention significantly reduced rates of assaults in the area (Jabar et al., 2019). The Cardiff Model has been highlighted by the World Health Organization as a model of good practice, and steps have been made towards adopting the model across different regions globally, including in the US, South Africa, and Australia. In different areas of the US, evaluations of the data collection procedures needed to implement the Cardiff Model, found that adopting the model would be feasible (Kollar et al., 2019; Nguyen et al., 2022). In Australia, a study is being undertaken to evaluate the implementation of the Cardiff Model to reduce alcohol-related harm, particularly from injury (Miller et al., 2019).

Research undertaken in the UK in 2016 examined the use of NHS datasets in local violence prevention initiatives, finding that it was possible for most local authorities to access a range of different health data sources (including HES data, ED data, ambulance callout data, and data from the Trauma Audit Research Network) for use in violence prevention activities (Quigg et al., 2016). Such data were used in different settings to help explore the prevalence, nature, and risk factors of violence locally, including the mapping of violence hot-spots, and was further utilised to monitor longer-term trends. These data sources have been used in a number of ways to prevent violence, including guiding violence prevention strategies, and directing policing activities. Data utilisation in violence prevention activities varied across different sites, from being used in 8% of all violence prevention activities in one area to 78% of activities elsewhere (Quigg et al., 2016). A case study of a local community sector organisation, which works with vulnerable people (particularly those affected by domestic violence), showed that shared ED data was utilised for violence prevention activities, including improving understanding of the prevalence of domestic abuse in the area, and understanding the demographics of those affected by domestic abuse in the area, both helping to better target service referrals and support to victims (Ford et al., 2015).

2.2 Serious Violence Duty

The Duty is guidance published as part of the Police, Crime, Sentencing and Courts Act in 2023. Draft guidance for The Duty was announced in response to a government consultation in 2019, to support a multi-agency approach to reduce serious violence. The guidance follows the publication of the Serious Violence Strategy in 2018, which outlined the Government's commitment to tackling serious violence.

Since 2014, serious violence such as incidents involving knives or sharp instruments, have increased by 84% in England and Wales (June 2014 to June 2020). The Duty aims to tackle serious violence by focusing on prevention and early interventions, to try to reduce the impact serious violence currently has on local communities.

For the purpose of the guidance, serious violence includes threats of violence and violence against property, excluding terrorism. In order to assess serious violence within a local area, the guidance states that the following factors should be considered; the maximum penalty which could be imposed for any offence involved in the violence, the impact of the violence on any victim, the prevalence of the violence in the area, and the impact of the violence on the community in the area.

One of the aims of The Duty is to try to understand the causes of serious violence using a whole-system approach, for example, using an evidence-based analysis of serious violence in a local area and then formulating and implementing a strategy, detailing how to respond to incidents of serious violence.

2.1.4 Who does the Serious Violence Duty apply to?

Although the duty does not require the establishment of new multi-agency organisations or structures, the guidance states that existing organisations and structures have a responsibility to work together to tackle serious violence within their local areas. This includes:

- The Police.
- Justice Services (including Youth Offending Teams and Probation Services).
- Local Authorities.
- Health Authorities (including Local Health Boards and Clinical Commissioning Groups).
- Fire and Rescue Services.

Education authorities and prison and youth custody authorities are also required to comply with The Duty if requested to do so by the above mentioned organisations.

2.1.5 A Public Health approach

Outlined within The Duty, the UK Government has encouraged local partnerships to address serious violence using the World Health Organization's definition of a public health approach. This approach uses evidence-based analysis to prevent and reduce serious violence. This includes focusing on a defined population, working with and for the local community, working through organisational and professional boundaries, working towards short-term and long-term solutions, and identifying the burden on communities based on data and intelligence to reduce inequalities (World Health Organization Violence Prevention Unit, 2022).

As stated above, The Duty does not require the establishment of new multi-agency organisations or structures, however the Government recommends that organisations within local partnerships adopt this whole-system, multi-agency, public health approach to tackling serious violence. Public Health England published guidance for local partners in 2019 to support a multi-agency approach underpinned by five key principles. These are collaboration, co-production, co-operation in data sharing, counter-narrative development, and a community consensus (Public Health England, 2019).

2.1.6 Data sharing

The Duty places a responsibility on local organisations and services to work collaboratively, to share data and intelligence to inform targeted interventions, and to reduce and prevent incidents of serious violence. The Duty guidance recommends data sharing include aggregated and anonymised data; however, individual-level data may also be shared, if necessary, to inform the response to serious violence within local areas.

The sharing of personal data must comply with UK data protection legislation. Under the Duty, partner organisations should outline evidence of compliance and privacy with the data protection legislation within their data sharing agreements, prior to the sharing of any knowledge or intelligence. Types of data that may be used to identify trends relating to serious violence may include:

- Crime data (e.g., number and location data).
- Hospital data on serious violence injuries.
- Education data (e.g., truancy and exclusion).
- Anonymised prison data (e.g., types of offences).
- Local data (e.g., census information).
- Input of organisational intelligence and experience.
- Knowledge and intelligence from voluntary sector organisations and young people.

In addition, further analytical support and expertise may be required when local areas are preparing their strategic needs assessment. For example, effective engagement with young people and community planning may involve the consultation of youth and mental health workers etc. It is

expected that the sharing of data, such as the examples mentioned above, will allow local areas and partnerships to analyse trends and identify areas that may have a higher risk of serious violence, so that a strategic response can be put in place. Tailored programmes (specific to local areas), to tackle serious violence will then implemented, regularly reviewed, and updated when necessary.

2.1.7 How will the data be shared?

There is not a responsibility within The Duty for partnerships to form a new multi-agency structure, rather it is recommended that organisations decide on the lead and structure of collaboration within their local area. For example, this may include VRUs, CSPs, Multi-Agency Public Protection Arrangements etc. It is expected that local partnerships have data sharing agreements already in place to allow the sharing of data and intelligence internally and externally, if necessary (outlined within data sharing agreements and complying with UK data protection legislation). The sharing of data and intelligence may take place though existing gateways and systems, or via new information-sharing gateways, for example, data via education authorities and youth custody authorities where existing gateways would not be appropriate. It is recommended within the Duty guidance that local partnerships share data for both strategic and operational purposes. This may include on a national level, for example, using national data systems to identify trends relating to serious violence. Strategically, on a regional level, for example, the sharing of anonymised data to inform interventions and target services. For operational purposes this may include the sharing of data and intelligence such as individual-level and location data, to inform local decision-making or safeguarding decisions.

2.1.8 Following the Strategic Needs Assessment: The Strategy

After local partner organisations have completed an evidence-based analysis and produced a strategic needs assessment within their local area, The Duty guidance states that a strategy or high-level plan, should be produced to include new actions, build upon existing actions, and outline how the partnership plans to prevent and reduce incidents of serious violence in their local area.
The strategy should be regularly reviewed (minimum annually) and updated when necessary. The Duty guidance states that the strategy may include:

- High level (non-sensitive) summary of the strategic needs assessment.
- How the chosen partnership will work to discharge its duties under the legislation to prevent and reduce serious violence.
- Actions (including early intervention preventative action) to be undertaken by the whole partnership area to prevent and reduce serious violence and support victims.
- Actions or bespoke plans by sector/partner.
- Wider actions (where appropriate cross boundaries or nationally).
- Ongoing engagement with the voluntary and community sectors, young people and local businesses.
- How the identified action enhances or complements existing action/or arrangements within the local area.
- Identified funding streams or resources that can be used by the partnership for prevention and reduction activities.
- Date for review/annual review mechanism.
- Where applicable, the annual assessment of the partnership's performance against the previous year's strategy.

2.3 Overview of South Yorkshire

South Yorkshire is a county with four local authorities – Barnsley, Doncaster, Rotherham, and Sheffield, with Doncaster and Sheffield being cities. South Yorkshire is home to around 1.4 million people, with the population similar in age profile to England and Wales, especially among children and young people aged 0-19 years (making up 23.2% of South Yorkshire's population, compared to 23.5% of the population of England and Wales); however, South Yorkshire has a slightly higher proportion of

their population aged 20-29 years (14.9%) than England and Wales (12.8%), which is likely due to the large student population in South Yorkshire, particularly in Sheffield (Plumplot, 2022).

2.1.9 Violence victimisation/perpetration risk factors in South Yorkshire

All local authorities in South Yorkshire are more deprived than the national average by Index of Multiple Deprivation Rank 2019 – with higher scores demonstrating greater levels of deprivation (Sheffield 27.1; Rotherham 29.6; Barnsley 29.9; Doncaster 30.3; national average 19.6; Ministry of Housing, Communities and Local Government, 2019). In 2021 there were almost identical proportions of children across the South Yorkshire local authorities that were living in relative poverty – around a quarter (Barnsley 24.2%; Rotherham 25.7%; Doncaster 26.1%; Sheffield 26.4%). All of these were higher than the UK average of 18.7% (Department for Work and Pensions, 2022). All local authorities had similar proportions of the population that lived in income deprived households (Sheffield 15.6%; Doncaster 16.6%; Rotherham 16.8%; Barnsley 16.9%). This places all local authorities in the 30%-40% most income deprived local authorities in England (ONS, 2021), although these proportions are generally lower when compared to other areas in England containing core cities.[2] All local authorities had relatively similar proportions of working-age adults that were in employment deprivation (Sheffield 11.6%; Doncaster 13.7%; Rotherham 14.4%; Barnsley 14.9%). This placed Sheffield in the 30-40% most employment deprived local authorities in England, and Doncaster, Rotherham, and Barnsley in the 20%-30% most deprived (Ministry of Housing, Communities and Local Government, 2019).

In 2015, all local authorities in South Yorkshire had relatively similar proportions of young people who regularly consume alcohol at the age of 15 years – all of which were higher than the England average of 6.2% (Doncaster 7.5%; Sheffield 7.7%; Rotherham 10.2%; Barnsley 11.3%; NHS Digital, 2015). In terms of adult binge drinking, from 2015-18, Rotherham and Barnsley had the highest proportions of adults who binge drink on their ‘heaviest drinking day’ (24.9% and 19.2% respectively), followed by Sheffield (16.4%) and Doncaster (14.1%). All local authorities except for Doncaster, had a higher proportion of adults that binge drink than the England average (15.4%; OHID, 2022).

Rates of mental illness, such as depression, have been increasing year-on-year from 2013 to 2021 for each local authority in South Yorkshire and for England overall. In 2022, the prevalence of depression amongst adults in Sheffield was 12.7% and in Doncaster 13.0% (similar to the proportion in England overall; 12.7%), while Barnsley and Rotherham both had a slightly higher prevalence (14.2% and 16.7% respectively; OHID, 2022a). Rates of hospital admissions for mental health conditions in those aged 18+ years in 2021 were lower across Doncaster (52.0 per 100,000) and Rotherham (60.9), when compared to England overall (87.5). Rates in Barnsley (87.2) were similar to the England average; however, rates were higher in Sheffield (97.1; OHID, 2022b).

In 2021, rates of new young people entering the youth justice system were higher in Barnsley (181.7 per 100,000), Rotherham (183.3), and Sheffield (171.5), than the average for England overall (146.9), while the rate in Doncaster (137.8) was lower than the rest of South Yorkshire, and slightly lower than England overall (OHID, 2022c). There are differences in the rates of children who are in care across local authorities in South Yorkshire in 2022, with Sheffield having a lower rate than England overall (59 per 10,000; compared to 70 for England overall) and Barnsley matching the England average, while Doncaster and Rotherham have rates that are higher (92 and 99 respectively; GOV.UK, 2022).

Rates of young people aged 16-17 years who were not in employment, education, or training (NEET) in 2021 were higher across all local authorities compared to England overall (Doncaster 4.8%; Rotherham 4.9%; Barnsley 5.4%; Sheffield 6.8%; England 4.7%; OHID, 2022d). In 2016/17, rates of

[2] Sheffield is the only core city in South Yorkshire. Income deprivation for other core cities in England: Birmingham (22.2%), Bristol (14.1%), Leeds (14.3%), Liverpool (23.5%), Manchester (21.9%), Newcastle Upon Tyne (17.8%), and Nottingham (19.9%).

children having received fixed-term exclusions in secondary school were considerably higher across all local authorities in South Yorkshire than in England overall (Rotherham 17.2%; Sheffield 18.6%; Barnsley 45.0%; Doncaster 50.8%; England 9.4%; OHID, 2022e).

2.1.10 Rates of violence in South Yorkshire

Longer-term trends in violence measured by the Crime Survey for England and Wales have shown reductions in violent crime overall albeit with minimal changes in recent years. However, analysis using Home Office crime data has shown that for all local authorities in South Yorkshire, rates of violent offences per 1,000 have increased from 2010 to 2022, mirroring the situation in England overall. In 2021/22, all local authorities in South Yorkshire, except for Sheffield, had higher rates of violent offences per 1,000 than for England overall (Sheffield 34.0; Rotherham 37.7; Barnsley 40.9; Doncaster 47.0; England 34.9; OHID 2022f). However, back in 2010/11 the opposite was true, with all local authorities, except for Doncaster, having lower rates of violent offences per 1,000 than for England overall (Rotherham 8.3; Barnsley 8.8; Sheffield 8.9; Doncaster 12.3; England 12.0; OHID, 2022f).

3. Findings

3.1 Workshops

Three two-hour workshops were held between November 2022 and January 2023 with members of South Yorkshire VRU, Local Authority, Police, Health Services, Criminal Justice, and other support services (n=50 across the three workshops).

3.1.1 Data currently being shared across South Yorkshire

At the start of each workshop, participants were asked to complete a Padlet (Figure 1) which asked *What data relating to violence can you currently access/ hold? How often do you receive this data and what impact does it have on your work?* Key datasets were mentioned which included publicly accessible data through national resources such as the Public Health Outcome Indicators, as well as local data sharing such as police, fire and rescue, ED, and ambulance data. Most participants from both the police and other organisations, such as local councils reported accessing police data in some form. Level of access and type of data obtained varied from reporting which looks at specific factors, e.g., broken down by age, to more general and overall crime data, as well as record level, identifiable data.

'Offence data for young people aged between 10 and 17.' (Youth Justice Service)

'We have data on the below, expressed as rates per MSOA: Domestic abuse, Domestic abuse with injury, Most serious Violence.' (Local Authority)

'Police crime data (all except the most sensitive).' (VRU)

'I have access to crime record data. This is geolocated to postal address level.' (Police)

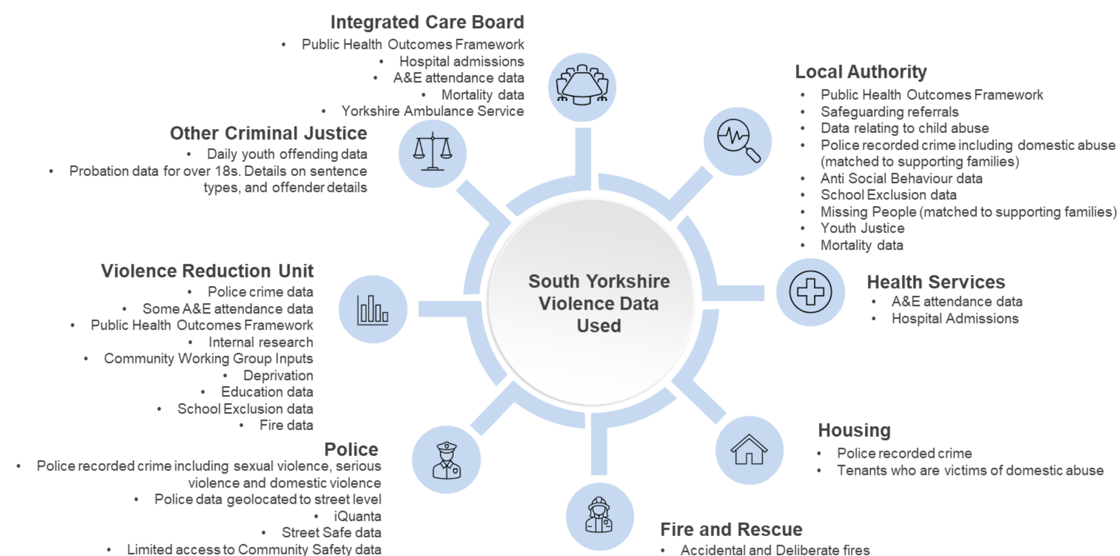

Figure 1. Violence-related data currently accessed by each sector (from Padlet exercise)

Whilst it was evident that police data was being shared both internally and externally, albeit with caveats and restrictions in place in line with data sharing governance and guidance, other datasets did not appear to be as widely and consistently shared. An example of this is ED data which NHS trusts

stated they hold, but not many colleagues outside of the VRU stated they were accessing. Where data sharing was taking place, in most instances, it did not seem to be across every trust within the area. It should be noted though, that one trust stated their data was shared with CSPs. Other datasets that were mentioned included ambulance data (however this was only mentioned through a previous role a stakeholder held with Public Health England (PHE)), fire data (through internal data sharing), and publicly available data / indicators for areas such as deprivation, education, and hospital admissions.

'All ED data. This will show where an assault has occurred based on what we are told by the patient. It doesn't provide information on who was responsible for the assault, where it took place or if alcohol was involved.' (NHS).

'Some ISTV [Information Sharing to Tackle Violence] data from some hospitals.' (VRU)

'We collect and submit ISTV dataset to the Community Safety partnership.' (NHS)

Within the main workshop discussion, participants described data accessed and shared in more detail. However, this mirrored the Padlet quite closely with evidence of both really strong data sharing within and across organisations, as well as frustrations and limitations in the processes. There was an acknowledgement from some participants that they were good at working with the data they already knew about and where a process was in place but struggled more to make wider connections from other organisations.

'We get regular fire service data which we do use within our document so that we can use that alongside our own criminal damage, anti-social behaviour data so that we can kind of pick hotspots and progress kind of responses to those locations.' (Police)

'Now partners data is something that has been quite a challenge for us for a number of years.' (Police)

'I'm really sort of pleased that we've got really good robust service in place with a range of partners, but we could always do always sort of more and better and more sort of, you know analytics as well. So, we get information from SYP, our own internal partners, community safety and schools.' (Local Authority)

3.1.2 The value of effective data sharing

Participants talked in detail about how effective data sharing had made a difference to their work. There was an awareness of the value of data, and an awareness from the VRU that in order to make effective decisions concerning service provision that this needed to be justified through evidence and data, particularly at a time when funding is limited. This awareness was mirrored across organisations where data had played a role in informing service delivery and where best to target interventions and resource (Box 3).

'We've got to make sure that those projects we're supporting are in the right place. And we do that by mapping this kind of data and asking well, is this supporting an area that is in need? It's a prioritisation. I think every area can always benefit from some funding and intervention, but you have to prioritize with the limited funds that we have.' (VRU)

'What it also enables us to do is to go hopefully go back to some other schools that were in the red areas, but then scored as not prepared and just look at how we can support them or how we can make them feel more prepared around the trauma informed work.' (Local Authority)

More broadly, participants spoke about how data could be used to inform both strategic and tactical interventions and bodies of work. This included to inform policing, licensing, informing service provision, identifying vulnerability, and at risk cohorts.

'We're an evidence-based policing project looking at hotspot policing. So, we've identified 60 most violent hotspots across South Yorkshire, and we do pulse patrols in those hotspots.' (Police)

'At the moment, we're looking at licensed premises and night time economy. So, we do what's called risky facilities analysis, so based purely on crime data, we will Identify the most violent if you like, pubs and licensed premises in South Yorkshire. From that, it then tells us that in every district the top ten pubs account for 50% of both recorded most serious violence and also most serious harm as well. So, we will, we are then in the process of targeting those premises to work with them to try and reduce their violence.' (Police)

Box 3. Example of data sharing in South Yorkshire

In South Yorkshire, data has been used to inform strategies to prevent violence. For example, the South Yorkshire knife crime strategy 2018/21 used data from a variety of sources (including NHS ED data, alongside police datasets) to illustrate the need for a preventative approach to be taken on knife crime in the area. The strategy promoted the use of NHS data alongside police data to provide a deeper understanding of the key locations, times, and risk factors for knife crime victimisation, particularly amongst individuals who do not report incidents to the police. The strategy further indicated that each dataset alone will not provide a full picture, with police data alone having an intelligence gap of 46% of victims of knife crime in the area. The objectives of the strategy set out the need for further data from a wider variety of sources within the area, such as schools, but also that wider data sharing needs to proactively take place with collaboration from partners from outside the area, such as other police forces.

Whilst the majority of examples of the value of data discussed related to proactive measures, there were also examples given of responding to a request or using data to answer a particular question or problem.

'It's more of a kind of when they 'relooking at doing a profile that they will request that information, rather than it being received more regularly.' (Police)

3.1.3 Limitations of current data provision

Limitations to data sharing included both datasets not being accessible at all, as well as limitations to already shared data e.g., information/fields missing. ED data was discussed within this theme in both contexts; for partners in particular who were working across the whole South Yorkshire footprint, ED data sharing was lacking; for those working in specific areas of South Yorkshire data provision varied considerably across the Local Authority areas. Of particular note, was the notion that ED data will inform partners on some assaults which go unreported to the police, and the added knowledge that this could bring.

'What's really interesting for me is the stat about 50 to 75% of the assaults being unreported [to the police]. So one of our KPIs, the GRIP from the Home Office, is violent injury attendance at ED for 18 to 24 year old males. Now if we don't know about 75% of those attendances in terms of our crime recording data, how on earth are we supposed to reduce that high level?' (Police)

Participants also voiced concern relating to a lack of granularity within datasets they receive, particularly for publicly available datasets. Whilst high level, aggregated data was useful, there was also a requirement for record level data that allowed for deeper analysis to inform tactical work. For example, HES data on admitted patient care is available through NHS Digital as a dashboard but is provided as high-level trends. Additionally for hospital data, there was an ask for a unique property reference number be included, this would allow data to be presented at a household level, which would provide consistency with how data is provided within Local Authorities. Finally, some systems whilst at the level required (i.e. person level) only allowed for data sharing where an individual was already know to a service, for example within programmes which looked at families in need of support, partners could access police data but only for those individuals they were already aware of. A more open data feed it was thought would allow for new individuals or families to be identified more quickly resulting in earlier intervention and support.

'All HES will give us is the suppressed, anonymized surface level data, which is useful for very broad trends, but in terms of targeting and that more tactical or not tactical, but operational side to it, it's just not that useful, in that way.' (VRU)

'One of the things we would need is for people to record UPRN [Unique Property Reference Number], you know for the hospital admissions stuff? Because at the moment, hospital data, NHS is all about the individual and you can't then track that back to the household, whereas local authorities' data, a lot of its household level. So, it's about how we can grow some consistency in using something as simple as a UPRN, which is a consistent way of tracking a household. And you know, people then can be attached to households as well and or have a null code If their homeless.' (NHS)

'As part of the family's program, we get data from the police. But I think the end goal would be to try and get those as open feeds rather than closed because at the minute we just get the data that's matched back. So, we do get person level but obviously it's only matched to the lists that we send out to the police and coming from obviously the supporting families, the more early help, early intervention side of it, in order to be able to identify families in need, it would obviously be a lot better if we had the open data rather than the closed.' (Local Authority)

Missing data was also discussed, in particular for health data sharing. This was sometimes limited only to core ISTV (Box 1) questions (i.e. date and time of attendance, incident, location, and weapon used), and did not provide wider demographics. Even when data fields were being shared, some data was missing e.g., incident of where an assault took place. There was also an awareness of whilst there were parts of South Yorkshire where data sharing was effective, this was not always the case across the whole area. However, there was awareness of the value of health data in supporting with such issues as licensing reviews with one attendee describing how police data alone was not enough *'when we tried to turn a license to review because they are becoming dangerous we haven't got the data enough to take them to review, you know, where we get a solicitor saying I got a 1,000,000 people coming through the door and you bring me five incidents…but we know people are going home, they are going to hospital, they're going to their GPs and they are saying where they've been assaulted because then there's no reason to lie at that point.' (Police)*

'It does tell you the incident date and time and what the presenting factor is, but it doesn't give specific location. So, we're kind of limited in how we can use that information, nor does it break it down in terms of gender, age, etc. So, we can't kind of draw many conclusions from that information.' (Police)

'But I know some of the other trusts in South Yorkshire don't submit the ISTV as well, so you know, in terms of just getting a comparable the four acute hospitals, we don't we don't all submit it. So, just some thoughts on that.' (NHS)

Furthermore, partners were aware that systems were often not responsive enough. For example, in 2021, the media reported an increase in needle spiking assaults, however hospital systems were not adaptable enough to allow patients presenting following these incidents to have their information recorded, i.e., there was not an option on systems to report needle-related assaults. It was felt that often nationally led work to change hospital systems did not understand how health data was used in violence prevention with one attendee remarking *'they're asking us to collect data about whether someone was watching TV when they happened to fall off their sofa…You know, they're pushing us towards collecting data, which is largely irrelevant.' (NHS)*

'We are absolutely hindered by everything that happens with the emergency care dataset and then with the providers of electronic patient records, they're not responding quickly enough, even when the datasets change. So, for instance, a while ago, when there was a kind of a spate of sort of injecting people with substances in clubs and bars, we had absolutely no way of recording that in any kind of a consistent way and still don't. There is no option to record any kind of, you know, penetrating needle poisoning. The best I could get it's poisoning or a cut with a sharp object, which could be a multitude of other things.' (NHS)

There were also discussions relating to primary care data including data from mental health and general practitioners; whilst partners did not necessarily know what this data could contribute specifically to violence, it was felt it would provide intelligence relating to safeguarding and wider trauma. Primary care data was described by one workshop attendee as being *'a bit of a black box that we can't access',* in this context meaning there was a lack of transparency in the data processing, i.e. what was collected, and how that data was shared and used. Finally, there was an awareness of a lack of ability in identifying inclusion health groups[3] within data sources; this is particularly important given these groups often experience poorer health outcomes when compared to the general population. Whilst some systems, e.g., police data, did have flags for certain factors including disability as well as to identify hate crime, certain fields were not mandatory on the system leading to incomplete data and a resulting hesitancy in then sharing that data wider. Other concerns relating to this were flagging vulnerability, how to define vulnerability and the subjective nature of this, risk of stigmatising individuals, and whether those recording were qualified in making that distinction.

'People will say they struggle to access this primary care data and you know on GP's systems, I think that's a gap. And now I don't know what they would necessarily be recording for violence, but they might have some conversations around potentially domestic abuse, for example. You know, there might be those early signs and I don't know, obviously there might do that with children and safeguarding.' (NHS)

'Inclusion groups tend to be ignored in lots of datasets because they're not, you know, it's hard to kind of tag or flag someone. Be it that they've got serious mental illness or a learning disability, or from a Gypsy, Roma Traveller, or all the other sort of inclusion groups so we don't sort of flag people as that. So it's hard to do proper good epidemiological analysis on them.' (NHS)

[3] Inclusion Health Groups are those who are socially excluded, who typically experience multiple overlapping risk factors for poor health, such as poverty, violence and complex trauma. This includes people who experience homelessness, drug and alcohol dependence, vulnerable migrants, Gypsy, Roma and Traveller communities, sex workers, people in contact with the justice system and victims of modern slavery

'There are in police data, keywords, flags, you might have a flag for, you know, if the victim is disabled or if the suspect, because you're looking at their data there. And we also collect hate crimes for obvious reasons, and they are broken down by the reason for the hate crime and that's fairly good. But it can be patchy in a number of areas because they are often additional bits of information. They are recorded with keywords which aren't mandatory, so a lot of it is down to the officer's discretion and they are very good a lot of the time. But that still allows for things to fall through. From my side as an analyst, it creates a bit of hesitancy, because I know the data isn't perfect.' (VRU)

There were also frustrations beyond the local picture, that data sharing on a national level had also not progressed as anticipated. One example given was HES data, which includes data on hospital admissions, one of the performance outcomes that the VRUs are measured against. HES data has remained difficult to access beyond an anonymised, surface level and whilst this is something partners along with the VRU have tried to progress, the discussions around this have stalled. Whilst work had been done at a national level and in conjunction with other VRUs, it was felt that this needed to go beyond the VRUS and involve other partners from wider organisations.

'So that's it is one of the problems we have is, that we know the data is there. We know it goes in to ECDS, we know it moves up and there has been discussion with other VRUs, and it's been going on for quite a long time now, I'd say years - how can all VRU get access to that HES data? That discussion has not really ever gone anywhere, there was this hope that VRUs would just get this great big data source that would appear, but I think it's going to happen more at this level with us all talking to actually get that data.' (VRU)

3.1.4 Barriers to data use/ sharing

The most frequent barrier mentioned was around data governance. Whilst it was recognised that senior leadership and partnership working could help with this, there were many frustrations concerning the processes required for data sharing. However, it was felt that often these barriers were due to a lack of understanding of guidance, whereby decisions about whether to share data were pushed onto individuals rather than following an agreed framework for sharing. This appeared to lead to disparities across South Yorkshire in terms of what data was shared and with whom.

'Because if the leadership is great and there's good partnership, that level of that data sharing agreement discussion becomes easy.' (Local Authority)

'I think to be fair to managers, they don't understand the process either and because they perhaps don't understand the process…it gets pushed back to individuals. So, I think some more strategic buy in and education around what can and can't be shared because it is quite complex…The barriers are a lack of understanding, in terms of having some of those conversations around what the process is, and what can and can't be shared under what legislative frameworks.' (Police)

A comment was made however, that often data governance barriers were perceived and not necessarily accurate, in that there was a basis for the sharing of data, however there was nervousness about doing so particularly when the decision to do so was at an individual level. However, there were examples of strategic and combined approaches from other work strands where governance had been addressed at a regional level with standard documentation and sharing agreements that could be used across the whole area.

'I think my experience would be sometimes the barriers are perceived, rather than real, in terms of legal basis. And actually, some of the challenges are more stakeholder, and

sort of kind of organisational culture. So actually, it's more about working together, rather than there not being a legal basis to share that information.' (VRU)

'We've took a bit of a sub-regional approach with South Yorkshire Police on the supporting family's framework and what would potentially need moving forward for the program. And I'm just thinking when you look at all aspects of violence and what that might incorporate, a similar way forward with the ICB in terms of some of that health data. This could support that, so you've got pretty much one information sharing agreement with addendums that cover each local authority's data process and profiles.' (Local Authority)

Governance was also cited as a reason for why data could not be shared at certain levels, for example personally identifiable data from EDs was not allowed to be shared externally. However, this also caused issues with free text data such as the location of where an assault took place as it was possible home addresses would be included. Furthermore, EDs cited a reluctance from patients to give some of the information requested which put additional pressures on already busy reception staff.

'I know people receiving the data say oh no it's not that useful because it's very generalized in terms of you know location, particularly which is free text in the way we collect it. But we are required to take any PID information out. So, then you lose some of that, you know downstream, if you are using the data, you lose some of that usefulness. But we are governed by that.' (NHS).

'I think in terms of collecting the data at the front end, it's very difficult to get patients to give some of that data around assaults you know from the receptionist staff who are collecting that, I think is quite difficult.' (NHS)

Another barrier that was mentioned related to the different types of data and ways of disseminating, and how organisations and partners differed in protocols, the data they held, what they wanted data to show, and how that data was then shared with partners calling for a more streamlined process involving multiple organisations. This was echoed in comments relating to organisations all collecting data in a different way and using different methods of coding and presenting that data.

'I think the biggest barriers to I guess you have to sort of knock over one obstacle and then allow the three to follow suit I suppose at the same time. So, you've got that and then NHS, then ambulance, then police and I think you're dealing with so many different people, with all different aspects of data. Some extremely sensitive, some not as sensitive, and you'll find varying levels of sort of that GDPR firewall going up. And it's just, I think that's hard to get everybody in the same room and sort of discuss it, which would-be great, but they never do. So, I think that's the worst for us.' (Fire and Rescue)

'So you've got a what three words? or a long/lat of a geospatial coordinate, and then you've got I think the NHS don't use sort of the same sort of coding, as other people do as well.'. (Fire and Rescue).

Other barriers included not knowing what data was available, or not knowing what was contained within each dataset. This resulted in partners feeling as though they were stuck, wanting to request data in case it brought value to their work, but not knowing whether it would, or always what to request.

'I'd love to get absolutely everything and then run it to see which ones are important. But the problem is what I would then doing is asking everyone, can you give me a load of data, so I can ignore it later, please? Which, I don't think would go down very well. So,

we we've got this sort of Catch 22, push and pull, whatever you want to call it where we have to sort of prioritise what data we want without necessarily knowing which data we want to prioritize… it's a bit politically dubious to then go, can you give me absolutely everything, so I can work out if I need to bother you again or not?' (VRU)

Another barrier was in knowing who the right people were to share data and beyond that, having senior sign off and leadership to help facilitate data sharing and partnership work.

'One is leadership. Because at the lower level, or middle level, if you try to push it more at that level, not engaging at the leadership level, it's very hard. It takes quite a long time, but I think having the right leadership support, makes a great deal.' (Local Authority)

Also acting as a barrier was that even when data was available, there was often a struggle to manage it within current resources and a recurring theme, particularly across Local Authority and support services, was a lack of analysts and analytical capacity. It was felt that more analytical support would assist in resource planning more effectively.

'But one of the things that's always been sort of missing for me and my service area is access to analysts, you know, and they're worth their weight in gold.' (Local Authority)

'Hopefully in the future we can get to a point within my service area where we've got that analytical support that will help us sort of really match you know our resources to areas and needs better.' (Local Authority)

Furthermore, presenting data in a way that is meaningful and can be understood by those not from an analytical background was time consuming and often not considered a priority given other pressures organisations were facing.

'It's just the analytic capacity to be able to retrieve it and present it in a format that is easy to use really for the kind of average non-analyst person who is part of our tactical groups and priority groups who need to plan the interventions. And that's been the biggest barrier for us really, we know it's frustrating because the data is there but it's just that capacity to be able to extract it and present it.' (Local Authority)

'It's finding that capacity to do that kind of deep dive analysis work, isn't it? We're kind of just, you know, very much doing the priority work at the minute, so not this isn't a priority, but you know, it's a kind of thing that would like to do but just haven't got the capacity to do.' (Local Authority).

A final barrier discussed was in relation to the collection of data. This can be time consuming and an additional burden to already busy staff who are also trying to navigate complexities around what data can and should be collected. For example, in an ED setting, there can be challenges in trying to question intoxicated individuals about their assault and often a lack of training provided in how to question patients effectively.

'I hadn't appreciated how challenging it is for my reception staff to gather that data because people are coming in and they're still kind of steaming drunk and it's really hard having a sensible conversation at that point…You're thinking I've got fill in this box, this box…And in case you might ask, you know where were you assaulted? You don't think to ask? Well, did someone throw you out of that club drunk and you know or leave you in where you lost from your friends? It shows me that we're not very expert questioners and partly that's because of the restrictions of our resource and our time but also kind of

our knowledge and just the way that we're having to complete data, but yeah, it is really hard, but I'm glad some of it's become of use and a lot of the improvements we've managed to make is around reassuring staff around what OK to record.' (NHS)

3.1.5 Suggested Improvements to Data Sharing

Many partners felt that effective data sharing required a step back and rather than listing datasets, it would be better to instead first identify from the literature what datasets were effective in informing interventions and planning. Some partners suggested starting with data they know is effective and then scaling up from there.

'Because the danger of analysing data, you can analyse it to ends degree but then you'll be confused. What is it telling you and what you need to do? Part of the discussion, or work would be around, could be from the literature review, what works? What are effective interventions?' (Local Authority)

'I think it's focusing on what works. That's kind of, I come from the kind of problem-orientated, problem-solving, kind of background. and it's a very kind of pragmatic approach to this kind of stuff. So, if we've got something we know works i.e. The Cardiff model or way version of that, that's the thing we need to implement first. Because we can show benefit to that, we can show the value and we have a model to follow.' (Police)

Furthermore, and potentially even more fundamental, was the requirement for a shared definition of 'violence' or at minimum an understanding of how different organisations are categorising violence. Whilst the VRU in South Yorkshire have followed their local GRIP team's definition (i.e. public place, serious violence) other organisations and partners across the area would also potentially include suicide, domestic violence, and minor violence (e.g., pushing). It was clear that even within organisations the same definitions are not used universally and whilst this is to be anticipated given the variety in workstreams, an understanding of those different definitions may be beneficial.

'What exactly we're counting under violence. I would talk to you about suicides as well, violence in schools from a police perspective, the definition of violence is huge from very minor pushing and shoving right up to the more serious offences. We have a particular focus on the serious violent crime category, as you probably know, which just starts at sort of the very, wounding with a grievous bodily harm, and the more serious murders, attempted murders, et cetera. And so, just in terms of going forward, is it clear exactly what we are looking at in terms of violence.' (Police)

'I guess a lack of consistency between agencies around definitions can sometimes be a barrier. Obviously, discussing here various ways of defining violence, but it's very similar for even things you think should be there, such as domestic abuse or gun and knife crime, serious assaults et cetera. But I guess it just makes it a little bit harder than it has to be.' (Police)

Linked to this was the idea that partners needed greater awareness of what datasets were available from partner agencies, not just working in silos but making wider links and agreeing shared priorities and action plans.

'What other potential data we could have within our grasp, because some of these are available within local authority and partner agencies. They are out there, so it's just making the connection.' (Local Authority)

'We do also need to have a priority which talks about how we get the data, and then have built into our action plan, how we going to get those set of intelligence, where they're going to come from, how we going to factor those in, to then inform those actions.' (Local Authority)

A shared approach and greater knowledge of existing data sharing would allow partners to work more proactively rather than feeling they were having to quickly respond to issues across South Yorkshire without having all the knowledge, data, or connections. There was a feeling that this created a circle of starting to try and access data, finding it difficult due to time constraints, and then going back to what had previously been done, meaning data sharing was not progressing beyond initial discussion.

'Running around like headless chicken and then basically what you do is we just come back to the same place, because we've not paid attention to the value and how intelligently we can get the data to tell us how we deploy our resources? And yet that's basically what the partnership is about, and we have the mandate to do this….I will forever in a day come up with very brilliant priorities and such a direction of travel, but we always go back to the same place, because everybody's got busy. Because the data doesn't exist, we don't have data sharing agreement and I am well versed on trying to get people to agree some data sharing protocol at our level, takes ages!' (Local Authority)

There was an awareness that multiple strands of work exist which, whilst they may have differing focuses or priorities, access similar datasets or work with individuals with the same risk factors and vulnerabilities. For example, one partner discussed the setting up of a suicide surveillance programme and the potential links between this work and violence data sharing. Linked to other parts of the workshop discussion was the concern that this work required senior leadership and a strategic input, and one suggestion was to link this to wider strategies and frameworks to help in getting 'buy in' across the area. Buy in from data providers was also discussed and an acknowledgement that organisations looking to access data need to be clear in their requests how data will be used, why this data sharing is important and what potential benefits there may be.

'There's a piece of work going on across South Yorkshire at the moment about trying to look at attempted suicide. So I just wonder if there's a big overlap in potentially duplication of datasets and things that might be gathered that might make sense to do once.' (NHS)

'I don't know if it's going to break down the barriers as such, but the integrated care strategy is about to be published for us in South Yorkshire and one of the main outcomes is to have a safe and vibrant community and the purpose of the ICP strategy is that we all come together to improve the health and create these safe and vibrant communities? And obviously crime plays quite a large part in that. So, I just thought that might be a useful way of getting us a hook or a framework or something to get behind, that justifies why we all need to come together as a system more and focus on crime more. And therefore, it's an emphasis about why we need to share our data and bring our data together. It's because we've got this objective that's in the ICP strategy that says we all have to come together to do it. So, it's maybe a way to help break the barrier if we're struggling to get buy in or leadership. Or reason for us all to come together as South Yorkshire.' (NHS)

Finally, whilst data governance and capacity was mentioned frequently as a barrier to data sharing there were discussions relating to existing systems in place or in the process of being put into place, which aim to have shared data-sharing platforms. Whilst there are examples locally such as in the

quote below, there are also examples from across the UK. For example, within TIIG (Box 2), data from police, ED, ambulance, and fire and rescue service is shared and disseminated within area specific data hubs and dashboards. Violence data sharing may fit into these forums or could use their approach as best practice.

'There's also the development of the shared care records across South Yorkshire, mirroring the West Yorkshire principles that was done for a couple of years ago. So there are all these developments going on where information is shared for, I guess as [name of attendee] puts it, the there's a purpose to it and that sense that you know with some level of consent and capacity given by the victims or individuals. So we can share the records that organizations can pick that up through a safeguarding perspective or whatever to making sure that… So I think it's trying not to duplicate things. You know, we don't want another protocol for the sake of having one, because those avenues already exist.' (Local Authority)

3.1.6 Data Dissemination

Suggested ways of sharing data were mixed and linked to individual's roles and priorities. Ways of disseminating data included real time surveillance, open data feeds, regular data reports where individuals could access record level data to allow for their own analysis, and data dashboards comprising aggregated data. Most commonly described was a data dashboard to support strategic work which allowed for the downloading of individual data files for further data interrogation. There was an awareness that a shared platform, whilst requiring a great deal of input to start with, would eventually be time saving as it became a central place for people to access data.

'Most organisations want that sort of that, raw data to then combine it with their own. But in theory we should have already done that, and provided that information already aggregated. But, in my mind it's something that's searchable. You can look at, you know you've got to map there, and then you can download that raw data.' (Fire and Rescue)

'One is that if you've got the profile published. People can access that, but the other one is we can also be a bit smarter. Where it is interactive, people can be able to click their bit of area and then the information can be pulled out for that for that bit of the area, they can see what the pictures look like, but also that will require bit of work at that end. That one then people don't have to come back and ask you, you just point them to the source of the information.' (Local Authority)

Whilst a shared data platform would be useful, one of their limitations is that they often do now allow for 'drilling down' of data and the ability to cut the data in different ways for different uses. Therefore, a data dashboard would require a high level of functionality and adaptability to allow users to filter data in different ways. However, in order to do this, data needs to be shared at a record level in the first place.

'Probably down to sort of the lowest geographical level, whether that be output area, something like that. And you know, not all bells and whistles, sort of online with lots of maps etcetera I guess would be an ideal, but it's not really essential. Something we've probably got sort of easy access to. And sort of some form of centralized data down to a local area level. I think it would be really useful.' (Police)

'It would be nice to have essentially a map where you could filter down. Ok well I want to look at deprivation and violence. And I want to look at hospital admissions to and from this area and exclusions….And so, for one, it would be something I could give to partners, especially if it's a LSOA or even an output area level, without worrying about

identification or anything like that. It reaches the point where we don't even need information sharing agreement, it is just as a product that you can use…A lot of the work of the VRU doesn't need record level data, except that I need it to be able to slice it in the ways that I want to. You can always build up from record level data. You can't drill down if you've only got output area. But the actual product and the utility isn't at the record level, it's the aggregate level.' (VRU)

Whilst data dashboards were considered useful as a tool to bring data together and provide a holistic overview of violence to inform strategic bodies of work, there was also an ask for data sharing which allowed for support of more tactical and 'on the ground' interventions and planning. Clear from the workshops was that there needed to be a tiered level to data sharing, depending on need and use.

'I would love to get access to police systems far more, to get live time tracking of offending rates, domestic violence call outs and that kind of thing so that we could, you know, be a bit more real time in our risk management planning.' (Probation)

'I was just thinking about like a tiered approach to what is being produced, so whether it's the requirement of person level data. Do you know for I don't know, identifying cohorts? Or is it then you're very top tier, being just to build on what [name of participant] said, something that then you can share that will be minuted in public documents.' (Local Authority)

Again though, any data dissemination and multi-agency partnership agreements required firstly strategic leadership to ensure sustainability as well as detailed consideration of which data should be included.

'Because we can get to a point where you just get data saturation because everybody wants everything, it all gets put into one pot. But actually, at the end of it, there's just too much data sometimes to do with what we're trying to ask. So, I think it's really important that we focus on what is it we're trying to answer.' (NHS)

'There's got to be a real good strategic lead on this to ensure that that piece of work sits well above analysts, to ensure that the information just feeds into it.' (Fire and Rescue)

The need for sustainability was also echoed by the VRU who, whilst aware that they may not always exist in their current format, wanted data sharing to be a sustainable model that would carry on regardless of whether the VRUs continued to receive funding or not. Therefore, consideration for who should have strategic oversight of a data sharing model is needed. One suggestion was for Integrated Care Boards (ICBs) to take the lead in this as a central body, as well as to follow good practice elsewhere in the country, e.g., the Kent Integrated Data Platform.[4]

'The VRU may not be here forever. And so there is also a question about sustainability. We are doing all this to bring the data flows. I don't want this to all be data flowing into the VRU and then we flow it back out to you because that's not a sustainable model.' (VRU)

'But rather than flow the data directly to local authorities. We flow it into this one platform and then give access to the local authorities, so it could be that that becomes a

[4] Large integrated health and care databases in the UK, covering the health records of more than two million people. It includes data from 240 GP practices, acute trusts, adult social care, mental health services, public health and community health. Collaboration between Kent County Council and East Kent Hospitals University NHS Foundation Trust with the data hosted on the Health and Social Care Network.

platform for other data. And I'm thinking something like the Kent Integrated data platform. I think they flow police data and they've got quite a sophisticated model and platform for linkage and then able to do population level and data analysis again, mainly around health and prevention. But I'm pretty sure they have police data and I imagine their VRU was in that dataset. So that might be an interesting model for us to look at.' (NHS)

3.2 Interviews

Twelve interviews were carried out between December 2022 and February 2023 with members of South Yorkshire VRU, Local Authority, Police, Fire and Rescue Service, and Probation. Interviews have been combined by sector type to provide case studies on perspectives from each of the key organisation types.

3.2.1 Local Authority Perspective

Individuals working in public health identified that they had access to limited data on violence, with most of the data received relating to indicators on the Public Health Outcomes Framework as a source for routine data. When receiving data from other sources this was mostly from the police or from the NHS; however this was not always seen as routine. Data relating to violence was used by public health professionals mostly for informing violence prevention initiatives. Work was undertaken around the risk factors for violence with professionals *'looking at risk factors and being able to pre-empt things before it happens'*, or looking at correlates of violence such as antisocial behaviour, and using this to *'forecast a kind of probability of antisocial behaviour in the future at different spaces.'*

Public health professionals identified that there were gaps in their data, with further data required on factors that may come from a range of different sources. One professional identified that *'data needs to look at not just stuff that's reported to the police'* with data needing to come from a range of sources focusing on *'the wider determinants of health, housing, mental health'* to inform prevention activities. Another public health professional identified that outcomes data were essential to evaluating the value of services in violence prevention and establishing their impact.

A number of data sharing limitations were identified by public health professionals. The need for appropriate triangulation and linkage of data across datasets was emphasised as a key limitation in data sharing *'we have to be able to easily and rapidly link whatever data we have on violence with data on other things so that we can attempt to construct useful explanatory models of why do we see the patterns we're seeing.'* Poor data quality was also identified as an important limitation, particularly in health systems *'ED data, all the health systems data actually, was quite poor in terms of actually collecting the data in the first instance.'* Not knowing what data is available was also considered a problem *'so it can be quite difficult to get hold of it without sort of specifically asking. And to do that, you need to know what you're asking for, which you don't always know.'*

Barriers to data sharing between organisations identified by public health professionals included poor IT infrastructure, and a lack of systems being in place to collect and collate the types of data that were needed. Issues regarding information governance, data sharing cultures, and risk appetite were further identified as barriers to effective data sharing *'And I think that a lot of this is always about kind of appetite to risk… I think that as a general principle, with regards to data sharing, there's often a first reaction, which is look at what the IG (information governance) says we can't do rather than how can we make this work within the confines of the IG… And so there's often a bit of a culture of rigidity I guess which just sort of says no we can't do that.'* With this illustrated as a barrier particularly for getting data in from other partners for public health teams *'And I think in public health, we need some dedicated support to help us navigate IG.'*

A number of improvements to data sharing to tackle some of the limitations and barriers were noted by public health professionals. Having systems across multiple agencies that are able to talk to each

other was also seen as a key improvement to aid future data sharing *'…it's just aware that those different systems can talk to each other and sort of pull their data together into one central place that it's got a similar sort of methodology behind it and a similar robustness behind the quality of the data.'* While information governance and data sharing culture was identified as a particularly strong barrier, encouragingly there were ways identified to tackle this. One such way was ensuring that *'those organisations that are perhaps a bit more risk averse feel as though they have appropriate air cover.'* Within organisations it was seen that this could come from an improved *'corporate approach to information sharing and IG'*, driven by individuals *'quite high up in the organisation.'* Another way identified to tackle this issue was by using sharing methods such as a data hub *'…they are looking at having a kind of data hub which would serve a whole diverse bunch of clients from NHS analysts, to public health analysts to voluntary sector clients – universities for example. So that we can get around the difficulties of IG between organisations and have one big hub that everybody gets signed up to with similar data sharing principles.'* Training partners in routinely recording data was seen as one way to tackle problems associated with poor data quality.

It was seen that the VRU had an important role to play in tackling the barriers present in terms of information governance, data sharing culture, and risk appetite. For example, the VRU could improve data sharing through helping to *'point out where current kind of IG is probably unnecessarily rigid.'* Further, by providing case studies of how data has been shared well elsewhere, may also help to overcome barriers related to information governance and improve data sharing culture *'I think they could always help by providing the exhibit A for the defence. So, this is the use case. You know this work was done already. Somebody else did this and we've kind of replicated it.'*

3.2.2 Probation Perspective

Staff from the probation service indicated that they received the majority of their data from the police and children's services. They also indicated that the data they received from such services and the data they collected themselves through assessments with service clients was comprehensive *'We have got extensive datasets on anything that you can possibly imagine around an individual's name, age, gender, ethnicity, all the protected characteristics, their offending history, their address history, their employment history. Their substance misuse history, their backgrounds, their family history. Lots of data, both quantitative in nature but qualitative.'* The data shared with and collected by the probation service is valuable to *'inform our decision making around risk assessment and management.'*

Staff from the probation further indicated that they would like access to deeper data on an individual that may be collected by the police and by social services *'I would love to get access to police systems far more, to get live time tracking of offending rates, DV (domestic violence) call outs and that kind of thing so that we could, you know, be a bit more real time in our risk management planning, same with social care.'* Further, it was seen that access to a range of health services data may provide insights into some of the broader outcomes of the work of the probation service *'Health data, so I talked about my work leading on the community integration teams, which is our resettlement from custody approach for short-term sentences, so we're trying to develop a performance dashboard and system to demonstrate outcomes for that project. One of the big outcomes is we want to be able to say we're making an impact on people's substance misuse and alcohol misuse.'*

There were a number of limitations to data sharing that staff from the probation service identified. One key limitation was the amount of time and resources that was taken up by data sharing *'…it takes a huge amount of time getting that information backwards and forwards and the quality of that information so. Although that information is not necessarily missing, it's not readily available either.'* One staff member found that while the quantity of data available was not necessarily an issue, how it was being utilised was less than optimal *'I think where we struggle is we've got a lot data. We're not very good at using it. We're not very good at structuring it… We don't use data anywhere nearly as well as we should. We have so much of it. We don't use it.'*

Probation service staff also found that there were a number of barriers to sharing data effectively between partner organisations. Staff found that one such issue was the culture of data sharing *'So I often find other organisations want me to share everything, but they're really reluctant to share with me'* with it being acknowledged that sharing of data was poor between themselves and other partners *'What we also don't do very well, is share that data with our partners and they with us.'* Other barriers identified were both, the role of information governance *'Information governance is a problem. We raised this only last week. We still have the battle of consent, particularly with our Health Partners'*, and how the service requested data with regard to this *'So we have got a huge problem with how we ask for data. And that obviously impacts on the response we get from the other agencies, and I would say vice versa.'* A specific issue for the probation service was that they must work within strict national policies and guidelines *'I guess the other difficulty is the probation service work to national policies. And people like local authorities, Police force, but not to the same extent, just don't get that. So we're not as flexible as other agencies that we work with because we're part of this huge national machine. So that can be an issue and there are huge restrictions because we're part of the civil service on what we can share.'* Another issue that was particularly felt by the probation service were the challenges associated with working across multiple local authorities *'I mean, if you're in Barnsley and Rotherham, you're working with two local authorities, so that can be challenging. And that doesn't help with the data sharing because what we find is each local authority will want to do it slightly differently.'*

Probation service staff detailed improvements that could be made to improve data sharing. Training in how data is requested was identified as something with which one probation service staff member was already engaging *'I'm working closely with all the agencies and we're doing some joint training and there are some national policies and processes being developed.'* The standardisation of data collection and management systems was also identified as something which would ease the process of data sharing *'all the agencies predominantly are probably collecting the same information, but we're all storing it on our own individual systems. Where if we had a whole-system database, then it would negate the need for all that to and fro and requesting information.'* Continually monitoring data sharing processes was also seen as important to maintain standards and drive forward future improvements *'Every time there's a review or a report, regardless of what it is, we review processes, systems, put things in place. I think most people would say that improves things, at least for a time. But there is something about us constant reviewing those processes, so we're ahead of the game. And we're checking out if things are still working or whether we need to tweak things.'*

3.2.3 Policing Perspective

Ongoing work by the Police to tackle serious violence included the GRIP violence reduction project, which uses evidence-based approaches through hotspot policing and problem solving. It was noted during the one-to-one interviews that the majority of the data used to carry out this work was Police data. Limited use of ED data was noted but deemed of poor quality to be useful. A suggestion from South Yorkshire Police stressed that data needs to be more detailed, for example including an individual's specific location, to be used effectively *'It's the detail that's important and I think it's really hard to emphasize that enough, particularly with the ED data. It's the point of collection; the detail needs to be there at the point of collection, otherwise it's pretty useless… For example, West Street in Sheffield, it's a really long road and it's really violent, but it's very difficult to pinpoint what any of the problems are on that street because every crime recorded to West Street. There might be three spots on that, but they're not where the crimes happened, so we almost need to hold ED to a higher standard. If we can use that data. To be really, really specific, breaking it down to that smallest geographical unit that we can, because then it becomes useful.'*

One theme that also emerged from the one-to-one interviews, was the type of datasets that different services in South Yorkshire would like to be able to access, to inform the work that they do. For South Yorkshire Police, real-time individual-level data was deemed essential. This included Hospital ED data as a priority in order to enrich the work they currently do to reduce violence, through hotspot policing

'One of our KPI's is violent injury attendance at ED for 18 to 25-year-old males, we can't get that data and we certainly can't get the data as to where that happens, which is what we need to know.'

Participants in the interviews were asked how they would ideally like to receive data that they currently do not have access to. For the Police, although an interactive dashboard would be advantageous, raw datasets were deemed preferable. Through the interviews, it was evident that members of the Police experience various barriers when collecting and sharing data with different services across South Yorkshire. This included barriers relating to information governance *'I'm really reticent to share it with other agencies as well because of all the legislation around it.'*

Information governance was also linked to a lack of data literacy within the organisation: *'Data should drive what we do on a daily basis. We should be so much cleverer about this. But we don't have the data literacy within the organisation to understand that and we let the wrong kind of data drive stuff.' That kind of retrospective performance data isn't particularly useful to make us better, it will improve standards in some respects, but doesn't make us more effective if that makes sense. Not necessarily more effective, more efficient.'* It was suggested that training for staff, particularly amongst senior leadership would help to overcome this barrier *'I think better training, just understanding and data literacy within the senior leadership team would be amazing.'*

3.2.4 Fire and Rescue Service Perspective

Individuals working for South Yorkshire Fire service noted that the use of data and intelligence is vital for the work that they do to gain an understanding of the local area within South Yorkshire and to manage risk *'We produce a variety of reports and the information feeds into our community risk model. And so, it's just turning that information into some sort of intelligence that they understand for the station area that they serve. So, the risks to them as well, I guess. So, if we've got a lot of deliberate fires, for example, they understand where those hotspots are, and they can go and do prevention work. For police and local authority and also just understanding risks in the area in general. So, we know the areas of deprivation, where the likelihood of incidents are going to start et cetera.'*

For the fire service, more specific data including census information and police data, was a priority to inform the delivery of community safety checks. Having access to more specific data that could flag certain locations for individuals with a history of violence and about being able to target services to those most in need, was deemed important for managing risk for officers *'Those that are socially isolated, for example, or those that don't have any assisted living, those that don't have any sort of meals on wheels services and the like, those that can't get prescriptions. So those would be ideal because that adds another layer of vulnerability for us and that then increases our risk score. So, then we know when we knock on the door to do home safety check, we know we've got the person that needs the services behind it.'*

Furthermore, the ability to flag locations where individuals may require additional support from the Fire Service was deemed important as well as identifying areas which could pose risks for front line workers who are responding to incidents *'For me again, my selfish need would-be raw data that we can use and implement. It's nice, to have a look at a map and it is nice to see where things are going on. But if I can't drilldown to the household level, it's not really that useful to us. I understand for the police to sort of do some prevention activity or to reduce violent crime, they'll need to know the area that they're working on. It might be groups or gangs or certain streets or whatever. For us, it's more of a do not go location, to send people into the like I said before, it's risk to our firefighters and us and our staff. So, for us, I think raw data.'*

The Fire Service identified various barriers to collecting and sharing data with other organisations. This included limited access to police data *'I think it's the police stuff, which is a primary for me. So, another strand that I'm trying to get into as well is the police and the police have such a firewall up when sharing anything. So, it's very difficult to get anything from them.'* A reluctance to share data between

organisations was linked with a lack of understanding around information governance legislation *'Let's just get sharing. Let's remove the barriers. I think someone mentioned it in a meeting… GDPR should be an enabler, not a preventer in sharing information. Just doing it right instead of not doing it at all.'*

Further limitations to data collecting included the frequency of the datasets being received. They expressed the limiting nature of the datasets due to how often they are received: *'We get a yearly download. Experian again, I think is a 12-month process so that comes every 12 months. So, I mean when it's fresh it's great, but obviously the longer you leave it, the staler the information is because obviously people move on whatever and they migrate out the area.'* In addition to this, it was also noted that the use of free text within certain datasets limits the ability for the data to be analysed and felt that there should be standardised data processes between different organisations to prevent this: *'I think as long as it's standardised process, I think that's the only thing that hinders when there's too much free text going about, you can't really trend on stuff.'*

3.2.5 VRU Perspective

From interviews with the VRU, it was evident that the majority of data used by the VRU are datasets from the Police, including missing persons data, in-depth data relating to homicides, drug seizures, police custody data etc. It was noted that some of this data is not easily accessed and has to be directly requested by the analyst. Data is often used by the VRU to build a local picture of crime and to guide where certain areas may need additional funding to tackle violence. It was noted by individuals working within the VRU that it may be necessary to define what offences are considered violent offences in order to gain a better understanding of violence within South Yorkshire, to aid with data analysis and target interventions more effectively *'I suppose the only kind of blind spot we have is we don't tend to run robbery that often and we don't tend to look at aggravated burglary that often, which is arguably violent. In my experience aggravated burglaries are quite rare, so I don't think we're missing much, whereas robberies, someone said that they think a lot of the knife crime in Sheffield is robbery-related and I think we kind of missed that because robbery wasn't under, specifically, you know violence with injury is what I often look at. Rather than violence against the person, I look into violence with injury.'*

Individuals working within the VRU are able to access other datasets such as ISTV data from NHS Hospital Trusts within the area, however there are various limitations to the data. Low data quality was noted relating to the location of incidents relating to violence *'Quite a few of the ones we've got are West Street, and I don't know if you've been to Sheffield, that's a big street, you know? It's covered in bars, so if we wanted to know, for instance, OK well is the sports bar on [name of street] is causing us problems. I can't tell you that because they just say [name of street].'*

Although it was noted that staff working within hospital may experience difficulty in obtaining this information, it makes it difficult to target interventions such as the GRIP hotspot policing due to a lack of data specificity and also gaps within the datasets. It was also noted that training for staff working within ED's may help to alleviate this issue. A key area of data that the VRU would like to be able to access is data relating to social care, specifically relating to children, and more in-depth data relating to schools such as exclusions. A limitation to the current data for exclusions is that no information is available on area of residence for the child and often children attend schools in different areas to their area of residence, which may limit the effectiveness of targeted interventions *'We do actually have education. What it is really hard to get is exclusions against where the kid is. We can get what school and you can intuit that the kid is probably from close to that school, but we don't know specifically, and we know that, you know, we have got one school with a high exclusion rate, which you'd think would be a high violence rate, but it's because they're excluding kids from a different area. Yeah, it, it's disproportionately affecting kids from outside where the school is.'*

A limitation noted by the VRU was a lack of contacts within different services which sometimes acts as a barrier to having access to certain datasets. This was specifically noted with the ability to access

ambulance and social care data. Having access to different types of datasets was deemed important to be able to build a picture of the local community and wider context to assess what factors may be impacting the community and resulting in higher rates of violence in a particular area *'It will be those kinds of outliers (that add value to the data). Those aberrations like okay, this is high violence, but we can't see anything wrong with it. Oh wait, we've run social work data and there's far more kids in care than we thought. Somehow this is low deprivation, but high kids in care. And what does that mean? Are there people missing off the census? So, I think you can solve most problems with the crime data and the deprivation data. The other datasets are there to go, what have you missed?'*

In addition to not having contacts with different services to be able to collect data, a main barrier to data sharing included concerns around data ownership and reputation *'We are talking to organisations who are concerned about data ownership. And what it means if it gets out. It's got nothing to do with privacy and everything to do with reputation.*

This concern and reluctance for some organisations to share data was linked with a risk of sharing data relating to individuals who may be considered violent but have not been charged with any offences *'There's a lot of risks there. There's GDPR risks. There are the risks in terms of sharing that someone has been a suspect of domestic abuse. I always point this out, that they might be innocent. You know, being a suspect does not mean they did it.'*

Individuals from the VRU suggested that going forward, dissemination of data relating to violence should sit with Community Safety Partnerships, due to the need for continuation of the vital work the VRU does in tackling serious violence within South Yorkshire *'We've got to consider the longevity. We need some continuation of this and that I think will be the CSPs, I think it's got to be. And they can start once they start taking ownership of this, maybe they can have a dashboard for their area and they can do it how they want. Yeah, I think the VRU is a really good place to start because it's a single focused vision. But it can't be where it ends. It can't stop with us because this unit will go.'*

It was noted by the VRU that raw datasets would be the most beneficial and suitable for analysing and producing reports, responding to specific requests etc. This was also due to the limitations with certain dashboards *'And the other concern I had, there is if you give non-analytical people access to a dashboard where they can run whatever they want without understanding. You know, if you're good at building a dashboard, you should be able to translate most of the understanding, but there's always going to be nuance that is missed…I personally, like a great deal of control. So, either like to work on a request basis, but I like to be able to answer the request. The problem like a lot of the time, people ask me, and I can't answer, I would like to be able to have someone in the CSP's go, do we have a problem here? Or you know someone said, yeah, there's a problem here. Can you throw us together a bit of a profile about that this area and I can go sure, give me give me a couple of days I'll pull together what I know, and you can have a nice document that tells about violence.'*

4. Key Learning and Recommendations

The findings demonstrate that across South Yorkshire, there is a commitment to reducing violence and following an evidence-based and data-informed approach. There is also evidence of effective data sharing both within and across organisations. However, a number of barriers and limitations were identified which reduced the ability to share, use, and disseminate data in a more effective way. Furthermore, there is a lack of consistency concerning what data is being shared across South Yorkshire, concerns over what data can be shared, as well as issues relating to capacity, definitions, and data quality. Underpinning all of these concerns is a perceived lack of senior leadership and strategic oversight in addressing these issues and a sense of individuals and organisations working in silos. With the launch of The Duty which reemphasizes the importance of multi-partnership working, we propose the following activities:

Strategic

- Whilst all organisations hold responsibility for violence data sharing under The Duty, work needs to take place to determine which organisations will be responsible for its co-ordination and which individuals within organisations will be held responsible.
    - Establish senior leadership for each identified sector to commit to improving data sharing across South Yorkshire.
    - Senior leaders to sign up and make a commitment to the data group as well as identifying issues within organisations relating to analytical capacity.
    - Implementation of a strategic Violence Data Group to be set up across South Yorkshire. This will be led by senior leadership and needs to consider the longevity of the VRU funding. However, given that South Yorkshire VRU have oversight across the county, this should be initially led by the VRU with representatives from South Yorkshire Police and each of the CSPs. Terms of reference will need to be established and should include information on member roles and responsibilities and a clear action plan for the next two years and beyond, considering the potential for transition from VRU to a new structure.
    - Consideration of Integrated Care Board role is ensuring any data sharing systems or mechanisms put in place are sustainable and do not duplicate already existing work.
    - Liaise with other VRUs to share learning regarding data sharing processes.

Facilitating Data Access

- Develop a South Yorkshire-wide data sharing online portal. This should be open to all local partners working in a violence prevention or reduction role and include:
    - Development of a resource pack which reassures contributing partners around legal basis for sharing data and Data Protection Impact Assessment template.
    - Consideration of a multi-agency information sharing agreement or creation of a template information sharing agreement which can be adapted and edited depending on the data being accessed and the organisation making the request.
    - Overview of current violence data captured across South Yorkshire, including data fields, and ownership and accessibility of data. Whilst this can start with data that is known to be effective in informing violence prevention work (e.g., police, health), it can be built upon and expanded over time. This should also include data on risk and protective factors for violence, such as data on education.

    - Streamline processes for sharing, cleaning, standardising and processing data to reduce duplication of effort but also to standardise data formats across South Yorkshire.
    - Consideration of the implementation of a shared data portal and organisational responsibility for this. This may require a tiered approach to access dependent on level of data access requested and local need.
- Liaise with local partners from across all sectors to establish how violence is defined within their organisation to ensure clarity across organisations.
- Monitor and collaborate with existing workstreams where there are crossovers in data shared and used. Consider the roles and workstreams of CSPs and Local Authorities to ensure work is not duplicated.
- Provide clarity to data providers, particularly those from health services on:
    - Their legal responsibility in collecting and sharing data.
    - The value of the data being collected.
    - Why is it being requested and how it is being used.
    - Feedback on both completion of data recorded and quality of that information.
    - How data being shared is used and the impact of this.
    - Regular training sessions with data inputters.

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