

1. Have any predictive policing systems been used, are currently in use, or are intended to be used by West Midlands Police in the future for the purpose of predictive crime mapping? If yes, please answer the following.

**Yes**

1a. What is the name of the system?

**WMP are currently trialling two predictive crime mapping models for Knife crime (where the knife is used causing injury) and for Serious Violence crimes.**

**The underlying models have been developed in house - they do not use a proprietary software system**

1b. When was the system first used?

**Knife Crime – Beta testing started Nov 2021**

**Serious Violence – Beta testing started May 2022**

1c. How does the system work? What data does it use to make predictions, and how are those predictions made?

**The purpose of both systems is to predict for the next 4 week period the likely location and numbers of the relevant offence types. The Knife crime model uses 1 square kilometre grids and the Serious Violence model uses 0.5 square kilometre grids. The data comes from the CONNECT system and relates only to recorded crimes falling within the relevant definitions.**

Technical details of the models are published on the PCC's website here:

<https://www.westmidlands-pcc.gov.uk/ethics-committee/ethics-committee-reports-and-minutes/>

- **Serious Violence (MSV) – Nov 2021 (6.1)**
- **Knife Crime – July 2021 (4)**

1d. What is the cost of using the system?

**No costs are incurred for these models as they have been developed in-house.**

1e. What guidance/policies does West Midlands Police have to govern the usage of the system?

**Both projects have been reviewed by the independent Data Ethics Committee which has advised that they can proceed (see minutes on the website above)**

**Both projects have been reviewed by the Legal Department and DPIAs have been approved by the Force Data Protection Officer.**

**Access to the predictive tool is limited to a small team within the Intelligence Department. They have received training from the Data Analytics Lab team who built the models, to ensure understanding of the output.**

1f. Please provide data on when the system has been used, and the age, race and gender of those who have had police interactions or arrests as a result of this system.

**The predictions are used to support the analysis of knife crime and serious violence by the Project Guardian Intelligence Team. Their intelligence products feed into tasking processes where resourcing decisions are made by senior leaders.**

**The models do not make decisions and the predictions are not targeted at individuals. Resourcing decisions are made by senior leaders through the tasking process and individual officers decide when to interact with members of the public (for example making an arrest) as part of their normal policing activity.**

1g. Please provide any Privacy Impact Assessment, Data Protection Impact Assessment and/or Equality Impact Assessment conducted in relation to this programme. Please provide the dates when these assessments were conducted. If no such assessments were conducted, please state as such.

**Knife Crime DPIA conducted 27/11/2019**

**Violent Crime DPIA conducted 23/06/2020**

**Both projects have had a legal opinion provided which consider the impact on privacy and the exploratory data analysis phase of the project assesses any bias in respect of protected characteristics.**

Please see: [Predictive Policing\(736A/22\) - Freedom of Information - West Midlands Police \(west-midlands.police.uk\)](https://www.west-midlands.police.uk)

[Ethics Committee - West Midlands Police & Crime Commissioner \(westmidlands-pcc.gov.uk\)](https://www.westmidlands-pcc.gov.uk)

1h. What testing and/or research has been conducted in order to investigate the potential for bias within the programme, in order to comply with West Midlands Police's Public Sector Equality Duty under s149 Equality Act 2010?

**Both projects utilised extensive exploratory data analysis phases. Because these projects utilise data aggregated to spatial areas (the grids), there are no data relating to individuals that are used.**

2. Have any predictive policing systems been used, are currently in use, or are intended to be used by West Midlands Police in the future for the purpose of individual risk assessment?

**WMP are currently trialling a risk assessment model which defines harm caused by crime (only for people who have been charged with crimes) and then employs a model to estimate the probability of someone becoming high harm (who haven't as yet reached that level). This is known as the IOM Model (Integrated Offender Management).**

**The underlying model has been developed in house – it does not use a proprietary software system**

2a. What is the name of the system?

**IOM Model**

2b. When was the system first used?

**Beta testing started Nov 2021**

2c. How does the system work? What data does it use to make predictions, and how are those predictions made?

**The risk assessment model defines harm caused by crime (only for people who have been charged with crimes) and then employs a model to estimate the probability of someone becoming high harm (who haven't as yet reached that level).**

Technical details of the model are published on the PCC's website here:

<https://www.westmidlands-pcc.gov.uk/ethics-committee/ethics-committee-reports-and-minutes/>

See papers and updates submitted in April 2019; July 2019; Jan 2020.

2d. What is the cost of using the system?

**No costs are incurred for the model as it has been developed in-house.**

2e. What guidance/policies does West Midlands Police have to govern the usage of the system?

**The project has been reviewed by the independent Data Ethics Committee which has advised that they can proceed (see minutes on the website above). This oversight by the Committee is ongoing.**

**The project has been reviewed by the Legal Department and the DPIA have been approved by the Force Data Protection Officer.**

**Access to the predictive tool is currently limited to two Local Offender Management Units (LOMUs) who are beta testing the output. They have received training from the Data Analytics Lab team who built the models, to ensure understanding of the output.**

2f. How many individuals are currently tracked through the system, their age, race and gender demographics, and whether they have any previous criminal record.

**The analyses apply to all individuals who have been charged with an offence in WMP systems, in line with data retention principles outlined in the Management of Police Information (MOPI) guidance.**

2g. Please provide data on when the system has been used, and the age, race and gender of those who have had police interactions or arrests as a result of this system.

**As the analysis is used by (two) integrated offender management teams, they undertake offender management and not activities such as arrests, etc. Information regarding individuals going through offender management processes are not currently available.**

2h. Please provide any Privacy Impact Assessment, Data Protection Impact Assessment and/or Equality Impact Assessment conducted in relation to this programme. Please provide the dates when these assessments were conducted. If no such assessments were conducted, please state as such.

**DPIA conducted 01/10/2019 – [Predictive Policing\(736A/22\) - Freedom of Information - West Midlands Police \(west-midlands.police.uk\)](#)**

**The project has had a legal opinion provided which considers the impact on privacy.**

2i. What testing and/or research has been conducted in order to investigate the potential for bias within the programme, in order to comply with West Midlands Police's Public Sector Equality Duty under s149 Equality Act 2010?

**The model is currently in the beta testing phase and has not yet been fully rolled out. Potential for bias in the data was investigated as part of the exploratory data analysis phase, but the eventual IOM model did not include any sensitive attributes and it was shown that none of the variables used in the model correlated with or inadvertently related to sensitive attributes.**