

Review of the Metropolitan Police Service Gangs Matrix

December 2018



M O P A C

MAYOR OF LONDON
OFFICE FOR POLICING AND CRIME

This Review, carried out by officers in the Mayor's Office for Policing and Crime (MOPAC), fulfils the commitment in the Police and Crime Plan 2017-2021 to carry out a Review of the Gangs Matrix of the Metropolitan Police Service (MPS), an intelligence tool to supplement enforcement and diversion action against street-focused violence.

This Review is to be seen the context of policies and priorities set out in the Mayor of London's Police and Crime Plan 2017-2021 and the accompanying Knife Crime Strategy 2017-2021. This approach to reducing violence is further enhanced by the Mayor of London's announcement to establish a Violence Reduction Unit to develop London's approach to tackling the long-term causes and solutions to violence.

An Integrated Impact Assessment accompanies this Review to assess the range of impacts of the Matrix, not least the equalities and data privacy impacts which are particularly significant. At all stages in carrying out this Review, MOPAC has been mindful of its obligations under the Human Rights Act 1998.

The statistical analysis and research was conducted independently by analysts in MOPAC's Evidence and Insight team. The methodology was reviewed by University College London and further assessed by other academic experts. MOPAC organised the Reference Group representing interested organisations and communities, as well as the engagement activities with communities and young people, some of whom had been on the Matrix.

Independent legal advice was provided by Tim Pitt-Payne QC from 11KBW who had access to relevant Metropolitan Police Service officers and MOPAC staff and relevant data and documentation.

MOPAC is grateful to those who supported the analysis, agreed to be surveyed and participated in the Reference Group, including the Metropolitan Police Service for freely sharing information; and officers from the Information Commissioner's Office who worked closely with MOPAC both on this Review and their parallel enforcement activity, culminating in their recent issuing of an enforcement notice and the Metropolitan Police Service's action plan in response. The support of all participants has been instrumental in enabling us to conduct the most authoritative and far-reaching review of the MPS Gangs Matrix ever undertaken.

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Executive Summary

This is the Review of an enforcement database operated by the Metropolitan Police Service known as the Gangs Matrix. The Review was a specific commitment in the Mayor's Police and Crime Plan and also in his 2016 election manifesto. The Review, the most comprehensive ever conducted into the MPS Gangs Matrix, combines analysis of those on the Matrix; interviews with practitioners and those in communities affected by the Matrix; and detailed discussions with a Reference Group of practitioners and subject matter experts. The Review also takes note of the recent investigation by the Information Commissioner's Office (ICO) on the Matrix.

This Review is published at a time when tackling serious violence – which has been increasing across the country since 2014 - continues to be the priority issue in the city for the MPS and for the Mayor. Gangs are a driving force behind some of the most serious violence in London. While gang-flagged violence accounts for a relatively small proportion of overall levels of violent crime in London, it represents a significant percentage of the most serious and harmful offending and victimisation. 57% of gang related stabbings featured a serious or fatal injury, compared to 34% of non-gang-flagged stabbings. The harm of gangs extends further, beyond serious street violence and encompassing other serious issues including violence against women and girls, acquisitive crime and drug supply. Those preyed upon by gangs are amongst the most vulnerable children and young people in our city, often from deprived, crime-affected backgrounds and presenting multiple, complex needs such as mental illness and special educational needs.

This Review recommends that there is a comprehensive overhaul of the Matrix Operating Model both to restore trust in the Matrix and also to bring it into line with data protection legislation. This overhaul must be completed by the 31st December 2019. The Review does recognise that a Gangs Matrix is a necessary law enforcement tool for reducing violent crime in London. However, the Review also identifies that the representation of young, black males on the Matrix is disproportionate to their likelihood of criminality and victimisation and recognises that communities in London have deep reservations about how the Matrix operates. The Review found significant issues around public understanding of the Matrix and a lack of transparency on the part of the Metropolitan Police Service (MPS) in communicating the aims and purpose of the Matrix – not only to the public but also to practitioners. Furthermore, an investigation by the Information Commissioner's Office (ICO) found that, whilst there was a valid purpose for the MPS' use of the Gangs Matrix, inconsistency in the way it was used led to multiple and serious breaches of data protection laws.

The Review also recommends that MOPAC and the MPS engage with the Equality and Human Rights Commission as we work to ensure that the Gangs Matrix operates- and is seen to operate - in a way which upholds the human rights of those included on it, and without any element of discrimination. There are further recommendations aimed at improving the operation of the Gangs Matrix as well as building trust in the Matrix among the public and practitioners.

Structure of the report and summary of findings

The document begins by setting out the wider context for the Review, including and how and why the concept of a 'gang' forms the basis of police prioritisation, and the Terms of Reference for the Review (page 10).

The Review finds that over the period of analysis, individuals spent an average of 28.5 months on the Matrix (including approximately a third of that time in custody). It would appear that the Matrix does have a positive impact on reducing levels of offending by and victimisation of the individuals included on it – and that the reductions in these risks are sustained after they have been removed from the Matrix. However, limitations on the data available from partner agencies mean it is not possible to identify the specific reasons for this impact. (page 19). Furthermore, analysis of timeliness of arrests and stop and search indicates that levels of police attention experienced by individuals on the Matrix fall to pre-inclusion levels after they have been removed – potentially allaying some concerns about Matrix inclusion 'following' individuals after their removal (page 33). The Review raises questions about individuals on the Matrix with low or zero-harm scores - whether their inclusion on the Matrix can be justified, and whether the emphasis of interventions with these persons should be safeguarding rather than enforcement (page 30).

Legal advice sought as part of this Review finds that the Matrix can be used lawfully as an enforcement tool. Through placing people on the Matrix, the MPS aims to identify those at risk of committing acts of violence or being victims of violence, so that appropriate enforcement or diversion action¹ can be taken (page 41). However, the Review, in light of the legal advice, also finds that there are a number of actions that the MPS must undertake to be fully compliant with the law, including the production of an Equalities Impact Assessment on the Gangs Matrix. Furthermore, the Review finds a number of issues with the processes, practical application and data handling of the Matrix also identified by the Information Commissioner's office, with whom MOPAC has worked closely through the Review, and which are the subject of a recent enforcement notice (page 44).

The data is clear that gang-related violence is a source of tremendous harm; that it disproportionately affects some groups of Londoners more than others, particularly young

¹ Such as mentoring from specialist youth workers or treatment for physical and mental health needs

black men; and that these young men are more likely to be the victim of gang-related violence, as they are the perpetrator. The Review goes on to analyse the demographic makeup of those on the Matrix and confirms that there is a disproportionate representation of black and minority ethnic Londoners relative to their offending and victimisation (page 56). The Review also highlights significant concerns about the Matrix expressed by young black men and many others in communities most affected by gang-related offending (page 65). In addition to MOPAC's oversight of the MPS in this space, we will engage with the Equality and Human Rights Commission as we work to deliver the recommendations of this Review, providing further independent assurance that equality remains at the heart of this work; and the MPS will further assess the equalities impact of the Matrix and produce an Equalities Impact Assessment.

In light of these findings, the Review does not propose that the MPS ceases to use the Matrix, but that the MPS must take action to comprehensively overhaul it through implementation of these recommendations and those of the ICO, to ensure that the Matrix is used lawfully and with no unjustifiable disproportionality, with stronger processes and oversight, and with greater transparency.

Recommendations

This review sets out a series of recommendations to the MPS, all of which must be completed by the 31st December 2019:

Recommendation: We recommend that the MPS comprehensively overhaul the Matrix Operating Model and review the Model annually. We further recommend that all officers using the Model receive training on how to apply the guidance and to do so consistently across all boroughs. Both the Operating Model and the training should have a particular focus on ensuring:

- that the right people are on the Matrix;
- that people are added and removed in a standardised, evidence-based manner;
- that they can be removed and that the 'gang' label will not 'follow' them;
- that local Matrices are refreshed regularly so that individuals don't stay on any longer than necessary;
- that the guidance on the use of social media for intelligence purposes is updated; and
- that the data protection principles and legislation are fully applied.

Recommendation: We recommend a thorough reappraisal of the individuals in the Green category, with a focus on: those that currently score 'zero-harm'; those that have never had a harm score or have remained in the Green category for their entire time on the Matrix; and those under the age of 18. This reappraisal should begin as soon as possible and be concluded no later than 31st December 2019.

This reappraisal should consider whether: the level of risk they present justifies their continued inclusion; their inclusion is consistent with the published purpose of the Matrix; and whether their inclusion is compatible with Article 8 (2) of the Human Rights Act 1998. Where an individual does not meet these criteria, they should be removed from the Matrix.

Recommendation: That MOPAC and the MPS engage with the Equality and Human Rights Commission as we deliver the recommendations in this Review and the ongoing work of the Gangs Matrix, supporting the MPS' work to further assess issues around human rights, disproportionality and produce an Equalities Impact Assessment.

Recommendation: We recommend that the MPS strengthen their governance of the Matrix and the officers and partners that use it, creating single points of responsibility on each Borough Command Unit to:

- ensure there is no discriminatory practice;

- ensure that risks around data breaches are properly assessed and mitigated;
- track progress against recommendations published in this report;
- review the intelligence processes and flows that create organisational knowledge around gangs;
- assess the Matrix in the light of technological advances to future proof it;
- oversee the continuation and expansion of regular borough audits; and
- work with MOPAC to conduct new analysis exploring issues relating to disproportionality and the Matrix (e.g. micro-level demographics analysis in gang affected areas).

Recommendation: That the MPS improves systematic data capture across all aspects of the Matrix process. To include but not limited to:

- demographics of Matrix individuals (gender, age and ethnicity);
- nature and extent of police activity for those on the Matrix; and
- nature and extent of non-enforcement interventions (needs, referrals, uptake and outcomes).

We further recommend that MOPAC and the MPS conduct an annual review of the Matrix population, in comparison with the wider London gang and violent offending profiles. MOPAC will also convene partners to discuss options for enabling better collection of data on the impact of non-criminal justice interventions.

Recommendation: We recommend that the MPS urgently improve their current Matrix processes to ensure that personal data and information are stored, managed, shared, protected and transmitted safely and appropriately, with particular reference to:

- ensuring compliance with data protection principles and legislation, including the completion of a Data Protection Impact Assessment;
- who the Matrix information is shared with outside of the MPS;
- ensuring that any sharing of personal information is necessary and proportionate; and
- implementing recommendations set out in the ICO enforcement notice.

Recommendation: We recommend that the MPS improve transparency by producing, by the end of February 2019, publicly available, plain English and accessible information that:

- answers frequently asked questions about how the Matrix works and its purpose;
- sets out the governance and oversight mechanisms the Matrix is subject to;
- explains the training officers receive that helps them implement the Operating Model;
- describes the practical effect for an individual of being on the Matrix;

- clarifies how information is shared and who with;
- explains how an individual is added to and removed from the Matrix;
- describes how the multi-agency process works; and
- describes the relationship between the Matrix and the response to serious organised crime.

Recommendation: MOPAC will oversee implementation of the recommendations in this Review - and transparency in this work - by:

- requiring the MPS to report annually on progress against recommendations to the MPS Ethics and Audit panels and publishing those reports; and
- ensuring progress against recommendations are reported to the MOPAC / MPS Oversight Board.

Recommendation: The MPS should consider whether the lessons learned from this Review are applicable to the operation of, and sharing of information under, other operational tools.

Introduction - about this Review

Mayor of London Sadiq Khan made a commitment to Londoners in his manifesto and in his Police and Crime Plan to conduct this Review of the MPS Gangs Matrix.

The Metropolitan Police Service (MPS) defines a ‘gang’ as a relatively durable, predominantly street-based group of young people who:

- see themselves (and are seen by others) as a discernible group; and
- engage in a range of criminal activity and violence.

They may also have any or all of the following features:

- identify with or lay claim over territory;
- have some form of identifying structure feature; and
- are in conflict with other, similar gangs.

This is the definition used by government and was defined in the Centre for Social Justice’s 2009 report ‘Dying to Belong’. However, we note from our engagement with practitioners as part of this Review that nonetheless, the definition of a gang is still the subject of debate.

Gang-flagged violence accounts for a relatively small proportion of overall levels of violent crime in London but represents a significant percentage of the most serious and harmful offending and victimisation as the table below illustrates. Gang-related violence is significantly more likely to result in serious injury; 57% of gang-related stabbings featured a serious or fatal injury, compared to 34% of non-gang-flagged stabbings.²

Table 1: Proportion of serious violence identified as gang related³

Crime Type		2016	2017	2018*	Total
Homicide	All Homicides	112	136	106	354
	<i>Gang related</i>	29%	27%	37%	31%
	Homicide excluding Domestic Abuse & Terrorism	95	115	83	293
	<i>Gang related</i>	35%	32%	47%	37%
Shootings	Lethal Barrelled Discharge	334	354	313	1001
	<i>Gang related</i>	50%	40%	52%	47%
	Lethal Barrelled Discharge - Victim Shot	136	144	112	392
	<i>Gang related</i>	62%	49%	63%	58%
Stabbings	Knife Injury; Victim under 25; excl. Domestic Abuse	1853	2138	1433	5424
	<i>Gang related</i>	26%	21%	18%	22%

² Internal MOPAC analysis based on 2017 data. Previous analysis from 2015 also found gang-related stabbings to result in more serious injury.

³ Homicide and knife injury statistics are victim counts. Both firearm categories are offence counts. Data shown as 2018 includes offences up to 30/09/2018.

Clearly, this is an issue that demands a police response, one which recognises the unique characteristics of gang violence, enables an understanding of who is at highest risk of involvement in it and can bring to bear the wide range of interventions – from prevention to enforcement – necessary to tackle it.

In the aftermath of the serious disorder in the streets of London in 2011, and in recognition of the severity of gang-related offending, in 2012 the Metropolitan Police Service (MPS) created the Gangs Matrix - a tool used to identify and risk-assess the most harmful gang members in a borough, based on violence and weapons offences, and informed by intelligence.

This basic concept – collating and using data about individuals known to be involved in criminality or at risk of doing so, is deemed by the police to be a fundamental part of policing and public safety, whether that be a large-scale tool such as the Police National Computer (PNC), down to small-scale, local measures such as the Gangs Matrix (in context, the Matrix has generally included between 3-4,000 individuals at any given time, from a London population in excess of 8,000,000).

The Matrix is an important part of the MPS and partner agencies' activities to reduce gang-related violence and prevent young lives being lost, by taking enforcement action against the most violent gang members and seeking to divert those most at risk of being drawn into gang violence. Once on the Matrix, an individual may be subject to more intensive policing activity or interventions by partner organisations⁴ to reduce their risk of offending or victimisation.

From its inception, the Gangs Matrix has been a controversial issue within the wider - and already often contentious - debate around policing and ethnicity in London. Most recently, reports by David Lammy MP, Amnesty and StopWatch have been highly critical of the

Identifying gang-related incidents

Identifying gang-related incidents is challenging. This is particularly true of incidents where no suspect is identified or where the victims or witnesses are unwilling to co-operate with the police investigation. In line with internal MPS procedures, gang-related incidents were identified using a combination of **gang flags** on CRIS (Crime Reporting Information System) and offences included on **GRITS** (Gang Related Incident Tracking System). CRIS gang-flagged reports are defined as 'any gang-related crimes or crime-related incidents where any individual believes that there is a link to the activities of a gang or gangs'. GRITS is an MPS Intelligence tool used to identify the most active gangs in London. Offences in GRITS are defined as any offence where the suspect or victim are shown through intelligence to be a member of a gang or where the motivation of the offence is linked to gang tensions and rivalries. The combination is used due to the 'gang' flag not being consistently applied across the MPS.

⁴ Such as Social Services, the London Gang Exit Service or Mental Health services.

Matrix, accusing the MPS of disproportionality and discrimination, particularly against young black males. In addition, the Information Commissioner's Office (ICO) has served an enforcement notice against the MPS after an investigation found multiple and serious breaches of data protection law in the use of the Matrix.

The MPS have defended the value of the Matrix as a policing tool, arguing that it assists them in preventing crime and protecting some of the most vulnerable people in the city from coming to harm. London continues to face a significant challenge from violent offending and the rises in gun and knife crime over the past two years highlight this very real concern. The MPS know from evidence, intelligence and specific cases that gangs play a significant role in this violence picture, which brings misery and fear to communities across London. They argue that the Matrix has been an essential operational tool to help identify those that have been - or are likely to be - involved in violence and facilitate a range of police and partnership action from enforcement through to the vital prevention work that occurs at a local level.

Both sides of this debate are important, and both are persuasive.

The data is clear that gang-related violence is a source of tremendous harm; that it disproportionately affects some groups of Londoners more than others, particularly young black males; and that these boys and young men are more likely to be the victim of gang-related violence, as they are more likely to be the perpetrator. It is logical that an understanding of who is involved in gangs or who is on the periphery of involvement is a key asset in reducing the risk of victimisation and offending. The evidence revealed by this Review shows that the Matrix does appear to have a positive impact in this regard, but also that data limitations mean it is not possible to identify the reasons for that impact.

Equally, it is fundamental that the police use the powers granted to them by the public in a proportionate way that upholds the rights and privacy of the citizen – and that citizens can see and have confidence that this is the case. This is at the very core of policing by consent. This Review shows that young, black African-Caribbean men are disproportionately represented on the Gangs Matrix. It has also found significant issues around public understanding of the Matrix and a lack of transparency on the part of the MPS in communicating the aims and purpose of the Matrix – not only to the public but also to practitioners.

There is also a question of process. The Matrix is a significant database of personal information on several thousand Londoners. It is essential that this data is controlled and processed in a lawful, secure way. This Review has found examples of good practice, but it has also found inconsistencies and gaps in the management, processes and oversight of the

Gangs Matrix that will be addressed, including responding to recommendations from the Information Commissioner.

It is the nature of policing by consent that it operates in a state of constant – and necessary – tension between securing public safety and protecting civil rights and liberties. That tension is brought sharply into focus in this Review. That is why, even though its structures have changed over the years, there has always been a thread of democratic oversight over policing, ensuring that the public's wishes and expectations are reflected in the policing they consent to and pay for.

Gang databases and official processes for gang member identification have received relatively little academic or public scrutiny in the UK. Only recently has research begun to explore this area, with studies highlighting the range of factors influencing the process and the differing or competing perceptions, priorities and labelling (Medina et al 2009; Smithson et al 2013; Williams 2015). Others have highlighted administrative problems in policing gangs on a borough basis and hinted at the difficulties of centralised mapping of localised problems (Densley & Jones 2013). Building on a growing debate around the policy response to gangs (Densley 2011; Hallsworth 2013; Joseph et al. 2011; Pitts 2017; Shute & Medina 2014), two recent London-focused studies drew on qualitative and secondary data sources to explore how individuals were affected by the Gangs Matrix and other targeted policing activity, with a specific focus on the disproportionate policing of young black males (Amnesty 2018; Williams 2018).

In the US, research in this area is far more developed, with mixed findings as to gang database efficacy. The ability to accurately identify gang affiliation has been questioned (Chesney-Lind et al. 1994; McCorkle & Miethe 1998; Spergel 1995), whilst others have suggested that the focus should be on individual and group (as opposed to gang) harm (Kennedy 2009). Further issues have been examined around governance and oversight (Jacobs 2009), including concerns about non-removal (Esbensen et al. 2001; Klein 2009) and punitive criminal justice outcomes (Caudhill et al. 2014). Research has also generated more positive indications, suggesting that differences in severity of offending between gang and non-gang individuals make monitoring worthwhile (Katz et al. 2000). Non-identification carries its own risks and may mean an individual is denied diversionary interventions (Short 2009; Spergel 2009), or at a wider level presents an unacceptable risk to society (Ericson & Haggerty 1997).

We have endeavoured to engage with all aspects of the Gangs Matrix, its operations and impacts in London and the different points of view on its usage. In doing so, we have:

- engaged with officers and staff of the Metropolitan Police Service up to the highest levels of senior leadership, and with other agencies working to address gangs and

gang crime in order to understand their use of the Matrix and their views on its effectiveness⁵;

- conducted an in-depth analysis on the process and population characteristics of the Gangs Matrix since inception, looking at the offending patterns of more than 7,000 individuals on the Matrix, and the patterns of both victimisation and stop and search on over 5,000 individuals in total, exploring issues around disproportionality and potential impact across these areas;
- brought together a Reference Group with expertise in this area and/or experience of working with people affected by the Matrix;
- conducted direct consultation to hear the voices of young black people, who are disproportionately represented on the Matrix; and
- engaged with other interested parties and statutory bodies with perspectives on the Matrix, including Amnesty, Williams and Clarke, StopWatch and the Information Commissioner's Office (ICO).

This is a substantial document, and necessarily so. There are no simple, definitive answers to the questions that the use of the Gangs Matrix approach poses. We have reflected in great depth and taken great caution in developing the recommendations made considering the findings of this research. This is not a theoretical exercise and there is no room for complacency or rashness. We recognise throughout this document that any proposals for change ultimately impact on real interventions with real people in situations of real risk.

We are very grateful to everyone who has given their time, experiences and insights as part of the Review process. In particular, we would like to pay tribute to the late Bobby Martin, a tireless supporter of young and Black and Minority Ethnic (BAME) Londoners and a critical friend to the MPS and the Mayor's Office for Policing and Crime (MOPAC) over many years. He will be greatly missed.

⁵ Surveys were carried out in Autumn 2017 of police 'Single Points Of Contact' who used the Matrix. We received 88 responses across 28 boroughs. Surveys were also carried out of local authority leads working with young people involved in violence. 45 responses were received across 27 boroughs. In Summer 2018, surveys were carried out of voluntary and community sector organisations supporting young people involved in violence. 83 full responses (and 15 partial responses) were received across 21 boroughs.

Gangs Matrix Review - Terms of Reference

The Mayor's Office for Policing and Crime (MOPAC) are committed to conducting a Review of the Metropolitan Police Service (MPS) Gangs Matrix. The Review follows the Mayor's Manifesto pledge in 2016 and commitments in London's Police and Crime Plan⁶ and Knife Crime Strategy in 2017. Keeping young people safe in London is a key priority and to that end we want to ensure that any tool being used to manage young people involved in group violence responds appropriately to harm and risk.

The Gangs Matrix is an operational tool that was developed by the Metropolitan Police Service and has been used since 2012. The intended audience for the outcome of the review is the MPS and we expect to make our recommendations public by publishing them in Autumn 2018. The review will be conducted by MOPAC, with the support of the MPS. No previous review of the Gangs Matrix has taken place.

Background information

The overarching aim of the MPS' Gangs Matrix is to reduce gang related violence and prevent young lives being lost. The Gangs Matrix is an intelligence tool used to identify and risk assess gang members in every London borough informed by intelligence and based on violence and weapons offences. It provides the police with a way of prioritising the most harmful individuals for enforcement and partners for support and intervention. The Matrix scores individuals who are in a gang - it is not the gangs that are scored. Scores are based on an individual's involvement in violence only - drugs intelligence or drugs offences are not scored. Individuals are also scored and ranked as victims of violence to reflect the vulnerability and victimisation of this cohort. Every borough has their own Matrix and every day these are combined to produce an MPS Matrix. Matrices are owned by boroughs with local Single Points Of Contact (SPOCs) who update the Matrix and make decisions about who is added and removed. Trident and central MPS intelligence⁷ may make recommendations where necessary for people to be added or removed to any borough Matrix.

Following 2011 there was a greater focus on work on gangs, both from the Home Office and the MPS, which resulted in a standardised method of quantifying and prioritising those

⁶ The Police and Crime Plan states "we will Review the MPS approach to gang crime, including the Gangs Matrix, supporting the MPS to tackle gang crime, gun crime and knife crime more effectively in London.". The London Knife Crime Strategy says we will target lawbreakers by "Reviewing the MPS Gangs Matrix which identifies the most violent gang members in London and strengthen the identification of young people who are involved in serious youth violence, whether perpetrators or victims."

⁷ Trident is a dedicated Operational Command Unit within the MPS that has responsibility for tackling gang crime and investigating all non-fatal shootings. Met Intelligence relates to the entire MPS intelligence infrastructure. A centralised intelligence team of officers and analysts collect, assesses and interpret a range of information sources, generating analysis to tackle threat, risk and harm in London.

involved in serious youth violence. In many areas of London, using the Matrix has meant a more joined-up discussion and targeted response from local police and partners about those involved in gangs and youth violence, co-ordinating not just enforcement to reduce identified risk, but offer diversion, support and intervention too. However, the Matrix has proved to be a controversial tool and is perceived negatively by some communities. Given these concerns it is important to set out the criteria for assessment with the aim of addressing issues of consistency, disproportionality, scope and impact.

The police and partner response to gangs and youth violence has evolved significantly with a better understanding of the drivers and needs of those involved as victims or perpetrators. There have been improvements in enforcement tactics, use of legislative tools and services for young people, such as funding for Integrated Gangs Units, London Gang Exit and support for young victims of violence in London's Major Trauma Centres.

The Mayor's Police and Crime Plan focuses on 'gang' violence, vulnerability and exploitation; the specific behaviours that are impacting negatively on our communities – violence and weapon enabled offending – and the exploitation of children and vulnerable adults linked to this – child criminal exploitation, child sexual exploitation and trafficking of young people through 'county lines'⁸ drugs activity. David Lammy's review into the treatment of BAME Londoners in the criminal justice system⁹ supported the Mayor's commitment to review the Matrix and asked MOPAC to *'examine the way information is gathered, verified, stored and shared, with specific reference to BAME disproportionality'* and to consider community perspectives. This Review is part of MOPAC's response to this.

Scope of the review

In recognition of these changes, and within the context of increasing knife crime in London, it is therefore timely to review the Matrix to better understand whether the targeted approach taken by the Gangs Matrix is a proportionate and effective tool in reducing youth violence.

The Review will focus on the following issues:

1. Impact of the Gangs Matrix

- How the Gangs Matrix impacts on levels of gang member offending and youth violence;

⁸ County lines is a term used to describe gangs and criminal networks involved in exporting illegal drugs in to one or more importing areas [within the UK], using dedicated mobile phone lines or other form of 'deal line'. They are likely to exploit children and vulnerable adults to move [and store] the drugs and money and they will often use coercion, intimidation, violence (including sexual violence) and weapons.

⁹ published September 2017

- How being on the Gangs Matrix impacts an individual's involvement in violence and offending;
- How the Gangs Matrix has evolved to be able manage risk and vulnerability;
- How being on the Gangs Matrix impacts an individual who features on it; from an enforcement perspective; and
- How the demographics of those on the Gangs Matrix compare with our understanding of victims and perpetrators of youth and weapon-enabled violence in London to identify any disproportionate impact.

2. Gangs Matrix processes

- Assurance that the collection, use, sharing and storage of personal information in the context of the Gangs Matrix is compliant with human rights and data protection legislation;
- How individuals are added to and removed from the Gangs Matrix;
- Understand which partners have access to Gangs Matrix information and how it is used;
- What data sources the Gangs Matrix uses;
- How the Gangs Matrix is used locally by the London boroughs; and
- How the Gangs Matrix is reviewed and overseen; to assess consistency of use and prevention of disproportionate impact.

3. Perceptions and understanding of the Gangs Matrix

- How information about the purpose and use of the Gangs Matrix has been shared and understood by partners, community members and the public;
- Assessing whether the Gangs Matrix is understood within the wider context of the other operational tools that inform the threat, harm and risk profile for London; and
- Consider what steps can be taken to provide better information to the public about how the MPS tackle youth violence.

Guiding principles

The recommendations of the Review will be guided by the need to:

- Be evidence-led through in-depth analysis of available data;
- Recognise the operational independence of the MPS;
- Ensure legality and data compliance;
- Address any unfairly disproportionate impact;
- Be informed by community and partner views;

- Increase transparency; and
- Be informed by an understanding of the operational challenges faced by police officers responding to youth violence.

This Review will not make recommendations related to police intelligence systems as a whole.

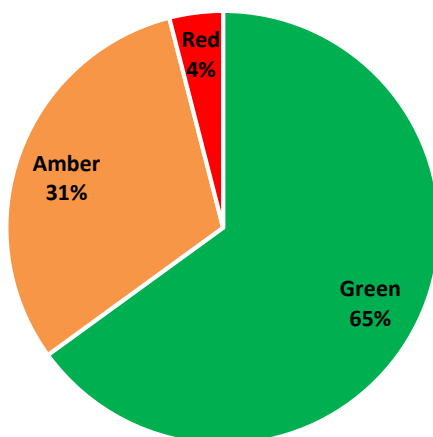
The Review has been carried out by MOPAC's Criminal Justice & Commissioning and Evidence & Insight teams. MOPAC facilitated the collection and analysis of professional and community views in relation to the matrix and use these to formulate recommendations. The Deputy Mayor for Policing and Crime is responsible for the completion of this review. The MPS is responsible for deciding what changes are necessary and how to take recommendations forward operationally. Recommendations will be published in Autumn 2018.

Impact of the Gangs Matrix

This section sets out how the Gangs Matrix operates. The MPS Gangs Matrix Operating Model and Guidance states that the threshold for being included on the Matrix is ‘someone who has been identified as being a member of a gang and this is corroborated by reliable intelligence from more than one source (e.g. police, partner agencies such as local authorities).’ Individuals included on the Gangs Matrix are classified as Red, Amber or Green, depending on how they are scored against a combination of factors. Individuals on the Gangs Matrix will often be themselves at risk of being victims of violent crime but the Red, Amber or Green status of an individual as recorded on the Gangs Matrix is intended to reflect the extent to which that individual poses a risk to others, and not the extent to which the individual is judged themselves to be at risk. The factors considered when scoring an individual on the Gangs Matrix are:

- their history of violence in the past three years, taken from the Crime Report Information System (CRIS). Scores are weighted according to the severity of the offence and how recently it was committed, as well as whether the individual is suspected or charged. Victimisation scores are also calculated;
- violence or weapons intelligence in the last six months (taken from CRIMINT, a criminal intelligence database);
- the judgement of a local gang unit (or equivalent) intelligence manager; and
- a partner organisation’s assessment of risk of harm (e.g. from the Youth Offending Service, or an offender manager assessment), if applicable.

Weighted scores combine to generate a total ‘harm’ score which determines their harm banding and subsequent levels of police and partner response. A snapshot of the Matrix from September 2018 presents the following breakdown by Harm Banding. The categories reflect the risk of violent offending, with Red being the highest risk and Green the lowest.



RAG	Live	Custody
Green	66%	34%
Amber	65%	35%
Red	49%	51%
Total	65%	35%

Activity for Red, Amber and Green nominals on the Gangs Matrix

Activity against nominals on the Matrix graded as Red, Amber and Green ensures a graded response commensurate with the risk the offender presents and can include:

Red individuals

Daily activity around these individuals – enforcement, partnership or both. A bespoke, multi-agency partnership plan is put in place to offer pathways to prevent and divert from gang-related activity. Assessment for judicial interventions such as a Criminal Behaviour Order is undertaken.

Amber individuals

A bespoke, multi-agency partnership plan is put in place to offer pathways to prevent and divert from gang-related activity. Enforcement activities and assessment for judicial interventions are considered.

Green individuals

A single-agency response plan is put in place and diversion or engagement activities considered with partners.

The Operating Model sets out that the Gangs Matrix should be reviewed quarterly and that individuals remain on the Matrix for no longer than is necessary. Each MPS borough is responsible for reviewing the Gangs Matrix in respect of their local areas to determine whether it is appropriate to retain or remove an individual from the Matrix, and whether any new information linked to the individuals on the Matrix has been taken into account.

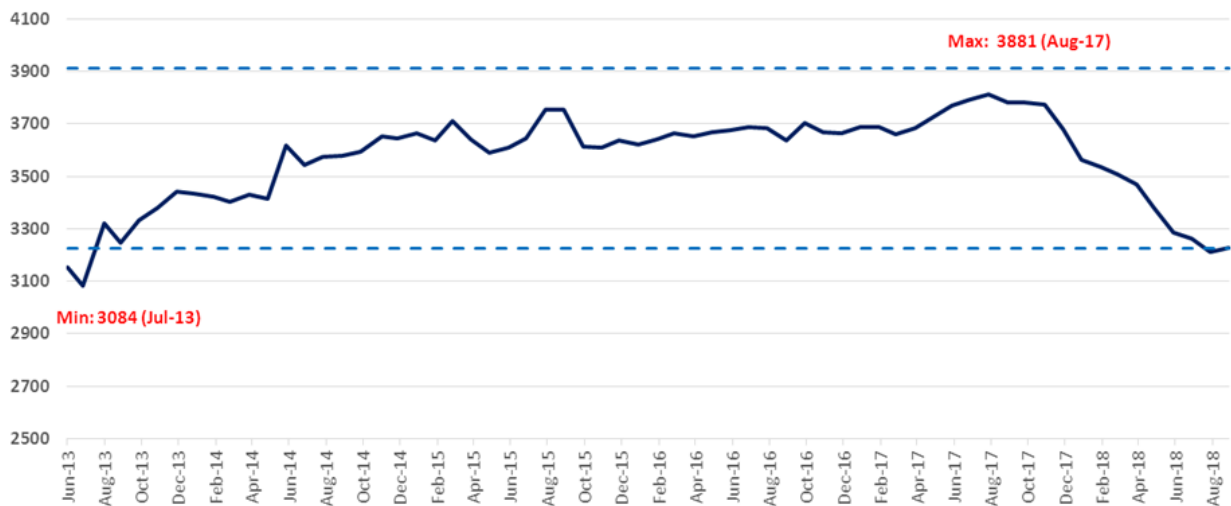
As a result, the number of individuals on the Matrix changes daily as individuals are reviewed, removed or added. A **September 2018 snapshot** shows the following breakdown: **3,228** individuals are on the Matrix of which 48% are in either in custody or have a judicial restriction such as a GPS tag or a suspended sentence in place. Individuals on the Matrix are predominantly young – with 74% under the age of 25; 99% are male and 80% are black African-Caribbean¹⁰. This demographic has changed little since the Matrix was first made fully operational in 2013. The data on demography is explored further later in this Review.

The number of individuals on the Matrix remained relatively stable until August 2017 when the population began to decrease. In August 2018, the number of individuals on the Matrix was at its lowest since July 2013. The reasons for this decrease and the timing of it are

¹⁰ According to the MPS Ethnic appearance codes: White proportion is 8.4% White – North European (n=282); White - South European (n=101); BAME proportion is made up of 80% African Caribbean (n=2,696); 5 % Asian – Indian Sub-Continent (n=176), 3% Arabic or North African (n=105) and 0.06% Chinese, Japanese or other South East Asian (n=2).

difficult to evidence but may include internal MPS activity to improve practice and continued resource pressures on policing. The factors affecting Matrix population levels form a key part of the following sections.

Graph 1: Total Matrix Population by Month



Our analysis for this Review explored the population of the Matrix over a five-year period between June 2013 and May 2018. To do this, monthly snapshots of the Matrix were combined to generate a total sample of over 7,000 individuals who appeared on the Matrix at some point during this 60-month period. For further details see the methodology in Appendix 4.

Over the period of analysis, individuals spent an **average of 28.5 months on the Matrix** (including approximately a third of that time in custody). A sizable proportion of the cohort (11%, n=905) appeared on the Matrix continuously across the five-year period, with the majority of these (n=721) also appearing on an early, 2012 iteration.

At the other end of the scale, 12.5% (n=1038) of the cohort appeared on the Matrix for five months or less and 390 individuals appeared on the Matrix for just a single month. Taking into account these extremes, the median length of time spent on the Matrix is 25 months.

Matrix criminality: overview

Our analysis into the offending of individuals on the Matrix was primarily undertaken using records from the Police National Computer (PNC), with emphasis on *proven offending*, referred to as ‘sanctions’ (offences for which the individual received a conviction, caution or

warning).¹¹ Arguably the most robust metric for establishing police recorded offending, it is important to note that this is only one indicator of criminal activity.

Offending over lifetime

The clear majority of the Matrix cohort have at least one sanction for any offence in their lifetime (96%, n=6,978). Overall, the cohort has been responsible for 98,189 sanctions, an average of 13.45 sanctions each. The cohort is also reasonably criminally versatile; 46% (n=3,389) have sanctions across four or more crime types.¹² The majority have been sanctioned for a serious offence in their lifetime (62%, n=4,549)¹³ Nearly three-quarters of the cohort has at least one sanction for either violence against the person or weapons offences (71%, n=5,160), rising to 78% when robbery is included (n=5,691). Over a third (37%, n=2,735) of the cohort have been convicted of public order offences.¹⁴

77% (n=5,576) of the cohort have been convicted of a drugs offence, a third of which was solely cannabis possession (30%, n=1,672). While the Matrix doesn't score for drugs offences, drug distribution is central to the business model of many gangs and is often what drives street violence. In this context such findings may be expected, although it is important to note that 40% (n=2,904) of the cohort have at least one sanction for drug supply or trafficking offences.

Offending before Matrix inclusion

In terms of proven offending before inclusion on the Matrix, 90% (n=6,526) of the cohort have been sanctioned for at least one offence of any kind. Half of the cohort had received at least one sanction for a serious offence (50%, n=3,651) and 67% (n=4,923) had a previous sanction for violence related offences.¹⁵

58% (n=4,248) had at least one sanction for a drugs offence; including 23% (n=1,700) for supply and 51% (n=3,722) for possession. Just under a quarter (24%, n=1,770) of the cohort had drugs sanctions which related only to cannabis possession pre-Matrix inclusion.

¹¹ Only 3,468 sanctions relate to non-court convictions (cautions, reprimands or warnings). Fixed Penalty Notices (FPNs), such as those that might be issued for minor cannabis possession offences, are not included in sanctions data (n=964).

¹² Most commonly drugs, theft, offences relating to police/courts/prison and weapons possession.

¹³ Serious offences include homicide, serious violence, firearms possession, robbery, serious sexual offending and drug trafficking.

¹⁴ 476 of the 13,974 Public Order charges were for offences in August 2011, the month of the London riots. 385 individuals (5% of cohort) were charged with at least one Public Order offence taking place in this month and 181 were convicted.

¹⁵ The measure of violence used in the offending and victimisation impact analysis: Violence against the person; weapons possession and robbery. For comparison, for just violence or weapons possession offences, 57% (n=4,139) had at least one sanction for an offence committed before inclusion on the Matrix.

How many people on the Matrix are subject to some form of judicial control?

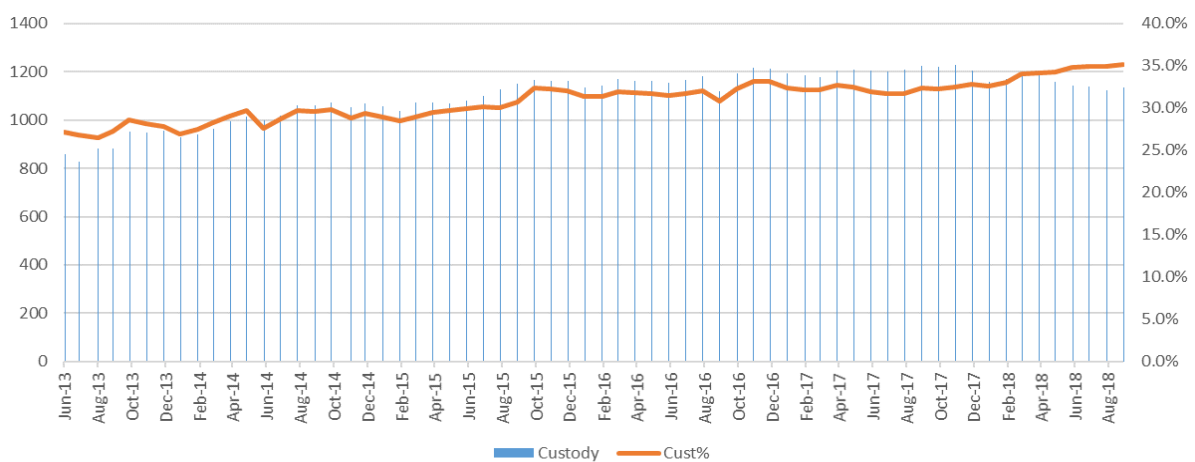
Individuals on the Matrix may be subject to certain controls from the courts if they have been found guilty of an offence – such as a custodial sentence or judicial restrictions such as Criminal Behaviour Orders, injunctions or restrictions on licence conditions.

The proportion of individuals subject to some form of control has increased steadily over time, but as with populations, there is variation between boroughs in the types of controls used and in the frequency of their use.

Individuals in custody remain on the Matrix during their sentence to ensure that police and partners can continue to monitor and re-evaluate their status in the months following their release.

The proportion of individuals in custody has seen a small but steady increase over the Review period. Increasing from average of 27.2% in 2013/14 to 32.8% in 2017/18. September 2018 has the highest proportion in custody (35.2%).

Graph 2: Proportion of Matrix Individuals in Custody



Certain boroughs have much higher proportions of individuals in custody. For boroughs with more than 100 individuals on their Matrix, judicial restriction rates range from 9% to 39%, suggesting variance in practice at the local level. There may be a number of reasons for this. We know that currently borough Matrices are refreshed at different frequencies. This could indicate that on boroughs where the Matrix is regularly refreshed, a criminally active cohort is on the Matrix and so greater proportions of judicial restrictions are achieved, whereas on boroughs that refresh their cohort less often, lower proportions of judicial restrictions are seen. This could also reflect the level of police resources at a borough level focused on gangs and youth violence.

Matrix criminal careers: change over time and new additions

Individuals on the Matrix are most often diverse and frequent offenders; however, there is significant variation. Our analysis compared criminal careers of a recent Matrix cohort (May 2018) to previous snapshots, as well as considering changes over the five-year period. In this section, individuals are discussed with reference to their harm banding (Red, Amber, Green), indicative of the frequency with which they are coming to police notice for violence and the severity of those incidents.

As Table 2 sets out, the proportion of males added to the Matrix has remained the same over the period of analysis, and whilst there is some variance in the proportion of ethnicities added, this has not affected the overall population demographics at any snapshot in time. However, individuals are being added at an earlier age. As we have seen, most individuals on the Matrix have a criminal background. Our analysis explored how, if at all, this has changed over the five-year period of analysis. The age of first charge has remained relatively stable (around 14.5 years old) as has the age of first conviction (around 16 years old). However, more individuals are being added without a previous sanction (though it should be noted that the majority still have one; for new additions in 2017/18, 79% (n=362) had at least one sanction for an offence committed before Matrix inclusion).

The decrease in age added is particularly clear for those under 18, where the proportion of individuals added per year has more than doubled from 26% in the base year to 56% (n=340) in Year 5. Practitioner perceptions, both in our own findings¹⁶ and from recent Home Office research (Disley & Liddle 2016), suggest individuals are becoming involved in gang or group violence at a younger age. Whilst our analysis can only account for police recorded offending – of which there is no discernible decrease in age of first charge or conviction over the 5-year period – it is clear that individuals are being added to the Matrix at a younger age.

Table 2: Demographics of new additions to the Matrix by year¹⁷

Additions to Matrix	Base 2012	Year One Jun 13-May 14	Year Two Jun 14-May 15	Year Three Jun 15-May 16	Year Four Jun 16-May 17	Year Five Jun 17-May 18
Male	99%	98%	99%	98%	98%	99%
White	13.5%	15.2%	17.6%	20.2%	13.0%	17.7%
BAME	86.5%	84.8%	82.4%	79.8%	87.0%	82.3%
<i>Black African Caribbean</i>	75.9%	75.2%	67.3%	69.0%	78.9%	74.6%
U18	25.7%	31.9%	40.7%	48.6%	52.3%	55.6%
U25	85.8%	86.2%	84.9%	90.2%	91.5%	93.8%
Average Age	20.4	20.2	19.7	18.8	18.4	18.0

¹⁶ A large proportion of VCS survey respondents thought that involvement of under 18s in serious criminality had increased over the last three years (78%, n=69).

¹⁷ MOPAC analysis of MPS data.

Harm bandings now and over time

Analysis explored changes in the pre-Matrix offending histories of individuals added to the Matrix over time. Table 3 illustrates new additions to the Matrix based on their harm banding when added.

Red

Those identified as the most harmful offenders. Making up the smallest proportion of new additions, nearly half of 'Red' individuals (47%; n=86) were under-18 in May 2018. As expected, Red individuals added to the Matrix are more likely to have a previous sanction, and have on average more previous sanctions overall, and across serious and violent crime types. Their offending is more serious - although this gap is lessening. Over time, the proportion of red nominals added with no previous sanctions has also increased slightly from 5% in 2013/14 to 12% in 2017/18.

Amber

Over time, the Amber group has become increasingly comparable to Red in terms of their criminal careers before being added to the Matrix. This group is most likely to have drugs, violence and weapons sanctions. The proportion with previous drugs sanctions is decreasing at a greater rate than that of Red individuals, with the proportion added with no previous sanctions also increasing over time; although still a minority (17%; n=38 in 2017/18 – see Table 3).

Green

The variation in criminal careers is most pronounced for those placed on the Matrix in the Green banding. Overall, Green individuals have the highest sanctions average, but also the greatest proportion without any sanctions - across the five-year period, 20% of new additions in the Green banding had no previous sanction (n=362), compared to 12% of Amber (n=205) and 10% of Red (n=29). As Table 3 demonstrates, the proportion with no previous sanctions has increased over time, with 27% (n=51) of Greens having no previous sanctions in Year 5 (2017/18). Greens are least likely to have a recent sanction.

Greens also have the highest proportion of convictions for drugs-related offending. This can be explained by the very different types of people either being placed on or maintained on the Matrix. For example, this may reflect the feedback from practitioners that the Matrix is used as a reference tool, a way of maintaining corporate memory and tracking 'elders' who may not be directly committing crime but inciting others to do so.

At the other end of the criminality scale, recent operational policy changes to focus more on vulnerability and exploitation may have contributed to an increase in the number of 'at

risk'/periphery young people added to the Matrix, also contributing to the wide range of offending backgrounds in the Green category.

Zero harm-scoring Greens

2,318 individuals remained Green for their entire time on the Matrix. At any time, around 38% of individuals on the Matrix have a zero-harm score¹⁸. Around 15% of the total cohort had a zero-harm score for the duration of their time on the Matrix. There is no compelling data to demonstrate why these individuals are included on the Matrix.

The MPS have told us their rationale for including persons not involved in violence in the Matrix is to identify those who are thought to be in a gang but have not yet been drawn into gang violence. This can then enable prevention activity by local borough police and partners where they carefully consider what support can be provided to ensure they are diverted away from activity that may result in violent offending.

This is a key demographic – one which is the focus of a new public health approach to tackling violence in London. The Mayor is funding and leading the creation of a new partnership Violence Reduction Unit for London, intended to take a long-term approach to dealing with the underlying causes of violence.

At the time of this Review's publication, the development of the Violence Reduction Unit is in its earliest stages, and while we cannot speak for the Unit and partners, we pose the question here about how this group of at-risk individuals should best be identified, monitored and supported as part of a public health approach.

Table 3: Criminal careers of new additions by harm status

New Additions to the Matrix By Year and Harm Status															
Year Added	Yr1	Yr2	Yr3	Yr4	Yr5	Yr1	Yr2	Yr3	Yr4	Yr5	Yr1	Yr2	Yr3	Yr4	Yr5
Number of subjects	56	65	45	67	41	356	395	341	339	224	463	586	396	253	191
Average Age	18.3	17.7	17.2	18.5	17.2	19.2	18.4	17.9	17.7	17.4	21.2	20.8	19.7	19.5	19
Average age at first conviction	15.2	15.2	15.3	15.9	15.0	15.5	15.4	15.1	15.5	15.5	16.9	16.7	16.0	16.3	16.3
Criminal career [1st arrest to Matrix]	4.5	3.7	3.6	4.2	3	5.1	4.3	4.1	3.6	3.5	6.1	6	5.4	5.1	4.3
Criminal career [1st sanction to Matrix]	3.4	3	3.2	3.3	2.5	4.3	3.8	3.6	2.9	2.3	5.3	5.4	5	4.7	3.9
Average sanctions	9.6	8.4	8.4	7.4	8.6	8.4	7.7	7.7	6.1	6.3	8.1	6.9	6.9	5.5	5.7
No previous sanctions	5%	8%	16%	13%	12%	9%	11%	13%	14%	17%	13%	19%	21%	24%	27%
Previous sanction(s)	95%	92%	84%	87%	88%	91%	89%	87%	86%	83%	87%	81%	79%	76%	73%
Sanction in last year	80%	83%	71%	75%	81%	65%	68%	70%	70%	67%	46%	48%	48%	46%	48%
Sanction in last 2 years	93%	86%	80%	81%	83%	78%	80%	81%	81%	79%	65%	63%	63%	61%	62%
Sanction in last 3 years	93%	86%	82%	84%	85%	83%	84%	84%	84%	81%	73%	70%	69%	67%	68%
Previous for drugs sanction	48%	49%	44%	54%	46%	57%	53%	52%	47%	44%	61%	55%	55%	54%	46%
Previous violence sanction	89%	80%	73%	72%	77%	77%	70%	74%	71%	71%	58%	53%	49%	46%	34%
Previous serious sanction	63%	65%	67%	39%	46%	54%	48%	43%	37%	41%	49%	37%	42%	39%	33%

Change in an individual's RAG status whilst on the Matrix can be seen as an indicator of impact on offending. Overall, the picture appears positive in that there is a net movement

¹⁸ This proportion has remained relatively stable since Mar 2015, averaging 37.7%

towards Green, the lowest harm status (60% of individuals who start Amber become Green, and 54% of individuals who start Red become Green), with very few individuals going from Green to Red (1% of individuals who start Green, and 4% of individuals who start Amber).

Exploring the impact of the Gangs Matrix

The question of determining robust impact, that is - has a given initiative made a demonstrable and measurable difference on a key outcome measure (i.e. offending or victimisation)? - is one of the most difficult questions to answer within criminal justice analysis. This is especially the case when investigating the impact of the Gangs Matrix.

There are thousands of Matrix cases, each with different start, end and time periods; limits to readily available, standardised data on what happened to the individuals during their time on the Matrix; and there are real difficulties in generating a valid comparison group. This final point is especially important, as is it only with a robust comparison group that strong conclusions can be made in terms of impact.

However, while there is limited data on partner activity and enforcement activity with Matrix individuals, we have clear data on offending and victimisation.

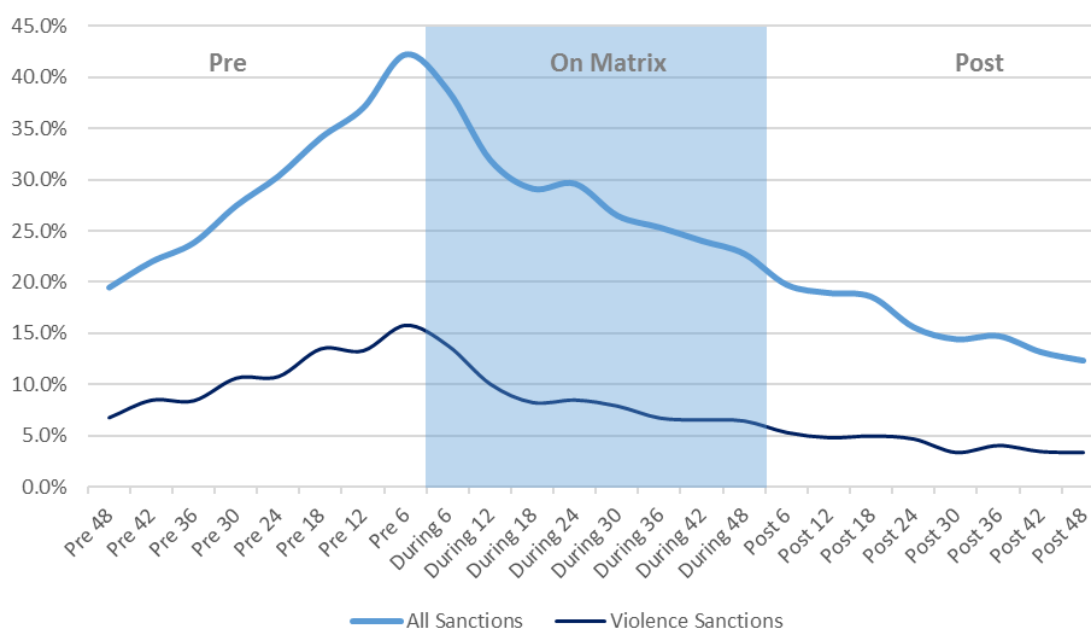
This analysis sought to include a significant proportion of all Matrix individuals over the 5-year period - over 7,000 individuals – making it the most in-depth analysis of the impact of the Matrix yet conducted. For more details on this section, see Appendix 4.

Impact on offending

To begin with, analytics explored the proven offending of Matrix individuals before, during and after their period on the Matrix. Graph 3 presents the proportion of individuals on the Matrix to have received a sanction in each time period.

As can be seen, the cohort presents an increasing proportion of sanctions leading up to inclusion on the Matrix, a sharp decline once on the Matrix, and then a steady decline once removed from the Matrix.

Graph 3: Proportion of cohort sanctioned (based on date of offence)



To illustrate, in the six months prior to their inclusion, 42% of the individuals on the Matrix had received a sanction for an offence. Within the first six months of their inclusion on the Matrix this declined slightly to 39% receiving a sanction. Finally, in the six months subsequent to removal from the Matrix, this fell to only 20% receiving a sanction. This overall trend also applies to violence.¹⁹ This is reflected in the evidence discussed in the previous section, indicating many individuals would move from higher harm bandings to lower bandings during their time on the Matrix.

Table 4: Proportions of Matrix cohort sanctioned (all crime)

Period	Cohort	Sanctions	Offenders	Avg Sanctions (all)	Avg Sanctions (sanctioned only)	Proportion Sanctioned
Six months before Matrix inclusion	7129	7903	3013	1.11	2.62	42.3%
Six months during Matrix inclusion	6585	6770	2551	1.03	2.65	38.7%
Six months after Matrix removal	3032	1379	599	0.45	2.30	19.8%

If we explore the average number of sanctions of the Matrix cohort to include the entire length of time spent on the Matrix, we also see positive indications. Average sanctions per month decrease from 0.14 in the two years before the Matrix, to 0.13 whilst on the Matrix and 0.07 in the two years following removal.

It should be stated that, when controlling for periods of time spent in custody when on the Matrix, the above findings are similar. Those individuals that were not in custody at any time

¹⁹ 'Violence' in this case refers to a composite of 'Offences against the person', 'Weapons Possession' and 'Robbery'. In terms of *proven offending*, 16% of the cohort committed a violence offence in the six months before being added to the Matrix, 14% in the first six months following inclusion and 5% in the six months following removal.

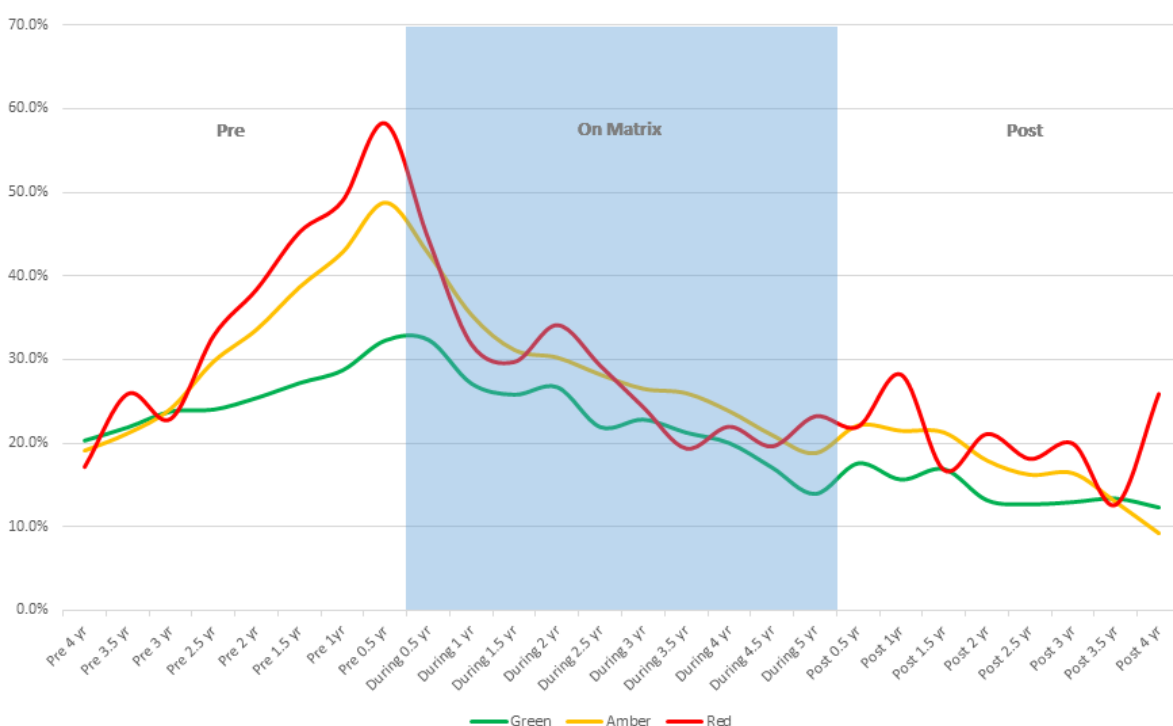
during their time on the Matrix still saw a similar decline in offending – so we can say that the decline observed in *proven offending* is not only driven by custody. As the previous section explained, Matrix individuals are subject to increased police attentions utilising a variety of tactics and controls such as judicial restrictions. However, there is a lack of data on non-criminal justice interventions which mean it is not possible to isolate the potential impact of all these different elements.

Exploring offending across the different harm bandings

Analysis also explored proven offending across the different harm bandings. In each of the bandings (Red, Amber, Green) a generally similar trend to what we have seen so far is observed, but there are differences. The Red group present the highest level of proven offending before inclusion, followed by Amber, and then Green. This is consistent with the findings on criminal careers of new additions in the previous section.

This peak in offending suggests that the inclusion onto the Matrix for the Red and Amber individuals would seem to be appropriate. However, the much lower offending levels for individuals categorised as Green, and the less prominent decrease in offending amongst this group continues to raise questions about the appropriateness of these individuals' inclusion when non-enforcement alternatives may be more suitable (e.g. youth engagement or safeguarding approaches).

Graph 4: Proportion of cohort sanctioned - by harm status on entry



Comparing the Matrix cohort to a comparison group

So far, findings appear to suggest that presence on the Matrix reduces offending. However, we must remain mindful of the challenges of understanding the reasons behind that impact.

Given that we know offending and reoffending in this crime type tends to reduce with age, there is a challenge in understanding if it is the impact of the enforcement and partner activity associated with being on the Matrix which causes this reduction, or whether that would simply have happened over time in any event.

In other situations when seeking to test the impact of a policy, the strongest method would be a randomised control trial – comparing one group receiving an intervention with another not receiving it selected by chance. However, in the case of the Matrix, this would not be possible for operational, ethical and public safety reasons.

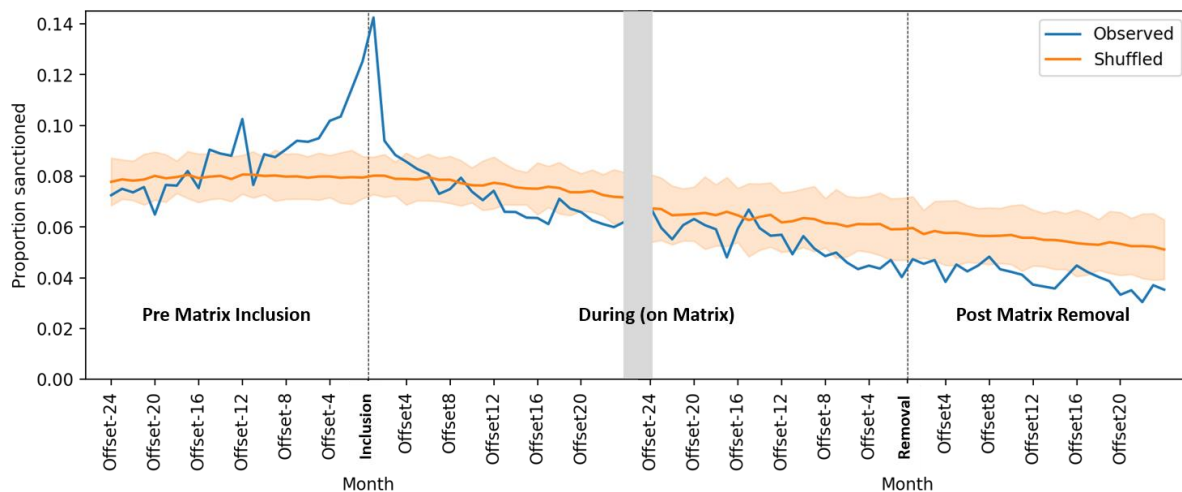
For this Review, we have sought out an alternative approach to testing the impact of the Matrix. MOPAC worked alongside a leading university (University College London, via the Institute of Global City Policing) to explore the feasibility of meaningfully examining impact in this context via a quasi-experimental approach called ‘within-group reference point shuffle’.

Put as simply as possible, this method allows us to generate a valid comparison group from within the sample we are seeking to compare with – in this case the population of the Gangs Matrix – by reshuffling the data to give each individual a different, randomly selected date of inclusion on the Matrix, rather than their actual date of inclusion.

Findings from this approach can be seen in Graph 5, which presents the proportion of cohort offending by month.

The ‘observed’ line represents the overall Matrix sanctions graph at the beginning of this section. The orange line represents an estimate of how the average offending of this group would have appeared if the intervention had not taken place, with the band around it representing the upper and lower limits of normal variation.

Graph 5: Proportion sanctioned by month (within-group reference point shuffle)



In depth – the within-group reference point shuffle

This method of analysis is inspired by a technique commonly used in the spatio-temporal analysis of crime, called the Knox test (Knox, 1964). The test is used as a means of identifying space-time clustering; that is, the tendency of incidents to appear close to each other in space and time, commonly manifested as 'near-repeat' victimisation (see Johnson et al. 2007).

The current approach seeks to establish a baseline level reflecting the volume and time course of offending that would have been expected if individuals had not been included on the Matrix. It does this by calculating how the offending curve would appear if the true time of Matrix inclusion was replaced by a randomly-chosen alternative; that is, if the curve was calculated with respect to a different inclusion point.

Importantly, this method controls for the age-crime relationship (whereby crime increases with age and then subsides over time), which would otherwise provide an alternative explanation for a peak of offending around Matrix entry.

Prior to the Matrix, both groups are similar in terms of sanctions. The difference between the comparison line and that observed for Matrix individuals several months prior to and at inclusion is stark. However, the likely interpretation is that this simply relates to the reason individuals were added (e.g. a recent uplift in offending bringing them to police attention). In this way, it is appropriate that our comparison group do not have this 'peak'. During inclusion on the Matrix, offending decreases, rapidly coming back within expected levels and then dropping below the comparison level. Crucially, there is also a departure below the orange band after removal from the Matrix, suggesting that Matrix individuals are offending

at a lower rate in the months after removal than might be expected. It should also be stated that there is no evidence that offending increases during or after removal from the Matrix.

This analysis suggests that being on the Matrix reduces offending when compared to what would otherwise be expected for the cohort. This also applied when looking at violent offending.²⁰ The overall approach is innovative and reasonably robust. The work – outlined at greater length in Appendix 4 - has been peer-reviewed by academics at University College London. As with other quasi-experimental designs, absolute statements of causation are not possible, but the approach is able to provide useful insights that could be built upon in further research.

Digging deeper into impact

So far, we have looked at *proven offending* but there are other measures in terms of impact that can be explored such as timeliness of arrest; levels of victimisation and the number of stop and searches. This section now considers these issues.

Timeliness of arrest

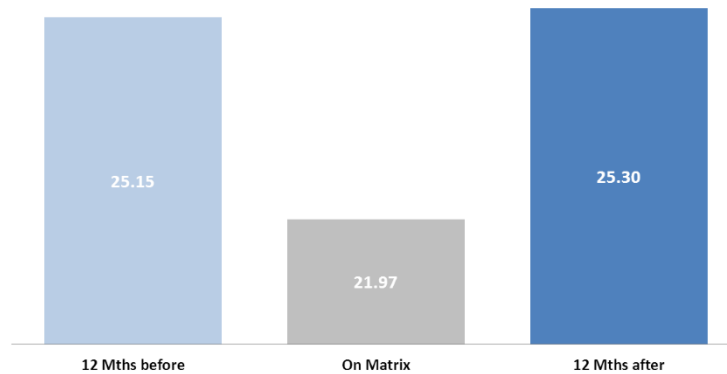
Timeliness of arrest relates to the time between when an individual committed an offence and when they were arrested for it, the rationale being that increased attentions resulting from Matrix inclusion mean individuals should be arrested quicker once an offence is committed. Across all three time-periods (i.e. before, during and after), nearly two thirds of arrests of Matrix individuals were made on the same day as the offence was committed. When considering averages, we do see that individuals on the Matrix are arrested, on average, four days quicker than either before or after their inclusion on the Matrix.

The time between offence and arrest gradually increases the longer individuals stay on the Matrix, perhaps indicative of changes in offending behaviours and police attentions.²¹ The quicker speed to arrest gives us a proxy of more intensive policing of individuals while on the Matrix. Importantly, the speed returns to pre-Matrix levels once individuals are removed.

²⁰ Violent offending was defined as 'Offences against the person', 'robbery' and 'weapons possession'.

²¹ Offence date and arrest date was used as available within the PNC dataset. This is not intended to be representative of investigative efficiency and it is recognised that many investigative variables are not accounted for (CCTV circulation; suspect identification etc.).

Graph 6: Average days between offence and arrest



It is also possible to explore the difference between arrest and conviction, a proxy for the wider criminal justice service. There was little difference in the time between arrest and conviction²² across the three periods, suggesting that while the Matrix is having an impact on policing activity, inclusion is not influencing the wider criminal justice service.

Through our community engagement work we heard concerns that the Matrix was used at court to seek longer or harsher sentences for those that featured on it. For a case to progress to conviction the facts must be proved to a judge or jury, or in the case of civil enforcement, a pattern of harassment, alarm or distress must be proved. Matrix inclusion alone, without this evidence, would not lead to a conviction, order or injunction, but there is a pertinent question about whether inclusion leads to tougher sentencing.

The MPS' Matrix Operating Model is clear that Matrix inclusion should not be used in court, and 74% of MPS respondents did not believe that being on the Matrix meant tougher sentencing outcomes.

However, 42% of MPS practitioners who responded to our survey said they frequently or often used the Matrix as legal evidence for gang membership. Whilst we identify no legal issues with this discrepancy, it is a clear demonstration of inconsistency between guidance and practice, and the need for further training of officers on applying the Matrix Operating Model on a consistent basis.

While the information we have had access to highlights discrepancies on the use of Matrix information in sentencing, we note the challenges in coming to firm conclusions around it because the Matrix does not currently capture details of interventions that result from an individual's inclusion. MOPAC will work with the MPS and local authorities to explore better ways to capture future information on interventions received.

²² Days between arrest and conviction: 125.1 days before going on Matrix; 124.6 days during; 129.7 after removal.

Stop and search

Stop and search remains a high-profile issue for policing in London and around the country. In recent years, the MPS has made a concerted effort to reduce stop and search, with a resulting 42% reduction in the number of stops and searches conducted between 2014 and 2017. During that period there was a 29% reduction in the number of black individuals stopped and searched, compared to a 54% reduction for white individuals. Currently, black individuals in London are more than four times more likely to be stopped and searched than white individuals.²³

Of the total number of people stopped and searched in London by MPS officers between April 2017 and March 2018,²⁴ current Matrix individuals accounted for 2% (n=1,541). This represents 37% of individuals on the Matrix being stopped during this period. In total, 3,585 stops and searches were conducted on these individuals – an average of 2.3 stops per person. Individuals not on the Matrix were stopped an average of 1.4 times.²⁵

Analysis also compared similar groups in terms of ethnicity and age. For black individuals aged 18-21, the difference in average stops remains broadly the same; those stopped while on the Matrix averaged 2.1 stops per person compared to 1.5 stops for individuals not on the Matrix.

It is therefore clear that Matrix individuals are subjected to stop and search at a greater rate than the population of individuals stopped who are not on the Matrix. This finding is broadly in line with previous research conducted on stops on gang and non-gang members involved in the London riots, which found that ‘the stop and search tactic is more finely attuned to intelligence into recent criminal activity or known gang membership’ (Stanko & Dawson 2012 p.7).

In terms of outcomes, 26% of Matrix individuals stopped and searched were arrested, with No Further Action (NFA) taken on 69% of stops. In comparison, those never on the Matrix were arrested 19% of the time, with a similar proportion NFA’d (67.5%). These similarities in outcomes suggest that Matrix individuals are not being stopped any more arbitrarily than non-Matrix individuals.

Analysis also explored the differences in the frequency and concentration of stops before, during and after inclusion on the Matrix.²⁶ The proportion of individuals stopped from the

²³ Stop and Search data taken from the MPS Stop and Search Dashboard. Disproportionality is calculated on year projection population figures (source: London Data Store).

²⁴ This relates to records where an individual can be identified. There were 132,699 recorded stops between April 2017 and March 2018, of which 126,118 could be assigned to identifiable individuals (e.g. details not withheld, date of birth provided). See methodology for further details.

²⁵ 88,846 individuals over 120,369 stops

²⁶ Due to a change in data management systems, individual level stop and search data for Matrix individuals was only available from 1st January 2016.

available cohort was compared in the two years prior to being added to the Matrix, the first two years of Matrix inclusion, and the two years following removal.

As expected, stop and search increased the nearer individuals got to inclusion on the Matrix. Once on the Matrix, the proportion of individuals being stopped decreased, replicating the change in offending patterns discussed elsewhere in this Review.

This suggests that individuals may not be targeted at the levels some anecdotal evidence suggests; whilst there is evidence that some individuals are repeat stopped, a greater proportion of individuals were not stopped at all (or stops were not recorded) in the period of analysis.

To illustrate:

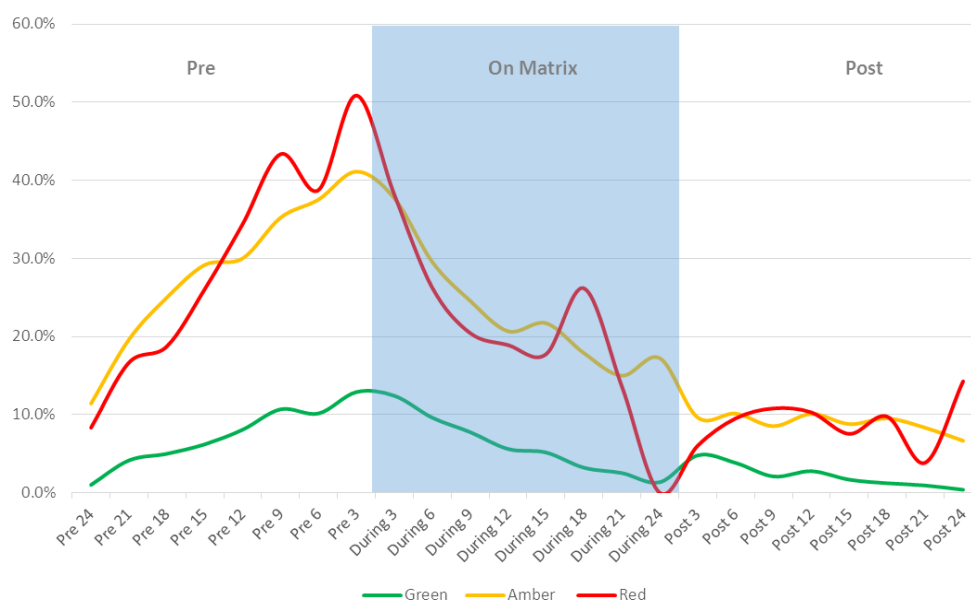
- **36%** of the cohort were stopped at least once in the three months prior to being added to the Matrix (Average 0.63 stops per person; 1.72 for only those stopped at least once). The maximum number of stops on one individual in this period was seven.
- **32%** of the cohort were stopped at least once in the first three months after being added to the Matrix (Average: 0.62 stops per person; 1.92 for only those stopped at least once). The maximum number of stops on one individual in this period was ten.
- **10%** of the cohort were stopped at least once in the first three months after being removed from the Matrix (Average 0.12 stops per person; 1.21 for only those stopped at least once). The maximum number of stops on one individual in this period was four.

This latter point suggests a reduction in police attention following removal from the Matrix is a significant one, potentially allaying concerns about Matrix status ‘following’ an individual after removal.

Analysis found little difference in the level of stops between ethnicities. The figures also highlight the large variation in the number of stops between individuals; these are often concentrated within a relatively short time period. The differences in levels of stops between the different harm bandings when first added to the Matrix was also explored.

Here, the difference between high risk (Red and Amber) individuals and lower risk Green is stark. Only 13% of Green banded individuals were stopped in the 3 months before being added to the Matrix, compared to 51% of Reds and 41% of Ambers. Once on the Matrix, the difference in the level of stops between Green and the higher harm bands continues to be apparent. Thus, analysis suggests that generally the police are targeting those individuals with greater levels of offending, rather than simply using the Matrix as a reason to stop.

Graph 7: Proportion of Matrix individuals stopped by harm status on inclusion



Levels of victimisation

The protective aspect of inclusion on the Gangs Matrix is an important, but often overlooked element. This is especially so given the evidence shown earlier in this Review about the higher severity of gang-related violence. Young black males are disproportionately represented as victims of serious violence in London - the likelihood of victimisation for knife crime with injury for black males aged 18-24 is 5.9 times greater than that for white males aged 18-24.²⁷ Analysis explored victimisation of Matrix individuals before, during and after inclusion.²⁸ Once again, analysis (set out in Table 5) demonstrates increased levels of victimisation - including violent victimisation²⁹ - in the period directly before inclusion to the Matrix, a reduction in the six months after being added and a greater reduction in victimisation after removal from the Matrix.

Table 5: Proportion of cohort as victims of violence on MPS crime reports (01/01/2014-31/03/2018)

Period	Cohort	Victim Reports	Victims	Avg Victims (all)	Avg Victims (victims only)	Proportion Victims
Six months before Matrix inclusion	2536	440	373	0.17	1.18	14.7%
Six months during Matrix inclusion	2775	394	341	0.14	1.16	12.3%
Six months after Matrix removal	2881	128	119	0.04	1.08	4.1%

²⁷ FY2017/18 data. Black males aged 18-24 have a victimisation rate for Knife Crime with Injury of 9.64 per 1,000 population. White males aged 18-24 have a victimisation rate for Knife Crime with Injury of 1.63 per 1,000 population.

²⁸ Victimisation identified through Crime reports between 2014 and March 2018. It should be noted that it is more likely some victims will be missed from the dataset due to the matching and extraction techniques available.

²⁹ CRIS reports relating to Violence against the Person, Robbery and Weapons Possession Offences. Serious sexual offending was low prevalence across the cohort and therefore excluded along with various several other violent crime types of low prevalence.

Victimisation follows a similar pattern to offending, with sustained lower levels both during and crucially after removal from the Matrix. This suggests that the Matrix has an important role in reducing harm amongst those included in it, particularly young black males.

Graph 8: Proportion of cohort victims of violence on MPS crime reports (01/01/2014-31/03/2018)



Practitioner perceptions - impact

Practitioners offered mixed opinions in terms of the perceived impact of the Matrix, with Local Authority practitioners being slightly more optimistic than police officers that the Gangs Matrix had helped reduce gang violence. Police officers generally saw the Matrix as an efficient monitoring system for violent gang members, and a useful tool to direct police resource, although Local Authority practitioners were more reticent. Several respondents emphasised a need not to overcomplicate a tool that served them well as one element of a suite of approaches:

“The Matrix is a police tool and used with additional systems is an excellent document. It should not be overly complicated ...there does not need to be a vast amount of info ... a danger that over-complication would lead to the Matrix not being managed effectively.”
(Police Officer)

In terms of positive outcomes, all groups were also unsure that being on the Matrix gives individuals a better chance to exit gang life. Several respondents raised concerns around the focus on – and resource dedicated to - gang individuals compared to those not on the Matrix, questioning whether this left a resource ‘vacuum’.

“It puts up barriers to resourcing any enforcement against those ‘not on the Matrix’ and suggests that they’re not ‘at risk’ simply because they’re not on.” (Local Authority Practitioner)

However, the lack of standardised collection of data on non-criminal justice interventions with Matrix individuals limits the evaluation of the specific drivers of these outcomes.

Some police officers and local authority practitioners interviewed noted the low harm bandings – or omission altogether – of influential or high-ranking criminals from the Matrix as an issue of concern. The response below is indicative of a perception that some ‘hands-off’ criminals were not scoring as highly as they should be.

“High level criminals/most influential often don’t appear or appear at a very low level - possibly because they are not getting arrested or doing the ‘dirty’ work.” (Local Authority Practitioner)

Reflections and recommendations

The evidence shows that across various measures, the Gangs Matrix does appear to reduce offending and victimisation amongst the individuals included on it.

It is also positive that after removal from the Matrix, victimisation and offending remains low whilst speed of arrest returns to pre-Matrix levels; and based on our analysis there is no evidence of increased police activity or offending once removed from the Matrix. We see positive indications in the movement of individuals from one harm banding to another and that over time, many Matrix individuals will be assessed as being less likely to be the perpetrator or victim of violence than they were when they were first brought on to the Matrix.

However, as we are clear, it has not been possible with the data and information available to isolate the elements or combination of factors contributing to the identified effects. It is also not possible to be definitive that the impacts identified are a product of correlation or causation.

There are questions around the harm bandings, whether the inclusion of individuals with the lowest harm scores is appropriate and how the risks facing these individuals are best addressed through a public health approach.

Analysis indicates that those going on at Red and Amber are most often (but not always) individuals with histories of proven serious offending, and that they are also more likely to be victims. In contrast, fewer Green individuals have previous sanctions for serious offending and a significant proportion do not receive such a sanction when placed on the Matrix, raising questions as to the justification for their inclusion.

Recommendation: That the MPS improves systematic data capture across all aspects of the Matrix process. To include but not limited to:

- demographics of Matrix individuals (gender, age and ethnicity);
- nature and extent of police activity for those on the Matrix; and
- nature and extent of non-enforcement interventions (needs, referrals, uptake and outcomes).

We further recommend that MOPAC and the MPS conduct an annual review of the Matrix population, in comparison with the wider London gang and violent offending profiles.

MOPAC will also convene partners to discuss options for enabling better collection of data on the impact of non-criminal justice interventions.

Recommendation: MOPAC will oversee implementation of the recommendations in this Review - and transparency in this work - by:

- requiring the MPS to report annually on progress against recommendations to the MPS Ethics and Audit panels and publishing those reports; and
- ensuring progress against recommendations are reported to the MOPAC / MPS Oversight Board.

Recommendation: We recommend a thorough reappraisal of the individuals in the Green category, with a focus on: those that currently score 'zero-harm'; those that have never had a harm score or have remained in the Green category for their entire time on the Matrix; and those under the age of 18. This reappraisal should begin as soon as possible and be concluded no later than 31st December 2019.

This reappraisal should consider whether: the level of risk they present justifies their continued inclusion; their inclusion is consistent with the published purpose of the Matrix; and whether their inclusion is compatible with Article 8 (2) of the Human Rights Act 1998. Where an individual does not meet these criteria, they should be removed from the Matrix.

Gangs Matrix

Processes

The Gangs Matrix has been the subject of intensive scrutiny and debate as to its lawfulness – as a concept and in its operation.

As part of this Review, MOPAC has carefully considered - with particular regard to equality and privacy - reports by Amnesty and StopWatch, engaging with both organisations. MOPAC has also engaged with the Information Commissioner's Office, who have conducted their own investigation into the Gangs Matrix and given an enforcement notice to the MPS as a result of serious breaches of data protection law. Further, MOPAC has reviewed the legal position on several key issues.

Issues arising under the Human Rights Act 1998 (“HRA 1998”) in relation to European Convention on Human Rights (ECHR) Articles 8 and 14.

The Authorised Professional Practice (APP) document for police officers states that:

Human rights principles underpin every area of police work. From basic probationary training through to senior management courses, officers learn that human rights must sit at the heart of the conception, planning, implementation and control of every aspect of the operations of the police service. Section 3 of the HRA requires that the police must interpret and apply their legislative powers in a manner which is compatible with the ECHR.

HRA 1998, section 6(1), provides that it is unlawful for a public authority to act in a way which is incompatible with a Convention right.

Article 8 of the ECHR provides as follows:

(1) *Everyone has the right to respect for his private and family life, his home and his correspondence.*

(2) *There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others.*

There is no doubt that the creation and maintenance by the MPS Commissioner of a database such as the Gangs Matrix would involve an interference with the right to respect for private life under Article 8(1). The question in relation to the Gangs Matrix is whether that interference can be justified under Article 8(2).

Legal opinion sought by MOPAC is that the Gangs Matrix is capable of being operated consistently with Article 8. However, inclusion on the Matrix leads to a set of specific consequences for individuals in terms of their interaction with the MPS; and the nature of those consequences will vary, depending on the individual's Red, Amber or Green rating. Therefore, the MPS' lack of a clear, publicly available policy document specifically setting out how the Matrix operates is an important shortcoming.

Article 14 of the ECHR states:

The enjoyment of the rights and freedoms set forth in this Convention shall be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status.

Article 14 does not provide for a free-standing right not to suffer discrimination. Rather, it relates to discrimination in connection with the enjoyment of the Convention rights themselves. Article 14 will therefore always need to be considered in conjunction with one or more of the other articles in the Convention.

The criticism of the Gangs Matrix in relation to Article 14 is that it has a disproportionate impact on the black population of London, and that it therefore discriminates between black Londoners and others in relation to the enjoyment of the Article 8 right to privacy. In other words, black Londoners are more likely than others to suffer an interference with their Article 8 right as a consequence of the operation of the Gangs Matrix. However, we must also consider the other, protective aspect of the Gangs Matrix. Young black males are disproportionately likely to be the victims of violence and there is an argument that any measures to tackle the harm caused by gang crime are likely to disproportionately affect that demographic group.

It has also been suggested that the application of the concept of a 'gang' in practice involves stigmatising elements of black street culture. As a result, black people are disproportionately represented on the Gangs Matrix.

However, it is difficult to determine whether or not this is the case. The MPS has not completed an Equality Impact Assessment of the Gangs Matrix – a serious concern raised through our consultation and engagement and described in more detail later in this Review. We welcome their commitment to urgently rectify this issue.

We further discuss the issue of disproportionality and make our recommendations on this issue elsewhere in this Review.

Data protection

With effect from 25th May 2018, the Data Protection Act (DPA) 1998 was repealed and replaced by a new data protection regime set out in the General Data Protection Regulation (“GDPR”); the Data Protection Act 2018 (“DPA 2018”); and Directive (EU) 2016/680 (“the Law Enforcement Directive”). The new data protection law is complex. The main provisions are set out in the GDPR; but DPA 2018 contains various supplementary provisions which are necessary in order for the GDPR to have effect in the UK. In addition, DPA 2018 complies with the UK’s obligation to give effect to the Law Enforcement Directive: see Part 3 of DPA 2018, dealing with Law Enforcement Processing.

The Gangs Matrix falls within the scope of the Law Enforcement Directive and of Part 3 of DPA 2018. DPA 2018 sets out six data protection principles. The most significant are the first and second principles.

The first principle requires that the processing of personal data for any of the law enforcement purposes must be lawful and fair (DPA 2018, section 35). In order to satisfy this requirement, the processing must be based on one of two conditions: either the data subject must have given their consent, or the processing must be necessary for the performance of a task carried out for the law enforcement purpose by the competent authority. Clearly, the consent condition will not be satisfied in relation to the Gangs Matrix, and so it is the second condition that is relevant.

The second data protection principle is set out in DPA section 36(1). It requires that personal data that is collected for a law enforcement purpose must not be processed in a manner incompatible with the purpose for which it was collected. At first sight this is inconsistent with the fact that the Gangs Matrix involves making use of personal data collected for other policing purposes, so as to generate an individual’s score for the purposes of the Gangs Matrix. However, section 36(1) is subject to section 36(3), which provides as follows.

Personal data collected for a law enforcement purpose may be processed for any other law enforcement purpose (whether by the controller that collected the data or by another controller) provided that –

- (a) the controller is authorised by law to process the data for that purpose, and
- (b) the processing is necessary and proportionate to that other purpose.

Legal opinion is that provided, again, that the requirement of proportionality is met, this would permit policing data that was originally collected for some other purpose to be used in calculating individuals' Gang Matrix scores.

Legal advice suggests that, provided that the Gangs Matrix satisfies the requirements of Article 8, it is likely also to satisfy the requirements of the first and second data protection principles.

With regard to the rights of data subjects, a question has been posed about whether the law requires that individuals who are listed on the Gangs Matrix must be specifically informed of that fact. This must be balanced with the operational requirements of policing and keeping the public safe – it is clear that disclosing information about persons on the Matrix to those persons may compromise operational activity to reduce harm and protect the public. However, we return to the point raised earlier in this section about the lack of public information on the Matrix, how it operates and what it means to those on it. In our recommendations, we put forward suggestions for greater transparency, with a view to balancing the rights of the public to access information about policing and understand how individuals' data is processed and stored, whilst at the same time not compromising operational effectiveness in protecting the public.

More broadly, in light of all of the above and in the knowledge that the ICO investigation found contraventions of the data protection principles, we welcome the investigation by the Information Commissioner's Office around data protection. Their findings in many cases overlap with those of our Review. We have worked closely with them in developing this Review and fully support their recommendations, as well as the MPS's action plan to rectify the issues identified.

Statutory duties to share information

Alongside the requirements to act within the human rights and data protection legislation outlined above, there are multiple pieces of legislation that place a duty on the police, local authorities and other bodies such as the NHS to share information for the purposes of crime reduction, safeguarding and promoting welfare and wellbeing. Often it is pursuant to these aims that information about a Matrix individual is shared between statutory agencies.

RIPA

The Regulation of Investigatory Powers Act 2000 (RIPA) is another consideration as it relates (among other things) to the use of social media as an information source in relation to the Gangs Matrix. There are two types of authorisation that may be required for social media monitoring under RIPA:

- authorisation for use of a covert human intelligence source (CHIS); and
- authorisation for directed surveillance.

It has been suggested that authorisation for use of a CHIS is required where a police officer forms an online relationship with a person (e.g. by “friending” them on social media) without disclosing their true identity.

In cases where the only direct interaction between a police officer and a person of interest is that the former sends a friend request (without disclosing that they are a police officer) and the latter accepts it, legal advice suggests that this would not give rise to a sufficient relationship to require authorisation as a CHIS. However, if the social media interaction is more extensive than this, a different analysis might apply.

It has also been suggested that where the police view public profiles and access open source material in order to help inform a decision as to whether an individual should be listed on the Gangs Matrix, then in every case this should require authorisation for directed surveillance under RIPA.

It is however doubtful that viewing and considering material that has been placed online by an individual and made publicly available by them would usually constitute surveillance for RIPA purposes. If the viewing was intensive and repeated in relation to a specific target individual, then this might perhaps cross the line into being directed surveillance, but it is not easy to define where the border might be.

Reflections and recommendations

In principle, the Gangs Matrix can operate in accordance with the law. Its purpose – to reduce crime and disorder - is clearly in line with Article 8(2). The Operating Model provides the framework for ensuring that decisions on inclusion are not made in an arbitrary manner. Furthermore, as the analysis in this Review has shown, inclusion on the Matrix is about more than tackling perpetrating behaviour – it also has a protective impact, reducing victimisation. The Commissioner believes the Matrix is essential in tackling serious violence in London.

However, it is equally clear from the findings of the ICO investigation that urgent action is needed to strengthen process around the storage, management and sharing of data and information; that the MPS must be absolutely clear on the purpose of the Matrix; and that transparency – where operationally possible - must be at the heart of the MPS’s use of the Matrix going forward.

We are clear that, whilst it is vital that these steps are taken, it is also vital that the community has confidence that these changes are being made and that they will have a positive impact on the Matrix.

In our view, engaging with an independent third party as we work to deliver this Review's recommendations – the Equality and Human Rights Commission - will provide important additional insight and assurance for the benefit of all concerned.

Recommendation: We recommend that the MPS urgently improve their current Matrix processes to ensure that personal **data and information** are stored, managed, shared, protected and transmitted safely and appropriately, with particular reference to:

- ensuring compliance with data protection principles and legislation, including the completion of a Data Protection Impact Assessment;
- who the Matrix information is shared with outside of the MPS;
- ensuring that any sharing of personal information is necessary and proportionate; and
- implementing any recommendations set out in the ICO enforcement notice.

Recommendation: We recommend that the MPS improve **transparency** by producing, by the end of 2018, publicly available, plain English and accessible information that:

- answers frequently asked questions about how the Matrix works and its purpose;
- sets out the governance and oversight mechanisms the Matrix is subject to;
- explains the training officers receive that helps them implement the Operating Model;
- describes the practical effect for an individual of being on the Matrix;
- clarifies how information is shared and who with;
- explains how an individual is added to and removed from the Matrix;
- describes how the multi-agency process works; and
- describes the relationship between the Matrix and the response to serious organised crime.

Recommendation: That MOPAC and the MPS engage with the Equality and Human Rights Commission as we deliver the recommendations in this Review and the ongoing work of the Gangs Matrix, supporting the MPS' work to further assess issues around human rights, disproportionality and produce an Equalities Impact Assessment.

In practice - how the Gangs Matrix is used at a borough level

In some London boroughs – such as Westminster, Hackney, Lewisham and Islington - the response to young people involved in gangs and serious youth violence is co-ordinated through the Integrated Gangs Unit (IGU). The IGU differs on a borough basis but can be made up of roles such as police officers, specialist youth workers, analysts, council enforcement officers, mental health nurses and employment workers; and often has strong partnership links with probation services, youth offending workers, youth centres, the Multi-Agency Safeguarding Hub (MASH) and social workers.

The principle of the team is to provide a tailored response to an individual young person who has been highlighted as being involved in youth violence or who is being exploited by a group or gang. This response might involve targeted enforcement of those where evidence and intelligence (the Matrix, or through partner or community intelligence) identifies an individual who is involved in violence. This enforcement is generally led by the police officers in the unit and is designed to reduce the risk of future violence from or against that individual. Examples of responses for each harm banding are included earlier in this document. Where there is evidence of a pattern of harassment, alarm or distress (e.g. witness statements) council enforcement powers may be used to pursue civil enforcement such as anti-social behaviour injunctions.

For most individuals this response will include the offer of intensive mentoring and support for an individual, from a council specialist youth worker or a charitable organisation such as St Giles Trust, if they are willing to engage on a voluntary basis.

The nature of this work varies depending on the needs of the individual and often is planned with the young person. It might be safety planning work, teaching conflict resolution skills, treatment for mental and physical health problems such as post-traumatic stress disorder, or support to reengage with medical help to treat historic injuries (e.g. stab wounds) that the young person did not seek medical assistance for at the time.

The Matrix can play an important role in prioritising those young people who receive this multi-agency planning and resource. In some areas, the Matrix helps to identify the top 15-20 young people to go for discussion at a multi-agency Gangs Panel – usually those that score most highly on the Matrix. Frontline practitioners that have a role in that young person's life – this could be a social worker, probation officer, a support worker (from a charity) are invited to a designated time slot at the Gangs Panel and support and enforcement actions are agreed. On some areas, as well as those identified as posing the most risk of violence, the multi-agency Gangs Panel also looks at those that have moved

substantially up the Matrix to look at why the risks have increased around that young person and what enforcement, support and/or interventions can be put in place.

Practitioner perspectives – aims and purpose of the Matrix

Both police and local authority practitioners surveyed for this Review were clear on the overarching aims of the Matrix to identify, prioritise and manage risk of high-harm individuals. However, only a quarter of both groups specifically mentioned targeting violence when describing the key aims of the Matrix. As the fundamental focus of the Matrix, this suggests practitioners might hold different perceptions of harm in terms of violence versus the ‘hands-off’ influence and coercion of higher-level gang members.

Police practitioners highlighted the Matrix’s usefulness as an indicator of gang membership and as a tool to inform local analysis and briefings. Nearly two-thirds of police respondents also saw it as a mechanism to assist with providing appropriate support or interventions, though nearly the same proportion viewed it as a performance management tool. Views on its use as an evidential tool for gang affiliation were also mixed, with 35% never using it this way and 42% using it this way frequently or quite often. Additional uses included assisting with the actioning of intelligence such as warrant applications.

“The Matrix gives me a steer on violent gang members. It’s really useful for me to direct proactive work... however...those not on the list shouldn’t be ignored.” (Police Officer)

Local authority practitioners saw the Matrix as a useful partnership tool to inform, assess and manage risk. As with police officers, they highlighted its benefits in monitoring offending, directing interventions and to inform various assessments. These included pre-sentencing reports, Youth Offending and Probation risk assessments, Children’s Social Care assessments and housing options, highlighting the breadth of the influence of the Matrix.

“Presence on the Matrix is one of the risk factor considerations when developing interventions.” (Local Authority Practitioner)

Local authority practitioners also suggested that the Matrix provided a useful starting point for inter-agency discussions concerning engagement, interventions and enforcement. Some boroughs were positive around the levels of partnership working:

“Our partnership links with MPS are good. [The] MPS co-chair our Youth Offender Management Panel, Gangs and SYV Panel.” (Local Authority Practitioner)

For police officers, further benefits included a provision of accountability and a corporate memory for gang related crime. Local authority practitioners recognised its benefits in

targeting interventions. Both groups were positive around the way it enabled effective monitoring of offending through a consistent approach to harm scoring.

“It is a convenient list of gang membership to enable targeted engagement & enforcement work.” (Police Officer)

A key theme emerging was a consistent misrepresentation of Matrix as a *comprehensive* gangs list. The Matrix is consistently referred as a list of all gang members in London and there exist numerous examples of this in the media, by politicians and in policy documents. Many officers saw the Matrix as a useful tool to confirm gang affiliation, although others recognised there were divergent understandings:

“Officers that believe if they are not on the Matrix they are not a gang member - very common with senior officers.” (Police Officer)

There was acknowledgement amongst some Voluntary and Community Sector practitioners that the Matrix is used to support at-risk individuals but also a perception that it may be used differently or understood differently by different organisations and that there needs to be a clear set of criteria on its use and purpose. Several respondents believed that it was misunderstood by communities also:

“There are big misunderstandings amongst communities, activists and individuals about how the Matrix works and why it is there. These mistakes and misunderstandings have now found their way into popular gossip and belief, but they are often untrue and unchallenged.” (VCS Respondent)

This underlines the need for clarity, transparency and proactive communication of the purpose of the Gangs Matrix, who should be on it and why - within the MPS, with partner agencies and with the general public.

Addition and removal from the Matrix

Practitioners had mixed views as to whether the right individuals were always being selected for the Matrix. Reasons for this were wide-ranging, with many stemming from different interpretations of the overarching aims and purpose of the Matrix as described. Some were more closely linked with differences in local policy and practice as the following section will explore.

Nearly two-thirds of police officers surveyed for this Review acknowledged the difficulties in confidently assigning gang affiliation to individuals, and this is an important statistic to keep in mind in relation to the wider issue of unconscious or conscious bias in identifying

potential gang members. Five out of 23 boroughs indicated that they did not keep a record of the (two plus) sources used to confirm gang membership, which underlines the need for greater consistency in process and enhanced training for all who use the Matrix.

Eligibility criteria varies significantly between boroughs, with both respondents and documentary evidence indicating that inclusion may be based on a number of parameters such as gender, age and offending levels. Most local police practitioners thought that female gang members were under-represented on their local Matrix.

Some local authority practitioners felt that the MPS recognised the value of the intelligence they provided concerning gang membership and potential inclusions:

“We contribute information/intelligence, that feeds into police intelligence, which contributes to an individual's Matrix score” (Local Authority Practitioner)

However, there were mixed opinions on the extent to which their views on inclusion were taken on board, often dependent on the frequency and configuration of local multi-agency arrangements and personal relationships:

“We were having meetings every six weeks where we would discuss the Matrix and negotiate who would be discussed at the GMAP meetings. However, over the last three months this has fallen by the wayside, I think due to a lack of resources from the police. (Local Authority Practitioner)

Criteria for removing an individual from the Matrix include:

- evidence that they are not engaging in gang activity and group violence and have not done so for a period of time;
- they are engaging in a diversion program for a period of time (6 months) and have not come to police notice since that engagement started;
- they have not come to police notice for a significant period (6 months+);
- they are deceased or have been deported; or
- they have moved away from London and are no longer believed involved in gang criminality within the Metropolitan Police area.³⁰

Survey findings suggest that, in practice, the decision to remove individuals from the Matrix is far more police-orientated.

³⁰ Most areas outside London use a national tool to monitor those involved in organised crime – the OCGM Organised Crime Group Management tool – and this can be where their higher-level gang individuals are tracked. Some other areas use local violence tracking tools, but these tend to be local and not centrally collated like the MPS Gangs Matrix.

“Police usually make the decision as to who is removed and sometimes consult the authority” (Local Authority Practitioner)

We found that there is variation across boroughs as to when Matrix members are removed: for instance, time periods for ‘not coming to police notice’ ranged from anything between three and 24 months, though most boroughs did not actually specify a time period.

Risk aversion was a common reason given for non-removal, meaning that individuals with no recent offending or victimisation history could be kept on, ‘just in case’ something happened, as one officer describes:

“There is an element of fear that if a person is removed completely and they then become a victim or suspect of serious gang-related violence there would be heavy criticism.”
(Police Officer)

Others indicated that although some individuals should perhaps be removed, management would not allow them to do it:

“I have attempted to remove over twenty subjects from the Matrix who do not conform. I have been told I cannot and they will fall away naturally.” (Police Officer)

Findings indicate that reluctance to remove individuals also relates to the use of the Matrix as a long-term gang intelligence tool. For many officers, it presented an ‘easy point of reference’ to identify an individual’s gang affiliation. One borough indicated that ‘elders’ were kept on the Matrix despite zero scores, to ensure new officers were aware of their historic affiliations.

“[The Matrix] provides a corporate memory - individuals are remembered, highlighted, discussed and either engaged with or targeted.” (Police Officer)

Non-police respondents also voiced concerns with the removal process; over half of Voluntary and Community Sector (VCS) practitioners were not confident that individuals are removed from the Matrix if they are no longer involved in gangs.

Training on the Gangs Matrix and related areas

Perhaps linked to discrepancies in process, respondents indicated a need for training in some areas. Specifically, just under half of Matrix borough Single Points of Contact (SPOCS)³¹ reported receiving no or inadequate training on Matrix administration.

³¹ Always police officers – usually a Detective Constable (DC) or Detective Sergeant (DS)

Police practitioners also indicated little or no training around the Gangs Operating Model, an overarching suite of documents which outlines all elements of the MPS' operational approach to gang policing including Matrix processes.

Just over half of local authority practitioners reported receiving either inadequate or no training on the Matrix. Several local authority practitioners believed there would be benefits in extending the gang focus wider than those directly involved in the Matrix:

“It would be helpful for the gangs unit to give this information to a wider audience than just those involved with the Matrix.” (Local Authority Practitioner)

Another suggested that a coherent, transparent, partnership approach to training would be beneficial:

“I think the police and partners should undertake the same training re: gangs. When using different providers people learn different things and there is no consistency...we can also to build better networking relationships...” (Local Authority Practitioner)

Oversight and governance

The Matrix is not centrally controlled; MPS boroughs have ownership of their local gang Matrix and differences in local organisational configuration, partnership integration and policy will impact on the way the Matrix is maintained, including who is selected and removed from the Matrix.

The influence of partners on the Matrix and wider gang processes appears dependent on local configuration and integration. For example, local authorities might have different Single Points of Contact (SPOCS); this could be the head of Youth Offending Service on one borough or the Head of Community Safety on another. As highlighted previously, the partnership element of the Matrix selection and removal process generated some apparently contradictory views. Few police officers highlighted or acknowledged the partnership element of the Matrix, with a majority disagreeing that a consensus on removals or additions was usually reached with local authority counterparts. Conversely, most of the local authority practitioners interviewed believed that local authorities and police usually agree on who to add or remove. Local authority practitioner opinion as to whether police give sufficient consideration to their views was evenly split.

“...it gives the whole Panel, which includes Youth Offending Services, Probation, Local Authority, Safer London, Youth Services, Education and Health, a sense of ownership and inclusion in the decision making.” (Police Officer)

The role of resourcing in dictating numbers placed on local Matrices appears significant. This is true both in terms of dedicated analytical resource to identify potential violent gang members or to build an accurate analytical picture of local problems. Both groups indicated that local priorities or resourcing affected the numbers of individuals placed on local Matrices.

Insufficient resourcing was also raised by some respondents as a factor contributing to a perceived lack of accuracy:

“Not enough dedicated intelligence or time is allocated to supporting the Matrix. Matrix was run by the BIU and LIT teams supported by central intelligence hubs who now longer exist or to accessed by borough officers. Dedicated - not rotated - staff are needed. This leads to errors and omissions.” (Police Officer)

Resourcing can impact numbers on the Matrix both ways. There was some evidence from surveys to suggest that resourcing limited the numbers on their Matrix. In addition, some boroughs reported lacking sufficient resource to adequately refresh and audit their local Matrix, meaning that individuals who should have been removed were staying on the list.

Most boroughs indicated refreshing their Matrix on a regular basis monthly or more frequently; however, there was no clarity or consistency in what was meant by ‘refresh’.

Of forty-three descriptions of local processes in identifying gang members, only one mentioned analysis at all. For many boroughs, this has meant an increasing use of officers in analysis roles, which appears to be increasingly common across the MPS as resources have become strained. One PC described their work in such terms:

“I link violent offences together...produce i2 [analytical software] association charts and assist with sorting through mobile phone data and use MapInfo [analytical mapping software] to produce maps to support investigations undertaken by our gangs team.” (Police Officer)

In terms of constructive data sharing and analysis, many local authority respondents held similar views, with some boroughs highlighting barriers created by IT systems access, or high staff turnover making it difficult to build trust required to share sensitive information:

“We used to have a meeting between an analyst and police to add / remove individuals. That no longer happens. This reflects the fluctuating police /council relationship based on individuals.” (Local Authority Practitioner)

There was little indication of any robust local oversight of the Matrix process other than the multi-agency panels that might decide inclusion. Some responses suggested this

responsibility was solely in the hands of a single Matrix SPOC. Local quality-control processes varied considerably, with some boroughs relying purely on central oversight.

Reflections and recommendations

Differences in perception between police and other practitioners on the purpose and principles of the Matrix are compounded by inconsistency in process and practice in each borough and by weaknesses in overall governance. These are issues within the gift of the MPS to address and improvements must happen. In line with our responsibilities for overseeing policing in London and holding the Commissioner to account for the performance of the MPS, we will continue to scrutinise progress against this issue and all of the recommendations of this Review.

Recommendation: We recommend that the MPS comprehensively overhaul the Matrix **Operating Model** and review the Model annually. We further recommend that all officers using the Model receive **training** on how to apply the guidance and to do so consistently across all boroughs. Both the Operating Model and the training should have a particular focus on ensuring:

- that the right people are on the Matrix;
- that people are added and removed in a standardised, evidence-based manner;
- that they can be removed and that the 'gang' label will not 'follow' them;
- that local Matrices are refreshed regularly so that individuals don't stay on any longer than necessary;
- that the guidance on the use of social media for intelligence purposes is updated; and
- that the Data Protection principles and legislation are fully applied.

Perceptions and understanding of the Gangs Matrix

As outlined throughout this report, we know that some Londoners have more negative experiences of policing and crime than others, particularly those from BAME backgrounds. The same is true of their views of policing - the percentage of black Londoners who agree that the police treat everyone fairly, regardless of who they are, is 63% compared to the MPS average of 76%.³²

This gap in trust is a significant concern in a system of policing by consent, which depends on the support of the public for its legitimacy and for its license to operate. Moreover, people who have trust and confidence in the police are more likely to abide by the law, cooperate with the police (Tyler 2006) and provide intelligence.

Quite simply, increasing trust in policing increases its effectiveness.

In his Police and Crime Plan, the Mayor has set out his agenda for addressing the disproportionalities we see in policing and crime, with this Review a key element of that work.

Whilst we know that the perpetrators and victims of the crime types targeted through the Matrix are largely young black males, our analysis shows that at present, their representation on the Matrix is disproportionate to their rates of offending and victimisation.

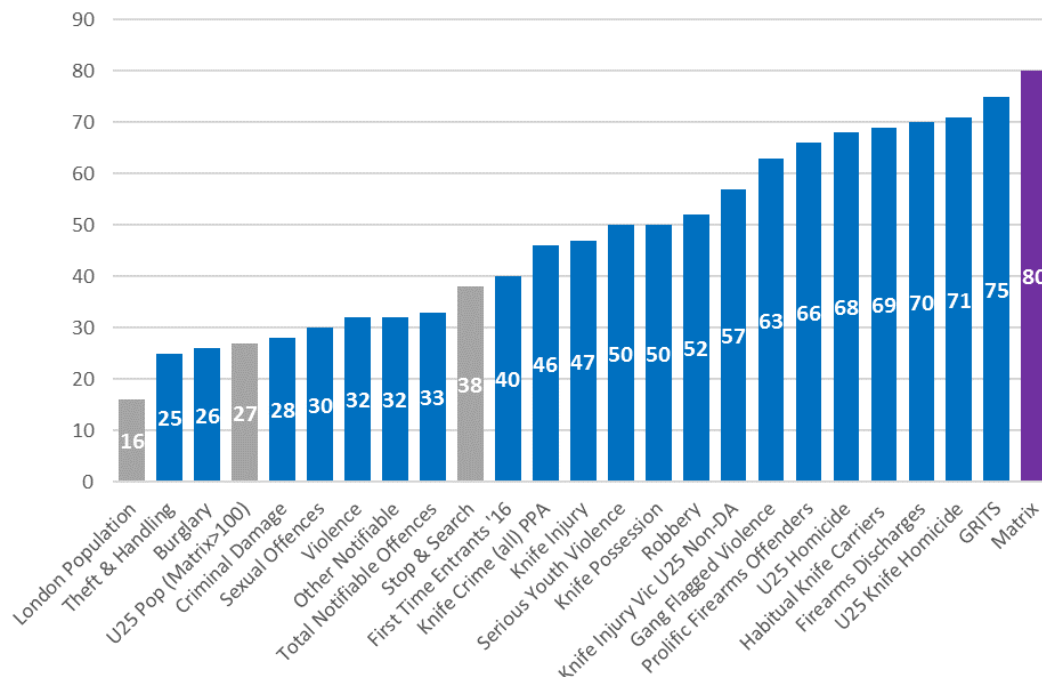
London-level disproportionality

Young black males are disproportionately represented as both victims and offenders in all serious violence.

At a London wide level, the percentage of black, African-Caribbean males on the Matrix exceeds that of the general population, as well as across many crime types, including those most associated with serious gang- or group-related violence.

³² <https://www.london.gov.uk/what-we-do/mayors-office-policing-and-crime-mopac/data-and-statistics/public-voice-dashboard>

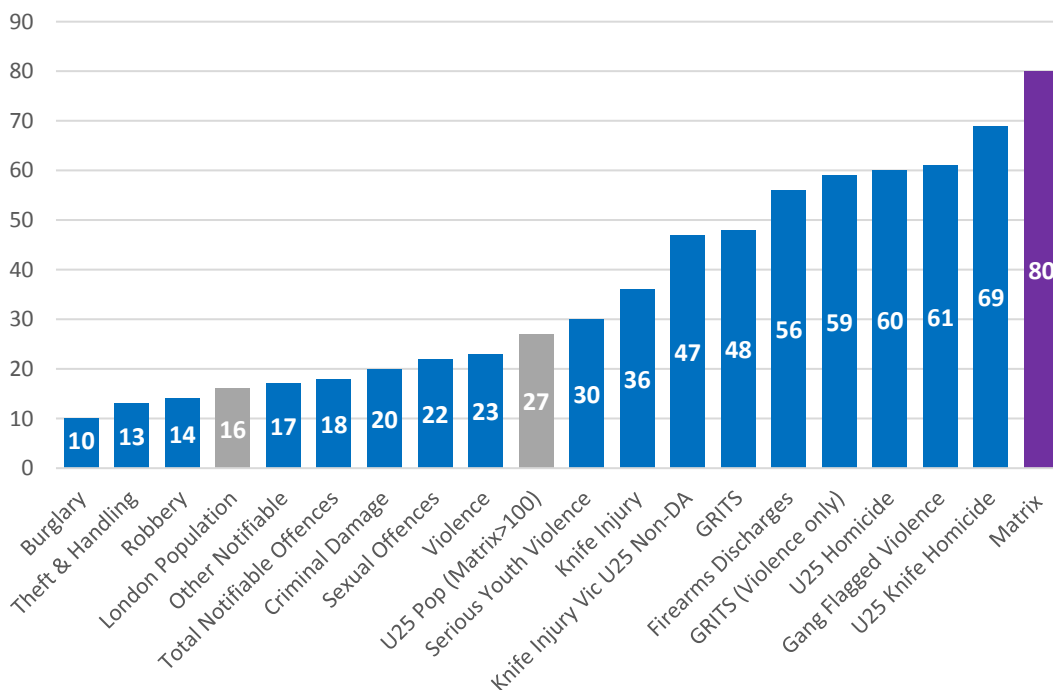
Graph 9: **Offenders** - proportion of black African-Caribbean ethnicity by cohort/crime type³³



*All data relates to offenders (PPA) except Population, Stop & Search and Matrix

The same is true when looking at victimisation:

Graph 10: **Victims** - proportion of black African-Caribbean ethnicity by cohort / crime type



* All data relates to victims except Population and Matrix

³³ Sources: All data for offenders (PPA – Persons Proceeded against) and victims from CRIS FY2017/18 unless otherwise stated: Population projections - 2018 (GLA/London Datastore); Prolific Firearms Offenders/Habitual Knife Carriers - Nov 2018 (MPS Intelligence); GRITS (Gang Related Incident Tracking System) - 2018 to 05/11/18 (MPS Intelligence); First Time Entrants - 2017 (MoJ); GRITS [Gang Related Incident Tracking System] - 17/18 (MPS Intelligence); Knife Possession; Knife Injury (all sub categories); Homicide (all sub categories); Firearms Discharges (Lethal barrelled weapons only); all Nov 16 to Oct 18 (MPS Performance); Matrix September 18 (MPS Intelligence)

Hospital admission data supports police data in identifying young black males as victims of gun and knife related violence - black individuals are over-represented in both the knife injury incidents and gun injury incidents when compared to all injury types.

However, although this London-wide comparison has been used to demonstrate disproportionality by previous research (Amnesty 2018; Williams 2016; Williams 2018), it may exaggerate findings for a number of reasons; there are large demographic variations across London, and young black males are disproportionately represented as both victims and offenders of serious violence.

A more appropriate comparison, and one we have progressed, takes the BAME and black under-25 populations by borough (as the most likely group to be included on the Matrix), the proportion of individuals charged with various violent and group-related offence types; and compares these to the proportion of black/BAME individuals on the Matrix (Tables 6 and 7).

Reading across the tables, the figures highlighted in dark grey relate to the proportions furthest from the Matrix demographic for each borough, those highlighted in yellow are the closest. For BAME individuals (Table 6), there is much variation between boroughs and across crime types. The proportion of BAME individuals charged rarely reflects that of the Matrix. Generally, disproportionality lessens when looking at more serious violent offending towards the right-hand side of the table. However, measurement at this aggregated level of ethnicity masks key differences.

Table 6: For selected offence types, proportion of all charged who are BAME ³⁴

Borough	Population U25 BAME	Wider Offending			Violent Offending			Violence - Weapons				Matrix BAME
		All TNO	Drug Poss	Drug Traffick	Violence Against Person	Serious Wound	Robbery	Weapons	Knife Crime	Knife w/injury	Gun Crime	
Lambeth	56%	62%	65%	69%	61%	62%	76%	78%	74%	64%	69%	95%
Westminster	55%	46%	50%	55%	43%	40%	72%	65%	64%	53%	61%	77%
Brent	72%	64%	73%	76%	64%	63%	65%	77%	67%	68%	77%	96%
Waltham Forest	62%	49%	59%	54%	49%	48%	78%	57%	54%	56%	64%	85%
Newham	80%	64%	72%	80%	62%	60%	85%	74%	74%	69%	77%	94%
Enfield	53%	43%	50%	52%	42%	48%	60%	57%	62%	67%	65%	83%
Barnet	45%	42%	55%	53%	42%	48%	54%	58%	54%	50%	74%	74%
Greenwich	50%	39%	44%	55%	40%	42%	51%	62%	52%	49%	45%	87%
Southwark	58%	55%	57%	62%	56%	58%	73%	76%	65%	71%	70%	94%
Islington	45%	44%	48%	56%	41%	48%	60%	45%	50%	48%	49%	67%
Haringey	48%	51%	60%	73%	47%	53%	64%	60%	60%	63%	62%	97%
Barking & Dagenham	62%	40%	47%	53%	36%	34%	59%	43%	48%	44%	44%	76%
Tower Hamlets	70%	64%	71%	80%	63%	73%	64%	66%	68%	76%	80%	80%
Lewisham	62%	57%	64%	76%	56%	60%	79%	72%	70%	75%	76%	97%
Hackney	54%	60%	67%	71%	59%	59%	72%	74%	72%	77%	63%	96%
Wandsworth	41%	52%	55%	79%	49%	55%	43%	62%	54%	68%	56%	91%
Croydon	64%	55%	62%	68%	54%	54%	77%	71%	72%	90%	81%	91%
LONDON TOTALS	54%	49%	57%	65%	48%	50%	65%	63%	60%	63%	62%	87%

³⁴ Includes only boroughs with average Matrix population of > 100. CRIS data from FY2017/18 except 'Gun Crime' - aggregated 2014/15 – 2017/18 for total notifiable offences where a firearm feature code is present.

Only looking at black African-Caribbean ethnicity, the disproportionality is starker. All boroughs have black Matrix populations at least two times greater than the overall U25 population. Tower Hamlets has a black Matrix population 4.8 times greater than its overall U25 population, and this disproportionality can be seen across crime types.

Overall, disproportionality generally becomes less in relation to the crime types that the Matrix is focusing on but is still apparent to some degree across all boroughs.

Table 7: For selected offence types, the proportion of all those charged who are black African-Caribbean

Borough	Population U25 Black	Wider Offending			Violent Offending			Violence - Weapons				Matrix Black
		All TNO	Drugs Poss	Drug Traffick	Violence Against Person	Serious Wounding	Robbery	Weapons	Knife Crime	Knife w/injury	Gun Crime	
Lambeth	40%	56%	58%	67%	55%	57%	74%	74%	72%	61%	63%	93%
Westminster	13%	27%	27%	33%	25%	22%	44%	51%	37%	38%	34%	47%
Brent	26%	41%	48%	66%	39%	42%	48%	59%	45%	40%	65%	89%
Waltham Forest	25%	31%	36%	39%	30%	31%	62%	44%	43%	41%	43%	75%
Newham	24%	36%	37%	51%	36%	38%	61%	46%	44%	45%	61%	87%
Enfield	29%	35%	42%	48%	32%	40%	60%	51%	57%	56%	63%	79%
Barnet	14%	25%	30%	33%	25%	26%	39%	39%	41%	28%	46%	60%
Greenwich	31%	32%	36%	43%	32%	33%	50%	54%	49%	47%	42%	82%
Southwark	37%	48%	49%	55%	49%	52%	71%	72%	61%	65%	61%	94%
Islington	22%	32%	31%	45%	32%	39%	51%	39%	42%	42%	36%	64%
Haringey	26%	44%	50%	64%	40%	47%	63%	56%	57%	60%	61%	94%
Barking & Dagenham	33%	26%	31%	35%	24%	22%	42%	37%	32%	28%	31%	71%
Tower Hamlets	11%	20%	16%	21%	20%	19%	26%	23%	19%	17%	23%	52%
Lewisham	41%	51%	57%	71%	50%	53%	75%	67%	63%	70%	75%	93%
Hackney	29%	49%	51%	50%	49%	52%	66%	69%	66%	73%	52%	90%
Wandsworth	20%	41%	41%	74%	38%	45%	40%	52%	50%	61%	52%	83%
Croydon	37%	44%	50%	57%	45%	44%	70%	64%	67%	81%	78%	90%
LONDON TOTALS	22%	33%	37%	48%	32%	35%	52%	51%	46%	47%	54%	79%

Do the individuals on the Matrix come from the most violent areas?

The Matrix population is not distributed evenly across London’s boroughs. The Review tested whether the distribution of the individuals on the Matrix reflected the levels of violence in boroughs, and overall, analysis demonstrates that this is the case. In some Boroughs there are as few as three individuals on the Matrix, in others 300.

The first five columns in Table 8 show the average number of people on the Matrix in each borough from 2013-2018. The last seven columns show the numbers and types of offences, focusing on violence, committed in these boroughs over that time.

The colours – red to green – reflect the relative volumes. Overall, the matching of these colours between the number of people on the Matrix and the number of violent offences shows that the distribution of the Matrix population does generally reflect the distribution of violence.

Table 8: Matrix Population and Key Offence Statistics

Borough	Average Monthly Matrix Population						Key Offence Types (Jul 2017 - Jun 2018)						
	Year 1	Year 2	Year 3	Year 4	Year 5	Yr1 & Yr5 change	Total Notifiable Offences	Robbery	Violence with Injury	Youth Violence	Gun Crime	Knife Crime	Knife Crime with Injury
Lambeth	226.3	236.0	253.8	231.5	315.0	28%	35,284	1,629	3,588	841	137	732	259
Brent	323.6	455.0	286.3	283.3	254.6	-27%	30,615	1,532	3,213	699	133	812	241
Enfield	221.5	265.2	277.3	297.6	252.6	12%	26,597	1,137	2,571	837	122	625	203
Westminster	189.8	213.4	240.5	242.3	248.3	24%	58,627	2,612	3,536	506	88	704	166
Newham	198.0	183.5	195.3	202.6	213.7	7%	35,603	2,064	3,316	796	145	790	226
Waltham Forest	237.4	301.8	223.0	213.6	213.5	-11%	22,881	980	2,119	597	98	493	155
Barnet	110.3	120.0	106.3	137.9	190.7	42%	27,532	735	2,180	553	59	396	115
Southwark	176.8	181.4	193.8	181.3	168.3	-5%	34,738	1,784	3,455	746	112	804	272
Greenwich	123.3	125.7	138.2	153.9	164.7	25%	25,109	624	2,799	690	95	411	180
Haringey	169.4	201.2	195.3	182.3	153.7	-10%	31,171	1,982	3,093	726	148	768	199
Islington	70.4	96.4	175.8	157.0	153.4	54%	30,326	1,927	2,474	515	61	627	166
Tower Hamlets	115.6	164.9	152.8	138.8	125.0	8%	32,431	1,565	2,888	676	101	755	248
Barking & Dagenham	72.9	73.5	101.7	115.0	123.8	41%	18,521	932	2,146	625	77	423	103
Lewisham	90.3	61.7	124.0	116.0	123.3	27%	25,116	1,052	2,860	675	110	544	182
Croydon	133.0	95.7	96.2	108.2	109.0	-22%	30,518	1,110	3,530	1,001	134	613	189
Wandsworth	153.3	117.5	94.4	100.9	109.0	-41%	26,066	886	2,398	476	84	416	124
Hackney	140.0	136.1	145.3	137.8	108.6	-29%	30,236	1,402	2,923	553	87	594	188
Ealing	97.2	83.1	83.3	72.3	85.8	-13%	27,985	893	2,973	598	57	474	162
Camden	150.3	87.6	74.5	81.2	84.3	-78%	37,704	2,107	2,608	546	55	585	182
Harrow	75.5	78.1	64.3	64.9	69.3	-9%	14,034	290	1,429	337	42	215	105
Merton	37.2	54.3	55.8	56.5	58.0	36%	13,707	361	1,349	305	36	184	49
Hammersmith & Fulham	50.6	31.8	43.5	48.0	56.7	11%	22,017	673	1,790	317	25	289	97
Hillingdon	4.0	21.7	59.0	73.5	49.1	92%	24,743	556	2,465	610	60	329	145
Kensington & Chelsea	59.6	52.3	51.7	52.8	46.2	-29%	21,836	717	1,392	234	36	295	93
Redbridge	25.3	27.1	37.8	38.0	43.7	42%	23,846	993	2,098	567	77	436	126
Havering	14.8	20.3	23.5	39.1	42.9	66%	18,800	664	2,003	614	39	328	110
Bromley	13.4	15.6	27.2	44.9	39.5	66%	22,751	569	2,160	569	83	296	95
Hounslow	34.1	92.5	105.1	80.7	29.6	-15%	25,271	554	2,509	549	38	325	119
Bexley	13.0	14.8	15.9	14.5	15.4	16%	15,111	328	1,627	510	49	202	50
Sutton	4.2	5.0	5.1	2.8	2.8	-52%	11,795	326	1,309	403	49	209	47
Richmond-Upon-Thames	3.0	4.0	5.1	7.5	2.4	-24%	12,842	264	1,002	251	19	118	30
Kingston-Upon-Thames	4.5	3.4	4.2	3.3	1.1	-315%	11,732	221	1,155	292	22	115	42
Average	104.3	113.1	114.2	115.0	114.2	9%	25798.3	1045.9	2404.9	569.2	77.4	465.8	145.9

Why does disproportionality occur?

Therefore, understanding the drivers of this disproportionality is a difficult and complicated task, rooted in wider issues around policing, criminal justice and society as a whole.

Several arguments can and have been made.

Racial discrimination is a possible factor in disproportionality, and we have considered this carefully in our analysis and in our engagement with police, partners and community representatives. David Lammy’s review into the treatment of BAME Londoners in the criminal justice service supported the Mayor’s commitment to review the Matrix and asked MOPAC to ‘examine the way information is gathered, verified, stored and shared, with specific reference to BAME disproportionality’ and to consider community perspectives. This Review is part of MOPAC’s response to this.

We must acknowledge the possibility of conscious or unconscious bias against young black males in London – whether the term ‘gang’ is now heavily racially-loaded and that this perception - that a gang is often comprised of young black males and ergo that young black

males are often in a gang – either directly or unconsciously influences the enforcement focus of the police and subsequent actions of the justice service. However, proving or disproving this point in the case of the Matrix is extremely difficult and would require analysis of the process and drivers behind every single action and decision leading to an individual’s addition, including embedded intelligence processes far wider than the Matrix.

MOPAC is currently undertaking complimentary analysis looking deeper into structural drivers of knife crime and violence – such as physical and mental health, education and access to opportunities – building on the evidence base established for the Mayor’s Knife Crime Strategy and supporting our work in developing a public health approach to tackling violence through the London Violence Reduction Unit (VRU). It may be that these wider characteristics are more predictive of Matrix membership.

Using methodology from the Jill Dando Institute at University College London, the Vulnerable Locality Index³⁵ uses datasets related to crime (burglary & criminal damage rates), deprivation (claimant count rate, GCSE capped point score, average household income) and population (resident population density for the 10-24 age group) to identify the wards of highest vulnerability to crime and community safety problems.

On average, the most vulnerable wards have a higher proportion of BAME population than the least vulnerable. The figures below demonstrate significant variation across London:

- In the top 10% vulnerable wards the average percentage of population that are BAME is 48%. This ranges from 94% in Southall Broadway (Ealing) to 14% in Cray Valley West (Bromley)
- In the least vulnerable wards (90-100%) the population is on average 28% BAME. This ranged from 84% in Hillside (Merton) and 4% in Biggin Hill (Bromley)³⁶

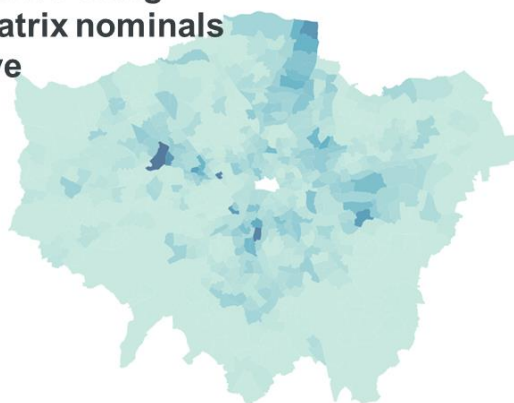
Through the Index, we know that victims are *twice as likely* to be offended against for both sexual offences and gun crime within the top 10% most vulnerable wards in London when compared with the 10% least vulnerable. For knife crime with injury the disparity is even greater, with victims *six times more likely* to be offended against within the most vulnerable wards in London. If we score across these three high harm crime types - nearly half of the highest risk wards are located within just six boroughs.

The disproportional representation of Matrix individuals living in vulnerable locations is stark. They are 10.6 times more likely to live in the top 10% (n=859) of vulnerable wards than the bottom 10% (n=81) and 3.5 times more Matrix individuals reside in the top 50% (n=2,661) of vulnerable wards than the least vulnerable (n=755).

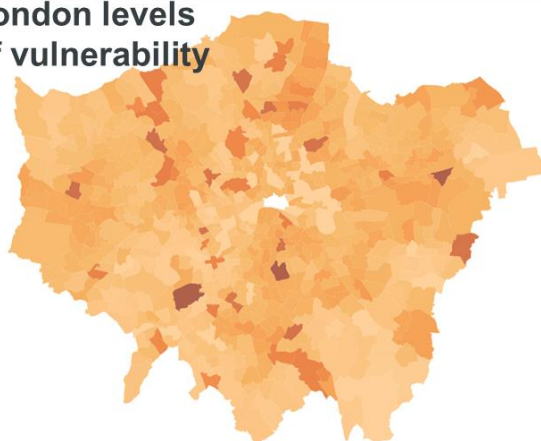
³⁵ <https://www.london.gov.uk/what-we-do/mayors-office-policing-and-crime-mopac/data-and-statistics/london-landscape>

³⁶ Based on 2011 census data; average BAME proportions should only be used as an indication only.

**Where Gang
matrix nominals
live**



**London levels
of vulnerability**



Whilst we cannot give a definitive answer on the causes of disproportionality, the evidence presented in this Review clearly illustrates that the Matrix disproportionately includes a group that is already disproportionately likely to be perpetrators and victims of serious violence. The recommendations of this Review are aimed at reducing unjustifiable disproportionality and ensuring that the processes that govern the Matrix are more robust and more transparent.

Practitioner views of disproportionality

Although both police and local authority practitioners believed that the most violent gang members, and those most at risk of violent victimisation were captured on the Matrix, significantly more local authority practitioners saw BAME gang members as over-represented and white gang members as under-represented.

Two thirds of police respondents viewed the Matrix as representative of all gang members on their respective boroughs; the same proportion of local authority practitioners perceived the Matrix to be under-representative of this group. Several VCS practitioners questioned the efficacy of the current MPS gang definition, suggesting it could result in groups of young people being incorrectly and unfairly labelled:

“The Met definition of a gang can be applied to almost all homogeneous groups of young and other people in theory however in practice and from the data obtained it appears to disproportionately and predominately apply to BME young males.” (VCS Practitioner)

Reflections and recommendations

The evidence is clear that young BAME men are disproportionately represented as victims and offenders in London, and it appears that this is even more so on the Gangs Matrix.

It is equally clear that this disproportionality is keenly felt by communities, and that in turn this affects their overall confidence in policing.

The recommendations in this Review are intended to address the issues we are able to evidence, disproportionality being one of the biggest. By implementing the recommendations of this Review: helping to clarify the aims, improve training, bring consistency to practitioners' usage and strengthen oversight over the Matrix, we hope to see the population of the Matrix align much more closely with the data on violence in London.

Recommendation: We recommend that the MPS strengthen their governance of the Matrix and the officers and partners that use it, creating single points of responsibility on each Borough Command Unit to:

- ensure there is no discriminatory practice;
- ensure that risks around data breaches are properly assessed and mitigated;
- track progress against recommendations published in this report;
- review the intelligence processes and flows that create organisational knowledge around gangs;
- assess the Matrix in the light of technological advances to future proof it;
- oversee the continuation and expansion of regular borough audits; and
- work with MOPAC to conduct new analytics exploring issues relating to disproportionality and the Matrix (e.g. micro-level demographics analysis in gang affected areas)

Recommendation: The MPS should consider whether the lessons learned from this Review are applicable to the operation of, and sharing of information under, other operational tools.

The community perspective

We have made considerable efforts to hear the range of views from all stakeholders; local authorities, the police and voluntary sector organisations working with young people.

We know how important this is to Londoners and that there are strong views on either side of this issue, so it has been equally important to ensure we have heard and understood the views and concerns of London's communities, particularly young people.

The Matrix Review Reference Group

To ensure this Review was informed by community views, we brought together a Reference Group to work with us in delivering this work (see membership at Appendix 2). The Reference Group included people working in and with communities and young people who have been affected by violent crime, those with experience of working with the Metropolitan Police Service, those who have researched the Matrix and those with expertise in human rights and data protection. The Group had access to the data that underpins this report and were able to add their invaluable views and expertise to this work.

The Reference Group met on five occasions. The summaries below represent the majority or consensus view of the group but do not quote individual members.

12 July 2018 – The first meeting explained the scope of the Review and briefed attendees on the process and practitioner findings to date. It also provided an opportunity for attendees to share their views on: what the MPS and MOPAC say to communities about the Gangs Matrix; what it does and how it works; and how best to ‘bust’ some of the myths that surround the Gangs Matrix.

There was consensus across the group that the Matrix needed improvement as a tool. The Reference Group made strong representations about the need to ensure the Review is contextualised and recognises the disproportionate nature and impact of violence in our communities, as well as the impact of austerity and deprivation in those same communities (as evidenced in the data above). The Review is not being conducted in a vacuum, and the Group highlighted the impact of what they considered a failure to sufficiently invest in community engagement/relations [in these times of austerity] and the harm that has been caused to community relations by some previous initiatives, such as Operation Shield. The Group felt that the Review should also acknowledge the disproportionate impact of the Matrix on black boys and men and raised concerns about the potential for discrimination with the use of such tools. For the Reference Group, one marker of the success of the Review would be that they and others would in future be better-equipped to be able to articulate responses to the community around their concerns, and that this would start to build confidence in the community and the police.

While the Group expressed significant concerns about the impact of the Matrix, with some advocating for its discontinuation entirely, there was a recognition amongst the Group that risk, harm and vulnerability management tools are commonly used across the public sector and that there is a need for organisations, including the police, to be able to have the means to identify and respond to these variables.

The Reference Group emphasised the importance of making information available to the community/public so that they can better understand how the Matrix is intended to operate, whether it is effective in tackling inter-borough and County Lines activity and the overarching measures of success. It is also necessary for the police to explain the different terminology they use. For example, the use of the term 'intelligence'; it is one of the things that drives the Matrix and yet the public do not understand what that represents. It would also be helpful for the MPS to be able to describe the measures of harm and vulnerability that are used to categorise people on the Matrix.

In addition, for the community to have confidence in the Matrix, the Reference Group advised that there should be greater transparency and consistency in the process of people going on and coming off the Matrix and any formulas used to determine risk as well as clarity about who Matrix information may be shared with and assurance that any sharing of information is necessary, proportionate and accurate.

The Reference Group said that in their experience, there were inconsistencies in how police officers speak to the public about the Matrix, with references being made to both a Gangs Matrix and a Violence Matrix. To address this, the Group thought the MPS should develop consistent and standardised language. Providing more information on the Matrix to the public as a matter of routine (as described above) would help improve consistency in this respect.

The Group saw inconsistencies also in how the Matrix was implemented by borough police, leading to variation in how it is adopted, used and implemented. The Group agreed that this was unhelpful and that there must be guidance put in place to ensure consistent usage, terminology and adoption across the MPS.

As well as making more information about the Matrix processes available to the public, the Reference Group put forward the view that the police should be explicit about the guidance and training that is given to officers in order that the Matrix be operated consistently and in compliance with information governance standards.

The Group was clear that it is important that any information produced for communities and young people around the Matrix is accessible and in plain English format "so they can feel part of the conversation".

25 September and 8 October 2018 – The second and third meetings focused on the presentation of our emerging analysis of disproportionality in the context of the Gangs Matrix. It provided an opportunity for the Group to give their views on why disproportionality occurs, whether the focus on the term 'gang' and how that is defined plays into the disproportionality, as well as the impact of wider organisational processes.

The Reference Group was presented with the data described in the previous sections of this document. This was the first time any external partners had had the opportunity to consider such in-depth data on the profile of the Matrix cohort, which clearly evidences significant disproportionality and which some of the Group believed supports the findings of some of the more qualitative research that has been produced by Amnesty and Stopwatch, for example.

The Reference Group expressed the view that there would be difficulties in building community confidence in any tool, which as described by one of the Group, is considered by some to be racially-loaded, ineffective and adding to the actual problem. However, some of the Group thought that police officers should be given training on conscious and unconscious bias and that this might impact on their use of the Matrix.

The Group expressed several views on what is driving the disproportionality; seeing the wider structural inequalities as a key issue.

The relationship between the police and young black people was also seen as a key driver of the violence we are now seeing in our communities. One member was of the view that young black people are feeling targeted by the police and therefore even the 'good kids' are arming themselves for protection and drifting towards groups involved in criminality. There were others in the Group that disagreed that this was a factor in weapon-carrying.

Some members of the Group expressed concerns about the perceived "racialised nature of the word 'gangs'," and felt that this language was labelling all groups of young black men as potential criminals. However, others pointed out that this was very much a London perspective and pointed to Asian youths, white youths and Eastern European youths who may also be affiliated to gangs, and that the composition of groups considered as 'gangs' in other parts of the country would differ to reflect the population demographic accordingly.

Views were also expressed about the wider context of policing. The Reference Group agreed that the MPS needs to be more diverse in order to have real credibility with communities and to address what they felt to be a lack of cultural awareness. They also felt that there needed to be a greater emphasis on community policing and engagement with young people, rather than enforcement.

The Group felt that the development of the Violence Reduction Unit would present an opportunity for a refreshed conversation about community engagement and for the community to be able to contribute to the response to violence.

17 October 2018 – The impact findings were shared and discussed with the Group along with draft recommendations. The Group were asked for their views on how the police could

be more answerable to the communities they serve in relation to the Matrix and discussions took place on what mechanisms could be used or created to increase community confidence in developments that occur in response to published recommendations.

The Group were aware of the statutory duties under the Crime and Disorder Act (1998), which are attributable to several agencies, including the local authority, public health and the police, and that sharing data is part of this. As such, they were of the view that it should be the collective responsibility of these agencies to ensure Matrix data is verifiable, contemporary, and shared appropriately, and that Community Safety Partnerships, or other appropriate partnership structures, should have oversight of the local Matrix data, with built-in opportunities to review the approach.

The Group recognised that the processes and governance of the Matrix differed significantly to that of the Multi-Agency Public Protection Arrangements (MAPPA) that are used to manage high risk offenders and suggested that MAPPA good practice should be applied to the Matrix.

The Reference Group had a detailed discussion about the categorisation of people on the Matrix (i.e. Red, Amber, Green ratings). Their view was that there needed to be more clarity about the people who have been categorised as 'Green', because this group would include, for example, those at risk with possibly minor offences and others with convictions for violence who simply have a low rating because they are in custody. Clearly these two different groups of people need different approaches, so the Group felt that, where interventions were warranted, agencies other than the police should be leading on working with some of those rated 'Green'. It was also expressed that, to further examine levels of disproportionality, more detailed data analysis was perhaps required in order to drill down to a local community or ward level to more carefully compare the ethnic composition of the local community with the ethnicity of local youths appearing on their local borough Matrix.

The Group felt that the MPS needed to recognise the nature of the vulnerability to violence of individuals on the Matrix as well as the violence they are involved in perpetrating, and to respond accordingly. They suggested that the MPS consider a different approach to children with low harm scores on the Matrix - mostly young black boys - moving away from criminalising them and towards safeguarding them, an approach more aligned with a public health approach to tackling violence.

In order to increase public confidence in the Matrix and to provide assurance that the Matrix is fair, transparent, and human rights compliant, the Reference Group felt that there should be an independent oversight body to oversee the Matrix.

More broadly, the Group were strongly of the view that, in addition to compliance with Human Rights legislation, there was a need to ensure that the Matrix is also compliant with equalities legislation. They expressed the view that an Equality Impact Assessment should be conducted and would provide a mechanism for ensuring that the issues discussed above were properly considered and appropriate mitigations against any negative impact put in place.

On 1 November 2018, the Reference Group met with the Deputy Mayor for Policing and Crime, Sophie Linden, so that she could take them through the draft recommendations and hear their feedback directly. The draft recommendations were themed in relation to the purpose, operation and transparency of the Matrix and governance and oversight. The Group reiterated some of their views that had been expressed at previous meetings, including their concerns about the legality of the Matrix, the disproportionality evidenced in the data, the need for independent oversight of the Matrix and their concerns about the use and application of the 'gang' label.

The Group felt that in order to secure community confidence in the tool, the recommendations would need to be specific and actionable, with agreed timescales and lead officers to ensure effective accountability for delivery of the necessary improvements.

The Group acknowledged that the proposed recommendations addressed many of the key issues and were particularly positive about the focus on governance and transparency, including data management. In addition, the Reference Group welcomed the proposed recommendations relating to the way in which those banded 'Green' with zero-harm scores are dealt with. The Group expressed a strong view that the Review would be strengthened with the inclusion of a specific recommendation (or recommendations) relating to the issues of disproportionality - which is evidenced in the data, potential discrimination and the application of equalities and human rights legislation in the context of the Matrix, including specific reference to conducting an equality impact assessment. The Reference Group further suggested that, if the Matrix is to be used as a partnership tool, then there should be a clear partnership governance structure at the local level and this should be reflected in the recommendations. Looking to the future, it was recognised that the Review does not present an evaluation of the efficacy of the Matrix and the Group suggested that MOPAC ought to consider commissioning such an evaluation in the future.

Engagement with young people, parents and community groups

In addition to the Reference Group and the views of the voluntary and community sector collected through the surveys, we made efforts to conduct targeted engagement activities in communities across London. We were also cognisant of the personal accounts represented in the Amnesty and StopWatch reports on the Matrix, which identified some of

the same concerns. The views of the Reference Group were in many cases echoed by the community members we spoke with, particularly in relation to transparency, the need for oversight and clearer communication of the purpose of the Matrix.

Engagement events were held in Southwark, Waltham Forest, Haringey and Westminster and we met with 110 young people, parents and community members. These groups included a mixture of those who had direct and indirect experience of the Matrix and those with no involvement at all. This was not a representative sample of all Londoners but did enable us to add further qualitative information to the analytical work already undertaken. These discussions included significant representation from the BAME (predominantly black African Caribbean) community (83%), 62% of those engaged were male and 90% of those present were aged between 11 and 25.

In all sessions, strong views were expressed about the current violence taking place across London and the need for effective ways to stop it. There was an acceptance that there could be a role for the use of tools like the Matrix, but that that needed to be fair, proportionate and appropriately targeted.

Many raised concerns about racial disproportionality and unconscious bias and how that might play into the use of the Matrix. Those engaged with were also very aware of the wider structural problems facing their communities which have a cumulative impact, such as youth unemployment and school exclusions.

There were common themes that emerged across all the engagement events and these are discussed in more detail below.

Concerns about transparency and a lack of understanding of what the Matrix is and how it is intended to work. For example, people specifically wanted to know how an individual would know they are on the Matrix and what they would have to do to be removed from it.

There was a clearly-held view that individuals should have the right to know that they are on the Matrix because it is their personal information and also so that they could either challenge that status or take steps to change their behaviour as appropriate. There was also a strong view that a parent/guardian should be informed if a child (under 18) is added to the Matrix. This was also linked to the view that there should be interventions to help people on the Matrix and that the public should know what they are and how to access them. One person expressed their view on this very clearly –

“Some might think it's a problem if you tell people, but if it's a harm reduction tool then notifying people will modify their behaviour and reduce harm. By not telling people they're

taking a negative approach, which is intended to catch people out and put them in jail rather than help them to stop their behaviour.”

One of the young people we heard from had specifically experienced the police taking a more positive approach to dealing with his behaviour, with the police having warned him that he was *“mixing with the wrong people”* when he had been found associating with people he presumed to be on the Matrix.

Data sharing was also an area of concern in terms of how and with whom data is shared.

The lasting and damaging impact this can have on people's lives was also raised, as well as the impact on communities' trust in the police and other authorities. For example, we were told by some young people, or through youth workers that were supporting them, about personal experiences such as being told they were stopped and searched because they were on the Matrix, Matrix information being shared leading to job offers being withdrawn and a housing move being blocked. In one case we were told of an occasion where a young offender's Matrix status had been shared with an adult associate under the supervision of Probation services.

The feedback on the use of the term ‘gangs’ was that it is problematic in two respects and that perhaps it should be re-labelled to focus on violence. Firstly, many felt that those labelled as being in gangs should be active offenders, not just a large group of young people who associate with each other in local areas. Some also questioned why knowing someone who had committed offences should mean that you could, in their words, *“be relentlessly targeted for police activity”*.

One young person said: *“Even schools are calling us gangs when we hang out as a large group of school friends - they call us 'thugs'. How we see gangs is different to non-black people.”*

Secondly, some expressed the view that the ‘right’ people are not on the Matrix and that it was being used to pursue joint enterprise convictions. We heard views that there are *“more serious people”* that need to be on the Matrix and that the police would have better intelligence if they worked with the community.

The matters of oversight and accountability were also discussed and there was consensus on the need for more transparency, with some holding the view that there should be independent scrutiny of the Matrix and how it is used.

Transparency

Matrix practitioners generally felt that 'gang-affected communities' were not aware of the Matrix and those that were did not understand its purpose. Most officers did not perceive the existence of the Matrix as having any negative impact on community relations, also suggesting there was no need for the community to be consulted.

Furthermore, other tools used by the MPS to track and tackle criminality – such as the OCG tracker - are not well understood by the wider community and we heard through our engagement that the public wanted to understand this better.

However, responses illustrated the varied opinions in terms of transparency. Some argued a more transparent approach might increase public fear of gangs, or give the wrong impression of the extent of the gang problem:

“Being a non-gang borough, any suggestion of the Gangs Matrix or its use locally would potentially paint a misleading picture concerning gang activity locally.” (Police Officer)

Others saw possible benefits to community relations in terms of legitimising police action;

“If the Matrix became accountable and open to all, it could be a useful tool in police and the community targeting gang members, especially if assisted in grounds for stop & search, warrants, and stiffer sentencing.” (Police Officer)

Local authority practitioners were more open to community consultation and transparency;

“I think there is a huge gap and that if we were to engage communities in the process we would have a far richer intelligence picture.” (Local Authority Practitioner)

For VCS practitioners, there was there was strong consensus that the police could both be more transparent in communicating the purpose of the Matrix, and that they could do more to actively engage with communities most affected by serious violence.

“There MUST be integration between the police, education services, health services, employment strategies, faith groups, local authorities, voluntary organisations. As the Commissioner said, we cannot police ourselves out of this violence...” (VCS Practitioner)

A significantly greater proportion of local authority practitioners believed that the MPS could be more transparent in how it targets organised crime groups. Police, local authority and VCS respondents all indicated common local community perceptions that the Matrix is

used to target 'low hanging fruit'; a continuing community concern highlighted within previous gang intervention projects and emphasised by the Reference Group.

Appendices

Appendix 1 - Legal Assessment

This is the legal assessment commissioned by MOPAC from Tim Pitt-Payne QC, 11KBW.

Issues raised

1. I have been instructed by Transport for London Legal, on behalf of the Mayor's Office for Policing and Crime ("MOPAC"). I have been asked to assess the legality of the Gangs Matrix, a database operated by the Metropolitan Police Service ("MPS"). The data controller for the Gangs Matrix is the Commissioner of Police of the Metropolis ("the Commissioner").
2. This document discusses:
 - issues arising under the Human Rights Act 1998 ("HRA 1998") in relation to Articles 8 and 14 of the European Convention on Human Rights ("ECHR");
 - data protection issues; and
 - RIPA issues, i.e. issues under the Regulation of Investigatory Powers Act 2000.
3. My overall assessment is that there are no legal objections which require the Gangs Matrix to be abandoned altogether, or radically recast. But there are respects in which its operation should be modified in order to ensure that all applicable legal requirements are met.
4. In addition to the points made in this document, any views expressed by the Information Commissioner's Office ("ICO") and any regulatory intervention by the ICO will need to be taken into account by MOPAC and the MPS.

Human Rights Act issues

5. HRA 1998, section 6(1), provides that it is unlawful for a public authority to act in a way which is incompatible with a Convention right. This general duty would apply both to the Commissioner and to MOPAC. In relation to the operation of the Gangs Matrix, the issue is likely to be whether the Commissioner is acting in breach of this duty.
6. **Article 8** of the ECHR provides as follows:
 - (1) *Everyone has the right to respect for his private and family life, his home and his correspondence.*
 - (2) *There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic*

society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others.

7. There is no doubt that the creation and maintenance by the Commissioner of a database such as the Gangs Matrix involves an interference with the right to respect for private life under Article 8(1). The question is whether that interference can be justified under Article 8(2). This requires consideration of the following:
 - Whether the interference is for one of the purposes set out in Article 8(2).
 - Whether the interference is “in accordance with the law”.
 - Whether the interference is “necessary”, which in turn gives rise to issues about proportionality.
8. The **purpose** of the Gangs Matrix clearly falls within Article 8(2), as being for the prevention of disorder or crime.
9. As to whether any interference is **in accordance with the law**, this requires that the interference must have a basis in domestic law. It also imposes requirements as to the quality of that law, which must be compatible with the rule of law. There must be sufficient protection against arbitrary interference with the rights safeguarded by Article 8(1). The law must be sufficiently clear to give citizens an adequate indication of the circumstances and conditions in which public authorities are empowered to interfere with their rights.
10. In relation to the operation of the Gangs Matrix, the question of whether this is “in accordance with the law” essentially raises two issues:
 - whether the Gangs Matrix operates in a manner that is arbitrary and over-broad; and
 - whether there is an adequate publicly-available framework of law and policy governing the operation of the Gangs Matrix.
11. As to the first issue, the decision as to whether someone is to be listed on the Gangs Matrix depends on there being reliable intelligence about their gang membership from more than one source. Once they are listed, their individual status (which currently may be classified as being red, amber or green) depends on the application of a complex scoring system. It does not seem to me that the definition of “gang” adopted by the MPS, or the scoring system used, is so inherently arbitrary as not to be “in accordance with the law”.

12. As to the second issue, Gangs Matrix does not have a specific statutory basis; it is based on the common law powers of the police to obtain and store information for policing purposes. In itself, this does not prevent the Gangs Matrix from being “in accordance with the law”. However, consideration should be given as to what further information can be made public about the Gangs Matrix and the way in which it operates.

13. I suggest that there should be a public-facing document covering topics such as the following:

- The purpose of the Gangs Matrix, including: encouraging individuals to divert from gang membership; managing the risks presented by the individuals listed; and managing the risk that those individuals will themselves be victims of violent crime.
- The criteria for inclusion on the Gangs Matrix.
- The basis on which an individual is scored.
- The practical consequences of being listed on the Gangs Matrix with a particular score.
- The circumstances in which an individual’s listing will be changed, or in which an individual will be removed from the Gangs Matrix altogether.
- The arrangements for sharing information from the Gangs Matrix on a London-wide level.
- The arrangements for sharing information at borough level.

14. I turn next to the question whether the operation of the Gangs Matrix is **proportionate**. The requirements in relation to proportionality are usefully summarised in *Bank Mellat v HM Treasury* [2013] UKSC 39, as follows (see at §74):

it is necessary to determine (1) whether the objective of the measure is sufficiently important to justify the limitation of a protected right, (2) whether the measure is rationally connected to the objective, (3) whether a less intrusive measure could have been used without unacceptably compromising the achievement of the objective, and (4) whether, balancing the severity of the measure’s effects on the rights of the persons to whom it applies against the importance of the objective, to the extent that the measure will contribute to its achievement, the former outweighs the latter.

15. In relation to proportionality in the operation of the Gangs Matrix, in my view the key issues are:

- whether the Gangs Matrix includes too many individuals; and
- whether information is shared too widely about the individuals listed.

16. As to the first question, the most important consideration is whether the inclusion of individuals who have a very low score (or a zero score) can be justified.

17. In order to ensure that the Gangs Matrix operates in a proportionate way, I would suggest that the following issues need to be reviewed.

- Can individuals be listed on the Gangs Matrix for the first time, even if they have a zero score? If so, why is this appropriate?
- Once the score of an individual drops to zero, will they be automatically removed from the Gangs Matrix? If not, why not?
- Whatever answers are adopted to these questions, do the relevant policies, training materials, and any public-facing information, all consistently reflect those answers?

18. In relation to the sharing of information, the main area of concern is whether information is being shared at borough level in an inconsistent or excessive way. The following questions need to be addressed.

- Whether there are information sharing agreements in place at borough level, across all boroughs where the Gang Matrix is in operation.
- Whether these agreements properly reflect the way in which the Gangs Matrix is intended to operate London-wide.
- Whether these agreements are consistent with one another.

19. Overall, in my view the Gangs Matrix is in principle capable of being operated consistently with Article 8; but the issues referred to above need to be addressed in order to ensure this is the case.

20. I turn next to **Article 14** of the ECHR. This provides as follows:

The enjoyment of the rights and freedoms set forth in this Convention shall be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status.

Article 14 does not provide for a free-standing right not to suffer discrimination. Rather, it relates to discrimination in connection with the enjoyment of the Convention rights themselves. Article 14 will therefore always need to be considered in conjunction with one or more of the other articles in the Convention. In the context of the Gangs Matrix, Article 14 will need to be considered in conjunction with Article 8.

21. The Gangs Matrix has been criticised as having a disproportionate impact on the black or black and minority ethnic (BAME) population of London; the criticism is that black or BAME individuals are disproportionately represented on the Gangs Matrix, as compared with their share of London's population as a whole. The issue in relation to Article 14 is whether the Gangs Matrix discriminates - as between black and/or BAME Londoners, and Londoners as a whole - in relation to the enjoyment of the Article 8 right to privacy.
22. As a general point, it is important to bear in mind that individuals included on the Gangs Matrix are likely to be at risk both of committing violent offences, and of being victims of such offences. Inclusion provides an opportunity to divert individuals from gang membership, thereby reducing both risks. In assessing the impact of inclusion on the Gangs Matrix, it is important to take account of this potential protective effect, as well as any adverse impacts. This is significant when considering the impact of the Gangs Matrix on different racial groups: I understand that, across London, young black males are disproportionately represented both as victims and as offenders in all serious violence.
23. It does not seem to me that the concept of a "gang" by reference to which the Gangs Matrix operates is inherently race-based, or that it is so vague as to provide an obvious opening for racial basis. Nor is there anything in the material that I have seen to support an assertion that individuals can be listed on the Gangs Matrix merely because of they identify with elements of black street culture.
24. I have seen statistics that compare the following, at borough level: (i) the black or BAME percentage of the total population; (ii) the percentage of those charged with knife crime or knife crime with injury who are black or BAME; and (iii) the percentage of those included on the Gangs Matrix who are black or BAME. By reference to these measures, there is some disproportionality in the black or BAME membership of the Gangs Matrix, at a level that varies significantly from borough to borough. That is to say, the proportion of those on the Gangs Matrix who are black or BAME is greater than: (i) the proportion of black or BAME individuals in the under 25 population; or (ii) the proportion of black or BAME individuals among those charged with knife crime or knife crime with injury. The reasons for the disparity are unclear, and MOPAC intends to conduct further research. To date, the MPS has not conducted an equality impact assessment in relation to the operation of the Gangs Matrix, but I understand that they have now committed to carrying this out.
25. On the basis of the material that I have seen, I think it would be difficult to bring a successful legal challenge to the operation of Gangs Matrix under Article 14. That said,

the statistical material referred to above clearly merits further investigation. It is extremely important that the Gangs Matrix should operate, and should be seen to operate, without any element of discrimination. I understand that consideration is being given to seeking assistance from the Equality and Human Rights Commission (EHRC) with these issues, including with carrying out an equality impact assessment. This is a helpful and positive step. In particular, it is important to keep under review – with the assistance of the EHRC – whether there are any material differences in the practical operation of the Gangs Matrix at borough level, and whether this plays any part in explaining the differences in black and BAME statistics as between different boroughs; this is an issue that should be considered as part of any equality impact assessment.

Data Protection issues

26. With effect from 25th May 2018 the Data Protection Act 1998 was repealed and replaced by a new data protection regime set out in: the General Data Protection Regulation (“GDPR”); the Data Protection Act 2018 (“DPA 2018”); and Directive (EU) 2016/680 (“the Law Enforcement Directive”).
27. The new data protection law is complex. The main provisions are set out in the GDPR. DPA 2018 contains various supplementary provisions, and also gives effect to the Law Enforcement Directive: see Part 3 of DPA 2018.
28. As far as the Gangs Matrix is concerned, in my view this will fall within the scope of the Law Enforcement Directive, and hence Part 3 of DPA 2018.
29. An individual’s entry on the Gangs Matrix will constitute personal data about that individual. The holding of that data, its use for policing purposes, and its sharing with other organisations, will all constitute the processing of personal data. The data controller in relation to the processing will be the Commissioner. MOPAC itself does not seem to me to be either a data controller or a data processor in relation to the Gangs Matrix.
30. Chapter 2 of Part 3 of DPA 2018 sets out six data protection principles. The most significant for present purposes are the first and second principle.
31. The **first principle** requires that the processing of personal data for any of the law enforcement purposes must be lawful and fair. In order to satisfy this requirement, the processing must be based on one of two conditions: either the data subject must have given their consent, or the processing must be necessary for the performance of a task carried out for the law enforcement purpose by the competent authority.

Clearly, the consent condition will not be satisfied in relation to the Gangs Matrix, and so it is the second condition that is relevant.

32. The use of the term “necessary” in the context of a processing condition will carry with it a test of necessity and proportionality comparable to the test that would apply to an interference with a qualified ECHR right (such as the right under ECHR Article 8). What this means is that: (i) the test of necessity in this context would be a test of reasonable necessity rather than strict necessity; but (ii) the same considerations as were discussed above in relation to proportionality in the context of Article 8 of the ECHR, would apply in determining whether this processing condition was satisfied.
33. Under DPA 2018 section 35(4) and (5), there are more demanding conditions where the processing in question is sensitive processing. In this situation the following additional conditions would apply:
- The processing must be *strictly* necessary for the law enforcement purpose.
 - It must meet one of the conditions in Schedule 8 to the DPA 2018.
 - The controller must have an appropriate policy document in place satisfying the requirements of section 42 of DPA 2018.
34. “Sensitive processing” for this purpose is defined in DPA 2018 section 35(8). It means the processing of: personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs or trade union membership; the processing of genetic or biometric data, for the purpose of uniquely identifying an individual; the processing of data concerning health; and the processing of data concerning an individual’s sex life or sexual orientation.
35. To the extent that the Gangs Matrix involves sensitive processing, this will be subject to the more onerous requirements summarised above. A test of strict necessity would raise the same proportionality issues as were referred to above, but in addition would require the data controller to establish that the various law enforcement purposes pursued by the Gangs Matrix could not be achieved unless the relevant sensitive processing took place.
36. As to the Schedule 8 conditions, paragraph 1 would be relevant. This requires that the processing (a) is necessary for the exercise of a function conferred on a person by an enactment or a rule or law, *and* (b) is necessary for reasons of substantial public interest. The relevant “function” of the MPS would not be a statutory function, but rather its common law functions regarding the collecting of information for policing purposes.

37. The **second data protection principle** requires that personal data that is collected for a law enforcement purposes must not be processed in a manner incompatible with the purpose for which it was collected. This is subject to section 36(3) of DPA 2018:

Personal data collected for a law enforcement purpose may be processed for any other law enforcement purpose (whether by the controller that collected the data or by another controller) provided that –

- (a) The controller is authorised by law to process the data for that purpose, and*
- (b) The processing is necessary and proportionate to that other purpose.*

On this basis – provided again that the requirement of proportionality is met –policing data that was originally collected for some other purpose could lawfully be used in calculating individuals’ Gang Matrix scores.

38. Provided that the Gangs Matrix satisfies the requirements of ECHR Article 8, I think it is likely also to satisfy the requirements of the first and second data protection principles; issues about proportionality will be of central importance in both contexts.

39. Chapter 3 of Part 3 of DPA 2018 deals with the rights of data subjects. Section 44 requires data controllers to provide a range of information to data subjects (whether by making that information available to the public generally, or in some other way). The requirements of section 44 may be restricted where this is a necessary and proportionate measure to avoid prejudicing the law enforcement purposes: see section 44(4)(b).

40. Does section 44 require that individuals who are listed on the Gangs Matrix must be specifically informed of that fact? At first sight, this is what section 44 would seem to require; however, that is subject to the restriction in section 44(4)(b). Hence it is necessary to consider what would be the implications for the Gangs Matrix of informing individuals of their inclusion, and whether this would prejudice the relevant law enforcement purposes.

41. Even assuming that individuals do not need to be informed of their inclusion, the public generally should be given information about the operation of the Gangs Matrix: I would suggest that information should be made public along the lines discussed at paragraph 13 above, together with information that meets the various specific requirements of section 44(1) and (2) (to the extent that this can be done without prejudicing the law enforcement purposes of the Gangs Matrix).

42. Chapter 4 of Part 3 imposes a range of supplementary requirements on data controllers: for instance, various records of processing activities must be kept, under section 61. None of the provisions in this Chapter seem to me to provide any insuperable barrier to the operation of the Gangs Matrix, though it is important to check that all of these requirements have been met.

43. I should draw attention to section 64, requiring a data protection impact assessment (DPIA) to be carried out where a type of processing is likely to result in a high risk to the rights and freedoms of individuals. It would be highly desirable at this point for the MPS to carry out a DPIA in respect of the Gangs Matrix.

44. My overall assessment as regards data protection is as follows.

- The requirement of proportionality – discussed under Article 8 above – is also an important aspect of the data protection framework.
- To the extent that processing for the purposes of the Gangs Matrix is not proportionate, such processing will not satisfy the requirements of DPA 2018.
- Otherwise, it seems to me that the requirements of DPA 2018 are in principle capable of being satisfied, though there are various specific issues identified above that will require careful consideration.

RIPA issues

45. I have considered whether the use that is made of social media in connection with the operation of the Gangs Matrix, requires RIPA authorisation as constituting surveillance. A failure to obtain RIPA authorisation for surveillance falling within RIPA does not automatically mean that the surveillance is unlawful. However, in practice if surveillance falls within the scope of RIPA and authorisation is not obtained then there is a high risk that the relevant surveillance will be in breach of Article 8.

46. There are two types of authorisation that may be relevant:

- authorisation for use of a covert human intelligence source (CHIS); and
- authorisation for directed surveillance.

47. If the only direct interaction between a police officer and a person of interest is that the former sends a social media friend request (without disclosing that they are a police officer) and the latter accepts it, then I doubt if this will in itself constitute a sufficient relationship to require authorisation for use of a CHIS. However, if the social media interaction between the two individuals is more extensive then a different analysis might apply.

48. In general, I doubt whether the mere viewing of material that has been placed online by an individual and made publicly available by them would usually constitute directed surveillance for RIPA purposes. If the viewing was intensive and repeated in relation to a specific target individual then this might perhaps cross the line into being directed surveillance.

Conclusion

49. My overall assessment is that there are no legal objections which require the Gangs Matrix to be abandoned altogether, or radically recast. However, there are a number of areas that need to be addressed, so as to ensure that the Gangs Matrix continues to operate lawfully now and in future.

TIMOTHY PITT-PAYNE QC

11KBW

9th November 2018

Appendix 2 - Reference Group Members

Invitees	
James Hayward Sarah Moran	Information Commissioner's Office
Allan Hogarth Tanya O'Carroll	Amnesty
Sheridan Mangal	Trident IAG Vice-Chair and works with young entrepreneurs
Bobby Martin	Community engagement & gang intervention advisor
Mark Blake	Black Training & Enterprise Group
Stafford Scott	The Monitoring Group
Katrina Ffrench	Chief Executive, StopWatch
Simon Harding	Associate Professor in Criminology, University of West London
Commander Mark McEwan	MPS, Commander for Community Engagement
Officers	
Natasha Plummer (Chair)	MOPAC (Engagement)
Tom Davies	MOPAC (Evidence & Insight)
Jeanette Bain-Burnett	GLA Community Engagement Team
Caroline Tredwell	MOPAC (Policy)

Appendix 3 - Our Equality Duty as a public body

The Macpherson Report into the murder of Stephen Lawrence and the failures of the Metropolitan Police in the subsequent investigation led to a fundamental rethink of how public bodies address discrimination and racism.

As a result, in 2001, the Race Equality Duty came into force, changing the focus for public bodies from simply avoiding discrimination to actively and positively promoting equality. Further duties on disability and gender equality followed.

The Public Sector Equality Duty was created under the Equality Act 2010, superseding the existing duties and applying them across all protected characteristics - age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation.

There are three main aims of the Duty. They are that in the exercising their functions, public bodies must have due regard to the need to:

- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Act.
- Advance equality of opportunity between people who share a protected characteristic and those who do not.
- Foster good relations between people who share a protected characteristic and those who do not.

MOPAC is committed to fulfilling these aims in all of its work. We address these issues in detail, as they relate to this Review, in an Integrated Impact Assessment published alongside it.

Appendix 4 - Matrix Review: Methodology

This section provides an overview of the collection methods, cleaning, composition and analysis of the key data sets incorporated into the Matrix Review. As emphasised in the main section, data is always subject to caveats and this is particularly true of police-generated data which may be subject to distortion at various levels (i.e. local recording practices and priorities, police discretion etc. see for example: Kitsuse & Cicourel 1963; Bottomley & Coleman 1981; Coleman & Moynihan 1996) None-the-less, such collected data is the best picture of organisational knowledge available.

Surveys

As part of the Review, a number of on-line surveys were generated to capture the views of a range of groups. All surveys were disseminated via an email link and hosted by Opinion Research Services (ORS). Survey responses were marked-up and analysed thematically, with relevant quotes extracted in accordance with pre-defined and emergent themes. A breakdown of the surveys is below.

1) MPS Practitioner survey

The key aim was to capture key MPS practitioners' perceptions across a variety of issues relating to the Matrix. In particular, the survey was aimed at the borough *Single Points of Contact* and Matrix leads and the aspiration was to get one or two responses from each borough. The survey consisted ten sections broadly covering topics such as general perceptions of gangs and gang crime; Matrix understanding and use; perceived impact; accuracy; local processes (inclusion, removal and oversight); information sharing and partnership working; community engagement; training; possible changes, benefits and drawbacks. This was distributed in autumn 2017 via a senior Metropolitan Police officer. A total of 88 responses across 28 boroughs, including 47 SPOCS and 41 other officers, predominantly of Constable and Sergeant rank were received.

2) Local Authority Practitioners

This survey sought to capture the views of key local authority practitioners working with the Matrix and covered the same thematic areas as described above. The survey was distributed in autumn 2017 via Heads of Community Safety on all London boroughs. We received 45 valid responses were received across 27 boroughs from a wide variety of front line and leadership roles practitioners.

3) Voluntary and Community Sector

This survey aimed to capture individuals working within Community and Voluntary Sector (VCS) organisations supporting young people involved in violence, again following the same

thematic structure. The survey was distributed via a variety of pathways in summer 2018 receiving 98 responses in total.

Matrix Data Analysis

This section of the methodology covers the variety of analytics conducted on the Matrix to understand the cohort over time, their criminal background and a number of measures around 'impact' such as upon offending, victimisation and stop and search.

The Matrix over Time

In order to understand the full picture of the Matrix, monthly snapshots of the Matrix were extracted for a 60-month (5 year) period between June 2013 and May 2018. In addition, an early iteration of the Matrix from September 2012 was also obtained. This covers the first cohort to a recent snapshot in 2018, enabling long-term analytics. All individuals from the 61 Matrix snapshots were combined and cleaned. As a result of cleaning the data, a small number of individuals were excluded from further analysis (i.e., inaccurate PNC number or duplicates). It is important to note that the Matrix has evolved substantially since introduction, with earlier snapshots including a handful of individuals without PNC IDs as well as duplicate entries. Snapshots taken from 2018 indicate that all individuals on the Matrix now have PNC IDs. A total of 8,272 unique PNC-IDs remained post cleaning, inclusive of the 2012 cohort. For the 60-month cohort, 7,556 remained.

PNC Analysis, crime and impact upon reoffending

PNC data was obtained for the 60-month cohort. The Police National Computer (PNC) records information relating to individuals for the use of the police and law enforcement, including details of all criminal convictions received. Of the 7,556 PNC records requested 7,299 were returned, with the date of extraction 01/05/2018. Following extensive cleaning and coding, overarching criminal careers analysis was conducted on the full dataset, with an emphasis on proven offending (i.e. sanctions as opposed to charges).

Using this data enabled a full exploration of the criminal background and offences of those individuals on the Matrix. Offending records were standardised according to the month the offence was committed whether before (pre-), during or after (post-) removal from the Matrix. For impact analysis, a cut-off date of 31/10/2017 for PNC offending data was applied to allow time for sanctions to be recorded on the system, meaning 270 individuals were excluded from the analysis.

One caveat to bear in mind when examining the results of the charts presented in the report is that this takes into account all individuals on the Matrix. This brings with it thousands of individuals, each with different start, end and lengths of time on the Matrix. So, the overall offending graphs represent the proportion of the cohort (n=7,129) who were sanctioned for an offence committed within a set period in time, that is in the first month after the matrix, and so on. In this way, the 'in scope' or available population gradually decreases the further

away from Matrix inclusion and removal time points. For example, whilst all 7,129 individuals had at least one month on the Matrix, only 6,585 had six months, and so on. Likewise, the number in the in-scope 'post' cohort is immediately reduced because over half of the cohort remained on the Matrix at the end date of analysis (n=3,253 have 1 month or more 'post'). For this reason, results at the end of each period should be treated with caution given the low numbers of individuals involved; time periods on graphs were standardised to 4-year periods.

Generating the Matrix comparison group

As outlined in the main report, identifying, isolating and attributing 'impact' on offending to any given initiative (be it a police intervention or policy) is one of the most difficult aspects of evaluative research. The key question that underpins this is: what would have happened to individuals to have received a given initiative if they had not? This is called developing a counterfactual. For the Matrix review, robust exploration of impact necessitates this counterfactual or comparison group; that is, a group of individuals who present similar demographic and offending characteristics but have not been subject to the intervention in question (i.e. the Matrix).

There are numerous experimental methods in developing such comparison groups or counterfactual, each with different levels of robustness. The most robust method and the only one that enables statements on causation is where eligible individuals are randomly assigned to receive the treatment or not and then compared on outcome measures (this is known as a Randomised Control Trial). See the MOPAC Randomised Control Trial on Body Worn Video for an example (Grossmith et al. 2016). In the case of the Matrix, individuals were not randomly assigned, nor would this have likely been ethically possible, and as such this method was not feasible. The next level of robustness in determining 'impact' would be the Quasi-experimental designs. Such designs utilise a range of statistical methods to generate the counterfactual and are seen as strong designs in evaluation research, although not able to prove causation. There are further evaluation designs below these but are not robust in exploring impact and were discounted in exploring impact.

Another complication, specific to the Matrix is that of the pan-London nature. Comparison groups are often able to identify similar types of individual from geographic areas not receiving the intervention. With a pan London approach, such as the Matrix, this is not possible as all boroughs have a Matrix cohort. Furthermore, the most problematic or eligible individuals should have already been identified for the Matrix and so any comparison group of individuals identified within London would have inherent flaws. The same was judged to be the case in generating a comparison group drawing upon wider England and Wales data, especially the different working definitions and practices by police forces to identify 'gangs'.

In the case of the Matrix Review, in order to explore impact a quasi-experimental approach was developed alongside staff at University College London in a method called '*within-group reference point shuffle*'. This method is inspired by a technique commonly used in the

spatio-temporal analysis of crime, called the Knox test (Knox, 1964). The test is used as a means of identifying space-time clustering; that is, the tendency of incidents to appear close to each other in space and time (commonly manifested as 'near-repeat' victimisation; see Johnson et al, 2007). In the test, incidents are first examined to establish how they are separated in observed data: how many occur within 400 metres and 7 days of each other, for example.

Once this has been calculated, the test seeks to compare these values against what would be expected if no clustering was present. It does this using a permutation approach, in which the time-stamps of the events are repeatedly shuffled (so each incident is randomly assigned the time of a different incident). After each shuffle, the separation between incidents is calculated in exactly the same way as it was for the observed data, and this process is repeated many times. After doing this, the average separation under the shuffling procedure is compared with what was observed in the original data.

The principle of the test is that the shuffling procedure replicates what would be expected if there was no relationship between the spatial and temporal dimensions of the data. The idea is that, if there was no dependence between the locations and times of incidents (i.e. no clustering) then the shuffling procedure ought to make no difference to the observed separation - any proximity is simply the result of random fluctuation. If, on the other hand, there is a discrepancy between the observed data and that obtained by shuffling, this implies that there was something 'special' about the spatio-temporal alignment in the observed data. One of the key properties of the technique is that it controls for the underlying spatial or temporal distribution in the data (i.e. the natural heterogeneity of crime).

The approach used to explore the impact of the Matrix essentially substitutes the spatial aspect of the above technique for differences across individuals. Rather than examining the proximity between incidents, in this case the quantity of interest is the proximity of the intervention (e.g. Matrix entry) to sanction events. This is essentially what is being computed when examining sanction rates pre- and post- Matrix inclusion.

The shuffling of time-stamps (in this case of Matrix inclusion) is then intended to break down any alignment between the point of Matrix entry and the offending history - just like the original test showed what would be expected if the locations and times were independent, this shows what would be expected if the time of matrix entry and offending history were independent. As before, any departure from this null/baseline distribution suggests a departure from this independence.

The overall approach is innovative and reasonably robust. The work has been peer-reviewed by a number of academics at University College London. As with other quasi-experimental designs, statements of causation are not possible, but the approach is able to provide useful insights that could be built upon in further research.

Matrix Victimisation

A list of Matrix PNC-IDs was sent to MPS Strategy & Governance, requesting details of all CRIS Notifiable Offences where the individual featured as Suspect, Accused or Victim between May 2013 and May 2018. For standardisation purposes, the period of analysis was refined to 01/01/2014 and 31/03/2018. This left 5,107 individuals with at least one of six months pre, during or post Matrix inclusion within the period of analysis; 92% of these (n=4,668) appeared at least once as victim, suspect or accused in this time. Counts of Accused (individuals charged), Suspect and Victim records before, during and after inclusion on the Matrix were calculated, and victimisation analysis conducted using the same methodology as described above.

Time between offence and arrest

Also referred to as 'speed to arrest', this method used the 'offence date' and 'arrest date' as recorded on the Police National Computer to derive an average number of days between offence and arrest. This is only a proxy measure of the offence date - but again is the most accurate data available.

Stop and Search

Stops data was obtained on the cohort (n=7,299) for the period June 2013 to May 2018, of these stops data was returned on 3,996. As detailed in the main report, individual level data relating to stop and search of Matrix individuals pre-2016 was assessed as incomplete due to changes in recording practices and data platforms. MPS data-matching for stops incidents utilises a variation of the 'fuzzy matching' process which is also prone to error. For this reason and to increase accuracy, the period of analysis was shortened to 01/01/2016 to 31/03/2018. This meant that 2,667 individuals were in scope. The methodology as described above for offending was replicated whereby the proportion of in-scope individuals stopped at each time point was calculated (three-month periods). As with offending, this was then split by various groups (harm status on entry, ethnicity, individuals not in custody during Matrix inclusion)

An additional dataset of all individuals stopped and searched in the MPS over a one-year period was obtained (April 2017 – March 2018; 4,312 individuals appeared on the Matrix during this period). This allowed a comparison between non-Matrix and Matrix individuals being stopped. Individuals within the 'stopped' cohort were identified as being on the Matrix at the point of stop, as well as those who had been on the Matrix but were not on when stopped. Averages for Matrix and non-Matrix individuals were then calculated. Whilst overall average stops in a year for Matrix individuals appears low (2.4) this should be understood in terms of the caveats presented. To allow for fairer comparisons, and with previous findings on ethnic disproportionality in stop and search in mind, analysis also compared stops of Matrix and non-Matrix individuals *within* ethnic groups for the one-year time period.

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