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Understanding the Geospatial and Contextual Patterns of Rural Domestic Abuse: *An Exploratory Study*

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EXECUTIVE SUMMARY AND RECOMMENDATIONS

Introduction and background

The latest population estimates suggest that in mid-2020 almost half a million people lived in Cumbria (ONS 2021b), which is described by the Office for National Statistics (2016) as a 'predominantly rural' county. Although Cumbria's landscape is dominated by rural towns and villages, the concentration of people in urban centres means that the resident population of Cumbria is almost equally split between urban (47%) and rural (53%) areas (ONS 2017). A growing body of international research evidence suggests that the persistence of traditional values, rural isolation, and limited support services mean that rural victims may wait longer before seeking help, enduring more serious violence, than those in urban areas (Little 2016; National Rural Crime Network 2019). There is, however, a dearth of research on the needs and experiences of domestic abuse (DA) victims in rural parts of England and Wales.

This research was funded by the Home Office's Police Science, Technology, Analysis and Research (STAR) Board to examine the geospatial and contextual patterns of DA in the predominantly rural county of Cumbria. This Executive Summary presents findings from our analysis of: data from all DA-related incidents and crimes recorded by Cumbria Constabulary between 1 April 2019 and 30 September 2021; data on DA-related referrals to Victim Support in Cumbria during the same period; and interviews with 42 local practitioners.

That much DA goes unreported to, or unrecorded by, the police is well known. That data from Cumbria Constabulary and partners reflect reporting and recording practices, and not some objective reality, should be kept in mind when reflecting upon the findings. In our report, we document efforts to get behind the 'dark figure' of DA to better understand the nature, extent and geospatial distribution of DA in Cumbria.

Analysis of data from Cumbria Constabulary

An incident is any event that comes to police attention and is recorded as an incident. If the police find sufficient evidence of criminal activity, a crime will usually be recorded (Home Office 2021). Typically, then, crimes are linked to a preceding incident.

The dataset: Cumbria Constabulary provided details of all DA-flagged incidents, and intimate partner abuse (IPA) crimes, recorded over a 30-month period from 1 April 2019 to 30 September 2021. In keeping with the broad definition of DA in the Domestic Abuse Act 2021, DA incidents include a wide range of relationships and behaviours and *are not* limited to abuse between intimate partners. IPA crimes *are* limited to abuse between intimate partners. The data comprised 17,264 DA incidents and 8,901 IPA crimes. These IPA crimes involved 5,390 unique victims and 5,367 unique offenders.

Characteristics of IPA crime: Most of the 8,901 IPA crimes were violence against the person (n=7,616, 85.6%). Interestingly, over half of the aggrieved relationships involved former partners (n=4,847, 54.4%). Turning to outcomes, 989 IPA crimes resulted in a charge or summons (11.1%). The majority did not proceed to charge because of evidential difficulties (n=7,095, 79.7%). In a high proportion of cases, the outcome was recorded as 'Evidential difficulties: victim does not support action' (n=5,631, 63.3%).

Characteristics of victims and offenders: Of the 5,390 unique victims, almost three quarters were female (3,891, 72%) and the rest were male (1,499, 28%). Of the 8,901 IPA crimes, 76% were perpetrated against female victims and 24% against male victims. Controlling for adult gender-specific population size (i.e. the population at risk), the risk of females experiencing IPA crime (3,160 per 100,000 women aged 16+) was three times that of males (1,050 per 100,000 16+ males).

ONS population estimates suggest that in 2020 almost a quarter of the population of Cumbria was aged 65 years or older. Of the 5,390 unique victims of IPA crimes, just 196 (3.6%) were aged 65 years or above. In other words, older residents are starkly under-represented in police recorded IPA crime compared to their representation within the resident population. Wydall (2021) and others have noted the 'invisibility' of older IPA victims in theory, policy and practice. During the qualitative strand of our study, practitioners confirmed working with older victims of IPA, identified intersections between IPA and other issues (e.g. dementia; being a care giver or receiver), and illuminated the particular barriers that older survivors face in accessing services. Taken together, the evidence suggests that Cumbria has a hidden population of older people whose IPA is unknown to service providers.

Our analysis found that almost three quarters (3,879, 72.3%) of offenders were male and 74.9% of victimisations involved a male offender. The similarity between the proportions of female victims (noted above) and male offenders is not surprising given that three quarters of IPA crimes involved male offenders and female victims.

Temporal trends: We begin by examining monthly trends around IPA crime and DA incidents. These were calculated for the 'at risk' population, which controls for geodemographic variations in age and gender between small area geographies known as Lower-layer Super Output Areas (LSOAs). The plots below (Figure A) show the rate of police-recorded IPA crime and DA incidents by month per 100,000 of the 'at-risk population'. The three periods of national covid-19 lockdowns are marked in blue.



Figure A: IPA crime rates and DA incident rate, per month, per 100,000 people at risk

Disaggregating these data by victims' gender, we found that the rate of IPA crimes against females is roughly double the rate against males. Whilst temporal trends in IPA crime appear relatively stable, there are some indications of overall reductions during the last year of data provided. Disaggregating IPA crime by offence type found more distinct changes over time in

both Harassment offences, which saw considerable reductions at the time of the first national lockdown and remained relatively low thereafter, and Stalking offences, which slowly increased across the study period.

Examining the trends seen during the national covid-19 lockdowns is challenging without additional historic data to estimate baseline expected time series (i.e. to determine whether the variations depicted in the plots were outside the normal range). Initial explorations led to several observations, however. The lowest police-recorded IPA crime rates occurred during the three lockdown periods. These minima were largely driven by changes in reported IPA crimes involving female victims. Similar patterns were not observed in the DA incident data, however. It could be that within the incident data, decreases in IPA are masked by increases in other forms of DA, such as child-to-parent violence (CPV) or violence between siblings.

Temporal trends in crime severity: We used the Office for National Statistics (ONS) Crime Severity Score (CSS) to create monthly measures of cumulative IPA crime severity across Cumbria. While levels of IPA crime severity exhibit considerable variation across the study period, overall temporal trends in severity appear relatively stable with some indications of reductions in cumulative severity in the most recent year of data (likely a reflection of reductions in offending/reporting not reductions in the severity of offences). Disaggregating IPA crime severity by gender, it seems that for most of the 30-month study period the average severity of offences against female victims was slightly greater than that against male victims. Notable is an apparent increased disparity in crime severity between female and male victims during the second and third covid-19 lockdowns. Again, further historic data are needed to determine the significance of these disparities.

Seasonality: Our exploration of seasonality found that IPA crimes peak on Fridays, Saturdays and Sundays. Across the year, IPA crimes peak during the summer months of July and August. Both these findings are commensurate with previous research.

The spatial patterns of IPA crimes and DA incidents: We then examined the spatial patterns of police-recorded IPA across Cumbria's 321 LSOAs. The map on the left of Figure B shows the number of crimes in each LSOAs: the dark red areas have more IPA crime than the light red areas. LSOAs were rank ordered according to the number of police-recorded IPA crimes. In the map on the right, LSOAs with counts above the median are shown in red. Those with counts below the median are shown in blue.



Figure B: Count of IPA crimes in each LSOA, and ranking LSOAs by decile of IPA crime count

We also examined changes in LSOA crime counts between 1 April 2019 and 31 March 2020 (i.e. the year before the first covid-19 lockdown) and 1 October 2020 and 30 September 2021 (i.e. the most recent year in the data). We found that roughly one third of LSOAs experienced more IPA crimes in the 2020-2021 window compared to the 2019-2020 window, while two thirds of LSOAs witnessed less IPA crimes. That said, most changes are relatively small with the average change in IPA offending in each LSOA being a reduction in 2.5 crimes over the year. Care should be taken when interpreting these trends, which could reflect changes in reporting patterns.

Work to map DA incident counts and rates produced similar patterns. Just over a half of all LSOAs generated more police-recorded DA incidents during the 2020-2021 compared to the 2019-2020 window, and around 2 in 5 LSOAs saw less DA incidents, the remaining LSOAs saw the same level of incidents in both periods.

Mapping crime severity: We also explored the spatial distribution of crime severity across Cumbrian LSOAs. The maps in Figure C depict the cumulative ONS crime severity score associated with all IPA crimes seen in each LSOA. They show the distribution of crime severity over the entire 30-month study period, both in raw scores (on left, where the darker areas have higher cumulative scores) and ranked relative to the median LSOA (on right, with above median scores indicated in red, below median scores in blue).



Figure C: The distribution of crime severity scores by LSOA

We again examined changes between our earlier time window (2019-2020) and our later time window (2019-2020), now for cumulative crime severity. Just under 60% of LSOAs saw less cumulative IPA crime severity with the remaining LSOAs seeing increases in crime severity in the later window compared to the earlier window.

A primary observation from this part of the analysis is that IPA crimes and DA incidents known to the police concentrate significantly in a relatively small number of typically urban LSOAs. While acknowledging that LSOAs are devised to have somewhat comparable population sizes, this observation is true when considering both numbers of crimes and incidents and when examining rates of offending (which control for population size). As noted above, leading commentators contend that 'There is now strong international empirical evidence showing that rural women are at greater risk of experiencing various types of intimate violence than are their urban and suburban counterparts' (DeKeseredy 2019: 312). In the qualitative strand of the study, practitioners spoke in detail about the barriers to service access experienced by victims from rural and farming communities, which may prevent them coming forward. It seems likely, then, that Cumbria has a hidden population of rural victims of IPA.

Quantifying crime and incident concentration: Further explorations found that IPA crimes, DA incidents, and IPA crime severity all concentrate within LSOAs, with 3% of LSOAs witnessing 12% of police-recorded IPA crimes, 12% of DA-related incidents and 12% of IPA related crime severity; 10% of LSOAs seeing 30% of IPA crime, 29% of incidents and 33% of crime severity, and 25% of LSOAs witnessing 56% of crime, 55% of incidents and 60% of severity. Comparing these measures, we see that crime severity is the most concentrated of the three.

Characteristics of High IPA Crime LSOAs: Having quantified the spatial patterns of DA incidents and IPA crime and severity within Cumbria, we then examined some of the characteristics of High IPA Crime LSOAs to identify factors associated with high levels of IPA

crime coming to the attention of police. Utilising the latest Index of Multiple Deprivation (IMD) data for Cumbria we found that LSOAs where relatively high levels of IPA crime come to the attention of police also experience a number of distinct forms of social and environmental deprivation.

Rurality and DA: The ONS 2011 Rural / Urban Classification provides two urban and four rural categories for LSOAs and other small area geographies. From these, we produced a new binary classification according to which Cumbria's LSOAs are either Rural (n=169) or Urban (n=152). We found that whilst Rural LSOAs are home to 54% of Cumbria's 16+ population at risk, they host just 34% and 35% of DA incidents and IPA crimes coming to the attention of police respectively. Moreover, the rate of incidents and crimes (irrespective of victim gender) recorded in Urban LSOAs is over twice that observed in Rural LSOAs. Similar patterns of spatial concentration were found for IPA crime and DA incident rates. In conjunction with other research evidence and the findings from the qualitative strand of this study, this again suggests that residents of rural LSOAs are less likely to report IPA crimes and DA incidents than their urban counterparts.

Patterns of repeat offending and victimisation: We then examined patterns of repeat offending and victimisation in the data from Cumbria Constabulary. Turning first to victims, the data contained 8,091 IPA crimes associated with 5,390 unique victims that occurred over the 30-month period from 1 April 2019 to 30 September 2021. Of those victims, 1,832 (34%) experienced more than one IPA crime during the study period, up to a maximum of 19 IPA victimisations experienced by one person during this time.

A considerable proportion (39%) of IPA crimes were repeat victimisations. Considering strategies to identify those most at risk and prevent repeat victimisation, 7.1% of victims (383 people) experienced 4 or more IPA victimisations, which in turn made up 23.2% of total IPA crime. These findings support the implementation of a tiered response to IPA crime which concentrates some proportion of local multi-agency resources on repeat victims.

Time course of repeat victimisation: We then examined the temporal patterns of repeat victimisation and considered the implications for practice. After discarding repeats that occurred within 12 hours (and were often part of the same 'event') and those that happened a year or more after the previous event, we found that likelihood of repeat offence is highest within a short time period of an initial offence (with just over a quarter of all repeat victimisation occurring within 30 days of a previous victimisation) and that risk of revictimization subsequently decays over time. This suggests that multi-agency work to support victims should be timely in nature when the risk of re-victimisation is greatest.

Repeat offending: Of the 5,367 offenders analysed, 1,836 (34%) were repeat offenders who committed more than one IPA crime, up to a maximum of 17 IPA crimes for two people, during the study period. A considerable proportion (40%) of IPA crimes were repeat offences. Just under 8% of all IPA offenders who had committed four or more IPA crimes throughout the study period were responsible for almost a quarter of all IPA offences. This supports a strategy of targeting the most prolific offenders for intervention. An alternative (or complementary) strategy might be to target offenders associated with the most harmful offences. These strategies are discussed below. That said, during the study period, 66% of offenders were only

associated with a single IPA crime, suggesting the need to look further afield than historic IPA offending to prospectively identify and prevent the offences of these individuals.

Conditional probability of reoffending: It appears that as the number of IPA crimes an offender commits increases, so the conditional probability of them committing another IPA offence increases. This underscores the need to identify (and intervene with) repeat perpetrators early in their offending career.

Offending intermittency and escalation: There is also some evidence to suggest that the time between subsequent offences reduces (i.e. offending gets more frequent). However, the average severity of these offences does not seem to increase. The analysis around the probability of reoffending, intermittency and escalation should be repeated with a larger time window to increase validity.

Comparing strategies to target high frequency v. high harm offenders: Police crime reduction strategies often include identifying and targeting those who commit the most crime within a given timeframe. An alternative approach looks not only at crime frequency but also crime severity (here defined through the ONS Crime Severity Score). Underpinning this approach is the belief that those offenders who cause cumulatively the most harm warrant the most attention. We used the data from Cumbria Constabulary to compare these two different approaches.

Figure D shows two cumulative contribution plots. The left plot focuses on crime frequency. Tracing up from a point on the X-axis and then (upon meeting the plot line) reading the corresponding value off the Y-axis shows, for example, that if the top 10% most prolific offenders were prevented from reoffending, we would anticipate a reduction in crime of around 25%. If the top 25% were prevented from reoffending, we would expect a reduction in crime of around 50%.



Figure D: Targeting by offence frequency (on left) and crime severity (on right)

Inspection of the cumulative severity contribution plot (on right) demonstrates that crime severity is considerably more concentrated amongst offenders than offence frequency, with the top 10% of offenders (in terms of cumulative crime severity) responsible for 68% of total crime severity (and 19% of crimes). Further examination of the data found that 1% (n=54) of offenders generate 15% of total severity, 2% of offenders 26% and, remarkably, that over 50% of all crime severity generated across Cumbria was attributable to less than 5% of offenders.

These findings demonstrate that when identifying IPA offenders for targeting, the methods used should prioritise offenders by crime frequency *and* crime seriousness.

Estimating the prevalence of false counterclaims: A key theme during the qualitative research was the issue of false counterclaims made by perpetrators. We developed an analytical strategy that sought to identify crimes resulting from counterclaims and, in turn, estimate what proportion of IPA crime they accounted for. We estimated that up to 5% of IPA crimes within the study period are potential counterclaims.

What other data could aid understanding of DA in Cumbria?

As noted at the outset, there exists a 'dark figure' of crime that goes unreported to or unrecorded by the police. This problem may be particularly acute for DA, because victims often face significant barriers to reporting. For this reason, we attempted to gain access to relevant data from other sources to better understand the nature and distribution of DA across Cumbria.

Victim Support: The research team gained access to data from Victim Support related to DA referrals and service users in Cumbria during the study period (1 April 2019 to 30 September 2021). After filtering these data for service users aged 16+ at the time of referral, Victim Support recorded a total of 6,451 unique service users associated with 9,092 DA-related referrals during this period. Details of the relationship between victims and offenders were not available, so these cases are not limited to IPA. Figure E depicts the gradual increase in referrals seen during the study period:



Figure E: Count of DA-related referrals to Victim Support by month

Of the total 9,092 recorded referrals from April 2019 to September 2021, 8,681 (95%) resulted from a police referral (and these referrals were associated with 6,210 unique service users), and 411 (5%) represented non-police referrals (associated with 395 unique service users). That the vast majority of referrals came from the police limited the extent to which we could use the Victim Support data to examine DA that was unknown to Cumbria Constabulary. Most of the non-police referrals were self-referrals by telephone, email, website or LifeChat.

Exploratory analyses comparing the spatial patterns of police data and non-police referred Victim Support data: Given the size of the Victim Support dataset, and because

many LSOAs only experienced single digit counts of non-police referrals to Victim Support across the study period, we began by aggregating Victim Support referral data to larger geographies to reduce the impact of this variability. Counts of both police recorded crimes / incidents and Victim Support referrals were aggregated to Middle Layer Super Output Area (MSOA) level, of which there are 64 in Cumbria (compared to 321 LSOAs). This allowed us to see to what degree High and Low Crime/Incident MSOA areas, as highlighted by Cumbria Constabulary data, are equivalently represented within the non-police Victim Support referrals.

Comparing insights drawn from the geospatial patterns of Victim Support and police recorded crime and incident datasets demonstrates that for around half of all MSOAs in Cumbria, decile rankings of Victim Support referrals and police recorded crimes and incidents are roughly equivalent. At the same time, these exploratory analyses also highlight approximately 20% of MSOAs where the differences in deciles are potentially indicative of either underreporting of DA or increased engagement with Victim Support. For a range of reasons, these findings should be viewed with considerable caution. Nevertheless, we suggest they warrant further place-based investigation and contextualisation with expert local knowledge.

Women's Centres: Cumbria's three Women's Centres also provided data on referrals. Table A below summarises the number of referrals and time span of data made available to the research team. In total 2,236 referrals were included in the datasets provided.

	Time Span of Data	Total number of Referrals
Women's Centre	Provided	recorded in Data
Women Out West	Aug 2020 to May 2022	310
Women Community Matters	Mar 2019 to Sept 2021	1874
Cumbria Gateway	Oct 2017 to Sept 2021	52

Table A: Time span of data and number of referrals for each Centre

In the main report, we document the problems encountered when gathering the Women's Centre data, which mean that the findings come with caveats. Nevertheless, our work to map the geospatial distribution of referrals provides an indication of the geographic reach of the Centres.

Figure F below shows all of the MSOAs that produced referrals during the stated time periods, according to the data provided. Unsurprisingly, service users are drawn from the regions areas around the Women's Centres, as indicated by the dark blue areas. The regions that are not routinely reached by the Women's Centres are shown in light blue.

All Women's Centres Dark Blue Areas Denote Service Provision



Figure F: The MSOAs served by the Women's Centres, shown in dark blue

Additional work was undertaken to triangulate the data provided by Cumbria Constabulary, Victim Support and the Women's Centres. The Women's Centres were taken together as a single service provider for the purposes of these analyses. The MSOAs that generated IPA crime (in the police data) and IPA referrals to the other service providers were ranked according to whether they produced more or less referrals relative to other MSOAs for each organisation. A metric was then calculated to quantify the (dis)similarity of these rankings between organisations. A high dissimilarity score (tentatively) suggests that victims from some MSOAs are more likely to be known to some organisations than others (see Appendix 5 in the main report).

Interviews with Practitioners

In addition, semi-structured interviews were conducted with 42 local practitioners. These comprised: 22 police response officers; one Detective Inspector and Safeguarding Lead; 17 DA service providers; one local government official, and a local GP with significant professional experience of IPA. We now present the key themes from the qualitative strand of our study.

Interviews with Police

Most police response officers reported encountering DA daily or weekly. Building on previous research (Hoyle 1998), interviewees were asked to describe the last two DA events that they encountered. Their actions were heavily shaped by procedural guidelines: they focused, for example, on how calls for service are triaged; the need to attend swiftly; expectations around safeguarding; the need to take positive action, and so forth.

Domestic violence or domestic abuse? When response officers described the two most recent incidents that they had attended, the majority of their responses focused on physical violence. To some extent, this may be a function of the nature of IPA calls for service: the data show that most IPA crimes involved violence against the person (7,616, 85.6%). It could,

however, also reflect a need to better recognise the other forms of IPA as listed in the Domestic Abuse Act 2021. This issue was explored during the interviews with IPA service providers.

Policing a 'predominantly rural' county: Officers' descriptions of their districts were dominated by their large geographical size and rural nature, which could impede a swift response to a call for service. Staffing shortages were also raised as an issue, as was not knowing when or whether backup would arrive. International research on the policing of DA in rural areas reported similar findings, noting the deleterious impact on officers' wellbeing (Huey and Ricciardelli 2017).

Dealing with counterclaims: Response officers reported sometimes having difficulty identifying the primary victim of DA. The Safeguarding Lead emphasized the problem of perpetrators making *false* counterclaims against their victim. There was little discussion amongst response officers of false allegations as a tool of abuse, however.

Interviews with IPA service providers and others: We also conducted 17 semi-structured interviews with local IPA service providers drawn from local organisations that work with victims and, in some cases, perpetrators. A Local Government Officer with significant knowledge of IPA service delivery, and a GP with extensive professional experience of IPA, were also interviewed. The interviews focused on the needs and experiences of victims, and included discussion of the police response.

Practitioners' accounts of IPA: Practitioners were asked to illustrate the kinds of issues faced by service users. Their accounts provided graphic illustrations of the serious physical and sexual abuse that some (mainly female) victims experience at the hands of (mainly male) perpetrators:

'She had been grabbed by the throat and pinned against the wall. She couldn't breathe, and she dropped to the floor, and he'd kick her.'(DA1)

'He would often hit her. Push her. There was an occasion where he strangled her. He had thrown bottles, cans, objects at her.' (DA2)

'One lady said, "I need you to picture what I went through. He was pounding me in the head while I was cowering on the floor. And the only reason he stopped is because I told him to just finish me off, just kill me because I can't take any more.""(DA3)

We see lots and lots of rape in the bed, when they have said no, but they don't listen and have sex with them anyway. That happens a lot in the abusive relationships.' (DA4)

The practitioners emphasised, however, that IPA takes myriad forms, and noted the extent and impact of other forms of abuse. There was much discussion of coercive control and psychological abuse, which some practitioners felt were more prevalent than physical violence and may act as a precursor to it:

'One of the most insidious things ... about domestic abuse with gaslighting and coercive control is that it completely psychologically damages someone. And the amount of women that I have spoken to, and men as well, who have said "I would rather they just broke my leg or gave me a black eye, because that would heal, whereas this lives in my head forever".'(DA6) Economic abuse was also raised as a significant issue, and one that could prevent the victim from leaving:

'It usually includes making sure that they've got no access to money ... Often there are debts run up in their name. So it makes it very, very difficult for them to leave the relationship because all the bills ... in the house are often in the woman's name.' (DA12)

Practitioners reported that many service users had children. That abusers used victims' children to control and manipulate them was a common thread. The Domestic Abuse Act 2021 states that any child who is related to a victim or perpetrator and 'sees or hears, or experiences the effects of, the abuse' is a victim in their own right.

One of the most prevalent themes was the extent to which victims are isolated by their abuser, or otherwise lose touch with family and friends because of the relationship. This deliberate isolation was described as another facet of abusers' efforts to manipulate and control victims.

Older victims: According to population estimates from the Office for National Statistics (ONS), Cumbria has a larger proportion of older residents than nationally, and it is set to rise. The limited research on older victims of IPA notes the distinct and complex needs of this group. The physical or psychological illnesses caused by IPA may be exacerbated by the duration of older victims' exposure to abuse (Pathak et al. 2019: 65). Obstacles to accessing support may include a lack of knowledge about services, feelings of stigma and shame, and a lack of financial independence (p.71). Whilst younger victims may search for (or access) support services online, some older people may find this challenging. The particular needs of older victims were recognised by police response officers and IPA service providers. The following comments illustrate some of the issues raised:

'A woman was reporting controlling and coercive behaviour from her husband ... The mental health practitioner had assessed him ... about his capacity ... because ... he had significant mental health problems ... similar to Alzheimer's, in terms of he doesn't really know what's going on.' (PC7)

'A lot of older victims ... come when their partner has died, and they say "he has abused me for 50 years"... But their attitude is very much "I made my bed, I have to lie in it." (DA4)

'... older people as well, women in their 70s, who are just finding out that there is support. They have been married for 50 plus years, and they're reaching out for the first time.' (DA9)

The particular difficulties faced by this hard-to-reach group underscore the need for areas to develop a bespoke, multi-agency response for older victims of IPA.

Rural victims: Throughout the interviews, the problems caused by living in rural areas were a recurring theme. Practitioners noted the safety implications of experiencing IPA whilst living in remote areas, and how difficulties with (for example) the transport infrastructure and internet connection could impede service access. One response might be to provide outreach services in rural areas. As one interviewee noted, however, the nature of small-town life means that some women prefer to receive support away from home:

'We actually tried to pilot [a support service] in one of the local towns, but the women didn't want to attend because of the connections. Everybody knows everybody. So they prefer to come that distance to Carlisle where it is a bit more anonymous for them.'(DA10)

The farming community: There are over 5,000 farms in Cumbria. Despite this, police and IPA service providers reported that contact with the farming community in the context of IPA is rare. Possible explanations for this are reviewed in the main report. Both the police and service providers noted that the presence on farms of firearms, chemicals and machinery brings particular risks.

Male victims: It is widely recognised that most perpetrators of IPA are male, and most victims are female. Despite this, some cases of severe abuse of men, by women, emerged during the interviews. The police response officers and IPA service providers both reported that cases involving female perpetrators and male victims were uncommon. Explanations included men being 'embarrassed' (PC1) or 'proud' and thus 'more unwilling to report' it (PC11). The existence of 'certain stereotypes, that men just shouldn't be [victims] of domestic abuse' (PC22) were also perceived as possible barriers to seeking help. Practitioners highlighted a dearth of bespoke support for male victims in Cumbria.

Local customs and cultures: A report by the National Rural Crime Network (NRCN 2019) stated that the persistence of traditional, patriarchal gender roles and values in rural communities may serve to subjugate victims of IPA and prevent them from seeking help. These findings were confirmed with respect to both rural and farming communities by the practitioners in our research.

The police response: Most IPA service providers felt that victims of IPA are 'somewhat likely' or 'not at all likely' to call the police. It was suggested that victims with experience of reporting IPA where no charges were brought may be reluctant to report abuse again. Concerns about being disbelieved, or judged, may be particularly acute for those experiencing coercive control. A fear of repercussions from the perpetrator, safeguarding interventions by Children's Services, and victims' name appearing in the local press, were also described as barriers to reporting. Some police officers suggested that people in rural and remote areas may be dissuaded from reporting by protracted response times.

Interviewees commented positively upon efforts by Cumbria Constabulary to develop the police response to IPA. Suggestions were also made for improvement, however. Some practitioners emphasised the need for officers to have 'a wider and better understanding of domestic abuse that moves away from focusing on physical assaults' and includes a 'contextual awareness of risk ... looking at patterns rather than incidents' (DA14). Some commented on the need for police officers to better recognise false counterclaims. The need to keep victims informed about their case, and communicate decisions in a sensitive manner, were also emphasised.

Recommendations

Drawing on the research summarised here, we make a series of recommendations:

Recommendation 1: Evidence suggests that people who experience IPA in rural and farming communities, and elderly residents, have complex needs and are less likely to seek help. This

suggests the need for a local multi-agency strategy, developed alongside local representatives of organisations such as Age UK and the National Farmers Union, to target hard-to reach victims and provide a bespoke response.

Recommendation 2: Responses to first time victims should be rapid, increase victim confidence, and encourage future reporting.

Recommendation 3: Any protective measures for recent victims should acknowledge that repeat victimisations typically happen close in time to previous victimisations, with risk decaying over time, and are typically perpetrated by the same individuals.

Recommendation 4: Considering repeat offending, strategies which target 'priority offenders' should consider approaches which identify cohorts of both 'high frequency' offenders and 'high harm' offenders. Relative resource allocation, and approaches to targeting these groups to prevent re-offending should acknowledge these differences and respond accordingly.

Recommendation 5: At the same time, work should be done to support the police-identified victims of 'high frequency' and 'high harm' offenders. This will require a co-ordinated response, underpinned by data sharing between Cumbria Constabulary and local IPA service providers.

Recommendation 6: The fact that 2/3 of offenders only come to police attention once for IPA in our data is important and identifying ways to prospectively prevent these offences will require thinking outside the box. Given that research typically shows offenders as 'generalists', this should involve the intersection of historic IPA, broader DA (including any evidence of child-to-parent violence), and other offending data. Combining these data with appropriately flagged incident, ASB and/or intelligence data, and other potential self-selection mechanisms, may permit identification of data signatures indicative of an increased risk of future involvement in IPA. More advanced efforts may take a similar approach while also capitalising on multi-agency data-linkage where appropriate.

Recommendation 7: Following a problem-oriented approach to policing DA, specificity is key in considering the range of different types of offending collectively described as DA. We have done some disaggregation of administrative data in order to better understand particular problems, looking at spatial and temporal patterns, attempting to measure IPA crime through specific offences and victim-offender relationships, and identifying potential counterclaims as a subset of general IPA. Nevertheless, much more can be done.

Recommendation 8: Following on from this, it is imperative that police response officers' understanding of IPA goes beyond physical violence to reflect that contained in the Domestic Abuse Act 2021. National organisations such as Women's Aid and SafeLives provide bespoke training for police officers that may assist.

Recommendation 9: A core requirement for harnessing administrative data to support problem scanning/solving, and intervention evaluation, relates to data quality in a multitude of ways. This includes accuracy of geocoding, ensuring repeat individuals (victims and offenders) can be easily identified; robust and consistent use of flags or markers; and the sharing of information between forces to detect cross-border offending. Data provided for this project were well organised and for the most part well recorded, nevertheless continuous efforts must be made to improve and expand (where appropriate) data collection and quality control, throughout considering the relevant ethical issues that come with such efforts.

Recommendation 10: Relatedly, while not analysed here, considerable contextual insights may be masked in police free text data of various forms relating to IPA, e.g., incident logs, modus operandi notes, and intelligence documents. A range of techniques are starting to be employed that attempt to systematically extract insights from these sources and may support analysts in sifting large volumes of data that would otherwise remain untapped.

Recommendation 11: The seven different 'grass roots' organisations that provide support to IPA victims (and, in some cases, offenders) in Cumbria together hold a wealth of data about local IPA. There is, however, no uniformity around data collection. Each organisation gathers different information and the data are held in independent case management systems. Insurmountable obstacles prevent local practitioners (and external researchers) from combining datasets to better understand the nature and extent of DA victimisation across Cumbria. The forthcoming *Cumbria Domestic Abuse Landscape Report* by Kelly Henderson for the West Cumbria Domestic Abuse Partnership will provide insights into the administration of local DA service delivery. Local government restructuring may provide an opportunity to think creatively about how the administration of these 'grass roots' IPA service providers and the data they collect could be brought together in productive ways.

Recommendation 12: Following on from this, DA service providers are likely to need data analytic support on an ongoing basis to enable data-driven service delivery. The amalgamation of datasets into a single case management systems would allow a single data analyst to conduct this work across all service providers.

Recommendation 13: As explained in the report, there were ethical and practical barriers to involving service users in this research. The impact of key national policies on IPA victims (such as, for example, the obligations upon police to take positive action) and interventions are poorly understood. Research with those with lived experience of IPA to determine what they want from police in the immediate, medium and long-term should inform local and national policy and practice.

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1. INTRODUCTION

In the year ending March 2020, an estimated 2.3 million adults aged 16 – 74 experienced domestic abuse (DA) (ONS 2020).¹ During the same period, the police recorded 758,941 crimes of DA (ONS 2020). There is, then, a sizeable 'dark figure' of DA that goes unreported to or unrecorded by the police. In 2020, 9.7 million people in England and almost 1 million people in Wales lived in rural areas (Defra 2021).² There is evidence from countries including North America and Australia that the reporting of DA varies by geography and may be lower in rural areas (DeKeseredy 2019). There is, however, a dearth of research on DA in rural regions of England and Wales.³ These factors present a significant challenge to Community Safety Partnerships wishing to develop an evidence-based response to DA in rural communities.

This research was funded by the Home Office's Police Science, Technology, Analysis and Research (STAR) Board to examine the geospatial and contextual patterns of DA in the rural county of Cumbria. The Domestic Abuse Act 2021 defines DA as abusive behaviour that occurs between two people aged 16 or over who are personally connected. This includes (but is not limited to) current and former intimate partners. Behaviour is 'abusive' if it includes any of the following: 'physical or sexual abuse; violent or threatening behaviour; controlling or coercive behaviour; economic abuse; or psychological, emotional or other abuse'.⁴

The report begins by providing some background and contextual information about the County of Cumbria, Cumbria Constabulary, and other local service providers. It then presents the research questions that shaped this project and provides preliminary information about the research methods used. We then proceed to present the findings from the quantitative and qualitative strands of the study. Finally, we present a series of recommendations for consideration by Cumbria Constabulary and partners.

¹ This estimate comes from the Crime Survey for England and Wales (CSEW), which is a national crime survey administered for the Office for National Statistics (ONS).

² The rural population for Wales was derived from ONS 2021b alongside spatial data containing the Rural Urban Classification 2011 of Lower Layer Super Output Areas that is available on the ONS's Open Geography Portal.

³ But see: Little 2016; National Rural Crime Network (NRCN) 2019; Squire and Gill 2016.

⁴ See Section 1.

2. BACKGROUND AND CONTEXT

Cumbria is in Northwest England, bordered by Scotland to the North and the Irish Sea to the West. Classified as 'predominantly rural' (ONS 2016), it covers almost 677 thousand hectares and is the second-largest administrative county in England.⁵ The Cumbria (Structural Changes) Order 2022 that was laid before Parliament in January 2022 advanced proposals to replace the existing county and district councils with two unitary councils covering East and West Cumbria.⁶

Farming has been central to Cumbrian life for centuries. In 2016, there were over 5,000 farm holdings in Cumbria.⁷ Cumbria is also home to the Lake District National Park, which was granted World Heritage Site status by UNESCO in 2017.⁸ This contributed to the continued growth of Cumbria's tourist industry: the county had 47.86 million tourism visits in 2019, with an estimated total economic impact of £3.13bn.⁹ Despite this, some parts of Cumbria experience significant deprivation as discussed under *Demography and Geography* below.

There are 43 geographic police forces in England and Wales.¹⁰ On 31 March 2021, Cumbria Constabulary had 1,251 police officers of which 40% were female, the highest proportion of any police force (Home Office 2022).¹¹ Cumbria Constabulary works closely with Victim Support Cumbria, a local branch of the national charity that provides advice and support to those affected by crime. This work includes the provision of support to victims of DA by Independent Victim Associates (IVAs) and Independent Domestic Violence Advisors (IDVAs). Cumbria has three Women's Centres, which provide a range of services to women experiencing, fleeing from or recovering from DA.¹² A further four third-sector organisations exist to support those affected by rape, sexual abuse or DA.¹³ Myriad other local service providers encounter DA victims in the course of their work. Each organisation has its own data collection and management system, with no data linkage.¹⁴ Thus it is not known how many people are presenting to local service providers as affected by DA.

⁸ See <u>https://whc.unesco.org/en/list/422/</u> (last accessed 28 February 2022).

⁵ Derived from ONS 2021c.

⁶ Westmorland and Furness Unitary Council will replace the existing district councils of Eden, South Lakeland and Barrow in East Cumbria, while Cumberland Unitary Council will cover Carlisle, Allerdale and Copeland in West Cumbria. Further details appear at: <u>https://newcouncilsforcumbria.info/default.asp</u> (last accessed 28 February 2022).

⁷ The Department for Environment, Food and Rural Affairs (Defra) reported that there were 5,134 farm holdings in Cumbria in 2016. Derived from Defra (2016): see English geographic breakdowns by local authority.

⁹ See <u>https://bracewellsestateagent.co.uk/wp-content/uploads/2021/01/tourism-cumbria-for-Tim.pdf</u> (last accessed 28 February 2022).

¹⁰ Plus three non-territorial forces: the British Transport Police; the Civil Nuclear Police; and the Ministry of Defence Police. ¹¹ Table H1.

¹² They are: Women Out West (Whitehaven), Women's Community Matters (Barrow-in-Furness), and Gateway for Women (Carlisle).

¹³ These are: Safety Net; the Birchall Trust; Springfield Women's Refuge and Community Hub; and The Freedom Project.

¹⁴ The existence of data silos and the barriers to linking data are well known, and the subject of much debate within Whitehall at present (OSR 2018; NAO 2019; GAF / ONS 2021).

3. RESEARCH QUESTIONS AND METHODS

The study was structured around the following research questions:

- 1. What are the demographic and geographic characteristics of Cumbria?
- 2. What is the extent, nature and geospatial distribution of DA known to Cumbria Constabulary?
- 3. What other data exist that could be used to explore the 'dark figure' of DA that goes unreported to the police?
- 4. What factors including rurality affect the policing of DA in Cumbria?
- 5. What factors including rurality affect the experiences of victims of DA?

The benefits of mixed methods research that combines quantitative and qualitative approaches were brought to bear upon this project. We began by analysing open-source datasets on population demographics, small area rural / urban geographies, and socio-economic deprivation, from the Office for National Statistics (ONS) and the Ministry of Housing, Communities and Local Government (MHCLG). We also used the Google Maps Application Programming Interface (API) to calculate travel times to local DA service providers (question 1).

In order to explore the extent, nature and geospatial distribution of DA known to Cumbria Constabulary, the research team examined all DA-related incidents and crimes recorded by Cumbria Constabulary over a 30-month period, from 1 April 2019 – 30 September 2021 inclusive (question 2). Our analyses of the police dataset went significantly beyond this, however, as detailed below.

The team also explored what other (non-police) data could shed light on DA in Cumbria. In this exploratory strand of the study, we examined all DA-related referrals (including self-referrals) to Victim Support from 1 April 2019 – 30 September 2021 inclusive. We also examined data on referrals to the three Women's Centres. Other local service providers provided aggregate DA-related data (question 3).

In addition, semi-structured interviews were conducted with 42 local practitioners. These comprised: 22 police response officers; one Detective Inspector and Safeguarding Lead; 17 domestic abuse service providers; one local government official, and a local GP with significant professional experience of DA (questions 4 and 5).

Direct engagement with service users would have required the use of survivor-centred, trauma-informed data collection methods which are time-consuming and best delivered in person (Jumarali et al. 2021). The timeframe set by the Police STAR Board alongside constraints imposed by covid-19 meant that the qualitative interviews had to be conducted remotely via Microsoft Teams. This precluded the possibility of working with service users.

4. FINDINGS: Demography and Geography

The Office for National Statistics (ONS) publishes population data from the Census 2011, and population estimates for subsequent years, for small area geographies. Output Areas (OAs) are the lowest level geography for which census data are published. OAs were designed to have similar population sizes, with a minimum of 40 resident households and 100 resident people. They were also designed to be homogenous, containing (as far as possible) households that are socially similar, with all urban or all rural postcodes (ONS 2012). Lower-layer Super Output Areas (LSOAs) and Medium-layer Super Output Areas (MSOAs) are higher layer geographies that were created to allow the reporting of statistics at the lowest level possible without disclosing the identity of an individual or household (p.4).¹⁵ Our analysis is reported at LSOA and MSOA level.

There are 321 LSOAs and 64 MSOAs in Cumbria. In mid-2020, the population of Cumbria was estimated to be almost 500,000.¹⁶ ONS population estimates for 2020 suggest that Cumbria has a smaller proportion of younger residents and a higher proportion of older residents compared to the national picture, with almost 25% being aged 65 and over. This proportion is projected to rise to over 31% by 2043. The population of Cumbria is predominantly White: at the 2011 Census, 98.5% of the resident population was White.¹⁷

4.1. Rurality

Figure 1 below shows the 2011 Rural Urban Classification (RUC) of LSOAs in Cumbria.¹⁸ The dominance of rural areas is immediately apparent. The resident population of Cumbria is almost equally split between Urban (47%) and Rural (53%) areas.

¹⁵ LSOAs contain at least 400 resident households and 1000 resident people. MSOAs contain at least 2000 resident households and 5000 resident people (ONS 2012: 5).

 ¹⁶ The estimated total of 499,781 residents comprised 253,522 women and 246,259 men (Derived from ONS 2021b).
¹⁷ Information about age and ethnicity comes from the Cumbria Intelligence Observatory website, at: https://www.cumbriaobservatory.org.uk/population/#/view-

report/5ceb82f0371e4bbea225ad24ec1eb32c/__iaFirstFeature (last accessed 29 June 2022).

¹⁸ Derived from ONS 2017.



Figure 1: Rural Urban Classification of LSOAs

4.2. Deprivation

The Index of Multiple Deprivation (IMD) provides a relative measure of deprivation for LSOAs based on seven deprivation domains: income deprivation; employment deprivation; education, skills and training deprivation; health deprivation and disability; crime; barriers to housing and services; and living environment deprivation. Information is combined from these seven domains to produce the IMD. LSOAs are ranked in deciles. Those in decile 1 are amongst the 10% most deprived, whilst those in decile 10 are amongst the 10% least deprived in the country (MHCLG 2019). In Cumbria, 26 LSOAs are amongst the top 10% most deprived in England. The IMD rank for each LSOA is shown in Figure 2.



Figure 2: Deprivation deciles for LSOAs in Cumbria from most (1) to least (10) deprived

Turning now to transport issues, the last decade has seen 'a spiral of decline in rural public transport' caused by cuts to local authority budgets (Campaign for Better Transport 2018: 3). The Draft Cumbria Transport Infrastructure Plan 2022-2037 also recognised the challenges of driving within Cumbria, noting the need to improve 'connectivity across the county' (Cumbria County Council 2022: 16). This prompted us to examine the potential impact on those wishing to access DA services.

4.3. Journey times to local service providers

The research team examined public and private transport travel times to the main DA service providers in Cumbria – including Women Out West (Whitehaven); Women's Community Matters (Barrow-in-Furness); Gateway for Women (Carlisle); Safety Net (Carlisle); Birchall Trust (Barrow-in-Furness); Springfield Women's Refuge (Kendal); Freedom Project (Workington).¹⁹ Using the Google Maps API, we calculated the public transport and driving travel times on Monday 21 March 2022 at 11am from the population-weighted centroid of each polygon (LSOA) to the nearest help provider. This date and time were chosen as an arbitrary weekday outside rush hour and during office hours (i.e. when all help providers are open). A route was calculated from each polygon population-weighted centroid to each of the 7 help providers (i.e. 7 routes calculated per polygon) and the travel time on the quickest of these routes was returned. Figures 3 and 4 show the public transport and driving travel times from each LSOA to the nearest help provider.



Figure 3: Public transport travel time from LSOA population-weighted centroids to nearest service provider

In Figure 3, LSOAs shown in black are those where the Google Maps API could not find an available route because no public transport was available at that time. In other words, anyone wishing to reach one of these organisations could not have used public transport alone to do so. The second map shows that the time required to drive to the nearest support service may be lengthy: the journey time was over 30 minutes from 11% of LSOAs (n=34). Comparing the map of rurality (Figure 1) with Figures 3 and 4 reveals that the problems are most acute for

¹⁹ This list excludes Victim Support who do not have offices that are open to service users, but provides a telephone support service.

those living in rural LSOAs. These issues were explored further during the interviews with police response officers and service providers.



Figure 4: Driving time from LSOA population-weighted centroids to the nearest service provider

5. FINDINGS: Analysis of Data from Cumbria Constabulary

In the following section, we detail analyses of data provided by Cumbria Constabulary for the period 1 April 2019 to 30 September 2021 inclusive. The data comprised: (1) DA-related incident data (hereafter 'DA incident data'); (2) intimate partner abuse-related crime data (hereafter 'IPA crime data'); and (3) the victims, suspects and offenders associated with these crimes.²⁰

It should be noted that the DA incident data did not include details of the relationship between the parties. Thus the incident data (and our analyses of it) include all forms of DA, including *but not limited to* incidents between intimate partners.

5.1. Relationship between incidents and crimes

An incident is any event that comes to police attention and is recorded as an incident. If the police find sufficient evidence of criminal activity, a crime will usually be recorded (Home Office 2021). Typically, then, crimes are linked to an incident. This is not always the case, however. If it is clear when an event is reported that a crime has occurred, it may be recorded as a crime immediately (ONS 2021a). Hence some crimes will not have been recorded as incidents.

5.2. Filtering the data

The following steps were taken to identify data relevant to the study:

1. All incident data and crime data with a 'reporteddatetime' (for incidents) and 'committeddatetime' (for crime) occurring outside the study period of 1 April 2019 to 30 September 2021 were excluded;

²⁰ When a crime is first recorded, anybody thought to be involved is recorded as a 'suspect'. If the evidence leads to a positive outcome the record is changed from 'suspect' to 'offender'. Our analysis incorporates individual recorded as both suspects and offenders, which we collectively refer to as offenders throughout the report.

- 2. All incidents and crimes that occurred outside Cumbria were excluded;
- 3. Crime data embraced a range of behaviours and relationships including, for example, violence by children aged 16 and over towards parents or carers.²¹ The focus of this project is on abuse between current or former intimate partners (i.e. intimate partner abuse IPA). Accordingly, we included only those crimes where:
 - a. Both the victim and the offender were aged 16 years or over;
 - b. The aggrieved relationship between the victim and offender was recorded as one of:
 - i. Boyfriend(s) / Girlfriend(s)(Ex)
 - ii. Partners (Ex)
 - iii. Boyfriend(s) / Girlfriend(s)
 - iv. Partners
 - v. Spouse / Civil Partner
 - vi. Spouse / Civil Partner (Ex)
 - c. The offence was denoted as one of those listed in Appendix 1: Selected IPA Offences.
 - d. In addition, 21 crimes (and associated victims / offenders) where the victims' gender was unknown (n=13) or not specified (n=8) were excluded, as their inclusion would have prevented the calculation of rate of offending per 1,000 of the population at risk.
 - e. Subsequently, all victim and offender / suspect records associated with the above crimes were selected.

5.3. The primary datasets

These filtering processes produced the following datasets: (1) 17,264 DA incidents; (2) 8,901 IPA crimes, which involved; (3) 5,390 unique victims; (4) 5,367 unique offenders; (5) 8,901 victim-crime pairings; (6) 8,909 offender-crime pairings. These data form the primary datasets in this section of the report.

5.4. Characteristics of IPA crime

Tables 1 and 2 provide a breakdown of both the frequency and percentage of identified IPA crimes that are associated with specific Home Office offence groups and aggrieved relationships. See *Appendix 1: Selected IPA Offences* for all offences included in our definition of IPA and their relative counts within our core IPA crime dataset. Table 3 provides a summary of the outcomes associated with our identified IPA crimes

Offence Group	Frequency	Percentage
Violence against the person	7616	85.6%
Arson and criminal damage	552	6.2%
Public order offences	337	3.8%
Sexual offences	256	2.9%
Miscellaneous crimes against society	75	0.8%

Table 1: IPA crime breakdown by offence group

²¹ For details of the police response to CPV see Lewis et al. 2020.

Vehicle offences	48	0.5%
Theft offences	12	0.1%
Possession of weapons offences	5	0.1%

Table 2: IPA crime breakdown by aggrieved relationship

Aggrieved Relationship	Frequency	Percentage %
Boyfriend(s) / Girlfriend(s) (Ex)	2429	27.3%
Partners (Ex)	2124	23.8%
Boyfriend(s) / Girlfriend(s)	2105	23.6%
Partners	1337	15.0%
Spouse/Civil Partner	620	7.0%
Spouse/Civil Partner (Ex)	294	3.3%

Table 3: IPA crime outcomes

IPA Crime Outcome	Frequency	Percentage
Evidential difficulties (victim does not support action)	5631	63.3%
Evidential difficulties (suspect identified; victim supports action)	1464	16.4%
Charged/Summonsed	989	11.1%
No Further Action (prosecution prevented / not in public interest)	375	4.2%
Out-of-court disposal	257	2.9%
NA	185	2.1%

5.5. Incidents to crimes

Of the 17,264 DA-flagged incidents, 6,184 (36%) are subsequently linked to the occurrence of one or more IPA crimes, while the remaining 11,080 (64%) do not result in the recording of an IPA crime. Considering our initial 8,901 IPA crimes, 7,347 (82%) are linked to an initial DA-flagged incident, 1,387 (16%) to a non-DA-flagged incident, and 167 (2%) are not linked to an initial incident.

5.6. Characteristics of victims and offenders

In the following sections we detail the characteristics of both victims and offenders²² associated with IPA crime that occurred during the study period.

²² See n20.

Victims: Almost three quarters of the 5,390 unique victims were female (3,891, 72%), whilst the rest were male (1,499, 28%). Of the 8,901 IPA crimes experienced by those victims, 76% were perpetrated against female victims and 24% against male victims. Controlling for 16+ gender-specific population size (i.e. the population at risk), the risk of females experiencing IPA crime during the 30 month study period (3,160 per 100,000 women aged 16+) was three times that of males (1,050 per 100,000 16+ males).

The age of each unique victim was calculated at first appearance in the dataset.²³ The average age at first victimisation within our dataset was 36 years old (sd = 13.0). The median age was 34 years. Figures 5 and 6 below depict the distributions of victim age at time of victimisation, and the average age of victims at time of victimisation by LSOA. Disaggregating these finding by victim gender, the average age of female victims at first victimisation is 35 years (sd = 12.6, median 34) and 38 years for male victims (sd = 13.8, median 36).

As previously noted, ONS population estimates suggest that in 2020 almost 25% of the population of Cumbria was 65 years or older. The research team found that of the 5,390 unique victims of IPA-related crimes, just 196 (3.6%) unique victims were 65 or over. Some of these individuals were victims on multiple occasions: however, only 261 (2.9%) of all crimes involved a victim aged 65 or over.²⁴ Drawing together evidence from international research and the qualitative strand of this study, it seems likely that there is significant under-reporting of IPA by older victims in Cumbria.



Figure 5 (Age of IPA victims at victimisation) and Figure 6 (Average age of victim by LSOA)

Although the majority of victims are recorded as being White (82%), this is markedly lower than the 98.5% of the population at large recorded as White at the 2011 Census. Ethnicity was not recorded for 17% of victims, however. Given the ethnic composition of Cumbria's population, it seems likely that a large proportion of these victims were also White.

Offenders: Turning now to offender characteristics, almost three quarters (3,879, 72.3%) of offenders were male and 74.9% of victimisations involved a male offender. The similarity between the proportion of female victims and the proportion of male offenders is not surprising given that three quarters of IPA crimes involved male offenders and female victims.

²³ To ensure that our summary statistics were not biased by possible recording errors we removed five victims whose ages were recorded as over 100 years.

²⁴ These analyses excluded 5 victimisations / crimes where the victim was recorded as having an age over 100. It seems likely that the age was recorded incorrectly and so they were removed from the analysis.

The average age of offenders at first appearance within our data was 37 years (sd = 13.1, median 35 years). Figure 7 below depicts the distribution of offender ages at time of offence. Disaggregating by offender gender, the average age of male offenders at first appearance (mean = 38 years, median = 35 years, sd = 13.1) was slightly higher than that of female offenders (mean = 35 years, median = 33 years, sd = 12.9). Figure 8 shows the average age of offenders at time of offence by LSOA.

As with victims, the majority (82%) of offenders were White, and ethnicity was not recorded for 16% of offenders.



Figure 7 (Age of IPA offenders at offence) and Figure 8 (Average age of offender by LSOA)

5.7. Temporal trends

In this section we begin by examining monthly time series of IPA crime and DA incidents during the study period. In each plot we also highlight the three periods of national covid-19 lockdowns, which are marked in blue on all graphs. Figures 9 and 10 below show the rate of IPA crime and DA incidents by month per 100,000 of the at-risk population.



Figure 9 (IPA crime rate per 100,000 people at risk) and Figure 10 (DA incident rate per 100,000 people at risk)

Further disaggregating these data, Figure 11 below depicts the rate of IPA crime perpetrated against female and male victims (accounting for both male and female 16+ resident populations). Here we see that the rate of IPA crimes against females is roughly double the rate against males.



Figure 11: IPA crime rate by victim gender per 100,000 people at risk

5.7.1. Temporal trends by crime type

As discussed above, our definition of IPA crime includes a range of different offence types. Figure 12 depicts temporal trends for the six most common offence groupings (as defined by the Home Office Offence Sub Group 2) within our definition of IPA crime. While the trends in IPA crime depicted above appear relatively stable over time, there are some indications of overall reductions during the last year of data provided. Examining individual offences reveals more distinct changes in offending over time in both Harassment offences, which saw considerable reductions at the time of the first national lockdown and have remained relatively low ever since, and Stalking offences, which seems to be slowly increasing across the study period. Moreover, as would be expected, for some offences that occur less frequently greater levels of uncertainty are observed.

Examining the trends seen during the national covid-19 lockdowns (marked in blue on all graphs) is challenging without additional historic data to estimate baseline expected time series. Nevertheless, several observations can be made. First, when examining longitudinal trends of total IPA crime, we see local minima during all three lockdowns, noting that the lowest levels of police-recorded IPA crime were observed during the second and third lockdowns (Figure 9). Second, observed minima seem to be largely driven by changes to IPA crime involving female victims. Third, considering the breakdown by offences presented in Figure 12, observed changes over the 30-month window also mask competing upward and downward trends in Stalking and Harassment respectively. Fourth, when considering hypotheses that propose reductions in reporting rather than offending, it is sensible to also examine changes in DA-related incidents to assess if police were requested to attend incidents less frequently and so recorded fewer crimes during the same periods. Doing so does not seem to show congruent patterns, with a relatively linear trend observed across the 30-month window. It must be remembered, however, that incident data are not limited to



IPA. As such, any decrease in calls for service from adult victims may be masked by an increase in calls from (for example) parents experiencing child-to-parent violence.

Figure 12: Monthly time-series for the six most common offence groupings

5.7.2. Temporal trends in IPA crime severity

In recent years there have been various efforts to quantify the severity or harm associated with police-recorded crime. The aim is to move beyond crime counts or rates to better quantify the *nature* of crime occurring in an area that is perpetrated by, or against, specific individuals. A further aim is to anticipate the demand for service that is likely to be created by particular types of crime. The academic literature focuses on two methods for weighting offences: the Cambridge Harm Index (CHI) devised by scholars at the University of Cambridge to measure 'the seriousness of crime harm to victims' (Sherman et al 2016), and the Office for National Statistics' (ONS) Crime Severity Score (CSS) which aims 'to reflect the relative harm of an offence to society and the likely demands on the police' (Bangs 2016). Both approaches provide fine-grained offence level estimates of harm derived from sentencing guidelines (CHI)

or sentencing outcomes (CSS) and allow estimations of crime specific severity and demands, the latter operating under the assumption that more serious crimes are likely to require the allocation of more resources.

Both the CHI and the ONS's CSS have strengths and weaknesses (Ashby 2018). In the analyses presented in this report we utilise the ONS CSS, primarily because it is recorded in Cumbria Constabulary's recording system.²⁵ As such, the analyses described here could be replicated relatively easily without the need to incorporate new datasets.

Utilising this approach of weighting offences based on their estimated severity, Figure 13 below depicts monthly measures of cumulative IPA crime severity across Cumbria, as measured by weighting all IPA crimes by their respective CSS weights and summing them for each month in the study period. It should be noted that this measure of cumulative crime severity is only meaningfully examined in terms of relative increases or decreases in severity rather than through raw numbers. In general, while levels of IPA crime severity appear relatively stable with some indications of reductions (commensurate with those in the rate of IPA offences discuss above) in the most recent year of data.

Figure 14 below disaggregates the trends shown in Figure 13 to examine the average crime severity score per victimisation of male and female victims (calculated by dividing the sum of CSS associated with crimes experienced by male and female victims and dividing by the number of 16+ male and females victims respectively). In general, it indicates that for the majority of the 30-month study period the average severity of offences against female victims was slightly greater than that against male victims. While these trends also contain considerable uncertainty, of particular note is the apparent increased disparity in crime severity between female and male victims during the second and third covid-19 lockdowns. As discussed above, further historic data are required to reliably assess the significance of these disparities.

²⁵ Here we note that the Crime Severity Scores recorded by Cumbria Constabulary do not reflect the most recent revision of the datasets which are regularly updated to reflect sentencing outcomes. Nevertheless, only small deviations in scores have occurred and these would have very limited impact on the analyses presented here.



Figure 13: Cumulative IPA crime severity by month



Mean (IPA-related) Crime Severity per Crime by Victim Gender Blue shaded areas denote national lockdowns

Figure 14: Mean IPA crime severity per crime by victim gender

Finally, Figure 15 below depicts the median ONS CSS per IPA crime perpetrated against both male and female victims throughout the study period. Examining this plot we see that for the most part men and women are often victims of crimes of similar severity (likely less serious offences within the violence against the person category). Contrasting this to the previous plot (Figure 14) also indicates that female victims are more likely to experience less frequent but more severe offences which drive the difference in average offence severity.



Figure 15: Median IPA crime severity per crime by victim gender

5.7.3. Seasonality

In addition to examining monthly trends in crimes and incidents we also explore patterns of seasonality with respect to IPA crime using the most recent year of data. Figures 16 and 17 below depict patterns of month of year and day of week seasonality with respect to IPA crimes during the study period. Figure 16 shows that IPA crime peaks on Fridays, Saturdays and Sundays. Figure 17 shows that IPA crime peaks during the summer months of July and August. Both these findings are commensurate with previous research.



Figure 16 (IPA crime count by day of week) and Figure 17 (IPA crime count by month of year)

5.8. The spatial patterns of domestic abuse-related events²⁶

In this section we examine the spatial patterns of domestic abuse-related events as illustrated through a series of maps.²⁷

²⁶ By 'domestic abuse-related events' we simply mean both DA crimes and IPA incidents.

²⁷ Here we acknowledge the inevitable challenges of depicting all of Cumbria's 321 LSOAs on a single map in a way that is easily interpreted. The research team is exploring how interactive versions of all maps in this report can be made available to interested parties.

5.8.1. Mapping IPA crimes

Figure 18 below shows the spatial patterns of IPA crimes that occurred between 1 April 2019 and 30 September 2021 across all of Cumbria's 321 LSOAs. The map on the left shows the number of crimes in each LSOA. On the map on the right, LSOAs are rank ordered based on the number of crimes occurring within them and allocated a decile (with 32 LSOAs in each decile except for decile 1 which contains 33). The LSOA in the middle of the ranked list experiences the median number of crimes during the study period. Those with counts above the median are shown in red. Those with counts below the median are shown in blue.



Figure 18: Count of IPA crimes, and ranked by decile, by LSOA

Figure 19 below depicts the same data but controls for population, depicting the rate of IPA crimes per 1,000 16+ population for the period 1 April 2019 to 30 September 2021. This rate is calculated by combining gender specific rates of IPA crimes perpetrated against 16+ females and males living in an LSOA. This population at risk measure accounts for different geodemographic breakdowns within LSOAs of age and gender and provides the best measure of risk with respect to IPA crimes recorded by the police. The map on the left shows the rate of IPA crimes per 1,000 of the population at risk in each LSOA. The map on the right again breaks these rates into deciles to depict those LSOAs with above or below median rates of police-recorded IPA crimes.

Finally, Figure 20 below depicts counts of police-recorded IPA crimes occurring in Cumbrian LSOAs over two distinct 12-month periods - the first (leftmost map) between 1 April 2019 and 31 March 2020 (i.e. the year before the first covid-19 lockdown), and the second (central map) between 1 October 2020 and 30 September 2021 (i.e. the most recent year in the data).²⁸ The rightmost map then depicts the change in IPA crimes between these two time periods.

²⁸ Our logic here is to compare two equivalent 12-month periods, one prior to the covid-19 pandemic and one representing the most recent data provided to us. Avoiding the 01/04/2020 to 30/09/2021 largely removes the period in which the strictest stay-at-home orders were enacted, which as previous research has demonstrated, had significant impacts on a range of crimes.
Examining these changes, we see that 98 LSOAs experienced more police recorded IPA crimes in our 2020-2021 window relative to the 2019-2020 window. Comparing the same period 200 LSOAs experienced less IPA crimes, and 23 LSOAs experienced the same number of IPA crimes. That said, most changes are relatively small with the average change in IPA offending in each LSOA being a reduction in 2.5 crimes over the year. Care should be taken when interpreting these trends, which could reflect changes in reporting patterns.



Figure 19: Rate of IPA crimes per 1,000 at-risk population, and ranked by decile, by LSOA



Figure 20: Change in counts of IPA crimes over time by LSOA

5.8.2. Mapping crime severity

Following the approach taken above to estimate temporal patterns of crime severity, we also explore the spatial distribution of crime severity across Cumbrian LSOAs. Figure 21 depicts the cumulative ONS crime severity score associated with all IPA crimes occurring in each LSOA. As before, we begin by presenting the distribution of crime severity over the entire 30-month study period, both in raw scores and as deciles relative to the LSOA experiencing the median level of IPA-crime associated severity.



Figure 21: Cumulative IPA crime severity score, and ranked by decile, by LSOA

Interpreting these maps alongside those describing crime counts and rates, it is clear that some LSOAs experience relatively low rates of IPA crime but comparatively high levels of severity. It is, however, acknowledged that in some scenarios these higher levels of severity may be associated with a single or small number of high severity offences. Following the approach above, Figure 22 below depicts cumulative severity again for two distinct time periods and the associated changes in severity observed. Examining our change maps, we see that 132 LSOAs saw more police-recorded crime severity in our 2020-2021 window compared to the 2019-2020 window, whilst 188 LSOAs experienced less, and one LSOA experienced the same level of severity.

Cumulative Crime Severity Score (CSS) Apr-2019 to Mar-2020 Cumulative Crime Severity Score (CSS) Oct-2020 to Sept-2021 Change in Cumulative CSS 19/20 vs 20/21



Figure 22: Change in cumulative IPA-crime related crime severity over time by LSOA

5.8.3. Mapping DA incidents

To reiterate, DA incidents include a wide range of relationships including *but not limited to* that between intimate partners. The following maps follow the approach above, depicting patterns of DA incidents in terms of both counts and deciles (Figure 23) and rate per 1,000 population at risk and rate deciles (Figure 24). Again, Figure 25 depicts the count of DA incidents occurring within each time period and the change in incident counts between them.



Figure 23: Count of DA flagged incidents, and ranked by decile, by LSOA



Figure 24: Rate of DA flagged incidents per 1,000 at-risk population, and ranked by decile, by LSOA



Figure 25: Change in counts of DA flagged incidents over time by LSOA

Again, examining our change maps shows that 166 LSOAs witnessed more police-recorded DA incidents in 2020-2021 relative to 2019-2020, 127 LSOAs saw less DA incidents and 28 LSOAs witnessed the same number of DA incidents.

A primary observation from comparing Figures 18 and 23 (counts) is that IPA crimes and DA incidents concentrate significantly in a relatively small number of urban LSOAs. While acknowledging that LSOAs are devised to have somewhat comparable population sizes, this observation is true when considering both *numbers* of crimes and incidents and when

examining *rates* of offending (which control for population size). A growing body of international research suggests that people in rural areas experience *more* domestic abuse but are *less* likely to report it to the police (DeKeseredy 2021; Rennison et al. 2013). The police response officers and DA service providers involved in the qualitative strand of the project provided possible reasons for this, as documented below. The weight of evidence suggests that there are hidden victims of IPA living within rural communities in Cumbria.

5.9. Quantifying crime and incident concentration

The maps above depict the concentration of police-recorded IPA crimes and DA incidents in a small number of LSOAs in Cumbria.²⁹ The following seeks to quantify this concentration by identifying the proportion of (1) IPA crimes; (2) cumulative crime severity associated with these crimes (as defined by ONS CSS); and (3) DA incidents, occurring in each LSOA and then calculating the cumulative contribution associated with varying proportions of LSOAs. This approach allows us to test if the oft-cited 80-20 rule applies to a given outcome measure - that is, assessing if for example 80% of police-recorded crimes occur in 20% of LSOAs (or some other ratio).

The plots below are generated by first counting or summing (in the case of severity) the output metric of interest occurring in each LSOA, be it crimes, incidents, or total crime severity, and then rank ordering LSOAs by the same metric from highest to lowest. Subsequently, the proportion of the total events/severity that each LSOA 'contributes' is calculated and the proportion of LSOAs that each single LSOA represents is also calculated (here 1/321 for each of Cumbria's 321 LSOAs). Finally, both metric and location proportions are cumulated starting with the 'riskiest' LSOA, and then these measures are used to plot a cumulative contribution curve which depicts the degree to which a particular outcome concentrates within the study area.

Plots can be read by tracing a vertical line up from some key value on the X axis to identify the proportion of LSOAs and then reading off where on the Y axis the concentration curve (solid black line) is met. In a scenario where all LSOAs hosted an equal number of crimes, the concentration curve would simply be a straight line at 45 degrees. This approach, an adaptation of the pareto curve used to measure inequality in outcomes, is used commonly to assess concentration of crime at various scales including within areas and facility types (Lee et al, 2017, Clarke and Eck 2007).

Figure 26 shows the distribution of IPA crimes, DA incidents and crime severity amongst LSOAs. In the figures that follow the dotted vertical lines depict key interval values to allow for easy comparison at 3% (10), 10% (32) and 25% (80) of LSOAs within Cumbria. In addition, Table 4 depicts these key values and the associated contributions across each metric of crimes, incidents and severity.

²⁹ Whilst this appears in keeping with the maxim that crime concentrates in places, we must remember that we are mapping police-recorded IPA crimes and DA incidents and not the actual number of crimes and incidents. The concentration – in predominantly urban areas – may be a function of under-reporting in rural areas.



Figure 26: Distribution of IPA crimes, DA incidents and crime severity amongst LSOAs Table 4: The key values and associated contributions across crimes, incidents and severity

Number of LSOAs	% of IPA Crimes	% of DA- Related Incidents	% of IPA Associated Crime Severity
10 (3%)	12%	12%	12%
32 (10%)	30%	29%	33%
80 (25%)	56%	55%	60%

In keeping with the maps presented in the previous section, these results indicate that all three dimensions examined concentrate, with 3% of LSOAs witnessing 12% of police-recorded IPA crimes, 12% of DA-related incidents and 12% of IPA related crime severity; 10% of LSOAs seeing 30% of IPA crime, 29% of incidents and 33% of crime severity, and 25% of LSOAs witnessing 56% of crime, 55% of incidents and 60% of severity. Comparing these measures we also see that police-recorded crime severity is the most concentrated of the three. We will return to this analytical approach in later sections examining both the offences and their associated severity and how they concentrate over both individual victims and offenders.

5.10. Characteristics of High Crime LSOAs

Having quantified the spatial patterns of DA incidents and IPA crime and severity within Cumbria we now turn to examine some of the characteristics of High IPA Crime LSOAs in an attempt to discern what factors may be associated with high levels of DA events coming to the attention of police. To proceed, we return to the approach deployed above. We define High IPA Crime LSOAs as those that witnessed relatively high levels of IPA crime between 1 April 2019 and 30 September 2021; specifically, those in the seventy-fifth percentile or higher compared to the rest of Cumbria. Figure 27 depicts the spatial distribution of these 80 High Crime LSOAs, and conversely, the 241 Low Crime LSOAs.

In the analysis we now examine the distribution of several deprivation-related indicators across these High and Low IPA crime LSOAs. This approach is informed both by our findings above, and the broader criminological literature which consistently shows that crime concentrates at varying scales, and research that demonstrates that features of both the physical (facility distribution, street structure etc) and socio-demographic (deprivation, residential turnover, etc) backcloth are associated with differing levels of crime observed across and within communities – again at varying scales. Moreover, we are informed by

previous analyses of crime at the LSOA level conducted by a number of other scholars and practitioners.

Before we proceed, of relevance throughout this report, and of particular note here, is the inevitable challenge posed by the underreporting of DA. As noted above, there are many more victims of DA than are known to the police: the latest CSEW estimated that in the year ending March 2020, 2.3 million adults aged 16 – 74 experienced DA, during which time the police recorded 758,941 crimes of DA (ONS 2020). Thus, it is important to note that our subsequent analyses depict associations between various indicators of deprivation and the *reporting* of IPA offending. In subsequent sections we explore means to overcome this challenge by incorporating non-police data.



Figure 27: Spatial distribution of High IPA Crime (>= 75th Percentile) and Low IPA Crime LSOAs

For these analyses, we drew upon IMD (Index of Multiple Deprivation) data. As noted above, the IMD is an official measure of relative deprivation within England. The index follows an established methodology to quantify deprivation at LSOA level by measuring and weighting various measures which relate to individuals' living conditions within an area. The 2019 index is made up of the following Indices of Deprivation domains (and their associated weighting in the index calculation): Income (22.5%); Employment (22.5%); Health Deprivation and Disability

(13.5%); Education, Skills Training (13.5%); Crime (9.3%); Barriers to Housing and Services (9.3%); and Living Environment (9.3%).³⁰

Following previous research (e.g. Fahmy and Williamson 2018), our overarching hypothesis is that High IPA Crime LSOAs will experience greater levels of social and economic deprivation (as measured through the aforementioned IMD indicators) than Low IPA Crime LSOAs. To explore this hypothesis, we began by comparing the IMD rank of each LSOA within our high and low crime areas. Each of the 32,844 LSOAs in England is given an IMD score based upon the weighted indices of deprivation domains discussed above, and subsequently ranked alongside all other LSOAs in England, with the LSOA ranked 1 the most deprived in England and the LSOA ranked 32,844 the least deprived.

Figure 28 below is a mirrored histogram comparing the IMD rank for our High IPA Crime LSOAs above the x-axis in red, and our Low IPA Crime LSOAs below the x-axis in blue. This plot shows that High IPA Crime LSOAs tend to experience greater levels of deprivation relative to most Low IPA Crime LSOAs.



Distribution of IMD Rank by High (Red >= 75th Percentile) and Low (Blue < 75th Percentile) IPV Crime LSOAs

Figure 28: Mirrored Histogram comparing the IMD rank for High and Low IPA Crime LSOAs

Table 5 below provides summary statistics for each of the Indices of Deprivation (2019) domains in both High IPA Crime LSOAs and Low IPA Crime LSOAs – with a higher score relating to greater levels of deprivation. Examining this table, we see that High IPA Crime LSOAs are more deprived relative to Low IPA Crime LSOAs for most deprivation indicators. Interestingly, in two domain areas there seems to be different patterns. First, there are relatively small differences between the Living Environment Scores of our High and Low IPA Crime LSOAs. Second, High Crime LSOAs seem to be less deprived with regards to Barriers to Housing and Services than Low IPA Crime LSOAs within Cumbria.

³⁰ For further information see Ministry of Housing, Communities and Local Government (2019).

	High IPA C	High IPA Crime		ime
	LSOAs		LSOAs	
	(n = 78)		(n = 243)	
Domains of Deprivation	Mean	SD	Mean	SD
Crime Score	0.31	0.57	-1.04	0.78
Employment Score (rate)	0.19	0.07	0.08	0.04
Health and Disability Score	1.21	0.64	-0.03	0.67
Education and Skills Score	47.35	19.33	16.69	12.05
Income Score	0.22	0.09	0.08	0.05
Living Environment Score	26.90	21.44	28.56	18.71
Barriers to Housing and Services score	10.36	6.47	20.63	13.46

Table 5: Domains of deprivation scores for High and Low IPA Crime LSOAs

To provide further information for interested readers, Appendix 2 provides mirrored histograms similar to Figure 28 detailing the distributions of all seven IMD measures by High and Low IPA Crime LSOAs.

In summary, these findings confirm the hypothesis that those LSOAs in which relatively high levels of IPA crime come to the attention of police also experience a number of distinct forms of social and environmental deprivation.

5.11. Rurality and DA

Our analysis of the spatial patterns of domestic abuse-related events (discussed above) demonstrated that LSOAs that experienced high levels of police-recorded IPA crimes and DA incidents typically seemed to concentrate in urban areas. To support this analysis, we now utilise the ONS LSOA rurality classifications previously described (see Figure 1 in introduction) to formally examine differences in the levels of domestic abuse-related events coming to the attention of police by rurality across Cumbria. The ONS provides 6 classifications of rurality. For our analysis, we combined these classifications into a new binary Urban / Rural classification, resulting in 152 LSOAs being classified as Urban and 169 as Rural.

Measure	Urban LSOAs	Rural LSOAs
Number of LSOAs	152	169
Total count of IPA crimes	5,821 (65%)	3,080 (35%)
Total count of DA-related flagged incidents	11,361 (66%)	5,903 (34%)
Total count of IPA crimes with a female victim	4,423 (65%)	2,333 (35%)
Total count of IPA crimes with a male victim	1,398 (65%)	747 (35%)
Total 16+ Population (mid 2021)	193,196 (46%)	224,699 (54%)
Female 16+ population (mid 2021)	99,241 (46%)	114,588 (54%)
Male 16+ population (mid 2021)	93,955 (46%)	110,111 (54%)
Average DA-related incident rate per 1,000 16+ residents	61.6 (sd = 47.1)	27.1 (sd = 19.8)
Average IPA crime rate per 1,000 16+ residents	31.5 (sd = 24.6)	14.1 (sd = 10.4)
Average crime rate (female victim) per 1,000 16+ females	47.1 (sd = 38.7)	21.0 (sd = 15.9)
Average crime rate (male victim) per 1,000 16+ males	15.3 (sd = 12.5)	6.9 (sd = 6.1)

Table 6: Measures comparing Urban and Rural LSOAs: 1st April 2019 – 30th September 2021

Table 6 above depicts a range of measures for both Urban and Rural LSOAs in Cumbria and denotes - where counts are measured - the percentage associated with Urban and Rural LSOAs. Examining this table, we see that whilst rural LSOAs are home to 54% of Cumbria's 16+ population at risk, they host just 34% and 35% of DA-related incidents and IPA crimes coming to the attention of police respectively. Moreover, the rate of incidents and crimes (irrespective of victim gender) recorded in Urban LSOAs is over two times that observed in rural LSOAs.

While the above observations are useful, they may mask temporal variation in key measures over the 30-month study period. To explore this, we depict monthly time series in DA-related incidents and IPA crime rates per 100,000 population at risk in Rural and Urban LSOAs. Figure 29 show separate IPA crimes with female vs male victims during the same time period. In all cases, we use the same axes limits to aid comparisons of the relative magnitudes of various measures.



Figure 29: Rates of DA incidents and IPA crimes (in total, female, and male victims) per 100,000 at-risk population by Urban and Rural LSOAs

These time series are largely in keeping with the Cumbria-wide temporal trends previously analysed, with relatively stable rates for both IPA crimes and DA incidents across the study period. As before, there seems to be little visual evidence of changes around the first lockdown, but potential reductions in occurrence or reporting of IPA crimes can be observed around the time of the second lockdown which persist through lockdown three. Viewing these plots, these reductions seem largely to be associated with reductions in reports from female victims, and particularly those reporting IPA in Urban LSOAs. However, as previously discussed, more historical data would be required to reliably confirm these assertions.

5.11.1. Comparing Urban/Rural LSOAs: Crime and Incident Rates

Our previous analyses have already demonstrated that DA events within Cumbria display considerable levels of spatial concentration. Thus, it is important to examine spatial variation in the levels of IPA crime and DA incidents within and between Urban and Rural LSOAs. The

mirrored histograms in Figure 30 below compare rates (per 1,000 population at risk) of DA incidents (top left), IPA crimes in total (top right), and IPA crimes perpetrated against male (bottom left) and female (bottom right) victims aged 16+ in Rural (green) and Urban (blue) LSOAs.³¹ Examining the top row, we see that Rural LSOAs generally experience lower police-recorded IPA crime and DA incident rates and less variability in crime and incident rates as compared to Urban LSOAs.³² To illustrate, only one Rural LSOA experienced more than 50 IPA crimes per 1,000 population at risk during the study period and only two Rural LSOAs over 100 DA-related incidents per 1,000 population at risk. Conversely, the LSOAs experiencing the highest rates of both IPA crimes and DA incidents are all Urban.

Disaggregating by victim gender, the two graphs in the bottom row show the stark contrast in rates of IPA crime experienced by male and female victims irrespective of rurality, and, mirroring the total crime measures, that the highest rates of reported IPA crime against both males and females occur in Urban LSOAs.



Figure 30: Mirrored histograms comparing rates of DA-related incidents and IPA crimes (in total and perpetrated against male and female 16+ victims) in Urban and Rural LSOAs.

³¹ Axes have been maintained on all plots to support direct comparisons.

³² Differences in DA incident and IPA crime rates (total, female victim, male victim) between Urban and Rural LSOAs were all statistically significant at p<0.01 using a Welch two-samples t-test given unequal variances and the relatively large sample sizes (n=321).

5.11.2. Comparing Urban/Rural LSOAs: IPA Crime Outcomes

Next, we compared crime outcomes in urban and rural communities. To do this, we analysed the IPA crime outcomes in both Urban and Rural LSOAs across each of the most frequent outcomes (see Table 3, p26). The mirrored histograms in Figure 31 visualise these analyses and demonstrate that there are very little substantive differences in the proportion of IPA crimes that result in a given outcome between Urban and Rural LSOAs.



Figure 31: Mirrored histograms comparing IPA crime outcomes in Urban and Rural LSOA

5.12. Patterns of repeat offending and victimisation

In this section we examine patterns of repeat victimisation and offending associated with IPA in Cumbria. We begin by calculating the number of IPA victimisations associated with each victim in our data to estimate levels of repeat victimisation, and then explore the time-course of those repeats. Subsequently we examine patterns of repeat offending, compare options for identifying priority offenders, and attempt to quantify various metrics of offender progression.

5.12.1. A note on close in time crimes and their impact on analyses

In some of the analyses that follow we had to overcome an analytical challenge associated with our source data. Namely, that on some occasions multiple offences are recorded by police as having occurred at the same time or within a very short interval of one another. Conversations with police suggest that in many cases these crimes come to the attention of the police together as the result of a single altercation between victim and offender. These

crimes that occur within a single 'event window' can impact on our analyses in two ways. First, when estimating the time course of repeat offending they may overestimate short time course repeats. Second, in considering escalation and de-escalation in offending via crime severity we can be left with multiple offences of differing severities to compare to a previous offence. To address these challenges we make the following interconnected assumptions: (1) all offences that take place within 12 hours of each other are, for the purposes of studying the time course of victimisation, grouped and assigned the committed date time of the earliest offence;³³ (2) similarly, where multiple offences of differing severities occur within a 12-hour window, only the most severe offence is counted in escalation – de-escalation analyses.

5.12.2. Repeat victimisation

As previously discussed, our primary data source contains details of 8,091 IPA crimes associated with 5,390 unique victims occurring over a 30-month period from 1 April 2019 to 30 September 2021. Of those victims, 1,832 (34%) experienced IPA crime more than once during this period. Table 7 below expands upon this and counts the number of victims who experienced 1,2,3,4 etc. IPA victimisations up to a maximum of 19 IPA victimisations experienced by one person during the study period. In addition, it also details the cumulative percentage of victimisations associated with each group of victims, and the percentage of total victims they make up. Much like the cumulative contribution plots depicted in Figure 26 which examined how IPA crimes were concentrated amongst LSOAs, this table illustrates the degree to which IPA victimisations concentrate on repeat victims.

Examining Table 7 a number of observations can be made. First, a considerable proportion (39%) of IPA crimes within our data are repeat victimisations. Considering strategies that seek to identify those victims most at risk with the aim of preventing repeat victimisation, 7.1% of victims (383 people) experienced 4 or more IPA victimisations, which in turn made up 23.2% of total IPA crime. Obviously, all victims are equally important. Nevertheless, implementing a tiered response by concentrating some proportion of local resources on repeat victims (at varying levels in terms of previous victimisation) could be supported by this analysis.

It is also important to consider at this stage the potential impact underreporting may have on measures of repeat victimisation. If victims only report some of their victimisation, these figures will underestimate levels of repeat victimisation. Our interviews with DA service providers suggest that victims may elect not to contact the police if a previous call for service resulted in no further action or an otherwise negative experience (see below). The probable high levels of underreporting provide an argument for strategies that focus on repeat victims / offenders and underscore the importance of 'new' victims having a positive experience of the police response to ensure that they seek help again if necessary.

³³ We note that while 12 hours is an arbitrary cut-off, it was selected after examining crime and incident data and speaking to police and analytical staff who facilitated data access.

Number of Victimisation S	Number of Victims	% Victims	Cumulative % Victims	Total Number of Victimisations	Number of Repeat Victimisations	% Victimi sations	Cumulative % Victimisatio ns
19	1	0.0	0.0	19	18	0.2	0.2
17	3	0.1	0.1	51	48	0.6	0.8
15	3	0.1	0.1	45	42	0.5	1.3
14	1	0.0	0.1	14	13	0.2	1.4
13	2	0.0	0.2	26	24	0.3	1.7
10	8	0.1	0.3	80	72	0.9	2.6
9	6	0.1	0.4	54	48	0.6	3.2
8	15	0.3	0.7	120	105	1.3	4.6
7	30	0.6	1.3	210	180	2.4	7.0
6	44	0.8	2.1	264	220	3.0	9.9
5	99	1.8	3.9	495	396	5.6	15.5
4	171	3.2	7.1	684	513	7.7	23.2
3	383	7.1	14.2	1149	766	12.9	36.1
2	1066	19.8	34.0	2132	1066	24.0	60.0
1	3558	66.0	100.0	3558	0	40.0	100.0

Table 7: Repeat IPA crime victimisation

5.12.3. Time course of repeat victimisation

Having identified that almost 40% of IPA crimes are repeats, we now measure the time course of repeat victimisation, identifying over what time periods such repeats occur, as this may inform how responses to victimisation should be structured. To do this we calculated the time lag between every crime and its subsequent repeat (a total of 3,511 repeat offences), i.e. the next victimisation chronologically experienced by the same victim (note that this can, though seldom does, involve a different offender). Figure 32 depicts a distribution of the time in days between all repeat IPA victimisations and their previous 'seed' victimisation occurring within the study period.

To support use of these analyses in an applied setting we performed two further steps. First, we removed all repeats that took place within less than 12 hours of an initial victimisation (478 repeat victimisations, 14% of repeats). As discussed above, this was done to avoid counting multiple crimes recorded within the same 'event window' as repeat victimisations in this time course analysis, as they were likely to have all occurred as part of the same 'episode' of abuse and the time between them (which is often recorded as occurring at the same exact time) does not provide an opportunity for intervention. Second, we removed repeats which occurred 365 days or over after an initial offence (306 repeat victimisations, 9% of repeats). Looking at the graph, we can see that likelihood of repeat offence is highest within a short time period of an initial offence and that risk subsequently decays over time roughly following an exponential curve.



Figure 32: Lags between repeat victimisations in days (min 12hrs, max 365 days)

Time from initial incident	% of repeat victimisations (3511 repeats)
12-24 hours	3% (96 repeats)
12hours - 3 days	6% (219 repeats)
12hours - 7 days	11% (376 repeats)
12hours - 30 days	26% (902 repeats)
Less than 12 hours ³⁴	14% (478 repeats)
12 hours and 364 days	78% (2727 repeats)
365 days and over	9% (306 repeats)

Table 8: Timeframe of repeat victimisations

Table 8 provides some key values from these analyses, demonstrating that 3% of repeat victimisations occur within the 12-hour window between 12-24hrs after an initial offence; and 11% within 7 days; and 26% within 30 days. The immediate implication of this finding is that if efforts to support victims and prevent repeat victimisation are to maximise their effectiveness, they should be timely in nature when the risk of re-victimisation is at its greatest.

5.12.4. Repeat offending

In addition to identifying the number of victimisations experienced by each victim within our data, we also examine patterns of repeat offending, i.e., the number of IPA crimes attributable to each offender. Of the 5,367 offenders analysed,³⁵ 1,836 (34%) were repeat offenders who committed more than one IPA crime in our dataset. Table 9 depicts the number of offenders

³⁴ It is likely that some of these offences are true repeats which take place in separate episodes, but without considerably more resource intensive analysis, for instance processing Modus Operandi notes, it is impossible to tell.

³⁵ As noted previously, based on discussions with Cumbria Constabulary, throughout this analysis we analyse individuals whose role in an IPA crime is recorded as offender (14%) or suspect (86%) collectively as offenders.

associated with 1, 2, 3, 4 and so on offences. In addition, mirroring the repeat victimisation analyses above, it also details the cumulative percentage of IPA crimes associated with each group of IPA offenders, and the percentage of total IPA offenders they make up.

Number of Offences	Number of Offenders	% Offenders	Cumulative % Offenders	Total Number Offences	Total Number of Repeat Offences	% Offences	Cumulative % Offences
17	2	0.04%	0.04%	34	32	0.38%	0.38%
15	1	0.02%	0.06%	15	14	0.17%	0.55%
14	1	0.02%	0.07%	14	13	0.16%	0.71%
13	1	0.02%	0.09%	13	12	0.15%	0.85%
12	2	0.04%	0.13%	24	22	0.27%	1.12%
11	3	0.06%	0.19%	33	30	0.37%	1.49%
10	7	0.13%	0.32%	70	63	0.79%	2.28%
9	10	0.19%	0.50%	90	80	1.01%	3.29%
8	17	0.32%	0.82%	136	119	1.53%	4.82%
7	24	0.45%	1.27%	168	144	1.89%	6.70%
6	46	0.86%	2.12%	276	230	3.10%	9.80%
5	94	1.75%	3.88%	470	376	5.28%	15.07%
4	199	3.71%	7.58%	796	597	8.93%	24.01%
3	381	7.10%	14.68%	1143	762	12.83%	36.84%
2	1048	19.53%	34.21%	2096	1048	23.53%	60.37%
1	3531	65.79%	100.00%	3531	0	39.63%	100.00%

Table 9: Repeat IPA crime offending

Examining Table 9 a number of observations can be made. First, a considerable proportion (40%) of IPA crimes within our data are repeat offences perpetrated by offenders who have previously been associated with an IPA crime. Second, by extension, at varying levels, IPA offending concentrates within offenders with a relatively small number of offenders responsible for disproportionate levels of offending, e.g. just under 8% of all IPA offenders who have committed four or more IPA crimes throughout the study period are responsible for almost a quarter of all IPA offences. That said, during the study period 66% of offenders were only associated with a single IPA crime. It should be noted however, that these individuals may have been associated with offences prior to the study period analysed here.

5.12.5. Patterns of reoffending

In the following section we present results of analyses that seek to reveal insights into patterns of IPA reoffending in Cumbria. Three distinct measures are considered. The first calculates the conditional probability that an individual will reoffend given that they have previously committed a particular number of offences. The second measures if the time between successive offences becomes shorter as offenders commit more crimes. The third looks at changes in the seriousness of successive crimes committed by repeat offenders. Following previous studies (Liggins et al. 2019, Barnham et al, 2017; Bland & Ariel, 2015), these metrics aim to test common hypotheses that state that over time the offences of repeat DA offenders become more likely, more frequent, and more severe.

In exploring the veracity of these assertions with respect to IPA in Cumbria we do, however, acknowledge two challenges that relate directly to the size of the 30-month time window over which IPA offending and offenders are analysed. First, in the analyses that follow we compare successive offences committed by repeat offenders. Such measures only consider offences recorded by police within our study period. Second, the number of offenders who have committed large numbers of offences over this 30-month window of IPA data is relatively small in contrast to previous studies that have sought to apply these measures. In response, we limit our analyses of successive offences to ten offences. Despite this, the sample size of offenders who have committed the highest numbers of IPA offences remains small, limiting the reliability of our estimates at higher offence counts and subsequent statistical power. Consequently, we propose these analyses be replicated using a longer time window of historic offending data.

5.12.5.1. Conditional probabilities of repeat offending

Previous research has sought to estimate the conditional probability of repeat offenders reoffending after each successive offence.³⁶ That is, for example, the probability that an offender who has been associated with one IPA offence will go on to be associated with a second and so on. We now apply this approach to explore conditional probabilities associated with IPA re-offending within Cumbria.



Figure 33: The conditional probability of further offences by number of prior offences

Figure 33 depicts the conditional probabilities of each subsequent IPA offence after the first and successive IPA offences. The initial probability of a first time identified IPA offender being linked to a second IPA offence is p=0.34 (34%), subsequently for those committing two IPA offences the conditional probability of committing a third IPA offence rises to p=0.43. After the third IPA offence there is a higher probability an offender will reoffend than not reoffend, and conditional probabilities for reoffending continue to rise until the 8th offence. Despite the caveats discussed above regarding sample size at higher counts of offences, in general it seems that as the number of IPA offences an offender commits increases so does the

³⁶ This is done using the classic conditional probability formulation P(A|B). To calculate the conditional probability of an offender committing a fourth offence conditional on them having committed a third offence we divide the number of offenders committing 4,5,6...n offences by the number of offenders committing 3,4,5...n offences.

conditional probability that they will commit a subsequent IPA offence. This finding is in keeping with previous research into DA, suggesting that the identification of repeat offenders early in their offending series offers an important approach to reduce crime.

5.12.5.2. Offending intermittency

Analysis of offending intermittency seeks to examine the time between successive offences committed by repeat offenders to establish if as offending frequency increases the 'crime free' time between offences increases or decreases. To conduct this analysis, the time between successive IPA offences for each repeat offender was calculated (excluding offences which occurred within the same 12-hour window as discussed above). Figure 34 depicts the average time in days between sequential offences across all IPA offences 1 and 2, but only 60 days between offences 7 and 8. A one-way ANOVA demonstrated a statistically significant difference between groups (F[8, 3038] = 7.744, p <.001). However, post-hoc comparisons performed using Tukey's HSD only show significant differences between the timings of the first event pair and 5 of the next 6 pairs.³⁷



Figure 34: Average time in days between sequential offences across IPA offenders

These results indicate that the time between first and second offence is typically longer than the time between subsequent offences, but that there are no significant differences after that.³⁸ These outcomes may be the result of the relatively small sample size associated with latter pairs, and as such we recommend replicating these analyses over a longer period of historic data. As such, these findings offer partial support to the hypothesis that as repeat offenders commit more IPA offences the average time between those offences becomes shorter.

5.12.5.3. Offending escalation

Finally, we assess if the severity of offences associated with repeat offenders escalates or deescalates over time. To conduct these analyses, we again grouped offenders and identified their consecutive offences and then measured the ONS CSS associated with consecutive

³⁷ Specifically, differences are only significant between 1&2 and 2&3, 1&2 and 3&4, 1&2 and 4&5, 1&2 and 5&6, and 1&2 and 7&8.

³⁸ Another point of note is that we only examine those offences classified as IPA by our initial filtering – it is very possible that IPA offenders commit other types of DA not measured here.

offences. As discussed previously, for the purposes of these analyses, where multiple offences are recorded within the same 12-hour event window we only analyse the most severe in terms of ONS CSS.



Figure 35: Trends in average crime severity score for sequential crimes

Figure 35 depicts the trend in average severity score for successive crimes in an offender's chronological sequence of offending. Results of these analyses seem to suggest that offending severity remains relatively static across successive offences, with the increased variability in higher levels of offences likely a result of lower sample sizes of offenders. A one-way ANOVA demonstrated no statistically significant differences between groups (F[9, 8404] = 0.55, p = 0.84). As such, we find no evidence for escalation or de-escalation of severity with regards to repeat offending. Nevertheless, we again recommend these analyses are repeated over a longer period of historic data.

5.13. Comparing strategies to target high frequency v. high harm offenders

Leading academics in the field of family violence have distinguished between the 'miscreant many' and the 'felonious few' (Sherman et al. 2016). Evidence suggests that the 'miscreant many' are responsible for the vast majority of IPA calls for service, but their behaviour is not a crime or, if it is, results in no or minor physical injuries. In contrast, the 'felonious few' are those 'who repeatedly cause serious harm, and those who kill or attempt to kill' (pp. 5-6).

Police crime reduction strategies often include targeting *prolific* offenders. Typically, they are identified by quantifying the number of offences committed by each person within a given time period and identifying those responsible for the greatest number. Such strategies enable the police to target their finite resources on disproportionately active offenders, with the aim of securing the largest possible reduction in future victimisations. During December 2021 such a strategy was deployed by Cumbria Constabulary as part of Operation County, when officers visited repeat IPA offenders whilst offering advice and support to their partners (Gaskell 2021).

Another approach is to identify the most *harmful* offenders by examining the cumulative severity of offences committed by all offenders within a set period and identifying those whose actions cause the most harm (here, as approximated through the ONS CSS). In the following we apply both approaches to IPA offenders in Cumbria.

5.13.1. Targeting by offence frequency

In the first (and often common) approach explored, we prioritised offenders by the number of IPA crimes they had committed during the study period. This meant simply summing the number of IPA crimes committed by each offender and then rank ordering them by number of crimes during the study period. We then calculated the cumulative percentage of offenders vs the cumulative percentage of IPA crimes for which they were responsible. The cumulative contribution plot (Figure 36) shows that if the top 10% of prolific offenders were prevented from reoffending we would hope to observe a reduction in crime of around 25%.



Figure 36: Cumulative contribution of IPA offenders to IPA crimes

5.13.2. Targeting by offending severity

As discussed in our analysis of spatial patterning (see section 5.8) there is a growing body of research which seeks to move beyond crime frequencies and rates to quantify the severity associated with particular offences. Building from this, our second approach to identifying offenders for targeting involves the use not only of the number of crimes committed but also the severity of those crimes as defined by the ONS CSS. Underpinning this approach is the belief that those offenders who cause cumulatively the most harm warrant the most attention.



Figures 37: Cumulative severity contribution plot ordered by cumulative severity (left) and Figure 38: Cumulative severity contribution plot ordered by crime frequency (right)

Conducting these analyses involved calculating the sum of ONS CSSs for all offences attributed to each offender and then rank ordering offenders based on the cumulative crime severity of their offences. Inspection of the cumulative severity contribution plot in Figure 37 demonstrates that crime severity is considerably more concentrated amongst offenders than offence frequency, with the top 10% of offenders (in terms of cumulative crime severity) responsible for 68% of total crime severity (and 19% of crimes). Further examining the data represented in Figure 37, demonstrates that 1% (54) of offenders generate 15% of total severity, 2% of offenders 26% and, remarkably, that over 50% of all crime severity generated across Cumbria was attributable to less than 5% of offenders. This group has previously been labelled the 'power few' (Sherman 2007) but is now referred to as the 'felonious few' (Sherman 2019).³⁹

In order to support comparisons, it is also possible to estimate the amount of crime severity captured by our previous method which identified offenders by crime frequency. Figure 38 depicts the cumulative severity captured by prioritising offenders based on offence frequency.

Combining the results of these two approaches, Table 10 compares the percentage of total IPA crimes and IPA-related severity attributable to 'priority-rated' offenders identified by the two methods at various levels, specifically, looking at the top 1, 2, 5 and 10% of offenders. The results of these analyses demonstrate that when identifying priority IPA offenders for targeting, one should consider combining approaches that prioritise offenders by both crime frequency *and* crime seriousness.

% (and count) of 'Priority' Offenders Identified by Technique	Method for Prioritisation	Count of IPA Offences Attributable to Group	% of Total IPA Offences Attributable to Group	% of Total Severity Attributable to Group
1% (54	Frequency	499	6%	6%
Offenders)	Severity	233	3%	15%
2% (108	Frequency	837	9%	9%
Offenders)	Severity	361	4%	26%
5% (269	Frequency	1587	18%	21%
Offenders)	Severity	616	7%	53%
10% (537	Frequency	2529	28%	32%
Offenders)	Severity	1676	19%	68%

Table 10: Comparing the % of total IPA crimes and IPA-related severity attributable to 'priorityrated' offenders identified by frequency or severity of IPA crime

Before we progress, several further observations should be made with regards to the strategies discussed above. First, a key decision when conducting such analyses relates to the

³⁹ This name was chosen to reflect how, in the field of statistics, a 'power curve' has a highly skewed distribution (Sherman 2019: 74). Concerns were raised about the term, however, suggesting that it romanticised a group of high-harm individuals. In an article entitled 'Burying the "Power Few" Sherman proposed a new term for this group: the 'felonious few' (Sherman 2019).

length of time over which crimes should be collated which, in turn, will dictate which offenders are included in priority groups identified using either method. In support of the analyses conducted above we explored both the entire 30-month dataset and the most recent year and found limited differences in concentration. Others have found considerable change in membership of the 'felonious few' over time, however (Liggins et al. 2019). In operational terms it may be best to focus on crimes that have taken place over the last 12 months.

Second, when considering identification of offenders through severity, it should be noted that some proportion of offenders may be prioritised through a single high severity offence. If this offence is a one-off and not part of a broader pattern of high severity offending, there is no opportunity to intervene and prevent subsequent offending.⁴⁰ To understand how this might manifest in the cohorts discussed above, Table 11 below shows the percentage of offenders within each of our 'severity-based' priority groups who only committed a single offence within the study period. As previously discussed, it should also be noted that these individuals may have been associated with offences prior to the study period analysed here.

Third, and relatedly, it is possible that an offender who committed a large number of crimes, or very serious crimes, at the start of the time window has subsequently stopped offending. The longer the time window over which crimes are analysed the greater the likelihood of this. One response is to weight crime counts or severity based on recency, which would allow the 'model' to account for potential changes in behaviour. An offence could be weighted by its crime severity score and the reciprocal of its age in years, for example, so offences 2 years old are weighted at ½ while offences in the last twelve months at 1/1. Any such approach should be closely monitored and the weights adjusted as necessary.

% (and count) of	% (and count) of	
Offenders Identified by	Offenders within group	
Technique	identified by Severity only	
	committing 1 offence.	
1% (54 Offenders)	11% (6 offenders)	
2% (108 Offenders)	6% (6 offenders)	
5% (269 Offenders)	47% (126 Offenders)	
10% (537 Offenders)	34% (181 Offenders)	

Table 11: % and count of top 1%, 2%, 5% and 10% high severity offenders who only committed 1 offence within the study period

Finally, both the ONS CSS used here and the CHI rest on the assumption that not all (IPA) crimes are equal in terms of their severity. The methods used to devise the CHI and the ONS CSS mean that because sentencing guidelines and sentencing outcomes are weighted more heavily to violent offences, so are the CHI and ONS CSS metrics. Thus using ONS CSSs in this way is likely to identify those who commit the more violent IPA crimes rather than those who commit less violent IPA such as coercion and control related offences. As several of our interviewees noted, however, some victims regard non-violent IPA as at least as harmful as physical violence. Research demonstrating the significant impact of DA on physical wellbeing does not always distinguish between physical violence and other forms of abuse (see, for

⁴⁰ Relatedly, this is also true if an offender is incarcerated as a result of their offending.

example, Chandan et al. 2020). Recent months have seen increased calls for better data collection around suicides linked to IPA (Roberts 2022), whilst new French legislation means that anyone whose harassment caused their victim to consider or attempt suicide may be sentenced to ten years in prison (Library of Congress 2020). In other words, our support for a strategy utilising the ONS CSS comes with caveats.

5.14. A data-driven means of identifying and estimating the prevalence of IPA counterclaims

During the interviews with practitioners, some noted the problem of IPA offenders accusing their victim of violence in response to accusations against them (see below). In order to explore the extent of false 'counterclaims' we developed an analytical strategy that sought to identify crimes resulting from counterclaims and, in turn, estimate what proportion of IPA crime they accounted for. As with any analytical strategy that seeks to gain insights from large administrative datasets without contextual knowledge (i.e. insights from the response officers concerned), the approach proposed here can only estimate which crimes might be counterclaims, cannot be verified without considerable resourcing, and is one of several approaches that might be taken. We now present the steps taken to identify potential counterclaims and then estimate what proportion of IPA crimes they make up.

To identify potential counterclaims, we took the following steps:

- 1. For all IPA crimes, identify unique victim and offender IDs and create a new variable associated with each crime that denotes the 'dyad' of these two individuals.
- 2. Identify all IPA crimes within the study period which occur between this dyad within less than 12 hours of each other which we consider to be a single event window / episode.
- 3. Of these crimes occurring within a single 'event window', flag those where victim and offender switch roles such that individual A victimises individual B in the first crime and in turn, individual B victimises individual A in a subsequent crime.
- 4. In such scenarios of 'crime role reversal' assume that the first role an individual takes (chronologically in terms of the 'Date Committed' variable) is their true role and denote the subsequent crimes with the reversed roles as potential counter claims.⁴¹

Applying this approach to IPA crime recorded throughout the study period, we estimated that up to 5% of IPA crimes within the study period are potential counterclaims. It should be noted when interpreting these findings, that this approach will necessarily capture legitimate scenarios where both parties are the aggressor. As a result, the estimations above reflect the worst-case scenario with respect to the level of 'false' counterclaims.

⁴¹ This approach has the potential to underrepresent counter claims, but only if the first (chronologically) depicted role is the 'true' counter claim and subsequently more than 1 additional offence is recorded with the true roles of offender and victim within the event window. Where roles switch only once, irrespective of the correctness of our initial assumption, one of these two linked crimes can be classified as a potential 'false' counterclaim. We checked to see how many times there were multiple crimes within an event window after a role switch and found only a very small number.

6. FINDINGS: What Other Data Could Aid Understanding of Domestic Abuse in Cumbria?

Acknowledging the fundamental challenges associated with the under-reporting of DA to the police, the research team also attempted to gain access to relevant data from various other sources to better understand the nature and distribution of DA across Cumbria.

6.1. Victim Support Cumbria

The research team gained access to data from Victim Support related to DA referrals and service users in Cumbria during the study period spanning 1st April 2019 to 30th September 2021. After filtering these data for service users aged 16+ at the time of referral, Victim Support recorded a total of 6,451 unique service users associated with 9,092 DA-related referrals during this period.

Figure 39 below depicts monthly time-series of the total count of DA-related referrals to Victim Support over the study period, and is consistent with a gradual increasing trend in referrals (or the flagging of referrals). It should be noted that while the previous sections have primarily discussed IPA crime the DA-related referrals to Victim Support analysed here could describe any form of DA that involved victims aged 16+.



Figure 39: Count of DA-related referrals to Victim Support by month

6.1.1. Separating referrals by source type

Much of the service Victim Support provides follows referral of a victim of crime to the service by the police. The team was told by Cumbria Constabulary that all victims of DA that come to police attention are referred as a matter of course. There are other ways in which individuals can come to the attention of Victim Support, however, including self-referrals and referrals by other organisations such as health care providers.

At the outset of the project, our intention was to gain insights into DA beyond that provided by police recorded crime data. For this reason, we focused our analyses predominantly on non-police referrals to Victim Support, given that the police referrals are an alternate measure of police-recorded DA. To enable this analysis, we utilised the 'referral source' free-text field and separated police referrals from non-police referrals. The results of this processing show that, of the total 9,092 recorded referrals from April 2019 to September 2021, 8,681 (95%) resulted from a police referral (and these referrals were associated with 6,210 unique service users), and 411⁴² (5%) represented non-police referrals (associated with 395 unique service users). Mirroring the repeat victimisation patterns discussed above, a significant proportion of police-referred service users had been referred to Victim Support multiple times. Conversely, the vast majority of service users only appeared once via a non-police referral. Examining the overlap of services users across these referral types, 154 (2.5%) unique service users feature in both non-police and police referrals.

Table 12 provides further information about non-police referral case sources, separating referrals by source type. Figures 40 and 41 depicts monthly counts of police and non-police referrals to Victim Support.

Case Source	Count of Referrals	% of non-police referrals
Self-Referral by Telephone	109	27%
Other Agency Referral	72	18%
Not Recorded	68	17%
Web Referrals : Cumbria	36	9%
DV support agency	21	5%
Other VS Referral	10	2%
Self-Referral by Email	8	2%
Self-Referral via Website	8	2%
Other voluntary support agency	6	1%
Self-Referral via Livechat	5	1%
SV support agency	5	1%
Other non-police		
(aggregated by research team)	63	15%

Table 12: Non-police referral case source



Figures 40: Count of police referrals to Victim Support and Figure 41: Count of non-police referrals to Victim Support

⁴² Note this includes 68 referrals that did not record a source.

A number of observations can be made. First and foremost, as Figures 40 and 41 above indicate, the number of police referrals to Victim Support was consistently much greater than that for non-police referrals, which in some months was in single digits. Consequently, the upward trajectory observed in total Victim Support referrals (as seen in Figure 39 above) was clearly driven by an increase in police-referrals. Examining the trend of non-police referrals from May 2020 (10 referrals) to June 2020 (48 referrals) shortly after the first national lockdown restrictions were eased. The cause of this global outlier should be further investigated, analysis of the source of these particular referrals shows that 43 of the 48 had no recorded case source ('not recorded'). Consequently, it is difficult to draw conclusions about this sharp increase in referrals and how they came to the attention of Victim Support.

6.1.2. Service User Characteristics

Though limited data were available regarding the characteristics of Victim Support service users, we now explore if the age and gender of those who self-referred to Victim Support looked markedly different to those referred by police.

	Count Police	% Police	Count Non-police	% Non-police
Gender	Referrals	Referrals	Referrals	Referrals
Female	4578	73.7	301	76.2
Male	1320	21.3	27	6.8
Not Given	278	4.5	66	16.7
Unknown	34	0.5	0	0.0

Table 13: Gender by police vs non-police referrals

Examining the average age of Victim Support service users at the time of referral, it appears service users referred by police were slightly younger (mean age = 37.2, sd = 14.3, median 35), than those referred from other sources (mean age = 39.5 sd = 14.2, median = 38)⁴³ (a Welch two-samples T-test showed that the difference was statistically significant at p<0.01). Further exploring these differences, Figures 42 and 43 depict distributions of the age of service users at time of referral for both police-referrals and non-police referrals. The relative sparseness of the non-police referrals should be remembered when viewing these plots.



Figures 42 and 43: Ages of Victim Support service users at police referral (left) and non-police referral (right)

⁴³ Thirty-one service users did not provide an age.

6.1.3. Comparing the spatial patterns of police data and non-police referred Victim Support data

Given our goal to explore what insights can be gained into the geospatial distribution of DA from non-police data, we now examine the spatial distribution of non-police referrals to Victim Support and make comparisons with the distribution of police recorded IPA crime and DA incidents. In making these comparisons, our goal is to highlight disparities between these different sources of data and thus guide further investigation which would seek to understand the factors which underlie such differences. That said, it is worth reiterating the fundamental challenge that we faced in examining these datasets: neither reflect the 'ground truth' of DA in Cumbria, and both are subject to various systematic and unsystematic biases. Nevertheless, we operate under the assumption that while neither source of data is optimal, triangulation is always better than considering a single data source in isolation.

Our first challenge was the considerable difference between the numbers of police-recorded incidents (17,264) and crimes (8,901) relative to numbers of non-police referrals to Victim Support (411). This inevitably limited both the analytical options available, and the certainty associated with their outcomes. With the size of the Victim Support dataset in mind, and because many LSOAs only experienced single digit counts of non-police referrals to Victim Support across the entire 30-month study period, we began by aggregating Victim Support referral data to larger geographies in an attempt to reduce the impact of this variability. To that end, counts of both referral types and previously analysed police IPA crimes and DA incidents were aggregated to Middle layer Super Output Area (MSOA) level, which is the statistical geography one level above LSOA. MSOAs contain an average of approximately 8,000 residents and Cumbria contains 64 MSOAs as opposed to 321 LSOAs. Levels of crimes, incidents and non-police referrals to Victim Support were then deciled at MSOA level to allow direct comparison between measures. The question we were asking, then, was to what degree are High and Low Crime/Incident MSOA areas, as highlighted by Cumbria Constabulary data, equivalently represented within the non-police Victim Support referrals? Our rationale is that while far from definitive, a considerable disparity between these measures might effectively be used to guide further investigation.

Figure 44 below depicts each of our three measures. The leftmost map depicts MSOAs coloured by deciles of the number of IPA crimes recorded by Cumbria constabulary during the study period. While our police recorded IPA crime data focus on IPA, the Victim Support data represent *al*/DA-related non-police referrals to the service (associated with a service user aged 16 or over). In the central map we show deciles of DA-related incidents recorded by Cumbria Police, which are not constrained to IPA-related events and therefore may provide a more robust comparator. Finally, the rightmost figure colours MSOAs by deciles of the number of non-police referrals to Victim Support received during the study period (in all cases blue MSOAs experience counts of below the median for a given measure, and red above the median).



Figure 44: Deciles - Police-recorded IPA crime (left); Police-recorded DA incidents (centre); Nonpolice referrals to Victim Support (right)

It is immediately clear that there are both similarities and differences in the spatial distribution of these crimes, incidents and non-police referrals. That is, if we were to rely on police recorded crime or incident data to rank order MSOAs in terms of the prevalence of DA we would come to a different conclusion than if we were to use non-police referrals to Victim Support. To that end, and to better visualise these differences, Figure 45 below depicts the difference in decile values between Victim Support referrals and both IPA crime (left figure) and DA incidents (right figure). Interpreting these two maps, the dark red areas represent MSOAs in which the Victim Support referrals would suggest there are higher levels of DA than the police data. Conversely, blue MSOAs are those where the police data decile would suggest higher levels of DA than estimated through Victim Support referrals. As discussed above, this analysis should be interpreted with caution given that the numbers of non-police Victim Support referrals represent roughly a 20th of recorded IPA crimes and thus are acknowledged to be considerably more sensitive to fluctuations caused by a range of unobserved factors.



Figure 45: Difference in deciles between non-police Victim Support referrals and police-recorded IPA crime (left) and DA incidents (right)

To summarise these differences, Table 14 below depicts the percentage of MSOAs within one, two, three, four and five deciles (above and below) when comparing MSOAs identified through the Victim Support data to both Police DA datasets. Examining this table, we see that the differences in estimates of DA within MSOAs provided by the Victim Support and Police datasets are within one decile of each other for 54% of MSOAs when comparing Victim Support referrals to DA-related incidents, and 56% when comparing IPA crime to Victim Support referrals. At the same time, these exploratory analyses also highlight around 20% of MSOAs where the difference in estimates are potentially indicative of either underreporting of DA, or increased engagement with Victim Support.⁴⁴

	% MSOAs	
Difference in Deciles between Victim Support data and Police data (DA	- DA	% MSOAs
incidents or IPA Crimes)	Incidents	- IPA Crime
-4 (Indicative of more DA in Police Data)	2%	2%
-3	9%	13%
-2	16%	11%
-1 (Indicative of similar levels of DA in Police and Victim Support data)	13%	11%
0 (Indicative of similar levels of DA in Police and Victim Support data)	19%	25%
+1 (Indicative of similar levels of DA in Police and Victim Support data)	22%	20%
+2	11%	6%
+3	5%	8%
+4	3%	3%
+5 (Indicative of more DA in Victim Support Data)	2%	2%

Table 14: Comparing % of DA within MSOAs according to Victim Support Data and Police DA Incident and IPA Crime Data

As we have discussed before, we know that neither of these sources of data are a true reflection of the prevalence of DA. As such these findings should be viewed with considerable caution. Nevertheless, we suggest that they warrant further place-based investigation and contextualisation with expert local knowledge. To support this investigation Appendix 4 lists all MSOAs and the relative difference in deciles comparing measures of IPA crime and DA incidents to non-police referrals to victim support.

6.2. Women's Centres

In addition to Victim Support, Cumbria's three Women's Centres – Women Out West, Women's Community Matters, and Cumbria Gateway - provide a range of services to people affected by DA in Cumbria. Over the course of the project, administrative data were sought from these organisations in order to analyse the geospatial distribution of IPA known to the Women's Centres, using the Centres' administrative data on referrals and self-referrals, to provide further insights into both the geospatial and temporal patterns of IPA within Cumbria.

We began by providing each of the Women's Centres with bespoke software tools to standardise their administrative data into a single format and de-identify service users where

⁴⁴ Note that a high difference in decile indicates only a high level of disparity between the two measures, not a high level of incidents.

necessary to enable subsequent data sharing. This process involved various steps, but primarily focused on removing all personal data and appropriately aggregating spatial and temporal information associated with service users' records.

After meeting with Centre staff and receiving the data several challenges became apparent. First, the data recorded by organisations is not necessarily consistent both within and between Centres, and over time. This is understandable given that the Centres collect information for case management purposes, and not with analytical insights, never mind comparative analytics, in mind.

Second, there were marked variations in the number of referrals dealt with by Centres. Some datasets were relatively small in terms of observations, which constrained the potential for disaggregated geospatial insights. Third, the spatial information recorded for service users relates to their home address at the point of referral (and in some cases subsequently, reflecting the need to stay in touch with service users). As Centre staff noted, some victims move before or after referral, and so the geolocation data held are not necessarily the location of victimisation. Consequently, there are significant limits to what can be inferred from comparisons of the locations associated with Women's Centre referrals and police-recorded IPA crimes.

That said, given the significant challenges associated with capturing the dark figure of DA, we believe that these data should be analysed, maximising their utility while in turn limiting inferences from the outcomes of such analyses to the realm of guiding future necessary research.

To that end, the research team are willing to continue working with the Centres to explore what insights might be derived from their existing data, and how data collection procedures might be modified to maximise benefit. At the end of this section, we provide a number of recommendations around the unification of data collection across Centres.

6.2.1. The Women's Centre Data

The service user data provided to the research team came from three Women's Centres. Table 15 below summarises the number of referrals and time span of data made available to the research team. In total 2,236 referrals were included in the datasets provided. The vast majority of these were allocated an LSOA pertaining to the service users' home address and a year and month of referral.

Women's Centre	Time Span of Data Provided	Total number of Referrals recorded in Data
Women Out West	Aug 2020 to May 2022	310
Women Community Matters	Mar 2019 to Sept 2021	1874
Cumbria Gateway	Oct 2017 to Sept 2021	52

Tahle	15.	Time	snan	of dat	a ano	l numher	ofr	referral	s for	each	Centr	קי
Iable	15.	IIIIIe	span	UI Uat	a anu	number	011	ererrar.	5 101	each	Centi	e

Each of the Women's Centres are open to any service users who wish to use them. That said, they each typically support service users who are local to their physical premises. As such the spatial components of the data provided (namely LSOA of referral) allowed us to understand

over the stated time period the spatial distribution of the home locations of service users. Figure 46 below depicts both monthly counts of referrals to each of the three women's centres (left) and the LSOAs where service users associated with each Centre reside.



Figure 46: Monthly Counts of Women's Centre referrals (left); LSOAs with one or more referrals from Women's Centre in data provided (right).

Figure 47 below aggregates the maps in Figure 46 to show all of the MSOAs served by the Women's Centres during the periods covered by the data provided. As might be expected, service users are drawn from the geographical areas around the Women's Centres. According to the data we received, the Centres do not attract service users from large parts of the county. We know from our requests for aggregate data from the other four DA service providers in Cumbria that between 1 March 2019 and 30 September 2021, Springfield DA service worked with 247 unique victims in the Community and 38 in refuge, whilst the Freedom Project received referrals in relation to 958 people (comprising female victims, male victims, children and perpetrators of DA) (see Appendix 6). Local practitioners could usefully explore the geographical coverage provided by these organisations, and those DA services that did not supply data for the project, to see whether their service users are drawn from any of the areas shown in Figure 47 in light blue.



Figure 47: The MSOAs served by the Women's Centres, shown in dark blue

6.2.2. Triangulating police recorded IPA crime, Victim Support and Women Centre datasets

Following the approach taken above to explore methods for comparing the geospatial distribution of police recorded IPA crimes and non-police referrals to Victim Support, we also attempted to explore how insights from the Women's Centre data may advance understanding of IPA across Cumbria.

Our goal here is simply to assess how much agreement there is regarding the prevalence of DA across Cumbria using the three different measures of DA provided by Cumbria Constabulary, Victim Support Cumbria and the Women's Centres datasets. In answering this question we explore how combining insights from these three largely distinct but suboptimal measures of DA might support further investigation into DA in Cumbria.

To accomplish this we followed a similar analytical approach to that described in section 6.1.3 above. This process involved processing three core datasets: (1) counts of IPA offences

provided by Cumbria Constabulary in each LSOA in Cumbria; (2) counts of non-police referrals to Victim Support Cumbria in each LSOA in Cumbria; (3) counts of service user engagements at one of the three aforementioned Women's Centres in each LSOA in Cumbria. Using these data the following steps were taken:

- Data describing the geospatial distribution of service users of the three Women's Centres were combined to generate a single Women's Centre dataset.
- To reduce the impact of random variation at small areal units, all count data provided by Cumbria Constabulary (IPA crimes), Victim Support Cumbria (non-police referrals) and Women's Centres (service users) were aggregated from LSOAs to MSOAs.⁴⁵
- Discard MSOAs from analyses where there was no record of Women's Centre service users, leaving only MSOAs where there are count data for all three measures (60 of the 64 MSOAs in Cumbria).
- To support comparisons across datasets with varying levels of observations, all three datasets were deciled to identify MSOAs in respective deciles for each measure.

These processes resulted in a single dataset describing each MSOA and the decile it falls into with respect to (1) counts of recorded IPA crimes; (2) DA-related non-police referrals to Victim Support; and (3) Women's Centre Service User Engagements.

To illustrate, Table 16 below includes the results for two illustrative MSOAs. In this example we can see that measures of DA in Copeland 005 across all three metrics are largely in agreement – with the MSOA featuring the in the top 90-100% percentile in both the police and Victim Support Data and in the 80-90% percentile in the Women's Centre data. Conversely, there is considerable disagreement across the metrics for South Lakeland 009 in which both the Victim Support and Women's Centre data suggest potentially higher levels of offending than reflected in the police data.

MSOA	Police Recorded IPA Decile	Victim Support Non- Police Referral Decile	Women's Centre Service User Engagement Decile
Copeland 005 (E02004004)	10	10	9
South Lakeland 009 (E02004023)	3	5	7

Table	16:	Exam	ple	Decile
10010		E/(Chill	pic	Deene

Figure 48 below depicts the individual deciles for our three data sources (again noting that areas missing are those for which no Women's Centre data are available and are coloured grey). Areas in red depict respective counts above the 50th percentile and blue below the 50th percentile.

⁴⁵ It should be noted that while not a solution to the problem that neither the Victim Support or Women's Centre data necessarily describe the location of offending, aggregating to larger spatial units is likely to reduce the impact of this difference in recording.



Figure 48: Deciles - Police-recorded IPA crime (left); Non-police referrals to Victim Support (centre); Women's Centre Referrals (right).

As with our previous comparisons between police recorded crimes and Victim Support referrals, examining Figure 48 we can see that measures of DA provided across the three data sources seem similar in some MSOAs and dissimilar in others. To more easily visualise these differences we propose a dissimilarity measure which seeks to capture how much our three measures agree or disagree. To calculate this metric we sum the absolute value of differences in deciles associated with each pair wise comparison of police, Victim Support and Women's Centre data. This metric produces a single positive number which has a theoretical maximum of 16 and reflects how much the three measures agree or disagree. To follow our example from Table 14 above, Copeland 005 has a dissimilarity score of (10-10)+(10-9)+(10-9) = 1, while South Lakeland 009 scores (5-3)+(7-5)+(7-3) = 8. Figure 49 below visualises our dissimilarity score across all 60 analysed MSOAs in Cumbria. The reader is again reminded that darker red areas do not indicate magnitudes of DA, but rather greater levels of disagreement amongst the three data sources analysed, while lighter red indicates MSOAs where measures are more consistent.

As with our previous analyses comparing police and Victim Support data we note the exploratory nature of these methods, and the range of significant data limitations described above. Consequently, we propose that these analyses only be used to direct further research, place-based investigation, and contextualisation with expert local knowledge. To enable this work Appendix 5 contains a table listing each MSOA, the respective deciles for each measure and the dissimilarity metric.

Similarity/Dissimilarity as measured by combined difference in Data Sources:

- (1) Police Recorded IPA Crimes;
- (2) Victim Support Non-police Referrals;
- (3) Women's Centres Service User Engagements



Figure 49: Data Similarity/Dissimilarity by MSOA measured by Combined Difference in Deciles between (1) counts of IPA offences provided by Cumbria Constabulary; (2) counts of non-police referrals to Victim Support Cumbria; (3) counts of service user engagements at Women's Centres.

6.2.3. Recommendations for Women's Centre Data Collection

The data from the Women's Centres provided insights into service delivery by these important organisations. That said, there are ways in which *both* the data that are collected *and* how these data are used could be improved to support data-driven service delivery.

When the research team attempted to collect comparable data across the three Women's Centres, each Centre needed support to translate data from existing case management systems into a form suitable for analysis. In at least one case, this involved the manual processing of historic paper records. Moving forwards, Women's Centres should consider agreeing and adopting a unified minimum data standard specifying data fields that all Centres should collect from service recipients. This standard would not preclude the collection of

other data pertinent to a particular organisation's operations but would ensure that all Centres could produce comparable insights across a range of relevant measures.

Specifying a standardised data model for adoption by the Women's Centres will require consultation and is beyond the scope of this document. Nevertheless, any such model should include the data necessary to support day to day case management *and* provide the analytical insights that can be derived from administrative records. A clear example of this would be to record *both* the location of where abuse occurred *and* the current residence of the service user – thus allowing Centres to conduct analyses of potential future demand – and draw comparisons with other organisations' geodemographic data on IPA which typically relate to the location of perpetration / victimisation (as in police data). The standardised collection of key demographic data could promote greater understanding of the characteristics of service users. Furthermore, to better understand patterns of underreporting – a key challenge repeatedly discussed in this report - information regarding individuals' engagement with the police around IPA should be consistently recorded. Good quality, comparable data are also needed to evaluate the effectiveness of interventions to support victims of IPA.

The benefits of having a robust evidence base can only be realised by organisations with data analytic capabilities. The Women's Centres do not have the resources to fund a dedicated data analyst. However, integrated data analytics workflows could be developed to automate common analytical tasks to shed light upon current service delivery and shape future practice. Such analytics need not be overly complex but should allow Centres to monitor trends in referrals, spatial patterns of service delivery, highlight individuals repeatedly referred through multiple pathways etc.

Beyond agreed minimal standards around data collection, it may also be possible to develop a single secure cloud-based recording and analytical platform which all Centres could use. While this approach would undoubtedly be more resource intensive (and costly) in the first instance, and would require the collation of resources, these investments would likely be recouped in various ways over time. As this project has demonstrated, it should be possible to develop migration tools to translate existing systems into a new platform without information loss.

In the first instance such a platform would ensure standardised recording. In addition, with appropriate legal and ethical oversight and information governance structures it could also, where appropriate, support rapid data sharing between providers where service users accessed multiple Centres, ensuring that support was appropriately joined up. Moreover, all analytical products developed to extract data from this single system would be available to all and additional comparative analytics would be made possible. Similarly, any analytical capacity (in terms of personnel) could support all users of the platform equally.

Finally, a unified recording and analytical platform may foster stronger communication between service providers, which in turn could support a range of opportunities for collective organisational learning and the development of best practices, while increasing accountability and opportunities for evaluation.
In our recommendations we go a step further, and encourage local practitioners to consider how the administration of all seven 'grass roots' IPA service providers in Cumbria and the data they collect could be brought together in productive ways.

6.3. Audit of other local organisations that encounter IPA

During discussions with local stakeholders, it was suggested that an audit of local organisations holding DA data would be beneficial. Cumbria Constabulary provided the research team with a list of organisations that routinely encounter DA. Between November 2021 and January 2022 we contacted local organisations asking for information about their encounters with DA victims. We were advised to submit Freedom of Information (FOI) requests to the local NHS Trusts: these were submitted in December 2021. The results of this exercise are shown in Appendix 6. Together, the organisations that responded provided aggregate data on over 2,000 DA-related referrals received between 1 March 2019 and 30 September 2022.⁴⁶ Ideally, these data would be linked in a live case management system to support service delivery in real time. Such a system could also facilitate research on the extent, geospatial distribution, and impacts of DA across Cumbria. The problems of data linkage are well-known (OSR 2018), however, and such systems are rare in England and Wales (but see Sohal et al. 2022). Nevertheless, the data provide some (very limited) indication of the demand placed on local services by DA.

7. FINDINGS: Interviews with Police Officers

During January and February 2022, 22 semi-structured interviews were conducted with police response officers from Cumbria Constabulary. A Detective Inspector for Safeguarding was also interviewed as part of the project. Interviewees were drawn from across the six districts, and efforts were made to ensure that the numbers of men and women involved reflected their proportionate representation amongst response officers within the Constabulary.⁴⁷ Interviews were conducted online, via Microsoft Teams, and lasted about an hour.

The officers were asked how often they encounter DA. Most said daily or weekly. Following Hoyle (1998: 34-6), officers were asked about the two most recent domestic abuse-related incidents that they attended, covering events from the initial call for service to the final outcome. The findings reported here focus on two issues in particular: What policies shape the police response? How does geography affect the police response?

7.1. Police training

When asked what domestic abuse training officers receive, most respondents cited the initial training undertaken when joining the police. Many also mentioned receiving refresher training and policy updates. As these quotations illustrate, most accounts of the training focused on legal rules and policy guidelines:

'Obviously you get your initial training ... your general training on how to deal with it and the different powers and legislation.' [PC10]

'In Cumbria we are constantly changing the forms and practices that we use. So ... we will normally get seven-minute briefing documents that let us know the method. I think most

⁴⁶ This is slightly longer than the 30-month period from 1 April 2019 covered by our analyses of the police data.

⁴⁷ We interviewed 14 male and 8 female response officers, with at least three interviewees from each of the six districts.

of the training that we receive, at the minute, is to do with policy changes and the document changes rather than guidance on how to deal with domestics.' [PC9]

'Sometimes we get e-learning packages which are to be done in work time ... There might be new information, or new paperwork that needs to be done, or new policies that have been introduced.' [PC18]

As Hoyle (1998) notes, however, the police response emerges through the interaction between legal rules and the 'working rules' developed by officers that determine how they exercise discretion (Hoyle 1998: 11, n12). Police practice in Cumbria is also shaped by local geographies, as discussed shortly.

7.2. Responding to the call for service

The data showed that most domestic abuse-related calls for service come from 999 or 111 calls that are directed by the telephone operator to the Constabulary's Control Room. These are assessed and triaged using the THRIVE model.⁴⁸ One officer described the grading system thus:

'A Grade 1 is an emergency [that requires an immediate response], and Grade 2 is a priority which needs a response within an hour. Grade 3 is a standard response [i.e. within three hours]. Grade 4 will be resolved in the Control Room, so it will never get to a response officer. Grade 5 is just an information log. Grade 6 is a diary appointment. That is where we arrange to go and see the caller or victim at a specific time, probably the next day or within a couple of days.' (PC8)

The priority status afforded DA cases was apparent during the interviews, e.g.:

'When a call comes in it is circulated to try and find the closest officer... If I was dealing with something that I could leave then I would do, because domestic violence will take a priority response.' (PC3)

'If it's an ongoing domestic ... it is always prioritised. So even if it is just an argument it is normally deemed an immediate response job, which is a Grade 1. Which means you would be on blue lights, even if it is just an argument, just to make sure that nothing escalates.' (PC10)

'To be honest ... an ongoing domestic is always a Grade 1.' (PC12)

Despite an obvious commitment to responding swiftly, policing rural parts of the county presented significant challenges. It is to these challenges that we now turn.

7.3. Policing a 'predominantly rural' county:

Depictions of Cumbria often focus on the rural landscape for which it is renowned. This large rural county is punctuated by small areas of urban density: over 180,000 people live in the county's only city (Carlisle) and the three largest towns (Barrow-in-Furness, Kendal and Workington) alone. Nevertheless, the following are typical of officers' descriptions of their districts:

⁴⁸ THRIVE, which stands for threat, harm, risk, investigative opportunities, vulnerability and engagement, is a structured assessment system used to determine risk of harm and allocate the most appropriate response (College of Policing 2021: 25 – 26).

'I would say it is a rural area. Obviously, we have got urban areas, but the geographical area is large.' (PC2)

'The nearest city is a 30-minute drive away. And then ... we've got a lot of villages, a lot of rural farms, a lot of rural houses which are in the middle of nowhere ... So, we do have a very large area to cover.' (PC5)

'Where I work, I would describe it as rural. We have a small town ... and we have a huge area to cover. We've got <small town> which is very difficult to get to especially in bad weather ... And then down to the Lakes. So our area is geographically quite challenging.' (PC9)

'It is a massive area that is covered by quite a small police force, and there are a lot of rural communities with a lot of empty land between them.' (PC17)

It was clear from officers' accounts that policing rural areas presents a unique challenge, as these quotations illustrate:

There is one big road through the county. The rest is a maze of zig-zaggy back roads. During winter in particular, when the weather is bad, that can cause problems for access.' (PC4)

'A lot of these incidents happen in the evening, and through winter it's very dark, and trying to find an address ... There are still a lot of properties that don't have a number or name on the outside of the house.' (PC5)

'The road network is very difficult.' (PC13)

In line with force policy, officers aimed to provide an immediate response to the most serious incidents of DA. The challenges involved were a common theme amongst interviewees, however. Officers explained how responses are inequitable, both within Cumbria and between Cumbria and other areas. They were also conscious of the implications for victims' safety:

The area we cover ... it can take 45 minutes to get there even on a Grade 1 response.' (PC8)

'It is not too bad in Carlisle. But if you get a domestic situation out rural ... the response time can be a lot longer ... So it is definitely different to say Birmingham, Manchester, bigger cities ... We have got a lot more area to cover, with fewer officers. So, it is a lot more difficult.' (PC10)

'I had to travel 27 miles to one of the areas that we cover. And that took me 32 minutes and a lot of the time I was doing 100 miles an hour to try and make up the time because a lot of the road is just awful.' (PC13)

'If there was a domestic out at ... it might take me 30 – 35 minutes on a blue light run to get there. And a lot can happen in that time. The victim can really suffer.' (PC18)

Some respondents suggested having more officers stationed in rural areas, and keeping rural stations staffed overnight, to address these issues. Staffing shortages in general were a common theme. Some officers reported arriving at incidents alone, not knowing when backup would arrive. Rather than waiting for backup some would elect to enter alone:

'As we speak ... my nearest colleague is 20 miles away. Let's say a domestic incident occurred now ... and someone's been threatened with a knife... You would always be advised to hold back until we've got someone to be there with you. Maybe stupidly I tend not to. I just go there because you've got to safeguard people.' (PC3)

Officer safety is not the only concern in these situations. Police are trained to separate the parties upon arrival at a domestic incident which, as officers noted, is difficult to achieve alone.

7.4. Dealing with counterclaims:

There are situations in which both parties may legitimately be regarded as both a victim and a perpetrator of IPA. As the Constabulary's Safeguarding lead noted:

'Especially lower-risk domestic abuse, we do find that one minute the perpetrator's the perpetrator and the next they're the victim. Especially in verbal-only domestic abuse situations where it's just a slanging match between the two... Sometimes it's the first person to get to the phone who gets dealt with as the victim.' (OP2)

Officers noted that sometimes it can be difficult to determine who is the victim and who is the perpetrator. Speaking about one particular incident, an officer stated:

'The positive action for us was to get him out of the address and safeguard the caller. It was still unclear to us in that situation who was the victim and who was the perpetrator and so the only option was to separate the parties and give them both safeguarding advice.' (PC8)

Another officer reported the following tendency:

'... and the bloke would be sat there in his armchair, trying to watch TV, and the female would be using the police as a shield, and verbally having a go at her partner, knowing that he couldn't react. And they could be quite abusive and threatening and all the rest of it. And on occasions I have arrested the female because the evidence that I experienced was him being passive and just doing what she wanted, and her using the opportunity to vent steam at him.' (PC13)

Speaking about a couple going through divorce, one interviewee said:

'She is accusing him of stalking her, harassing her, going into her place of work, putting trackers in her vehicle ... But on the flipside, he has made counter-allegations that she is following him, stealing property from his address ...' (PC20)

What was rarely made explicit by response officers was the potential for perpetrators to make *false* counterclaims, to deflect from their own actions or further abuse the victim. The Constabulary's Safeguarding Lead was alert to the problem, however:

'Clever perpetrators use the police to stalk victims, saying "I'm really worried about such-and-such, can you go and check on them" or "such-and-such has caused me some abuse. I need them speaking to about what's going on." ... If you don't join the dots ... there is a chance that you are revictimizing the victim because of the perpetrator's manipulation.' (OP2)

This was an issue of particular concern to IPA service providers, whose views are presented below.

7.5. Domestic violence or domestic abuse?

As noted at the outset, the statutory definition of DA embraces a wide range of behaviours. In England and Wales, recent years have seen a shift away from the term 'domestic violence' to 'domestic abuse' in central Government policy documents, in recognition of the fact that abusive behaviour is not limited to physical violence. Despite this shift in terminology, there is still confusion between the different types of DA in theory, policy and practice (Holt and Lewis 2021). As Cumbria Constabulary's Safeguarding Lead noted, there is also a tendency for officers to focus on physical violence:

'People always call domestic abuse domestic violence. It's everywhere in Cumbria Constabulary... And we really do need to change that culture, and look at it as domestic abuse, so that people focus more on the wider definition rather than just the violence'. (OP2)

When response officers described the two most recent incidents that they had attended, the majority of their responses focused on physical violence. To some extent, this may be a function of the nature of IPA calls for service: the data show that most IPA crimes involved violence against the person (7,616, 85.6%). It could, however, also reflect a need to better recognise other forms of IPA that may be present. This issue was explored during the interviews with IPA service providers.

8. FINDINGS: Interviews with IPA Service Providers and Others

Between January and March 2022, 17 semi-structured interviews were conducted with local IPA service providers drawn from local organisations that work with victims and, in some cases, perpetrators. A Local Government Officer with significant knowledge of IPA service delivery, and a GP with extensive professional experience of IPA, were also interviewed. The interviews focused on the needs and experiences of victims, and included discussion of the police response. Interviews were conducted online and lasted approximately one hour.

It has long been recognised that IPA is a highly gendered crime: most abuse, and the most serious abuse, is perpetrated by men towards women (Dobash and Dobash 1979). Our analysis of police data supports this. Accordingly, much of our discussions with local practitioners focused on female victims. A recent Government policy paper stated that the term Violence Against Women and Girls (VAWG) 'refers to all victims' of these offences, however, including men and boys (Home Office 2022: 1). A discussion of male victims is included below.

8.1. Practitioners' accounts of IPA

Interviewees were asked to illustrate the experiences of service users. Many of the examples focused on physical or sexual violence, as illustrated here:

'She had been grabbed by the throat and pinned against the wall. She couldn't breathe, and she dropped to the floor, and he'd kick her.' (DA1)

'He would often hit her. Push her. There was an occasion where he strangled her. He had thrown bottles, cans, objects at her.' (DA2)

'One lady said, "I need you to picture what I went through. He was pounding me in the head while I was cowering on the floor. And the only reason he stopped is because I told him to just finish me off, just kill me because I can't take any more." (DA3)

'We see lots and lots of rape in the bed, when they have said no, but they don't listen and have sex with them anyway. That happens a lot in the abusive relationships.' (DA4)

The practitioners emphasised, however, that IPA takes myriad forms, and noted the extent and impact of other forms of abuse. There was much discussion of coercive control and psychological abuse, which some practitioners felt were more prevalent than physical violence and may act as a precursor to it:

'One of the most insidious things ... about domestic abuse with gaslighting and coercive control is that it completely psychologically damages someone. And the amount of women that I have spoken to, and men as well, who have said "I would rather they just broke my leg or gave me a black eye, because that would heal, whereas this lives in my head forever".'(DA6)

'I tend to see the psychological abuse in almost every case I deal with. You find that when the abuse starts it's often psychological.' (DA3)

'They are followed around, they can't make friends with anyone, they have to check in and out with their partner, and that just has such a drastic effect on women's mental health. They don't know who they are by the time they leave.'(DA7) '99.9% of the victims I worked with ... said it's not the physical violence, it's the verbal abuse, the psychological abuse, the coercive control that slowly destroys people.' (OP3)

It was also well-recognised that the control exerted by some abusers over the family finances amounted to economic and financial abuse and could prevent the victim leaving:

We have had women who, although they have never had a hand laid on them in 30 years of marriage, their bank account statements are not totally their own.'(DA7)

'It usually includes making sure that they've got no access to money ... Often there are debts run up in their name. So it makes it very, very difficult for them to leave the relationship because all the bills ... in the house are often in the woman's name.' (DA12)

That abusers used victims' children to control and manipulate them was also a common thread. This included threats to take the children, frequently changing arrangements around childcare and contact, and 'encouraging the children to use words ... that are unpleasant towards their mums' (DA12). It is worth noting here that the Domestic Abuse Act 2021 recognises children who experience IPA as victims in their own right.

One of the most prevalent themes was the extent to which victims are isolated by their abuser, or otherwise lose touch with family and friends as a result of the relationship. This deliberate isolation was described as another facet of abusers' efforts to manipulate and control victims. A further issue is perpetrators telling victims that they will not be believed, which dissuades them from seeking help. That some women face *particular* barriers to accessing support was a recurring theme. In the next sections of the report, we examine the challenges faced by: older victims; those who live in rural areas; and those from the farming community. We also present practitioners' comments on male victims.

8.2. Older victims

IPA is often depicted as the use of abuse and violence by men to exert power and control over women (Dobash and Dobash 1979). Some accounts by police response officers presented a different picture, however, of abused women whose partners had Alzheimer's or dementia:

'Unfortunately, the gentleman has got Alzheimer's and his wife made a complaint. She ... was quite distressed. He was making threats to kill her.'(PC2)

'A woman was reporting controlling and coercive behaviour from her husband ... The mental health practitioner had assessed him ... about his capacity ... because ... he had significant mental health problems ... similar to Alzheimer's, in terms of he doesn't really know what's going on.' (PC7)

Such cases present particular challenges for response officers. As one interviewee explained:

'I think an arrest wasn't an option really ... he wouldn't have been fit to detain because of his mental capacity. And obviously there was his welfare to consider: because of his Alzheimer's he had to remain at home... But thankfully a friend came, so that was the option really, to put a third party in there.' (PC2)

During interview, a local GP spoke of a domestic homicide review into the death of a local woman with dementia:

'A woman with dementia was killed by her husband. They lived in a nice little rural area. So he'd got nobody to turn to for support... He'd got nobody like neighbours to turn to.'(OP1)

As our analysis found, police-recorded IPA tends to cluster in areas of socio-economic disadvantage. The correlation between deprivation and IPA may lead to the needs of individuals from some socio-economic groups going unrecognised. The GP noted a 'tendency [amongst practitioners] to think that upper middle-class people, with money or status, should be able to manage things themselves', and suggested that this explained the lack of support received by the perpetrator in this case.

The limited research on older victims of IPA notes the distinct and complex needs of this group. The physical or psychological illnesses caused by IPA may be exacerbated by the duration of older victims' exposure to abuse (Pathak et al. 2019: 65). Obstacles to accessing support may include a lack of knowledge about services, feelings of stigma and shame, and a lack of financial independence (p.71). Whilst younger victims may search for (or access) support services online, some older people may find this challenging. The particular needs of older victims were recognised by IPA service providers. The following comments illustrate some of the issues raised:

'A lot of older victims ... come when their partner has died, and they say "he has abused me for 50 years"... But their attitude is very much "I made my bed, I have to lie in it." (DA4)

'... older people as well, women in their 70s, who are just finding out that there is support. They have been married for 50 plus years, and they're reaching out for the first time.' (DA9)

Research suggests that living in rural areas presents challenges for older victims (Roberto and McCann 2018) and those experiencing IPA generally. It is to this issue that we now turn.

8.3. Rural victims

Throughout the interviews, the impact of rurality was a recurring theme. Practitioners noted the safety implications for victims living in rural isolation:

'There's no one else to keep an eye out for you... GPS and phone signals in rural areas are not great, in Cumbria anyway. It makes it twice as difficult to arrange support phone calls or reach out to support services.'(DA5)

Rural isolation may afford perpetrators additional logics and levers of control, as the following remarks illustrate:

'I have a client and her ex-partner used to say, "there's no-one around, why are you doing your make up? Who are you trying to impress? Is there a certain someone you're trying to impress? Because no-one lives around here.'(DA3)

'Perpetrators are able to isolate their victims over a period of time and make sure family ties are severed ... and it is even worse if they are living in the middle of nowhere.'(DA7) Rurality may act as a barrier to service access. The contrasting situation between rural and urban areas is well-expressed here:

'It is easier when an area is more "towny" than in the very remote rural areas that don't even have bus services. They don't have a strong internet connection. Sometimes they don't even have a phone signal... It is a bit easier when you are city-based because you can walk ... you can find some way to access support. The [victims in] rural regions are facing an extra battle to access services.' (DA6)

Our analysis of open-source data found that people in rural LSOAs might be unable to reach support services by public transport and have a long drive to do so by car. Transport problems were a recurring theme amongst interviewees:

'Our access to public transport in Cumbria isn't very good at all. We only have so many trains. Bus routes don't run through the countryside in rural communities. So, I think the opportunities for being able to flee a situation at a family home which is very rural or a farm, the practical side of it makes it very, very difficult.' (DA5)

'... honestly in Cumbria there are some places where the public transport is absolutely shocking... And especially if they're living in these rural areas. Buses can come twice a week and that's it. So it can be very isolating in that they can't get anywhere if they don't drive. And they're just isolated with their partner.' (DA3)

One response might be to provide outreach services in rural areas. As one interviewee noted, however, the nature of small-town life means that some women prefer to receive support away from home:

'We actually tried to pilot [a support service] in one of the local towns, but the women didn't want to attend because of the connections. Everybody knows everybody. So they prefer to come that distance to Carlisle where it is a bit more anonymous for them.'(DA10)

Local cultures and customs may present distinct challenges for women experiencing IPA. We return to this theme in more detail below (see *Local customs and cultures*).

8.4. The farming community

As noted above, farming is central to Cumbrian life. Several police interviewees noted that the routine presence of firearms on farms brings particular risks. This account from an IPA service provider affords additional evidence of the dangers:

'We've got thousands and thousands of farms that are very isolated. They've got access to shotguns and chemicals and machinery which in the past, from my caseworker experience, has been used against farmers' wives. I have supported a lady who had a tractor driven at her, a shotgun pointed at her, and she's been threatened with chemical facial injuries.'(DA15)

Despite there being over 5,000 farms in Cumbria, both the police and IPA service providers reported that encounters with farming families are rare. Possible explanations for this are explored below (see *Local customs and cultures*).

8.5. Male victims

The police response officers and the IPA service providers were asked about cases involving female perpetrators and male victims. Most of the officers reported encountering them 'rarely' or 'sometimes'. Explanations included men being 'embarrassed' (PC1) to report the abuse and being 'proud' and thus 'more unwilling to report' it (PC11). Another interviewee suggested that local cultures might dissuade male victims from reporting: 'I think we still have a fairly traditional working-class society in Barrow, and there are certain stereotypes, that men just shouldn't be [victims] of domestic abuse.' (PC22)

Some of the IPA service providers only worked with women. Those who also worked with male victims said that they tended to be rare. There was evidence of men experiencing severe abuse, however, e.g.:

'His wife had re-mortgaged his house without his knowledge. She cut him off from his family. She'd assaulted him. She switched the electricity off. She burnt him. She left him without food. And she overdrew his bank account every month to take every penny of his pension.'(DA15)

Speaking about a man who had experienced abuse for 10 years, one practitioner said:

'He took time off work when his wife beat him, because he was too embarrassed to show his injuries. She opened his mail. She monitored his phone. She hacked his emails. She controlled his life.'(DA15)

Practitioners spoke about their efforts to support male victims. For example:

'There's no reduced level of support we would provide because they're a male victim. I think if anything we would strive to make sure that being a male victim wasn't a barrier to receiving the standard of support they deserve.'

The same practitioner went on to say, however:

'It comes with challenges, such as finding refuge space, or access to male-focused support agencies.' (DA5)

The dearth of bespoke services for male victims was a common theme, with several interviewees suggesting that 'there's not many services for males at all in Cumbria' (DA3). Under the Domestic Abuse Act 2021, local councils are under a duty to provide safe accommodation for all victims and their children, and almost £1m of funding has been allocated to Cumbria for this purpose (Department for Levelling Up, Housing and Communities 2022). ManKind, the domestic abuse charity, has suggested that local councils work together to provide a network of safe accommodation for men (BBC 2022).

8.6. Local customs and cultures

In *Captive and Controlled*, the National Rural Crime Network reported findings from research on DA in seven rural police force areas in England (NRCN 2019).⁴⁹ Echoing evidence from the international academic literature, the report stated that the persistence of traditional, patriarchal gender roles and values in rural communities may serve to subjugate victims of

⁴⁹ These were: Durham; Derbyshire; Devon and Cornwall; Dorset; Lincolnshire; North Yorkshire; Nottingham.

IPA and prevent them from seeking help. These findings were confirmed in our research, as illustrated below:

You are brought up that it is just how it is, and you do as you are told, and they don't know a life outside of farming.'(DA7)

'I think often there is a generational witnessing of domestic violence, it is how things have always been done in the family and so it is seen as normal, this is what happens in relationships, this is how marriage is. This is what men do ... I think there are some cultural things around that in some communities.' (DA8)

'Farmers tend to work very long hours. It tends to be the man who does the main work outside. It's the woman who tends to look after the kids. So, I think it is very role related. I think it really is.'(OP3)

Close-knit communities are often seen as a positive feature of rural life. As others have documented (NRCN 2019), however, they can also make it harder to seek support. This was confirmed by the interviewees in this project:

'In terms of speaking up and talking about difficult issues, that insular culture makes it difficult to do that sometimes. Kind of like "keeping it in the family" or within our community, and they don't want to talk about it, or don't let other people come in and help you deal with it... So that can contribute to difficulties in accessing services.'(DA8)

'It is difficult for victims to escape from their abusive ex-partners because there is always somebody who knows that person. It is difficult for them to escape, even if she moved from one town to the next, she would be easily found, continued harassment ...'(DA13)

'Domestic abuse in general is very isolating. And I think if you live in a rural area with a very close-knit community, like a farming community, it's almost twice as difficult to take that step to access support for fear of repercussions. For fear of upsetting the family dynamic. The worrying about whether their partner's friends are going to see them and feed back information ...'(DA5)

The IPA service providers also noted that many clients had lived in Cumbria, sometimes in the same village, all their lives. This could act as an obstacle to escape for victims if moving away meant leaving not only the perpetrator but also their family and friends.

8.7. The police response

Most IPA service providers felt that victims of IPA are 'somewhat likely' or 'not at all likely' to call the police.⁵⁰ A particular concern was where previous IPA had led to no further action (NFA) being taken:

'Women have said that when they first call the police they are encouraged to press charges, but then there is insufficient evidence ... well, you are not going to go back a second time if that is how it ended the first time.'(DA10)⁵¹

⁵⁰ Interviewees were asked whether, in their experience, IPA victims are (1) very likely, (2) somewhat likely, or (3) not at all likely to call the police.

⁵¹ To be clear, in cases of DA it is the Crown Prosecution Service, not the police, who bring charges (CPS 2020).

'If it is conveyed correctly to the survivor ... that makes such a difference. So, saying that "NFA doesn't mean it didn't happen. It is just that we can't meet the threshold for prosecution". These are two totally different things. Survivors hear "I don't believe it happened".'(DA6)

Other barriers included a fear of not being believed, or of being judged, which could be particularly acute for those experiencing coercive control. A fear of repercussions from the perpetrator, and safeguarding interventions by Children's Services, were also reported as barriers to reporting.

The Open Justice Principle is a central feature of our legal system (Judicial College 2016). That local newspapers have previously printed stories about those involved in domestic disputes was said to be a barrier to reporting. As one interviewee explained:

'If you get a conviction ... the News and Star, our local newspaper, will print your name as the victim, so you have to be prepared to be named and shamed.'(DA7)

There are, however, circumstances in which discretionary reporting restrictions can be imposed by the criminal courts. Under Section 46 of the Youth Justice and Criminal Evidence Act 1999, any party to the proceedings can apply to the court for a reporting direction that restricts media reporting in relation to a victim or witness (other than the accused). If the court determines that the witness is eligible for protection, and that a reporting direction would improve their evidence or co-operation with the proceedings, a reporting direction may be made. A witness is eligible for protection if their evidence or co-operation would be 'diminished by reason of fear or distress ... in connection with being identified by members of the public as a witness in the proceedings' (S46(3)(b)). If the problem persists, Cumbria Constabulary may wish to discuss the use of reporting restrictions with the Chief Crown Prosecutor for the North West.

Some response officers noted that rurality could act as a barrier to calling the police, as the following quotations illustrate:

'... people in the South of the county know that the police are always going to be half an hour away, so they don't report things. They think "what is the point in reporting it to the police, because by the time the police get here they will have gone or calmed down?""(PC1)

If you live in the middle of nowhere and you very rarely see the police, you might think "What is the point in phoning them, because we are so far away?" (PC15)

8.8. Improving the police response

Several interviewees commented positively upon efforts by Cumbria Constabulary to improve the police response to IPA. For example:

'Cumbria Police have done a significant amount of work over the past couple of years to raise awareness of domestic abuse, and I think that has helped the perceptions that people have. They've done the "Blow the Whistle on Domestic Abuse" campaign. They've run social media takeover days for support services in the area. They do a lot of partnership work with our service and other local services to raise awareness and increase the support available for domestic abuse victims.'(DA5) Some practitioners wanted the police to have 'a wider and better understanding of domestic abuse that moves away from focusing on physical assaults' and includes a 'contextual awareness of risk ... looking at patterns rather than incidents' (DA14). We return to this point in the discussion and conclusion.

During our analysis of the police data, we explored the issue of false counterclaims. Some IPA service providers also commented on this:

'In my experience, the perpetrators are extremely good at convincing other agencies, including the police, that she is a crazy lady...'(DA10)

'He has basically told the police lies. He has made allegations against her.' (DA2)

'... when that victim has finally had enough and retaliates, it gets reported to the police. They are criminalising our victims and sending us perpetrators, and if we don't do our research when getting those referrals, we might collude with a high-risk perpetrator.' (DA15)

How victims are kept informed about their case was a common concern, as illustrated by these interviewees:

'Sometimes I find myself having to chase the officer in charge for an update ... The victim is saying that she has not heard anything ... and her anxiety is high because she doesn't know what is going on.' (DA2)

'Some clients don't seem to be being kept up to date... So, they don't know what's happening with the case, they're in limbo, and it is really, really upsetting for them.' (DA9)

Some interviewees had concerns about how the decision to drop a case had been communicated:

They can be in the middle of Tesco, and they get a text message saying we have spoken to him, and let him go, and there is not much else we can do... I understand that it is difficult for the police, they are under-resourced as well, but more of a personal approach would be helpful.'(DA8)

Drawing this report to a close, we now move to present recommendations for the consideration of Cumbria Constabulary and partners.

9. RECOMMENDATIONS

Drawing on the research reported here, we make a series of recommendations:

Recommendation 1: Evidence suggests that people who experience IPA in rural and farming communities, and elderly residents, have complex needs and are less likely to seek help. This suggests the need for a local multi-agency strategy, developed alongside local representatives of organisations such as Age UK and the National Farmers Union, to target hard-to reach victims and provide a bespoke response.

Recommendation 2: Responses to first time victims should be rapid, increase victim confidence, and encourage future reporting.

Recommendation 3: Any protective measures for recent victims should acknowledge that repeat victimisations typically happen close in time to previous victimisations, with risk decaying over time, and are typically perpetrated by the same individuals.

Recommendation 4: Considering repeat offending, strategies which target 'priority offenders' should consider approaches which identify cohorts of both 'high frequency' offenders and 'high harm' offenders. Relative resource allocation, and approaches to targeting these groups to prevent re-offending should acknowledge these differences and respond accordingly.

Recommendation 5: At the same time, work should be done to support the police-identified victims of 'high frequency' and 'high harm' offenders. This will require a co-ordinated response, underpinned by data sharing between Cumbria Constabulary and local IPA service providers.

Recommendation 6: The fact that 2/3 of offenders only come to police attention once for IPA in our data is important and identifying ways to prospectively prevent these offences will require thinking outside the box. Given that research typically shows offenders as 'generalists', this should involve the intersection of historic IPA, broader DA (including any evidence of child-to-parent violence), and other offending data. Combining these data with appropriately flagged incident, ASB and/or intelligence data, and other potential self-selection mechanisms, may permit identification of data signatures indicative of an increased risk of future involvement in IPA. More advanced efforts may take a similar approach while also capitalising on multi-agency data-linkage where appropriate.

Recommendation 7: Following a problem-oriented approach to policing DA, specificity is key in considering the range of different types of offending collectively described as DA. We have done some disaggregation of administrative data in order to better understand particular problems, looking at spatial and temporal patterns, attempting to measure IPA crime through specific offences and victim-offender relationships, and identifying potential counterclaims as a subset of general IPA. Nevertheless, much more can be done.

Recommendation 8: Following on from this, it is imperative that police response officers' understanding of IPA goes beyond physical violence to reflect that contained in the Domestic Abuse Act 2021. National organisations such as Women's Aid and SafeLives provide bespoke training for police officers that may assist.

Recommendation 9: A core requirement for harnessing administrative data to support problem scanning/solving, and intervention evaluation, relates to data quality in a multitude of ways. This includes accuracy of geocoding, ensuring repeat individuals (victims and

offenders) can be easily identified; robust and consistent use of flags or markers; and the sharing of information between forces to detect cross-border offending. Data provided for this project were well organised and for the most part well recorded, nevertheless continuous efforts must be made to improve and expand (where appropriate) data collection and quality control, throughout considering the relevant ethical issues that come with such efforts.

Recommendation 10: Relatedly, while not analysed here, considerable contextual insights may be masked in police free text data of various forms relating to IPA, e.g., incident logs, modus operandi notes, and intelligence documents. A range of techniques are starting to be employed that attempt to systematically extract insights from these sources and may support analysts in sifting large volumes of data that would otherwise remain untapped.

Recommendation 11: The seven different 'grass roots' organisations that provide support to IPA victims (and, in some cases, offenders) in Cumbria together hold a wealth of data about local IPA. There is, however, no uniformity around data collection. Each organisation gathers different information and the data are held in independent case management systems. Insurmountable obstacles prevent local practitioners (and external researchers) from combining datasets to better understand the nature and extent of DA victimisation across Cumbria. The forthcoming *Cumbria Domestic Abuse Landscape Report* by Kelly Henderson for the West Cumbria Domestic Abuse Partnership will provide insights into the administration of local DA service delivery. Local government restructuring may provide an opportunity to think creatively about how the administration of these 'grass roots' IPA service providers and the data they collect could be brought together in productive ways.

Recommendation 12: Following on from this, DA service providers are likely to need data analytic support on an ongoing basis to enable data-driven service delivery. The amalgamation of datasets into a single case management systems would allow a single data analyst to conduct this work across all service providers.

Recommendation 13: As explained in the report, there were ethical and practical barriers to involving service users in this research. The impact of key national policies on IPA victims (such as, for example, the obligations upon police to take positive action) and interventions are poorly understood. Research with those with lived experience of IPA to determine what they want from police in the immediate, medium and long-term should inform local and national policy and practice.

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Appendix 1: Selected IPA Offences.

Offence	Count	% Offences
Common Assault And Battery.	2450	27.5%
Assaults Occasioning Actual Bodily Harm.	2307	25.9%
Sending letters etc with intent to cause distress or anxiety	681	7.7%
Harassment	659	7.4%
Pursue course of conduct in breach of Sec 1 (1) which amounts to stalking.	570	6.4%
Engage in controlling/coercive behaviour in an intimate / family relationship	308	3.5%
Causing Intentional Harassment, Alarm Or Distress.	303	3.4%
Other Criminal Damage to a Dwelling valued under £5000	250	2.8%
Other Criminal Damage, Other valued under £5000	181	2.0%
Rape Of A Female Aged 16 Or Over.	174	2.0%
Stalking involving serious alarm/distress.	166	1.9%
Other criminal damage to a vehicle valued under £5000	100	1.1%
Wounding, &C, With Intent To Do Grievous Bodily Harm, &C., Or To Resist Apprehension.	93	1.0%
Stalking involving fear of violence.	88	1.0%
Threat	74	0.8%
Making Threats To Kill	71	0.8%
False Imprisonment	56	0.6%
Wounding Or Inflicting Grievous Bodily Harm (Inflicting Bodily Injury With Or Without Weapon).	55	0.6%
Disclose or threats to disclose private sexual photographs/film with intent to cause distress	53	0.6%
Sexual Assault On a Female	45	0.5%
Fear Or Provocation Of Violence.	30	0.3%
Putting People In Fear Of Violence.	27	0.3%
Unauthorised taking of a motor vehicle	21	0.2%
Assault On A Female By Penetration	13	0.1%
Blackmail	12	0.1%
Attempted Rape Of A Female Aged 16 Or Over	11	0.1%
From Motor Vehicles	8	0.1%
Where The Vehicle Was Driven Dangerously, Where Injury To Any Person Or Damage To Any Property Was Caused, Or Damage Was Caused To The Vehicle	7	0.1%
Stealing Motor Vehicle	7	0.1%
Arson Endangering Life	6	0.1%
Arson Not Endangering Life	6	0.1%
Racially / religiously aggravated common assault or beating	6	0.1%
Criminal Damage Endangering Life (Excluding Arson).	5	0.1%
Threaten with a blade or sharply pointed article in a public place.	5	0.1%
Voyeurism	5	0.1%
Sexual Assault On A Male	4	0.0%
Harrassment etc. of a person in his home	4	0.0%
Attempted Murder; Also Attempted genocide or crime against humanity	4	0.0%

Kidnapping	4	0.0%
Racially / religiously aggravated intentional harassment / alarm / distress – words / writing	3	0.0%
Causing A Male Person To Engage In Sexual Activity Without Consent - Penetration	3	0.0%
Murder Of Persons Aged 1 Year Or Over; Also Genocide or crime against humanity	3	0.0%
Other Criminal Damage to a Building other than a Dwelling valued under £5000	2	0.0%
Aggravated vehicle-taking (driving/being carried) offences causing damage to vehicle and/or other property under £5000	2	0.0%
Racially / religiously aggravated stalking without violence	2	0.0%
Administering Poison With Intent To Injure Or Annoy.	2	0.0%
Attempting To Choke, Suffocate &C. With Intent To Commit An Indictable Offence (Garrotting).	2	0.0%
Other Criminal Damage	1	0.0%
Other Criminal Damage	1	0.0%
Aiding, Abetting, Causing Or Permitting Reckless Driving.	1	0.0%
Racially / religiously aggravated fear/provocation of violence – words / writing	1	0.0%
Rape Of A Male Aged 16 Or Over.	1	0.0%
Aggravated Taking Where The Only Aggravating Factor Is Criminal Damage Of £5,000 Or Under.	1	0.0%
Interference With Motor Vehicles	1	0.0%
Tampering With A Motor Vehicle	1	0.0%
Racially / religiously aggravated stalking with fear of violence	1	0.0%
Care worker ill-treat /wilfully neglect an individual	1	0.0%
Owner or person in charge allowing dog to be dangerously out of control in Any place in England and Wales (whether or not in a public place) injuring any person or assistance dog	1	0.0%
Causing or allowing child or vulnerable adult to suffer serious physical harm	' 1	0.0%
Causing Danger By Causing Anything To Be On A Road. Interfering With A Vehicle Or Traffic Equipment.	1	0.0%

NB: Following advice from Cumbria Constabulary, we excluded a small number of offencestypes from our study. This was because of the possibility that any such offences flagged as DA involved parties where DA was known to be a concern, rather than actually contituting DA. The offence-types excluded were: Stealing In A Dwelling Other Than From Automatic Machines and Meters; Burglary – Residential; Offences Under The Theft Act, 1968, Section 1, Not Classified Elsewhere; Stealing From The Person Of Another; Robbery; Aggravated Burglary – Residential; Burglary – Residential; Bigamy; Stealing Pedal Cycles; Assault With Intent to Rob; Extracting Electricity.

Appendix 2 – Mirrored histograms detailing the distributions of all seven IMD measures by High and Low IPA Crime LSOAs.

The subsequent plots depict the distributions of the following Index of Deprivation domain measures which make up the aforementioned Index of Multiple Deprivation: (1) Barriers to Housing and Services Score; (2) Crime score; (3) Employment score rate; (4) Education skills and training score; (5) Health deprivation and disability score; (6) Income score rate; (7) Living environment score.













Appendix 3 – Reference Map of Cumbrian LSOA Boundaries and Population Centres



Appendix 4 - Results of MSOA level Victim Support and Police Data Comparisons.

MSOA11 Code	MSOA01 Name	IPA Crime Count Decile	DA Incident Count Decile	Non- police VS Referral Decile	Difference in Deciles (DA Incidents)	Difference in Deciles (IPA Crime)	
E02004023	South Lakeland 009	1	1	6	5	5	
E02003970	Allerdale 006	5	5	9	4	4	
E02003989	Carlisle 003	4	4	8	4	4	
E02003988	Carlisle 002	3	3	6	3	3	
E02004011	Eden 004	6	6	9	3	3	Indicative
E02004022	South Lakeland 008	1	1	4	3	3	of more
E02003982	Barrow-in-Furness 006	4	5	6	1	2	DA in Victim
E02003987	Carlisle 001	4	4	6	2	2	Support
E02004007	Copeland 008	6	6	8	2	2	Data
E02004014	Eden 007	2	2	4	2	2	
E02004018	South Lakeland 004	8	8	10	2	2	
E02004019	South Lakeland 005	3	2	5	3	2	
E02004027	South Lakeland 013	5	4	7	3	2	
E02003965	Allerdale 001	8	8	9	1	1	
E02003971	Allerdale 007	3	4	4	0	1	
E02003974	Allerdale 010	8	8	9	1	1	
E02003979	Barrow-in-Furness 003	1	2	2	0	1	
E02003983	Barrow-in-Furness 007	8	10	9	-1	1	
E02003993	Carlisle 007	2	2	3	1	1	
E02003998	Carlisle 012	9	9	10	1	1	
E02004001	Copeland 002	7	7	8	1	1	
E02004004	Copeland 005	9	9	10	1	1	Indicative
E02004005	Copeland 006	7	7	8	1	1	of similar
E02004015	South Lakeland 001	4	4	5	1	1	DA in
E02004021	South Lakeland 007	1	1	2	1	1	Police
E02004026	South Lakeland 012	6	7	7	0	1	Victim
E02004028	South Lakeland 014	1	3	2	-1	1	Support
E02003975	Allerdale 011	3	3	3	0	0	uala
E02003991	Carlisle 005	1	3	1	-2	0	
E02003992	Carlisle 006	10	9	10	1	0	
E02003994	Carlisle 008	9	9	9	0	0	
E02003995	Carlisle 009	10	10	10	0	0	
E02003996	Carlisle 010	10	10	10	0	0	
E02003999	Carlisle 013	5	5	5	0	0	
E02004000	Copeland 001	5	5	5	0	0	
E02004008	Eden 001	2	2	2	0	0	

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E02004009	Eden 002	1	1	1	0	0	
E02004012	Eden 005	2	1	2	1	0	
E02004025	South Lakeland 011	3	2	3	1	0	
E02003966	Allerdale 002	2	1	1	0	-1	
E02003967	Allerdale 003	5	4	4	0	-1	
E02003969	Allerdale 005	7	8	6	-2	-1	
E02003977	Barrow-in-Furness 001	2	3	1	-2	-1	
E02004003	Copeland 004	9	9	8	-1	-1	
E02004010	Eden 003	8	7	7	0	-1	
E02004020	South Lakeland 006	4	5	3	-2	-1	
E02004024	South Lakeland 010	2	1	1	0	-1	
E02003972	Allerdale 008	9	8	7	-1	-2	
E02003976	Allerdale 012	4	2	2	0	-2	
E02003978	Barrow-in-Furness 002	3	4	1	-3	-2	
E02003981	Barrow-in-Furness 005	5	5	3	-2	-2	
E02003990	Carlisle 004	7	6	5	-1	-2	
E02003997	Carlisle 011	10	10	8	-2	-2	
E02004002	Copeland 003	7	6	5	-1	-2	
E02004006	Copeland 007	3	3	1	-2	-2	Indicative of more
E02004013	Eden 006	4	3	2	-1	-2	DA in
E02004017	South Lakeland 003	6	7	4	-3	-2	Police Data
E02003968	Allerdale 004	7	7	4	-3	-3	
E02003973	Allerdale 009	10	10	7	-3	-3	
E02003980	Barrow-in-Furness 004	9	9	6	-3	-3	
E02003984	Barrow-in-Furness 008	10	10	7	-3	-3	
E02003985	Barrow-in-Furness 009	6	6	3	-3	-3	
E02004016	South Lakeland 002	6	6	3	-3	-3	
E02003986	Barrow-in-Furness 010	8	8	4	-4	-4	

Appendix 5 - Results of MSOA level Police, Victim Support, and Women's Centre Data Comparisons

MSOA11 Code	MSOA01 Name	IPA Crime Count Decile	Non- police VS Referral Decile	Women's Centre Referral Decile	Dissimilarity Score
E02003965	Allerdale 001	7	9	4	10
E02003966	Allerdale 002	2	2	2	0
E02003967	Allerdale 003	5	5	4	2
E02003968	Allerdale 004	7	7	5	4
E02003969	Allerdale 005	8	8	7	2
E02003970	Allerdale 006	5	8	4	8
E02003971	Allerdale 007	4	6	6	4
E02003972	Allerdale 008	9	8	8	2
E02003973	Allerdale 009	10	9	9	2
E02003974	Allerdale 010	9	10	6	8
E02003975	Allerdale 011	4	4	4	0
E02003976	Allerdale 012	2	2	1	2
E02003977	Barrow-in-Furness 001	4	2	9	14
E02003978	Barrow-in-Furness 002	5	2	9	14
E02003979	Barrow-in-Furness 003	3	3	7	8
E02003980	Barrow-in-Furness 004	9	8	10	4
E02003981	Barrow-in-Furness 005	6	4	9	10
E02003982	Barrow-in-Furness 006	5	6	9	8
E02003983	Barrow-in-Furness 007	9	10	10	2
E02003984	Barrow-in-Furness 008	10	9	10	2
E02003985	Barrow-in-Furness 009	7	4	10	12
E02003986	Barrow-in-Furness 010	9	7	10	6
E02003988	Carlisle 002	2	2	3	2
E02003989	Carlisle 003	2	3	1	4
E02003990	Carlisle 004	3	4	3	2
E02003991	Carlisle 005	1	1	1	0
E02003992	Carlisle 006	9	7	2	14
E02003993	Carlisle 007	1	1	1	0
E02003994	Carlisle 008	10	10	5	10

E02003995	Carlisle 009	8	6	2	12
E02003996	Carlisle 010	10	10	5	10
E02003997	Carlisle 011	7	6	4	6
E02003998	Carlisle 012	6	6	2	8
E02003999	Carlisle 013	6	4	4	4
E02004000	Copeland 001	6	6	6	0
E02004001	Copeland 002	8	9	8	2
E02004002	Copeland 003	8	7	7	2
E02004003	Copeland 004	10	10	8	4
E02004004	Copeland 005	10	10	9	2
E02004005	Copeland 006	8	9	8	2
E02004006	Copeland 007	5	1	7	12
E02004007	Copeland 008	6	8	7	4
E02004008	Eden 001	1	3	1	4
E02004009	Eden 002	1	1	2	2
E02004010	Eden 003	5	5	2	6
E02004011	Eden 004	2	1	1	2
E02004015	South Lakeland 001	2	5	3	6
E02004016	South Lakeland 002	1	1	3	4
E02004017	South Lakeland 003	7	4	5	6
E02004018	South Lakeland 004	8	9	6	6
E02004019	South Lakeland 005	4	7	5	6
E02004020	South Lakeland 006	6	5	6	2
E02004021	South Lakeland 007	3	3	6	6
E02004022	South Lakeland 008	4	7	8	8
E02004023	South Lakeland 009	3	5	7	8
E02004024	South Lakeland 010	1	2	3	4
E02004025	South Lakeland 011	3	3	3	0
E02004026	04026 South Lakeland 012		8	10	6
E02004027	South Lakeland 013	4	5	5	2
E02004028	South Lakeland 014	3	3	8	10

ORGANISATIONS						
Organisation	Area covered	How are victims encountered?	How are the data held?	How many DA-related referrals were received between 01.03.19 - 30.09.21?	How many unique victims were referred to you during this period?	
Allerdale Borough Council	West Cumbria Allerdale	The District Council has a statutory duty under Part VII of the Housing Act 1996 (as amended) to prevent and relieve homelessness, including victims of domestic abuse. This includes additional duties under the new DA Act.	Electronic database	154	129	
Carlisle City Council	Carlisle District	Self-referral; professional referral	Paper files; case management records; spreadsheets	365	218	
Copeland Borough Council	From Distington in North Cumbria to Millom in South Cumbria	Contact with Housing Options Team- presenting as homeless or at risk of homelessness; direct contact with Crisis and Prevention Support Officers	Paper files; electronic case management records; spreadsheets	141	132	
Eden Housing Association	Eden District	Presenting with a risk of homelessness	Local database for homeless applications; excel spreadsheet for reporting to Carlisle City Council	101	99	
Probation Service Cumbria	Cumbria	Manage people on probation that have committed DA; victims under our Victim Liaison Scheme (if the sentence was 12 months+ custody or suspended)	Information not received	Information not received	Information not received	
South Lakeland District Council	South Lakeland	Presenting as homeless	Electronic case management system	27	25	

Appendix 6 - Results of the audit of local organisations that encounter victims of intimate partner abuse

Springfield Domestic Abuse	South Lakeland for Community Support, Nationally for Refuge	Referrals from other professional bodies - Police, Social workers, GPs etc.	Institutional database	Community 254; Refuge 41	Community 247; Refuge 38
West Cumbria Domestic Violence Support- The Freedom Project	Mainly West Cumbria- Allerdale and Copeland; now supporting people from all over Cumbria post pandemic	Calls to helpline and office; accessing website and social media platforms; voluntary organisations referrals; statutory agency referrals such as the Police, Probation, Social services, Children's Services, Health, Housing, Drug and Alcohol Services, Schools, Colleges etc.	Paper records; internal database system (VISIA Data Performance Management System (DPMS))	958 (this figure includes female victims, male victims, children, and perpetrators)	_

Please note: The three Women's Centres were asked to provide anonymised data on individual referrals (as opposed to aggregate data), as discussed in the report. For this reason, the Women's Centres are not included here.

	NHS TRUSTS						
Organisation	Area covered	How are victims encountered?	How are the data held?	How many DA- related referrals were received between 01.03.19 - 30.09.21?	How many unique victims were referred to you during this period?		
Lancashire & South Cumbria NHS Foundation Trust (LSCFT)	South Cumbria; Lancashire including Blackburn and Blackpool	During routine part of health assessments when interacting with service users during mental health services for adults and older adults (community and inpatient), Learning Disability services (all age), Early Intervention Service (all age), Eating Disorder Services and Criminal Justice Liaison Teams; engage with children where DA is a factor in the household; engage with perpetrators who are service users of the Trust	Electronically on Trust Risk Management and Incident systems (DCIQ); Safeguarding team contacts database if team contacted via the Safeguarding Team duty system; electronically on secure network for MARAC information	N/A (Trust does not receive direct referrals)	N / A (data not attainable)		

Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust	North Cumbria (including parts of West Cumbria); Northumberland; Newcastle upon Tyne; North Tyneside; Gateshead; Sunderland; South Tyneside	During clinical contact	Electronic records; incident reporting system	N/A (Trust does not receive direct referrals)	N/A (data not attainable)
North Cumbria Integrated Care NHS Foundation Trust	North Cumbria	During clinical contact via Maternity, Sexual Health, Emergency Departments and Gynaecology	Service specific Trust records – paper and electronic patient records	N/A (Trust does not receive direct referrals)	N/A (data not attainable)
University Hospitals of Morecambe Bay NHS Foundation Trust	South Cumbria; North Lancashire; Lancashire; North Yorkshire	During attendances of a victim to the Emergency Departments and Urgent Treatment centres; attendance of a child or young person to Trust services as a victim of domestic abuse; attendance of perpetrators of domestic abuse with injuries confirmed or suspected violence related to domestic abuse; during maternity services; from partner agencies through safeguarding strategy meetings for children and adults; from Police, Adult and Children's Social Care alerts through the Multiagency Safeguarding Hubs; from LADO and Position of Trust procedures if employed by the Trust (including contractors and agency employees); through Multi Agency Risk Assessment Conference (MARAC) process in both Lancashire and Cumbria	Electronic database including excel documents; patient safety systems; electronic digital patient records	N/A (Trust does not receive direct referrals)	N/A (data not attainable)