

Ethics Committee Briefing Note

Project Reference: WMP DAL County Lines Networks

Source of analytical question / hypotheses to be examined:

This project was tasked by the Intelligence Department.

As this project is at the proposal stage and is presented to the committee 'in principle' in order that any immediate concerns can be raised, the finer details of the methodology will not be determined until after the exploratory data analysis (EDA) phase. Once the analyses have been completed the project will be presented to the Committee again so that findings and methodology can be examined in more detail.

Purpose of data analysis

The purpose of this project is to identify county lines networks across the West Midlands Police (WMP) area which are linked to Organised Crime Groups (OCGs) and Urban Street Gangs (USGs).

The project seeks to:

- Identify key networks and nominals who are linked to county lines.
- Identify and prioritise the greatest threat and risk posed by these individuals from an exploitation perspective to direct enhanced intelligence development.
- Build on the Serious Organised Crime (SOC) Network project with emphasis on county lines. This will require identifying nominals involved with county lines, comparing this to the SOC Network as well as assessing the linkages between nominals who currently have not been identified within the SOC Network project.

The SOC Network project was approved (with minor amendments) by the Ethics Committee following the March 2020 meeting.

Context:

County lines drug dealing is a national issue involving organised drug dealing networks exploiting children and vulnerable adults to move, hold and sell Class A drugs across the UK, using dedicated mobile phone lines to take orders. Although Class A drug supply underpins county lines offending, exploitation remains integral to the business model and county lines offenders recruit, transport and exploit children and vulnerable adults to carry out activity including preparing, moving, storing and dealing illegal drugs.^{1 2}

The victims are often children, commonly males aged 15 to 17 years, who are groomed with money, gifts or through sexual and violent relationships. Children as young as 11 years of age have been

¹ Ministry of Justice (2019) 'County Lines Exploitation: Practice guidance for YOTs and frontline practitioners'.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/839253/moj-county-lines-practical-guidance-frontline-practitionerspdf.pdf

² National Crime Agency <https://www.nationalcrimeagency.gov.uk/what-we-do/crime-threats/drug-trafficking/county-lines>

reported as being exploited. Child victims can be both male and female, however, vulnerable adults and female victims are likely to be under-reported.³ Methods of control include:

- Debt bondage, including staged robberies;
- Sexual abuse, particularly against females, including for blackmail and humiliation purposes;
- Violence (real and threatened) is used to coerce victims to become dealers, act as runners, enforce debts, and use victim's accommodation as an operating base, known as 'cuckooing';
- Kidnap against victims and their families.

County lines and the associated violence, drug dealing and exploitation has a devastating impact on children, vulnerable adults, families and local communities. In October 2019 the government announced this is a key priority underpinned by a £25 million funding package of investment.⁴

The West Midlands is the second biggest 'exporter' of county lines to smaller towns and rural areas, with 9% of deal lines nationally originating in the WMP area.⁵ It is assessed that almost two-thirds of the wider region's OCGs are predominantly involved in drugs activity, some of which includes county lines and that the lines between USGs and OCGs are becoming more blurred, with USGs causing increasing harm.⁶ The strong connection between drugs supply and firearms is evidenced in the West Midlands where the use of violence is common to both protect and enable criminal business interests^{7 8} The National Crime Agency (NCA) assesses that the West Midlands is one of three key areas where firearms are associated with the operation of county lines.⁹

Local authority vulnerability profiles produced by the Children's Commissioner¹⁰ show that in Birmingham, Sandwell and Coventry the prevalence of children who have 'gangs' identified as a factor in their 'child in need' (CIN) risk assessment is higher than the national average.¹¹ Across the WMP area as a whole 768 children were identified as having 'gangs' as a factor in their risk assessment. This data excludes 'looked after children' (LAC), so the true figure is likely to be higher.

The West Midlands Regional Organised Crime Unit (ROCU) has used government funding to create a County Lines Task Force to disrupt county lines criminality.¹² In the last 6 months the task force has closed down 20 deal lines and made almost 200 arrests. WMP feeds information relating to county

³ NCA National Strategic Assessment of Serious Organised Crime 2019 <https://nationalcrimeagency.gov.uk/who-we-are/publications/296-national-strategic-assessment-of-serious-organised-crime-2019/file>

⁴ <https://www.gov.uk/government/news/hundreds-of-arrests-and-deal-lines-closed-as-police-crackdown-on-county-lines-gangs>

⁵ NCA Intelligence Assessment (2019) County Lines Drugs Supply, Vulnerability and Harm 2018 <https://nationalcrimeagency.gov.uk/who-we-are/publications/257-county-lines-drug-supply-vulnerability-and-harm-2018/file>

⁶ OPCC SPCB Report SOC and ROCU Nov 2019 (item 9b) <https://www.westmidlands-pcc.gov.uk/strategic-policing-crime-board/agendas-minutes-reports/>

⁷ OPCC SPCB Report SOC and ROCU Nov 2019 (item 9b)

⁸ Commission on Gangs and Violence: Uniting to improve safety Summary Report 2017 <https://www.westmidlands-pcc.gov.uk/wp-content/uploads/2019/04/Gangs-and-Violence-Commission-Summary-Report.pdf?x56534>

⁹ NCA Intelligence Assessment (2019) County Lines Drugs Supply, Vulnerability and Harm 2018 <https://nationalcrimeagency.gov.uk/who-we-are/publications/257-county-lines-drug-supply-vulnerability-and-harm-2018/file>

¹⁰ <https://www.childrenscommissioner.gov.uk/our-work/vulnerable-children/local-vulnerability-profiles/>

¹¹ Nationally, 0.8 per 1000 children aged 0-17 have 'gangs' identified as a factor in the reasons why they are considered to be at risk outside of their home. In Birmingham and Sandwell, the rate is 1.2 and in Coventry it is 1.4 per 1000 children.

¹² <https://www.gov.uk/government/news/hundreds-of-arrests-and-deal-lines-closed-as-police-crackdown-on-county-lines-gangs>

lines into the ROCU and NCA.

How we identify county lines and exploitation from our data

A small team of Intelligence professionals trawl multiple data systems using simple key word searches to manually identify drugs lines, those committing offences and those being exploited. We currently have various data systems for recording what we know about vulnerable children and adults who are potentially being exploited by gangs. This information could be recorded within an incident log, a crime report or an intelligence report submitted by an officer or based on third party information. We also record information about suspected exploitation when children are reported missing, or if they are taken into custody for an offence they have committed and further information about their situation comes to light through investigation. Since a range of offences and events could indicate exploitation, identifying and collating data relating to county lines is a challenging task and it is acknowledged that there are significant intelligence gaps. For example, the team have a list of children who are believed to be victims of county lines exploitation, but cannot link them to a specific gang or drugs line. This prevents us from pursuing enforcement activity against those who are involved in their exploitation.

About 50 drugs lines have been identified by WMP so far this year and reported via national reporting mechanisms to the NCA. These are assessed against a number of factors, including where the deal line originates, which areas it impacts, whether children are known to be exploited, whether the gang has a firearms capability, whether children associated with the line are known to have 'missing' episodes and whether they are a LAC; the size and age of the 'workforce' (those who are considered low level within the organisation such as runners); the levels of violence associated with the gang and whether the group is a known OCG. Those lines assessed as posing the greatest risk to the vulnerable, where there is credible intelligence to suggest that exploitation is taking place, are prioritised for further intelligence development to support investigations.

What happens when a vulnerable child or adult is identified?

When a vulnerable child or adult is identified as being at risk of exploitation, statutory arrangements ensure that appropriate safeguarding is put in place. Section 11 of the Children Act (2004) places duties on a range of organisations, including the police, to ensure they safeguard and promote the welfare of children.¹³ This is achieved through local Safeguarding Partnerships. Therefore, an officer encountering a child believed to be at risk of exploitation would make a referral to the multi-agency safeguarding hub (MASH) which assesses the risk and acts accordingly.

Where an intelligence officer identifies a child who may be at risk through receipt of new intelligence, the information is passed to the relevant neighbourhood policing unit (NPU) at the daily Threat and Risk Meeting (TRM) for local officers to investigate and make a referral to the MASH. In general, any indication of exploitation by county lines would reach the threshold for a referral to the MASH. Children who are encountered as offenders, or alleged offenders, are entitled to the same

¹³ HM Government (2018) 'Working Together to Safeguard Children A guide to inter-agency working to safeguard and promote the welfare of children'
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779401/Working_Together_to_Safeguard-Children.pdf

safeguards and protection as any other child and due regard should be given to their safety and welfare at all times. Even where children appear to have status in an organised drug dealing network and enjoy the benefits associated with this, officers must consider how and why this child became associated with the organised drug dealing network in the first instance and recognise that older children especially, can often present as perpetrators when in fact they are victims of exploitation.¹⁴

In the last 6 months the County Lines Task Force has made 88 safeguarding interventions, of which 82 related to children. This means that officers from WMP's 'Exploitation Hub' work with the local authority, children's services, charities and support groups to offer interventions such as mentoring, enrolment on Prince's Trust programmes and assistance in moving house.¹⁵

Intended activity resulting from the project

The intention of this project is to provide a strategic understanding of which county lines are generating the greatest harm and the extent to which they overlap with other serious organised crime networks. The output will identify those groups and individuals which are causing the greatest harm to vulnerable individuals and communities. This will enable the Intelligence Department to focus its resource on developing intelligence assessments on the most harmful groups so that enforcement activity can be undertaken to dismantle them.

The project is not designed to replace intelligence tasks looking at county lines in granular detail on a daily basis; but to enhance existing intelligence processes described above and ensure that senior officers direct teams to focus their intelligence development on the most harmful county lines gangs. Where new lines are identified they will be referred to the ROCU and NCA via existing national reporting mechanisms. Where children, (including any previously unknown), are identified as potentially being exploited (even where they appear in our data as an 'offender') the usual safeguarding arrangements will be adhered to.

Data to be used:

The data sources used will be Crimes, IMS (intelligence reports), ICIS (custody records), PINS (Prisoner Intelligence Notification System) and COMPACT (missing persons reports).

- PINS is software used by almost every police service in the UK. It collects prison and police data from a variety of key sources and automatically cross-references and links historic and current prisoner records on a daily basis. It notifies law enforcement agencies of forthcoming prison releases to assist offender managers as offenders re-enter the community.
- COMPACT is software used by law enforcement and local authorities to record and manage cases of children and adults who are reported missing.
- Crimes, IMS and ICIS are WMP internal systems.

¹⁴ Ministry of Justice (2019) 'County Lines Exploitation: Practice guidance for YOTs and frontline practitioners'.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/839253/moj-county-lines-practical-guidance-frontline-practitionerspdf.pdf

¹⁵ <https://west-midlands.police.uk/news/county-lines-work-protecting-children-drugs-gangs>

Level of analysis:

- Individual
 - Individuals aggregated?
 - Yes
 - No
- Specific Area:
 - Output Areas
 - Super Output Areas - Lower
 - Super Output Areas - Mid
 - Wards
 - Districts
 - Other
- West Midlands
- Other

Reliability of data:

The data are sourced from WMP / law enforcement systems used as part of daily business.

An extensive exploratory data analysis (EDA) phase has already been undertaken as part of the SOC Network project which assessed the quality of the data and robustness of the various systems. Any further data quality issues will be noted and where applicable will be incorporated into the project (for example, by excluding some data from a system if it is felt to be unreliable). These data, as part of the analytical project life cycle, will also be assessed for missing values.

Specifically in the case of intelligence records, these will be examined as to their veracity and source, and only those records considered to be credible and from a credible source will be included (see appendix for further detail).

Discussions with subject matter experts (SMEs) will be undertaken both to capture any extraneous requirements and to sense check the analyses.

Sample or entirety: Entirety

If sample: N/A

Method of sampling: N/A

Method of choosing sample size: N/A

Sample size: N/A

Type of analysis:

- Exploratory
- Explanatory
- Predictive
- Optimisation

Proposed methodology:

To build on the SOC Network project with emphasis on county lines. This will require identifying nominals involved with county lines, comparing this to the SOC network as well as assessing the linkages between nominals who currently have not been identified within the SOC network project.

Specifically the project will:

1. Identify nominals involved with county lines from the key data sources of crime records, intelligence reports (including in relation to prisoners being released), custody records, and missing persons. This will include nominals identified as suspects as well as defendants.
2. Review missing persons data to ascertain any information of relevance to vulnerable people involved with county lines.
3. Create a network of those involved with county lines.
4. Ascertain if there are links between this network and the SOC network.
5. Over the full network, calculate the harm created by general criminal activities using both the Cambridge Crime Harm Index (CCHI) and the Office for National Statistics (ONS) Crime Severity Index (see appendix for more detail).
6. Over the full network, calculate the harm specifically created by related crimes.
7. Over the full network and within the immediate networks, calculate a measure of centrality for nominals.
8. Develop a prioritisation scheme (based on the findings of no. 6) suitable for the use of Intelligence in assessing the extent of networks and the degree of harm produced by them (predominantly based on county lines activities).
9. Develop a prioritisation scheme for individual nominals which should include measures of their centrality.

Will the project eventually be automated:

- Yes
 No

Means of evaluation:

Not strictly applicable, but discussions with SMEs will be undertaken to sense check the findings.

ALGO-CARE considerations:

Advisory:

If applicable, are the outputs from the algorithm to be used in an advisory capacity?

The project would enable a delineation of the county lines networks, the links between them and measures of centrality of nominals. Assessing the harm caused by individuals through their criminal activities will also enable the extent of the harm caused within the WMP area resulting from county lines to be assessed.

This information will contribute to the information used by the Intelligence Department in the Intelligence Assessments produced for decision makers (in WMP, ROCU and NCA) to understand

levels of risk and threat when allocating tasks and resources.

Does a human officer retain decision-making discretion?

Not applicable

Lawful:

What is the policing purpose justifying the use of the algorithm (means and ends)?

This project supports both national and local priorities to tackle the harm caused by county lines and associated exploitation. This contributes to the delivery of the government's Serious Violence Strategy¹⁶ and WMP's Improvement Plan (2020/21) which includes the objective to '*act with precision in preventing serious violence affecting the under 25s*'.

Is the potential interference with the privacy of individuals necessary and proportionate for legitimate policing purposes?

The project only utilises data collected from WMP / law enforcement systems in their normal day to day activities. Assessing the priorities that should be tackled by the Police in their operations due to the risks and threats present is a legitimate policing purpose. The police have a statutory duty to safeguard children who are at risk of harm and this project supports strategic decision making to dismantle county lines networks.

In what way will the tool improve the current system and is this demonstrable?

There is currently no system or tool to undertake large scale network analysis or to delineate the harm they cause. As described above, the team developing intelligence around county lines currently undertakes a manual trawl of multiple data systems using simple key word searches. Traditionally, network charts have been created by manually linking intelligence reports, crimes, incident and other data and using i2 software (IBM) to 'draw' network charts to visually describe the links identified. i2 enables some interrogation of the data to understand which nominals are 'central' or essential to the operation of the network (known as nodes of centrality) and thus make recommendations to investigators for enforcement strategies. However, only data which has been manually inputted into the software will be included in the analysis. It can take between two weeks and two months for an analyst to construct a network chart using i2.

The DAL project removes the necessity of manually reading all the records held on WMP systems and uses more advanced statistical methodology to assess the relative harm caused by each network; and to understand the nodes (such as nominals) of centrality. Once the initial analyses have been developed, this work can be refreshed in a matter of minutes.

Are the data processed by the algorithm lawfully obtained, processed and retained, according to a genuine necessity with a rational connection to a policing aim?

¹⁶ <https://www.gov.uk/government/publications/serious-violence-strategy>

The data are from WMP / law enforcement systems and collected to enable normal day-to-day operations.

Is the operation of the tool compliant with national guidance?

The analyses proposed would accord with the DCMS Data Ethics Framework 2018.¹⁷

Granularity:

Does the algorithm make suggestions at a sufficient level of detail given its purpose and the nature of the data processed?

The analyses would use information at the level of the individual to develop the networks and assess the overall levels of harm created by the networks. Suggestions would not be made by the associated algorithms per se with the exception of the means of best disabling a network.

Are data categorised to avoid broad-brush grouping and results and therefore issues of potential bias?

The underlying data are not categorised.

Do the potential benefits outweigh any data quality uncertainties or gaps?

The project could help focus resources of WMP and lead to enhanced assessments of threat and risk that are currently undertaken. Given the harm that county lines networks cause within society at large then uncertainties as to data quality (bearing in mind such issues have been investigated in the preliminary stages) are acceptable (no decisions would be made as to individuals per se as the aim is to provide further information for risk assessment).

Is the provenance and quality of the data sufficiently sound?

The data have been gathered during the day-to-day investigative work of WMP and do enable analyses of the type envisioned for this project. See the appendix for details about how the provenance and quality of intelligence reports is evaluated.

If applicable, how often are the data to be refreshed?

The underlying data are refreshed on a sub-daily basis as they are part of WMP's core systems. The analyses may be run intermittently as needed but do not require specific data extracts.

If the tool takes a precautionary approach in setting trade-offs, what are the justifications for the approach taken?

Not applicable.

Ownership:

¹⁷ <https://www.gov.uk/government/publications/data-ethics-framework/data-ethics-framework>

Who owns the algorithm and the data analysed?

WMP would own the algorithm and own the data.

Does WMP need rights to access, use and amend the source code and data?

No

Are there any contractual or other restrictions which might limit accountability or evaluation?

No

How is the operation of the algorithm kept secure?

The data and the analyses are contained wholly within the WMP Hadoop system and the security measures employed therein.

Challenge:

What are the post-implementation oversight and audit mechanisms, e.g. to identify any bias?

Any findings relating to particular individuals that are deemed useful for further analysis would be subject to the normal intelligence and referral processes of WMP as described above and as such any incorrect findings could be notified to the Lab and incorporated into any future runs of the analyses.

If the algorithm is to inform criminal justice disposals, how are individuals notified of its use?

Not applicable.

Accuracy:

Does the specification of the algorithm match the policing aim and decision policy?

The nature of the analyses chosen have been determined to be the best means of addressing the research question.

Can the accuracy of the algorithm be validated periodically?

Not applicable.

Can the percentage of false positives / negatives be justified?

Not applicable.

How was the method chosen as opposed to other available methods?

Currently the broad approach has been identified due to the nature of the business question and the data available.

What are the (potential) consequences of inaccurate forecasts?

Not applicable.

Does this represent an acceptable risk?

Not applicable.

How are the results checked for accuracy and how is historic accuracy fed back into the algorithm for the future?

Not applicable (other than any intelligence analysis arising from findings as noted above).

How would inaccurate or out-of-date data affect the result?

If data were to be wholly inaccurate then the analyses would essentially provide inapplicable findings. The Lab will seek to minimise this potential through a thorough analysis of the data and their pitfalls, issues and overall nature as well as through discussions with SMEs.

Responsible:

Would the operation of the algorithm be considered fair?

The analyses will be fair in that each data point will be considered on its own merits.

Is the use of the algorithm transparent (taking account of the context of its use), accountable and placed under review?

The nature of the intended method(s) is such that the end-use is to provide information rather than predictions that feed into a process on an on-going basis.

Would it be considered to be used in the public interest and to be ethical?

In the face of current levels of harm generated through the criminality of county lines networks and in the interest of more efficient allocation of resources, this project would be in the public interest.

There are a number of existing mechanisms for reporting back to our communities in order to enable them to scrutinise our decision making. These include the OPCC Strategic Policing and Crime Board (SPCB) and Independent Advisory Groups (IAGs) on each geographical area. These existing arrangements could be considered as the channel for communicating the output of this project.

Explainable:

Is information available about the algorithm / decision-making rules and the impact of each feature?

Information about the algorithms used would be available, however no decisions are made *per se* and the type of analyses are such that measures such as feature importance are not applicable

Glossary

WMP / Law Enforcement Terminology	
CIN	Child in Need
DAL	Data Analytics Lab
IAG	Independent Advisory Group
LAC	Looked After Child. A looked after child is defined in the Children Act 1989 as a child looked after by a local authority if a court has granted a care order to place a child in care, or a council's children's service department has cared for the child for more than 24 hours.
MASH	Multi-Agency Safeguarding Hub
NCA	National Crime Agency
NPU	Neighbourhood Policing Unit
OCG	Organised Crime Group
OPCC	Office of the Police and Crime Commissioner
PCC	Police and Crime Commissioner
ROCU	Regional Organised Crime Unit (covering West Midlands, Warwickshire, West Mercia and Staffordshire policing areas)
SME	Subject Matter Expert
SOC	Serious Organised Crime
SPCB	Strategic Policing and Crime Board
TRM	Threat and Risk Meeting
USG	Urban Street Gang
WMP	West Midlands Police
Data Science Terminology	
ALGO-CARE	All projects have used the ALGO-CARE to consider ethical implications: Advisory, Lawful, Granularity, Ownership, Challenge, Accuracy, Responsible, Explainable
DCMS	Department for Digital, Culture, Media and Sport – developed the Data Science Ethical Framework.
EDA	Exploratory Data Analysis

Appendix

Intelligence report gradings

Intelligence reports are graded according to the national '3x5x2' process which is undertaken by trained Intelligence Officers:

- The person submitting the intelligence assesses the reliability of the source of the information as 'reliable', 'untested' or 'not reliable'. Reliable information could be CCTV images; untested could be an anonymous report via Crimestoppers.
- The intelligence is also assessed based on how it came to be known; or can be corroborated by other sources; whether it is 'known directly to the source', 'known indirectly to the source but corroborated', 'known indirectly to the source', 'not known' or 'suspected to be false'.
- The third element deals with who should have access to the intelligence and how it should be handled.

The 3x5x2 system replaced an earlier grading system known as 5x5x5 in 2016. The table below shows the grades from the two systems which are perceived to be 'credible' and therefore used in the County Lines Network analysis:

Included	Old		New	
	Source	Information	Source	Information
Yes	A - Always reliable	1 - Known to be true without reservation	1 - Reliable	A - Known directly
Yes	B - Mostly reliable	2 - Known personally to the source but not to the officer	1 - Reliable	C - Known indirectly
Yes	C - Sometimes reliable	3 - Not known personally to source but corroborated	1 - Reliable	B - Known indirectly but corroborated
No	D - Unreliable	4 - Cannot be judged	3 - Not reliable	D - Not known
No	E - Untested	5 - Suspected to be false	2 - Untested	E - Suspected to be false

IMS new and old intelligence grading system

Crime Harm Index and Crime Severity Score

To calculate the levels of harm caused by each of the nominals linked to the networks we would use both the Crime Harm Index (CHI)¹⁸ developed at Cambridge University and the Crime Severity Score¹⁹ produced by the Office for National Statistics (ONS). The CHI essentially uses sentencing guidelines to score offences according to the level of harm they cause. For example the harm score of 'Murder' is 5475 whereas for 'Abstract or use without authority electricity', it is 1. The ONS score is a similar idea but uses average sentences handed down by courts. The debate about which of these two approaches is better continues in academic circles.^{20 21} It is of note that there are pros and cons to both approaches – the CHI could be said to be the result of democratic accountability whilst the ONS reflects decisions made by courts which take specific circumstances into account. As previously noted however, both indices correlate highly with other when applied to individuals.

We can calculate the harm caused by each network by aggregating the harm score of the offences committed by its members. This approach to understanding crime harm is mandated in the Police and Crime Plan.²²

¹⁸ Sherman, L.W., Neyroud, P.W. & Neyroud, E., The Cambridge Crime Harm Index: Measuring Total Harm from Crime Based on Sentencing Guidelines, *Policing: A Journal of Policy and Practice*, Volume 10, Issue 3, September 2016, Pages 171–183, <https://doi.org/10.1093/police/paw003><https://academic.oup.com/policing/article/10/3/171/1753592>;

¹⁹ <https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/datasets/crimeseverityscoreexperimentalstatistics>

²⁰ Sherman, L.W. How to Count Crime: the Cambridge Harm Index Consensus. *Cambridge Journal of Evidence Based Policing* (2020). <https://doi.org/10.1007/s41887-020-00043-2>;

²¹ Ashby, M. Comparing Methods for Measuring Crime Harm/Severity, *Policing: A Journal of Policy and Practice*, Volume 12, Issue 4, December 2018, Pages 439–454, <https://doi.org/10.1093/police/pax049>

²² <https://www.westmidlands-pcc.gov.uk/your-commissioner/police-crime-plan/police-and-crime-plan-2016-20/>