

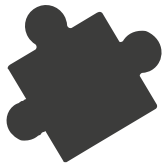
# The National MAPPA Research: Proven Reoffending Report

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## **Dedication**

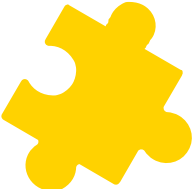
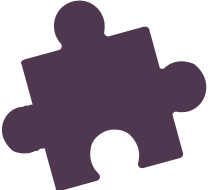
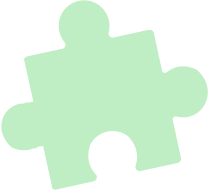
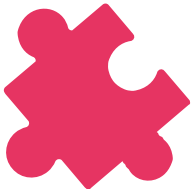
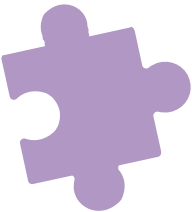
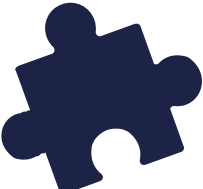
This research is dedicated to the memory of Saskia Jones (12.02.96 -29.11.19), our former Criminology student, who was determined to make the world a better and safer place through her studies. We hope that our findings may, in some way, contribute to that ambition..

## **About the Policing Institute for the Eastern Region (PIER)**

The Policing Institute for the Eastern Region (PIER) is a research institute within ARU. Since its formation in 2016, PIER has been committed to delivering high-quality collaborative research for the improvement of policing practice, particularly in relation to public protection and the prevention of sexual and violent offending.

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# Executive Summary

The National MAPPA Research was a 26-month study conducted by the Policing Institute for the Eastern Region to examine the effectiveness of Multi Agency Public Protection Arrangements (MAPPA) in England and Wales.



The research was made up of three components,

- 1) proven reoffending analysis (the current report);
- 2) process effectiveness analysis (Mann & Lundrigan, 2023) and
- 3) serious case review analysis (Mann, Lundrigan & Kerss, 2023).

MAPPA was placed on a statutory footing in 2003, under the Criminal Justice Act, with the aim of strengthening the monitoring of community-based individuals convicted of sexual and violent offences. Under MAPPA, the Police, the Probation Service, and the Prison Service, along with other agencies who have a 'duty to cooperate', are legally required to work together to monitor and manage the risk posed by such individuals (Ministry of Justice, 2021).

A bespoke dataset was created combining data from three existing administrative data sources: ViSOR, The Police National Computer (PNC) and the Probation Service's database n-Delius. The final sample consisted of **39,501** adult and juvenile individuals subject to MAPPA management in England and Wales with a registration<sup>2</sup> or re-registration date between 1<sup>st</sup> January 2012 and 31<sup>st</sup> December 2014. Four measures of reoffending were utilised:

- 1) proven reoffending rates;
- 2) offending intensity;
- 3) recall to custody rates; and
- 4) reoffending harm levels.

## Aim and method

The aim of this phase of the National MAPPA Research was to examine proven reoffending patterns for MAPPA managed individuals in order to evaluate the effectiveness of MAPPA in reducing reoffending. To do this, we:

- Examined patterns in the timing and frequency of proven reoffending for MAPPA managed individuals
- Examined one-, three- and five-year proven reoffending patterns of MAPPA managed individuals, by MAPPA category, age and gender
- Compared differences in pre- and post-MAPPA<sup>1</sup> crime harm levels and recall to custody, to examine changes in offending over time



<sup>1</sup> Pre-MAPPA offending refers to any offending that took place before an individual commenced the community part of a MAPPA-involved sentence. Post-MAPPA offending refers to any offending that took place after an individual commenced the community part of a MAPPA-involved sentence.

<sup>2</sup> The MAPPA registration date is the date when an individual commenced the community part of a MAPPA-involved sentence.

## Findings

Key findings from the analysis were:

### Patterns in reoffending

- **31.1%** of the total MAPPA sample committed at least one reoffence across the study timeframe
- **39.1%** of MAPPA managed individuals who went on to reoffend, committed their first reoffence within one year
- The one-year MAPPA proven reoffending rate was **12.2%** compared to national overall one-year, proven reoffending rates of between **30.0%** and **31.3%** over a similar time period.
- Proven reoffending rates varied between MAPPA categories with a one year proven reoffending rate of **11.9%** for individuals managed under Category 1, **10.2%** for those managed under Category 2 and **41.9%** for those managed under Category 3.
- Category 3 individuals reoffended more quickly and committed more reoffences than those managed under Category 1 and 2.
- One year proven reoffending rates were significantly higher for males (**12.4%**) than females (**9.1%**).
- One year proven reoffending rates were significantly higher for MAPPA managed juveniles (**33.2%**) than for MAPPA managed adults (**17.2%** for those aged 18-25 and **9.6%** for those aged 26+).

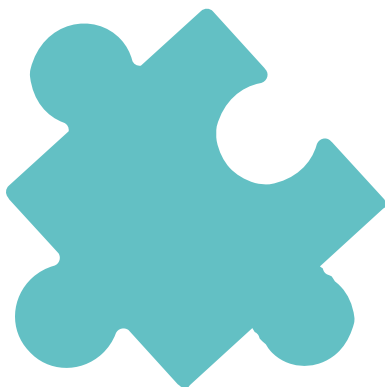
### Change in offending over time

- Utilising a pseudo-control sample made up of high frequency, low crime harm offences, significant reductions in crime harm were found between pre- and post-MAPPA offending.
- The ratio of pre- to post-MAPPA per year recall rates was **9.67** demonstrating that post-MAPPA recall rates were nearly ten times higher than pre-MAPPA recall rates

## Conclusion

This is the first ever study to examine both pre- and post-MAPPA proven offending for the same individuals in order to examine whether the proven reoffending of individuals being managed under MAPPA decreases over time. It is also the first study to move beyond proven reoffending rates to consider crime harm levels. The study represents the most comprehensive examination of reoffending of MAPPA managed individuals to date and builds on previous research in this area.

The results of this study demonstrate proven reoffending for individuals managed under MAPPA that are substantially lower than those reported in proven reoffending statistics for England and Wales. The reductions in frequency and seriousness of offending post-MAPPA management suggest that MAPPA is making a positive contribution to managing individuals convicted of sexual and violent offences. Although without a control group, it is difficult to firmly attribute any observed change to MAPPA, this research provides the best evidence thus far that MAPPA management has a real effect on reducing less serious offences which do not typically involve the perpetrators immediate removal from society. Future research should investigate these promising findings using a matched control design in order to determine the extent to which the findings can be attributed to MAPPA management.





# Introduction

This report presents the findings from the proven reoffending component of the National MAPPA Research. The National MAPPA Research was a 26-month study conducted by the Policing Institute for the Eastern Region to examine the effectiveness of MAPPA in England and Wales.



The research was made up of three components,

- 1) proven reoffending analysis (the current report);
- 2) process effectiveness analysis (Mann & Lundrigan, 2022) and
- 3) serious case review analysis (Mann, Lundrigan & Kerss, 2022)<sup>3</sup>.

MAPPA was placed on a statutory footing in 2003, under the Criminal Justice Act, with the aim of strengthening the monitoring of community-based individuals convicted of sexual and violent offences. Under MAPPA, the Police, the Probation Service and the Prison Service<sup>4</sup>, along with other agencies who have a 'duty to cooperate' (DTC hereafter<sup>5</sup>), are legally required to work together to monitor and manage the risk posed by such individuals (Ministry of Justice 2021). There are three categories of MAPPA management, as shown in Table 1.

|            |                                                                                                                                                                     |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Category 1 | Offenders Subject to Notification Requirements: Sexual Offenders                                                                                                    |
| Category 2 | Violent Offenders sentenced to 12 months or more in custody (immediate or suspended) or detained under a hospital order and Other Sexual Offenders (non-registered) |
| Category 3 | Other Dangerous Offenders who pose a high risk of serious harm (RoSH) but do not qualify for Category 1 or 2                                                        |

Table 1: MAPPA Categories. Note: In April 2022 a fourth MAPPA category was introduced for terrorist or terrorist risk individuals.

Under MAPPA, individuals are managed at one of three levels which reflects the level of multi-agency cooperation required to implement their risk management plan effectively. Individuals can move between levels, reflecting changes in the level of risk they are deemed to present.

|         |                                                                                                                                 |
|---------|---------------------------------------------------------------------------------------------------------------------------------|
| Level 1 | Multi-agency support for Lead Agency risk management with information sharing                                                   |
| Level 2 | Formal multi-agency meetings, including active involvement of more than one agency to manage the individual                     |
| Level 3 | Formal multi-agency meetings and extra resources, the ' <b>Critical Few</b> ' including Critical Public Protection Cases (CPPC) |

Table 2: MAPPA Levels

As of 31<sup>st</sup> March 2021, the number of individuals subject to MAPPA management in England and Wales, stood at 87,657 (64,325 were Category 1, 22,944 were Category 2 and 388 were Category 3). This represents a 2% increase from 2020 and a 70% increase from 2011 (Ministry of Justice, 2021).



<sup>3</sup>The National MAPPA Research was distinct but complementary to other work being undertaken between 2020 and 2022, including the Independent Review of Statutory Multi-Agency Public Protection Arrangements (Hall, 2022), the HMPPS Review of MAPPA Level 1, VKPP's analysis of MAPPA Serious Case Reviews and the Criminal Justice Joint Thematic Inspection of MAPPA (2022).

<sup>4</sup>The research was conducted prior to the unification of the Probation Service in June 2021

<sup>5</sup>These duty-to-cooperate agencies include youth offending teams, health and social care, housing, victim support and the Home Office.



## 1.1. MAPPA organisation

There are 42 MAPPA areas in England and Wales<sup>6</sup>. The largest MAPPA area is London, which is subdivided into 32 separate MAPPA areas across the 32 London boroughs. The Police, the Prison Service and the Probation Service make up the MAPPA responsible authority in each area and work in conjunction with the DTC agencies that are involved in an individual's management. The frequency of meetings and attendance is dependent on the complexities involved in implementing the risk management plan. Each MAPPA area has several roles central to the coordination and maintenance of the arrangements.

These include:

- A coordinator or a manager, drawn from either Probation or the Police. They are the single point of contact for MAPPA and have responsibility for the oversight of MAPPA arrangements in their area
- Panel meeting chairs, whose role it is to chair the MAPPA level 2 and 3 meetings. MAPPA Guidance (2022) states that chairs must be drawn from the Police or Probation Service
- The MAPPA Strategic Management Board (SMB) is made up of representatives from responsible-authority and DTC agencies. Their role is to manage MAPPA activity in the area, including the ongoing review of quality and effectiveness and the accommodation of any changes in legislation, national guidance, or wider criminal justice policy. A chair sits as head of the SMB
- Lay advisors who sit on the SMB and represent the public in the monitoring and evaluation of MAPPA

MAPPA is overseen on a national level by the Responsible Authority National Steering Group (RANSNG) at the Ministry of Justice.

## 1.2. MAPPA recidivism research

Past research into the effectiveness of MAPPA on reducing reoffending is limited to two Ministry of Justice studies (Peck, 2011; Bryant, Peck & Lovebekke, 2015). Peck (2011) examined reconviction patterns of MAPPA managed individuals from 2001-2004 and compared them to a different cohort of pre- MAPPA managed individuals from 1998- 2000. They found that those released from custody between 2001 and 2004 (i.e., after the implementation of MAPPA) had a lower one-year reconviction rate than those released between 1998 and 2000 and this remained true at the two-year follow-up. The general reconviction rate of the 1998 cohort was 26.4%, but for the 2004 cohort it had reduced to 19.9%, a 6.5 percentage point reduction.

In an update to the Peck (2011) study, Bryant, et al. (2015) examined one-year proven reoffending rates for new MAPPA Category 1 and 2 eligible individuals from 2000 - 2010 and compared differences in reoffending rates for MAPPA eligible individuals and a comparison group to estimate the impact of MAPPA on reducing reoffending. They found a 3% decrease in the one-year proven reoffending rates for Category 1 and Category 2 individuals between 2000 and 2004. The authors concluded that, between 2000 and 2010, MAPPA may be associated with a four-percentage point reduction in proven reoffending for new MAPPA eligible individuals, and a two-percentage point reduction in serious reoffending. Table 3 summarises the two studies.



<sup>6</sup> The MAPPA areas align with the 42 police services in England and Wales except for the City of London which is amalgamated with the London Metropolitan Police Service area

|                        | Peck (2011)                                                                                                                                                                                                                                                                                                                                                                                              | Bryant et al. (2015)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Research design        | MAPPA subject group versus non-MAPPA comparison group                                                                                                                                                                                                                                                                                                                                                    | MAPPA subject group versus non-MAPPA comparison group                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Sample selection       | MAPPA eligible                                                                                                                                                                                                                                                                                                                                                                                           | New MAPPA eligible offenders                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| MAPPA categories       | Cat 1, Cat 2, Cat 3                                                                                                                                                                                                                                                                                                                                                                                      | Cat 1, Cat 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Total sample size      | 67,679                                                                                                                                                                                                                                                                                                                                                                                                   | 136,000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Time frame             | 1998 - 2004                                                                                                                                                                                                                                                                                                                                                                                              | 2000 - 2010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Reoffending measure(s) | One- and two-year reconviction rates                                                                                                                                                                                                                                                                                                                                                                     | One-year proven reoffending rates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Exclusions             | Released from hospitals, registered sexual offenders released before 1998 or given community sentences, offenders given life sentences, certain Category 3 offenders                                                                                                                                                                                                                                     | Category 3 offenders                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Results                | <p>Offenders released from custody between 2001 and 2004 (i.e., after the implementation of MAPPA management) had a lower one-year reconviction rate than those released between 1998 and 2000.</p> <p>Remained true at the two-year follow-up.</p> <p>The general reconviction rate of the 1998 cohort was 26.4%, but for the 2004 cohort it had reduced to 19.9%, a 6.5 percentage point reduction</p> | <p>The one year proven reoffending rate amongst Category 1 offenders decreased from 13% in 2000 to 10% in 2004. Gradually increased back to 13% in 2010.</p> <p>The one-year proven reoffending rate amongst Category 2 offenders decreased from 26% in 2000 (pre-implementation of MAPPA management) to 23% in 2004. Fluctuated between 22% and 24% from 2004 to 2010</p> <p>MAPPA associated with a 4% reduction in proven reoffending by new MAPPA eligible offenders, and a 2% reduction in serious reoffending, from 2000 to 2010</p> |

Table 3: Summary of previous MAPPA reoffending research

While the two studies discussed have gone some way to help understand the impact of MAPPA management on reoffending, there are several limitations to both, and these are discussed below.

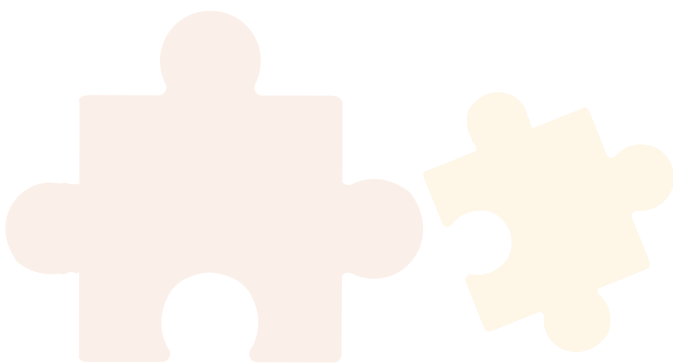
**Reoffending measures.** Peck (2011) calculated reconviction rates which included convictions but not cautions. Whilst the more recent study by Bryant et al. (2015) utilised proven reoffending rates which provide a more complete picture of reoffending, both studies predominantly examined one-year rates which, given that individuals convicted of sexual offences do not tend to reoffend for several years (Soothill et al., 2000; Cann et al., 2004), may be problematic.

**Study samples.** Neither study included all types of individual subject to MAPPA management. Peck (2011) included only those individuals who had served a period of incarceration, excluding all those serving community sentences or hospital orders. Bryant et al. (2015) included only Category 1 and Category 2 managed individuals, excluding all those in Category 3. Additionally, the sampling time frame used by Bryant et al. (2015) covered an unstable period for MAPPA during which guidance on MAPPA eligible offences was still evolving. As such, some individuals would have been managed very differently to others depending on the guidance at the time. Both studies are also now outdated. Peck (2011) utilised data from 2000 to 2004, and Bryant et al. (2015) utilised data from 2000-2010, leaving a further eleven years of data unexamined.

### 1.3 Aim and objectives

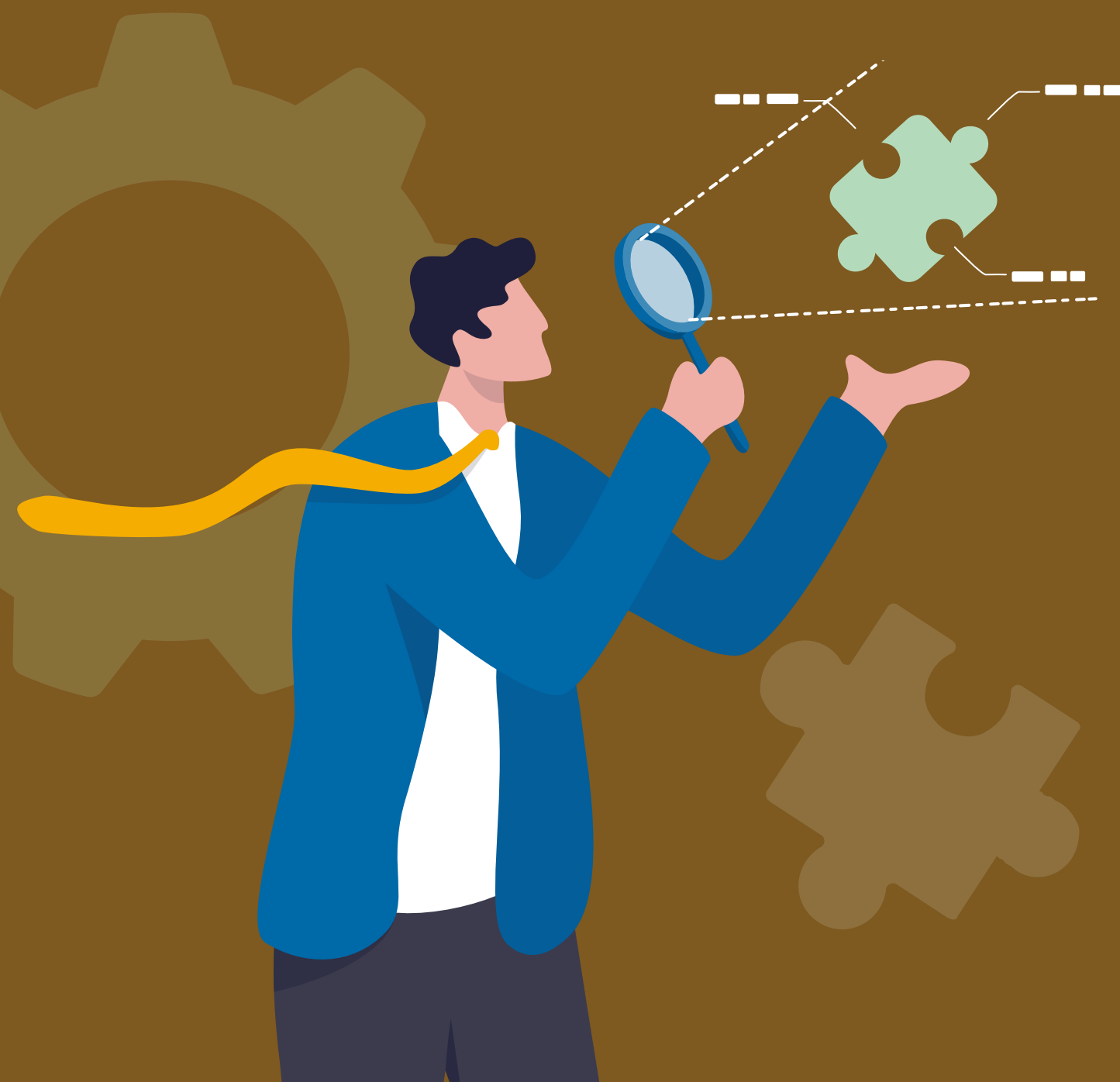
The aim of this phase of the National MAPPA Research was to examine proven reoffending patterns for MAPPA managed individuals to evaluate the effectiveness of MAPPA in reducing reoffending. To address this aim, the following objectives were met:

- To examine patterns in the timing and frequency of proven reoffending for MAPPA managed individuals
- To examine one-, three- and five-year proven reoffending patterns of MAPPA individuals by MAPPA category, age and gender
- To compare crime harm levels and recall to custody for MAPPA managed individuals pre- and post- MAPPA adoption



## 2 Methodology

A Data Sharing Agreement was put in place between ARU, the National Police Chief's Council lead for PNC, and the National Police Chief's Council Lead for the Management of Sexual Offenders and Violent Offenders (June 2021). This agreement covered all data processing and data management arrangements for the duration of the project.



## 2.1 Ethics and data management

Full approval from both Anglia Ruskin University's Faculty Research Ethics Panel and HMPPS' Research Ethics Committee (2020-102) was secured. All ethical issues pertinent to this study, such as anonymity, data security and management were considered and managed accordingly. A Data Sharing Agreement was put in place between ARU, the National Police Chief's Council lead for PNC, and the National Police Chief's Council Lead for the Management of Sexual Offenders and Violent Offenders (June 2021). This agreement covered all data processing and data management arrangements for the duration of the project.

## 2.2. Data collection

For the purposes of this research, it was necessary to create a bespoke dataset combining data from three existing administrative data sources: ViSOR<sup>7</sup>, The Police National Computer (PNC)<sup>8</sup> and the Probation Service's database n-Delius<sup>9</sup>. The following steps were undertaken to arrive at the final sample ready for analysis.

- a) A ViSOR data extraction exercise was undertaken by the national ViSOR team on 6<sup>th</sup> Nov 2021. The data extraction included all individuals subject to MAPPA management for the first time between 2003 (the beginning of MAPPA) - 2014<sup>10 11</sup> with reoffending data up to the date of extraction (n = **139,978**)<sup>12</sup>.
- b) Individuals with incomplete data regarding their MAPPA category were removed, leaving only individuals with valid MAPPA categories (n = **81705**).
- c) Those individuals who were new to MAPPA, or who had their MAPPA status reactivated, between 1<sup>st</sup> January 2012 and 31<sup>st</sup> December 2014 were identified (n=**31541**).
- d) The sample identified from ViSOR were cross referenced with n-Delius to identify any additional Category 2 managed individuals not recorded on ViSOR<sup>13</sup>. This added an additional 7960 new individuals with valid MAPPA levels (n = **39501**).
- e) The sample was then cross referenced with PNC data to ensure a complete record of all offending (both prior to and post the date of MAPPA registration), rather than the limit of the first 50 convictions which is held on ViSOR
- f) The last step involved identifying MAPPA individuals who had undertaken the now discredited (Mews, Di Bella & Purver, 2017) Sex Offender Treatment Programmes (SOTP and iSOTP). Data on programme completions was provided by the Reducing Reoffending and Probation Data and Statistics Team. The PNC IDs of 11,667 Category 1 (Registered Sex Offenders) and 2 (individuals convicted of sexual offences who did not meet notification requirements) managed individuals were provided to the Data Science and Personalisation Hub at the Ministry of Justice who returned the IDs of those who had completed the programme (n = 798). Analysis carried out including and excluding this group of individuals showed no significant differences in findings and so this group were included in the final sample.



<sup>7</sup> ViSOR is a secure national database that was developed to support MAPPA by assisting cooperative working between the three Agencies that make up the Responsible Authority.

<sup>8</sup> The Police National Computer (PNC) is the computer system for England and Wales governed by section 27(4) of the Police and Criminal Evidence Act 1984. It is used to record convictions, cautions, reprimands, and warnings for any offence punishable by imprisonment and any other offence that is specified within the regulations.

<sup>9</sup> n-Delius is a national case management information system across the Probation Service in England and Wales

<sup>10</sup> When the research was approved in 2019, we aimed to examine five-year proven reoffending using the most up to date data available, as such we applied for data on all individuals who were new to MAPPA management up to 2014 and proven reoffending data up to the data extraction date.

<sup>11</sup> The ViSOR team provided data from the start of MAPPA in 2003

<sup>12</sup> The sample was missing 396 MAPPA managed individuals who do not feature on any database due their status as 'restricted handling nominals'. These are individuals of public interest who have committed MAPPA eligible offences but for whom anonymity is vital.

<sup>13</sup> This step was only possible for the 2014 MAPPA cohort due to differences in the recording systems of Probation prior to 2014.

## 2.3 The study cohort

The final sample included **39,501** individuals with a MAPPA adoption date between **1<sup>st</sup> January 2012** and **31<sup>st</sup> December 2014**. It included those individuals subject to MAPPA management living abroad and managed by ACRO criminal records service. Table 4 shows the breakdown of the sample by MAPPA category and level.

|              | Level 1                         | Level 2                       | Level 3                      | Not known                       | Total                           |
|--------------|---------------------------------|-------------------------------|------------------------------|---------------------------------|---------------------------------|
| Category 1   | 25.72%<br>(10160)               | 1.09%<br>(430)                | 0.07%<br>(24)                | 30.02%<br>(11858)               | <b>56.89%</b><br><b>(22472)</b> |
| Category 2   | 22.98%<br>(9079)                | 6.71%<br>(2650)               | 0.27%<br>(105)               | 9.77%<br>(3858)                 | <b>39.73%</b><br><b>(15692)</b> |
| Category 3   | N.A                             | 1.44%<br>(569)                | 0.07%<br>(24)                | 1.93%<br>(764)                  | <b>3.44%</b><br><b>(1357)</b>   |
| <b>TOTAL</b> | <b>48.77%</b><br><b>(19239)</b> | <b>9.35%</b><br><b>(3694)</b> | <b>0.39%</b><br><b>(153)</b> | <b>41.65%</b><br><b>(16480)</b> | <b>100%</b><br><b>(39501)</b>   |

Table 4: Sample frequencies for MAPPA Categories and Levels

Of the whole sample, 99.7% remained under MAPPA management at the point of data extraction, with only 99 nominals no longer being managed under MAPPA, showing that most individuals had been managed under MAPPA for between seven and nine years (mean = 8.08, SD = 0.87). Of the whole sample, 26.69% had served one or more custodial sentence during their MAPPA management (up to date of data extraction). Table 5 describes the demographic characteristics of the sample. As can be seen, there was missing data for several of the demographic variables.



| Descriptor name | Categories                                                                                                        | % (n)                                                                                                                        |
|-----------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Age             | Juvenile<br>Adult<br>Missing                                                                                      | 2.82 (1113)<br>94.45 (37310)<br>2.58 (1078)                                                                                  |
| Gender          | Male<br>Female<br>Other<br>Missing                                                                                | 95.73 (37814)<br>3.69 (1456)<br>0.51 (200)<br>0.08 (31)                                                                      |
| Ethnicity       | White<br>Black<br>Asian<br>Mixed ethnicity<br>Missing                                                             | 68.07 (26888)<br>7.56 (2986)<br>5.21 (2058)<br>1.50 (593)<br>17.71 (6994)                                                    |
| Marital status  | Single<br>Married/civil partner/lives with partner<br>Divorced/separated/estranged<br>Widowed<br>Missing          | 16.04 (6335)<br>7.81 (3084)<br>5.34 (2110)<br>0.45 (185)<br>70.35 (27787)                                                    |
| Education level | None<br>GCSE<br>BTech<br>Diploma<br>A level<br>Degree<br>PhD<br>Missing                                           | 8.50 (3356)<br>4.08 (1613)<br>0.03 (10)<br>0.78 (308)<br>0.86 (339)<br>1.19 (469)<br>0.07 (29)<br>84.50 (33377)              |
| Mental health   | Depression<br>Personality Disorder<br>Schizophrenia<br>Psychosis<br>Paranoia<br>Other                             | 61.32 (1341)<br>6.72 (147)<br>6.90 (151)<br>1.87 (41)<br>1.78 (39)<br>42.80 (936)                                            |
| Drug use        | Cannabis<br>Cocaine<br>Ketamine<br>Amphetamines<br>Heroin<br>Ecstasy<br>Magic Mushrooms/LSD<br>Methadone<br>Other | 68.88 (1268)<br>21.40 (394)<br>1.41 (26)<br>9.29 (171)<br>11.95 (220)<br>6.68 (123)<br>1.09 (20)<br>2.77 (51)<br>33.08 (609) |
| Veteran         | Past or current military service                                                                                  | 0.57% (227)                                                                                                                  |

Table 5: Sample demographics. Note. percentages are calculated from totals where data recorded NOT total sample.

## 2.4. Analysis

This research utilised four different measures to examine patterns in MAPPA reoffending and the potential effect of MAPPA on reducing reoffending.

### 2.4.1. Proven reoffending rates

For the purposes of this study, a proven reoffence is defined as any offence receiving a court conviction or a police caution after an individual's date of MAPPA registration. For every individual in the sample, we had proven reoffending data from their date of adoption under MAPPA (1<sup>st</sup> Jan 2012 - 31<sup>st</sup> Dec 2014) until the data extraction date (6<sup>th</sup> November 2021).

Proven reoffending was calculated in several stages. Firstly, PNC IDs and MAPPA adoption dates were loaded. This allowed a mapping between the individual subject to MAPPA management and any recorded offences from either the PNC or ViSOR databases. For each PNC ID, all offence occurrence dates were inputted for that individual. The proven reoffending for a particular individual was then calculated by searching for any convictions or cautions which occurred within N years after the individual's MAPPA adoption date, with N in the range of one to five years, in six-month intervals. Any prison sentences during the reoffending timeframe were taken into consideration by increasing the allotted timeframe over which the individual could commit an offence; hence the reoffending timeframe was taken to be N years of community management time<sup>14</sup>.

### 2.4.2. Offending intensity

The first offending intensity measure was the number of offences committed by an individual post MAPPA registration. A second measure of offending intensity involved calculating the average number of reoffences committed post MAPPA registration.

### 2.4.3. Recall to custody

The recall to custody measure is the percentage of individuals who were recalled to custody<sup>15</sup>, at least once, whilst under MAPPA management.

### 2.4.4 Crime harm index

The 'Crime Harm Index' or 'Cambridge CHI' (Sherman, Neyroud and Neyroud, 2016) provides a framework for the comparative analysis of the harm that different crimes inflict. The Cambridge CHI acknowledges that crimes pose different levels of harm and provides a weighted index to measure how harmful different crimes are in proportion to the others. This approach adds a larger weight to more harmful crimes (e.g., homicide, rape, and grievous bodily harm with intent), distinguishing them from less harmful types of crime (e.g., minor thefts, criminal damage, and common assault). The Cambridge CHI is calculated by multiplying each crime event in each crime category by the number of days in prison that it would attract for a convicted perpetrator, using sentence starting points as the baseline penalty for each offence (Sherman et al., 2016). For offences where the starting point is either a community sentence or a fine, scores based on the number of hours required to complete the work component of a community sentence or to work to pay off the fine are used. For example, the CHI value is 10 for theft of a vehicle, 365 for robbery, and 2190 for rape of a child under 13.

For the crime harm analysis in the current study, the same data retrieval process was employed as in the proven reoffending analysis. The Cambridge CHI (2020) was used to map criminal justice codes to crime harm for each MAPPA managed individual who reoffended.



<sup>14</sup> The associated error on the reoffending value was calculated by subdividing the offender subset into ten randomly distributed bins and then taking the standard deviation of the reoffending values across each bin. A correction factor of  $1/\sqrt{10}=0.316$  was also introduced to the error value to account for the larger proportional error on the bins with only one tenth of the full sample size (by Poisson statistics).

<sup>15</sup> Individuals who are aged 18 and over and released into the community following imprisonment and some who serve a non-custodial sentence, are supervised by the Probation Service, subject to a licence with conditions. If an individual fails to comply or breaches these conditions, they may be recalled back to custody.



## 2.5 Study Strengths

The current research has several strengths and builds on previous studies as it:

- Draws on multiple administrative data sources to derive as complete a sample of MAPPA managed individuals as possible and the most accurate proven reoffending information possible
- Includes MAPPA managed individuals from all MAPPA categories (including Category 2 individuals supervised by Probation and not always recorded on ViSOR)
- Utilises most recent MAPPA and reoffending data from 2014-2021
- Examines proven reoffending rates over a five-year period
- Examines pre- and post- MAPPA crime harm levels for the same individuals
- Examines pre- and post- MAPPA recalls to custody for the same individuals.





## Results

This section begins by presenting results on the timing and frequency of proven reoffending for MAPPA managed individuals.



This is followed by the analysis of proven reoffending patterns by MAPPA category, gender and age. Finally, the results of the pre- and post-MAPPA recall to custody and crime harm analysis are presented. Examination of the entire sample from adoption date to data collection date revealed that **31.13%** (N = 12357) of the whole sample had at least one proven reoffence over the period under consideration.

### 3.1. Timing and frequency of proven reoffending

#### 3.1.1. Time until first proven reoffence

Figure 1 illustrates the distribution of the time lapse between MAPPA adoption date and first reoffence. Black dashed lines are shown at each year to indicate the cumulative sum of individuals up to that point.



Figure 1:  
Time to first reoffence for MAPPA managed individuals who reoffend

At the end of the first year of registration, **39.14%** of those MAPPA managed individuals who re-offended within five years had committed their first reoffence. This rose to **64.26%** at the end of year two, and so on reaching **97.82%** at the end of year five.

Figure 2 shows the average time lapse between MAPPA adoption date and first re-offence, broken down by MAPPA category. Error bars are shown in black at each six-month time point.

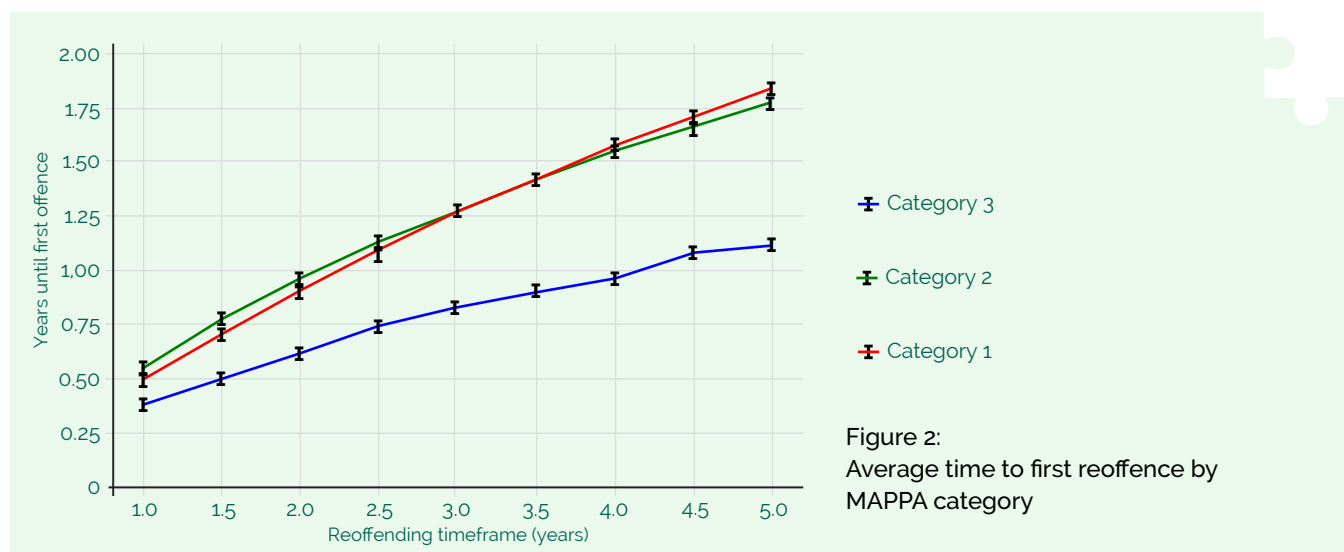
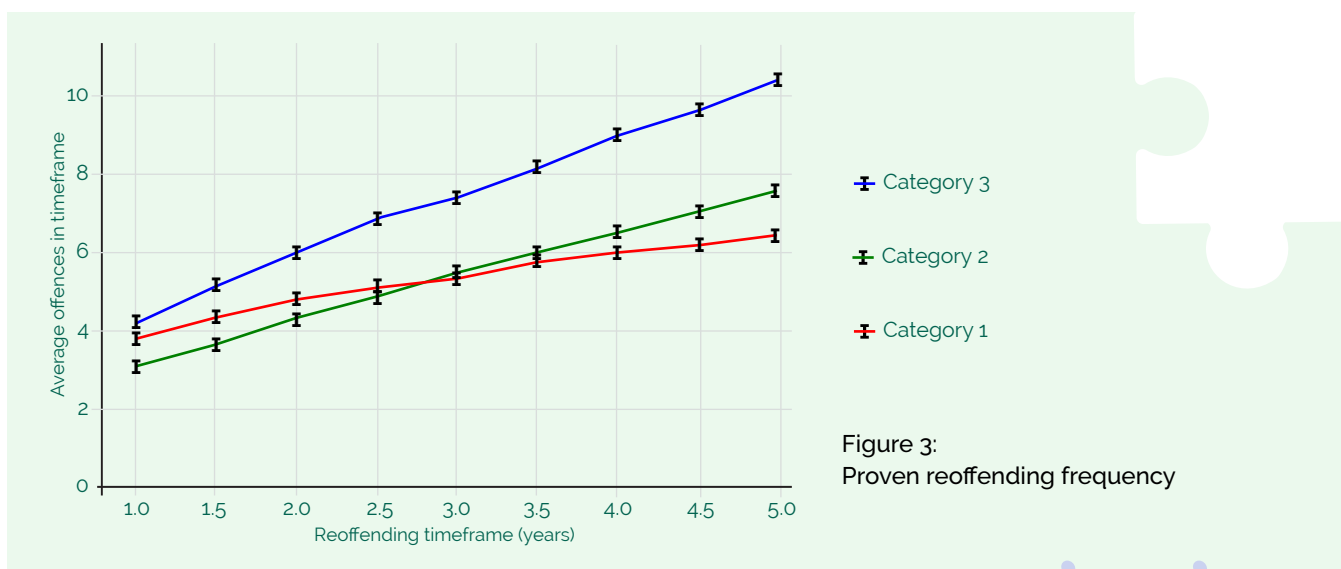


Figure 2:  
Average time to first reoffence by MAPPA category

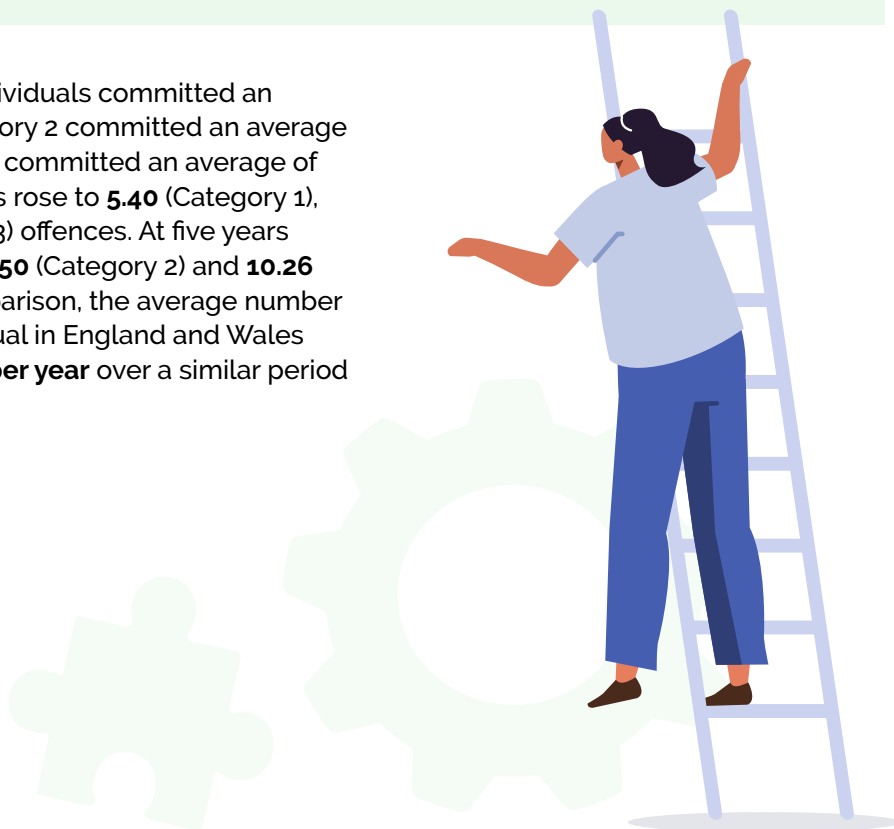
At one-year post-MAPPA, the average time to first reoffence was **0.48** years for Category 1 managed individuals, **0.53** years for Category 2 managed individuals and **0.36** years for Category 3 managed individuals. At three years post-MAPPA, the average time to first re-offence was **1.26** years for Category 1, **1.26** years for Category 2 and **0.82** years for Category 3 managed individuals. At five years, this rose to **1.82** years for Category 1, **1.76** years for Category 2 and **1.10** years for Category 3 managed individuals.

### 3.1.2. Proven reoffending frequency

Across all those MAPPA managed individuals who reoffended, the average number of proven reoffences was **3.62** offences at year one, **5.59** offences at year three and **7.12** offences at year five. Figure 3 shows the average number of proven reoffences broken down by MAPPA category.



At one year, Category 1 managed individuals committed an average of **3.78** offences each; Category 2 committed an average of **3.14** offences each and Category 3 committed an average of **4.19** offences each. At three years this rose to **5.40** (Category 1), **5.42** (Category 2) and **7.43** (Category 3) offences. At five years this rose again to **6.40** (Category 1), **7.50** (Category 2) and **10.26** (Category 3) offences each. For comparison, the average number of reoffences per reoffending individual in England and Wales ranged from 3.30 to 3.78 reoffences **per year** over a similar period (Ministry of Justice, 2022b)<sup>16</sup>.

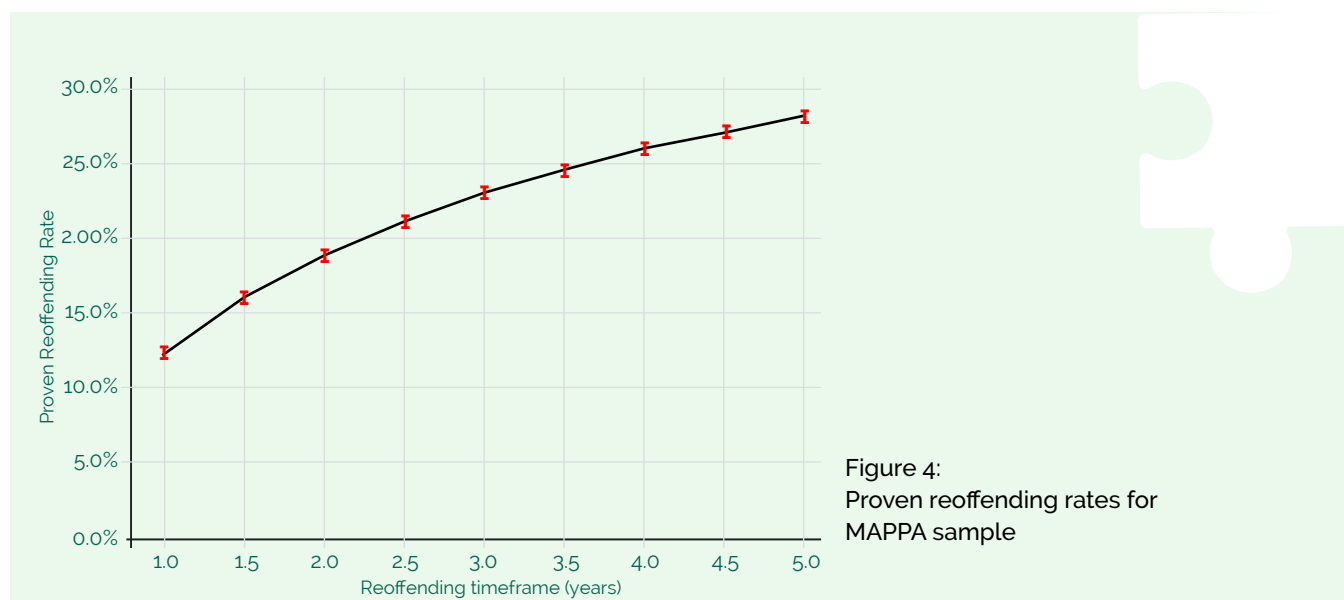


<sup>16</sup> Note. Ministry of Justice annual proven reoffending statistics are recorded from April to March whereas the present annual statistics are calculated from January to December.

## 3.2 Proven reoffending rates

### 3.2.1. Overall proven reoffending

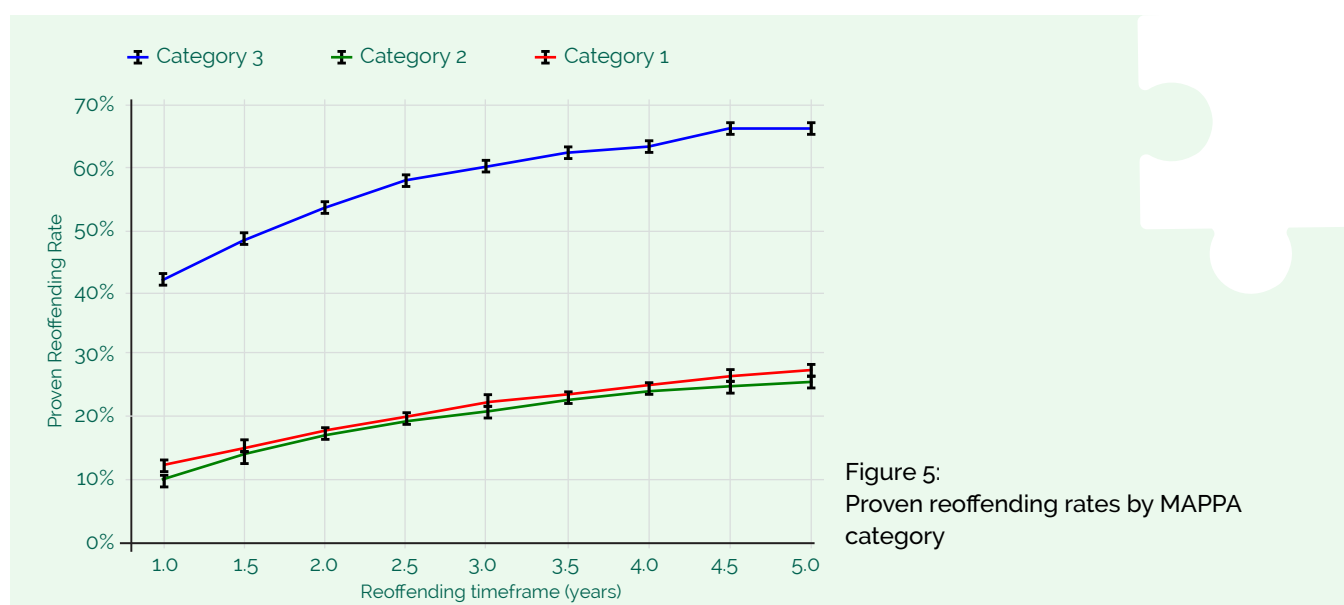
The proven reoffending rates for the whole sample across the five-year period are shown in figure 4.



At one-year post-MAPPA adoption the proven reoffending rate was 12.3%, and at three years 23.0%, and five years 28.1%. For comparison, the annual average, one-year 'general offender population' proven reoffending rate over a similar period ranged from 30.0% to 31.3% (Ministry of Justice, 2022b). The MAPPA one-year proven reoffending rate is also significantly lower than that found by Bryant et al. (2015), which ranged from 25-30% for MAPPA managed individuals between 2000 and 2010, and lower than the reconviction rate of 19.9% found by Peck (2011) for a 2004 MAPPA managed cohort.

### 3.2.2. Proven reoffending by MAPPA category

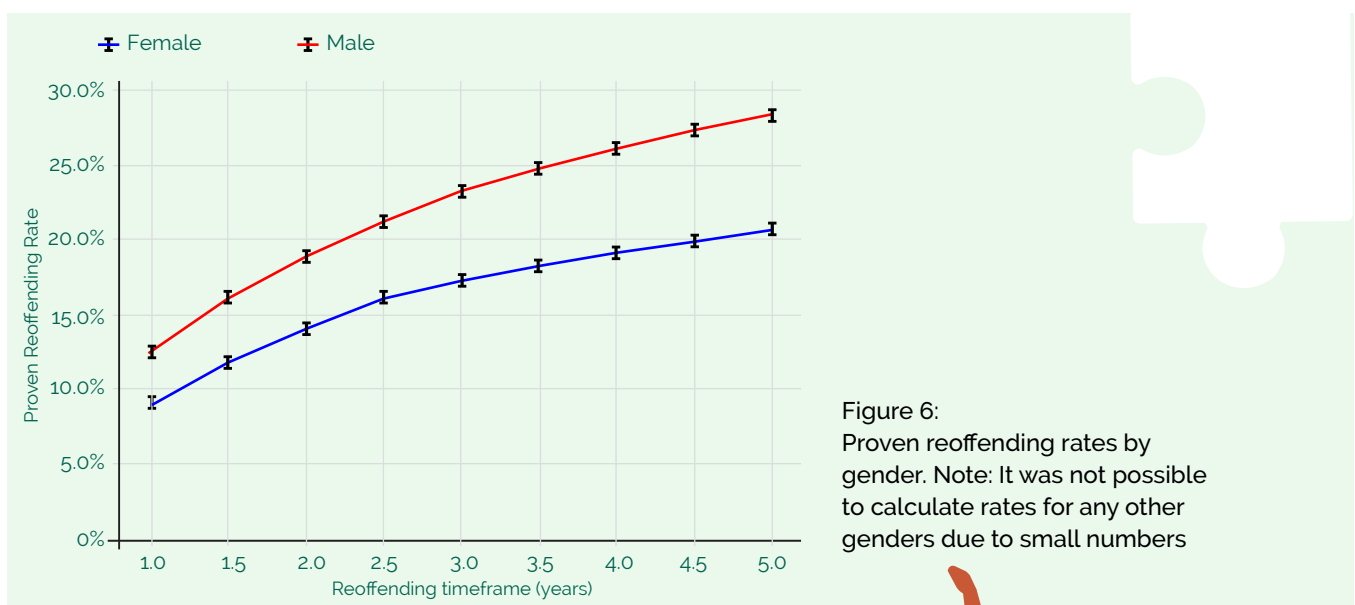
Figure 5 shows proven reoffending rates by MAPPA category.



At each time point, proven reoffending rates are highest for Category 3 managed individuals ranging from **41.9%** at one year to **60.1%** at three years and **66.2%** at five years. Proven reoffending rates for Category 1 and Category 2 managed individuals are significantly lower. For Category 1, the one year proven reoffending rate was **11.9%**, the three-year rate was **22.1%** and the five-year rate was **27.3%**. For Category 2, the one year proven reoffending rate was **10.2%**, the three-year rate was **21.1%** and the five-year rate was **25.8%**. By comparison, Bryant et al. (2015) found proven reoffending rates between 2000-2010 fluctuated between 10-15% for Category 1 managed individuals and 22-26% for Category 2 managed individuals. By way of further comparison, the annual average, one-year proven reoffending rate nationally for individuals convicted of a sexual index offence ranged from 13.7% to 15.0% over a similar time-period (Ministry of Justice, 2022b). The same statistics for individuals convicted of violence against the person index offence ranged from 23.5% to 24.7% (Ministry of Justice, 2022b), lower than those found here.

### 3.2.3. Proven reoffending by gender

Figure 6 shows proven reoffending rates broken down by gender.



At each time point, proven reoffending rates were significantly higher for males than females. The one-year proven reoffending rate was **12.4%** for males and **9.1%** for females. The three-year and five-year proven reoffending rates were **23.2%** and **28.3%** for males and **17.2%** and **20.7%** for females, respectively. Bryant et al. (2015) reported proven reoffending rates of between 27-30% for males and 22-28% for females. The one-year, 'general offender population' proven reoffending rates for a similar time-period ranged from 30.3% to 31.8% for males and 21.8% to 22.9% for females (Ministry of Justice, 2022b).



### 3.2.4. Proven reoffending by age

Figure 7 shows proven reoffending rates by age at adoption under MAPPA. Individuals were split into three age groups: 17 years and younger, 18 - 25 years and 26 years and older.

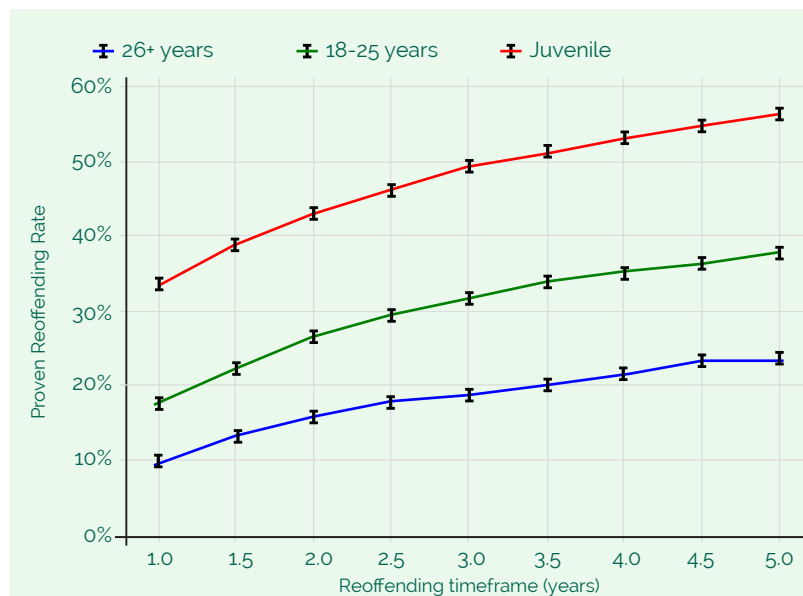


Figure 7:  
Proven reoffending rates  
by MAPPA managed individual age

Proven reoffending rates were significantly higher at each time point for MAPPA managed individuals aged 17 and under with a proven reoffending rate of **33.2%** at one year, **49.3%** at three years and **56.3%** at five years. The lowest proven reoffending rates were found in the 26+ age group (**9.6%** one year, **18.9%** three years, **23.7%** five years). For the 18 to 25 age group, the proven reoffending rates were **17.2%** at one year, **31.6%** at three years, and **37.4%** at five years. For comparison, the one-year, 'general offender population' proven reoffending rates for a similar period ranged from 28.9% to 30.0% for adults and 40.4% to 42.9% for juveniles (Ministry of Justice, 2022b).

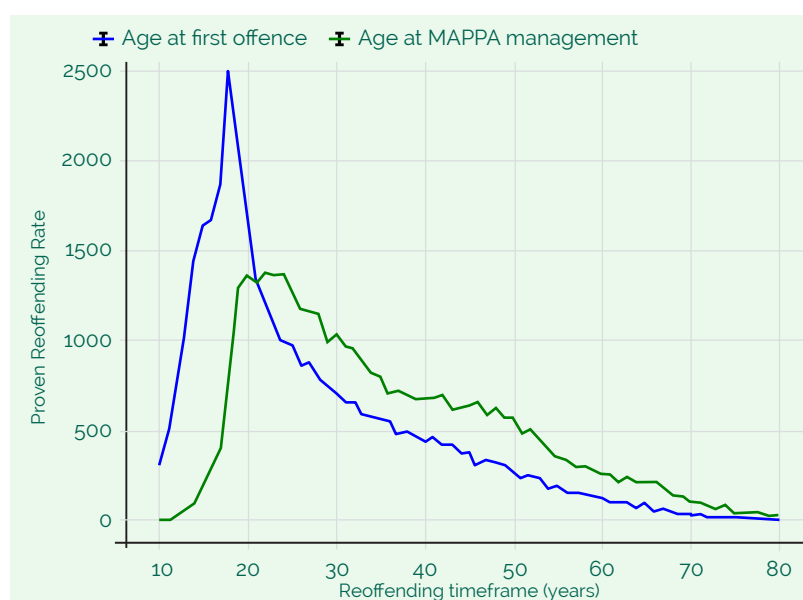


Figure 8:  
The distribution of individual age at  
the onset of MAPPA management  
(green) and ages at first offence  
(blue). Note. Areas under both  
curves are the same.

Figure 8 shows the distribution of age at the onset of MAPPA management in green and age at first offence in blue. The peak age at first offence is 18 years while the peak age for commencing a MAPPA managed community sentence is between 20 and 24.

### 3.2.5 Cox Proportional Hazards Analysis

A complimentary measure of differences in reoffending between groups was also carried out using the Cox Proportional Hazards model. Although we could not compare the hazard rates for reoffending between MAPPA-managed and non-MAPPA-managed due to the absence of a control sample, the proportional hazard rates were nonetheless evaluated for comparison to the reoffending trends throughout this section. For a complex system such as the cohort we are analysing, the assumption of proportional hazards may not hold for each variable analysed. For example, figure 6 suggests that reoffending rates of Category 1 managed individuals are initially higher than that of Category 2, but when given a 5-year reoffending timeframe, this ratio is reversed, with Category 2 managed individuals exceeding Category 1. With that in mind, the hazard rates reported in table 6 largely agree with the reoffending trends reported. For example, comparing Category 1 with Category 3, the hazard rate ( $e^{\beta}$ ) is 1.2 times higher on average for Category 3 (1.79/1.48).

| Covariate  | $\beta$ | $\beta$ (-95%) | $\beta$ (+95%) | $e^{\beta}$ | $e^{\beta}$ (-95%) | $e^{\beta}$ (+95%) | p      |
|------------|---------|----------------|----------------|-------------|--------------------|--------------------|--------|
| Category 1 | 0.39    | 0.21           | 0.58           | 1.48        | 1.23               | 1.78               | 2.9E-5 |
| Category 2 | -0.45   | -0.63          | -0.27          | 0.64        | 0.53               | 0.77               | 1.6E-6 |
| Category 3 | 0.58    | 0.37           | 0.79           | 1.79        | 1.45               | 2.21               | 6.8E-8 |
| Male       | 0.16    | -0.30          | 0.62           | 1.17        | 0.74               | 1.86               | 0.50   |
| Female     | -0.16   | -0.62          | 0.30           | 0.85        | 0.54               | 1.35               | 0.50   |
| Age        | -0.03   | -0.033         | -0.028         | 0.97        | 0.968              | 0.972              | E-162  |
| Level      | 1.02    | 0.96           | 1.08           | 2.77        | 2.61               | 2.93               | E-257  |

Table 6: Cox analysis of the MAPPA sample, showing the hazard coefficients, the exponential of the coefficients (proportional hazard rates), along with their upper and lower 95% confidence intervals

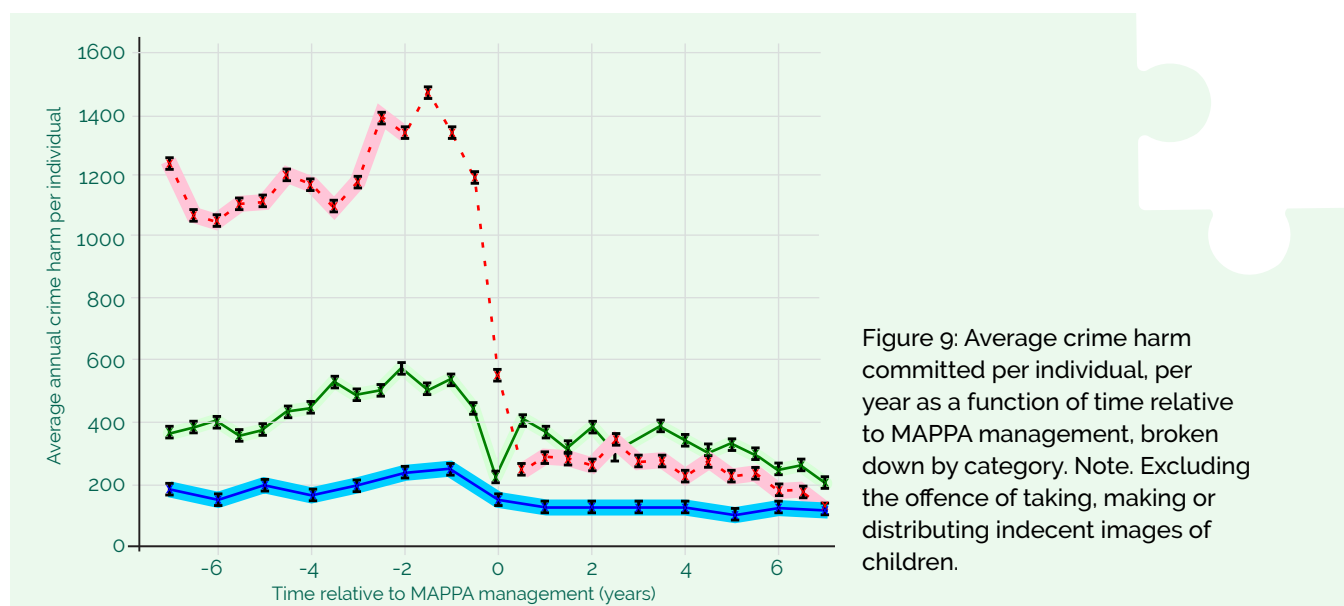
### 3.3 Pre- and post- MAPPA recalls to custody

The average recall to custody rate per year for the sample was **0.18%** pre-MAPPA and **1.74%** post-MAPPA. The ratio of pre- to post-MAPPA per year recall rates was **9.67** demonstrating that post-MAPPA recall rates were nearly ten times higher than pre-MAPPA recall rates. Breaking down the post-MAPPA recall rates, the one-year recall to custody rate was **0.60%**, the three-year recall to custody rate was **1.87%** and the five-year recall to custody rate was **2.74%**. These recall to custody figures are not high enough to account for the low proven reoffending rates reported previously, which suggests that while individuals managed under MAPPA had a higher recall rate, it is also in general more efficacious at reducing reoffending. The higher recall rates also suggest that MAPPA was effective by reincarcerating those who posed the most risk.



### 3.4 Does the level of harm caused by individuals being managed under MAPPA decrease over time?

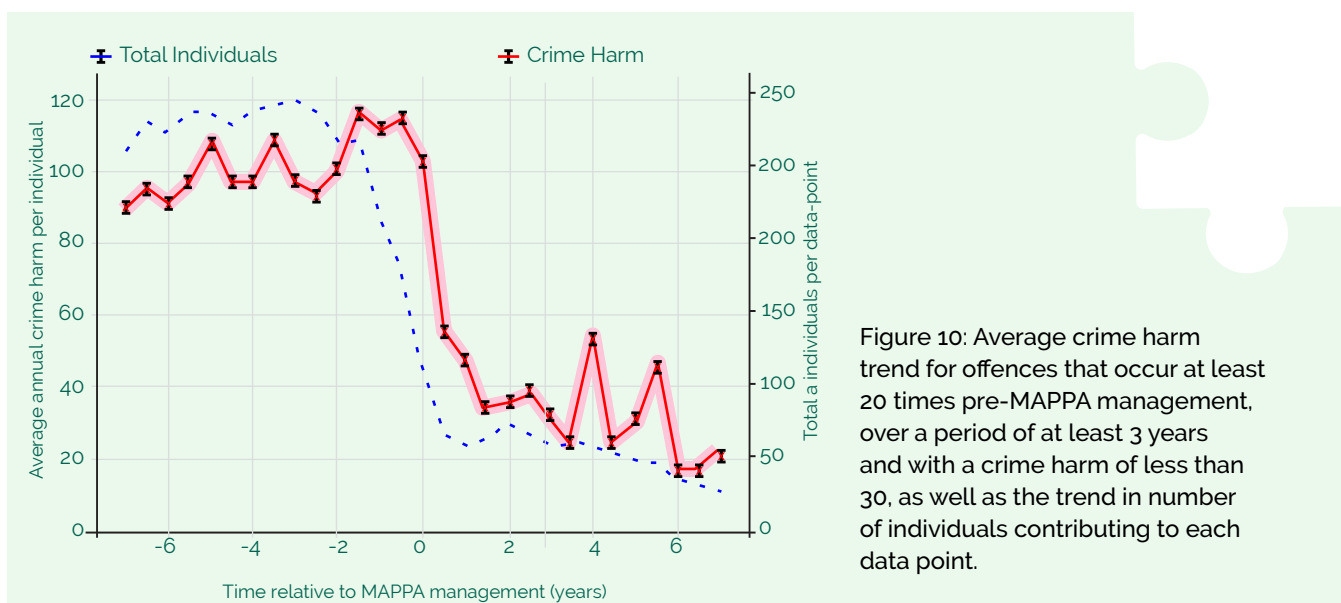
Figure 9 shows the results of the Cambridge Crime Harm analysis broken down by MAPPA category<sup>17</sup>. The lines show the average annual crime harm per individual over time relative to their MAPPA registration date, for example, zero is the date of MAPPA registration, -2 is two years before and +2 is two years post registration. As can be seen from figure 12, the peak average crime harm for Category 1 individuals occurs around 1.5 years before the date of registration under MAPPA and drops rapidly from this point.



The cause of the falling crime harm is difficult to attribute to MAPPA from figure 9 alone, as the downward trend could be attributed to intervention in the months leading up to MAPPA management, or alternatively put, some crimes serious enough to result in swift police intervention typically result in MAPPA management within a year or two afterwards. If we instead examine the crime harm trend not of the sample as a whole (which by extent is influenced disproportionately by frequent, high harm offences), but rather by looking solely at low harm offences that occur at a reliable and regular cadence over a prolonged period of time before MAPPA management, we can use such offences to probe for phenomena (such as the advent of MAPPA management) that are likely to cause a meaningful change in their occurrence rate. By looking at figure 10, we can see what this subset looks like as a trend in crime harm, over all MAPPA individuals. The solid red line represents the crime harm trend along with an estimate of the statistical error, while the dashed blue line represents the total number of MAPPA individuals contributing to data points at that time.

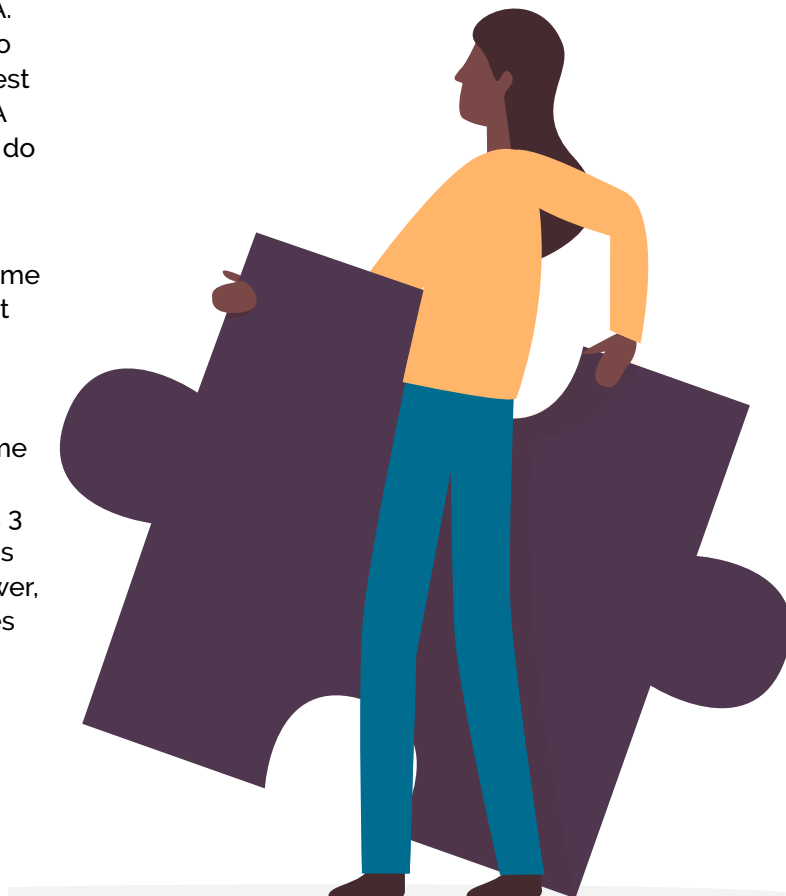


<sup>17</sup> The large discrepancy between Category 1 and Category 2 and 3 individuals is a result of the high crime harm of many sexual offences. In particular, the taking, making or production of indecent images of children has a crime harm of 547.5 and occurs over 150,000 times in the database. This is the most commonly occurring offence; by contrast, theft from a shop, the second most common offence, occurs just under 140,000 times and has a crime harm of only 1. We therefore treated this single offence as an outlier which reduced the peak of the crime harm trend of all Category 1 offenders by over 1,000 points (a reduction of more than 40%), and produces the graph shown in figure 9.



The offset in time between the dropping number of MAPPA individuals and the dropping crime harm trend is a salient point, as it suggests that although many individuals may be suppressed in committing further crimes of all types, the remaining individuals continue to commit offences from the selected subset routinely, with a significant drop only occurring after registration by MAPPA. Although without a control group, it is difficult to firmly attribute this to MAPPA, it provides the best evidence thus far that the application of MAPPA has a real effect on less serious offences which do not typically involve their immediate removal from society.

To verify whether the gap between the peak crime harm (for all offences) and MAPPA management could realistically have been the result of a single serious offence committed within that timeframe, the distribution of time relative to MAPPA management for all offences with a crime harm greater than 500 was evaluated. It was found that 50% of such crimes were committed 3 years or fewer before MAPPA management. This drops down somewhat to 40% for 2 years or fewer, suggesting that a large fraction of such offences are indeed being committed within the gap shown in figure 10.





## Conclusions

The aim of this research was to examine proven reoffending patterns for MAPPA managed individuals in order to evaluate the effectiveness of MAPPA in reducing reoffending. The research has several key strengths that, arguably, means it is the comprehensive examination of reoffending by individuals managed under MAPPA.

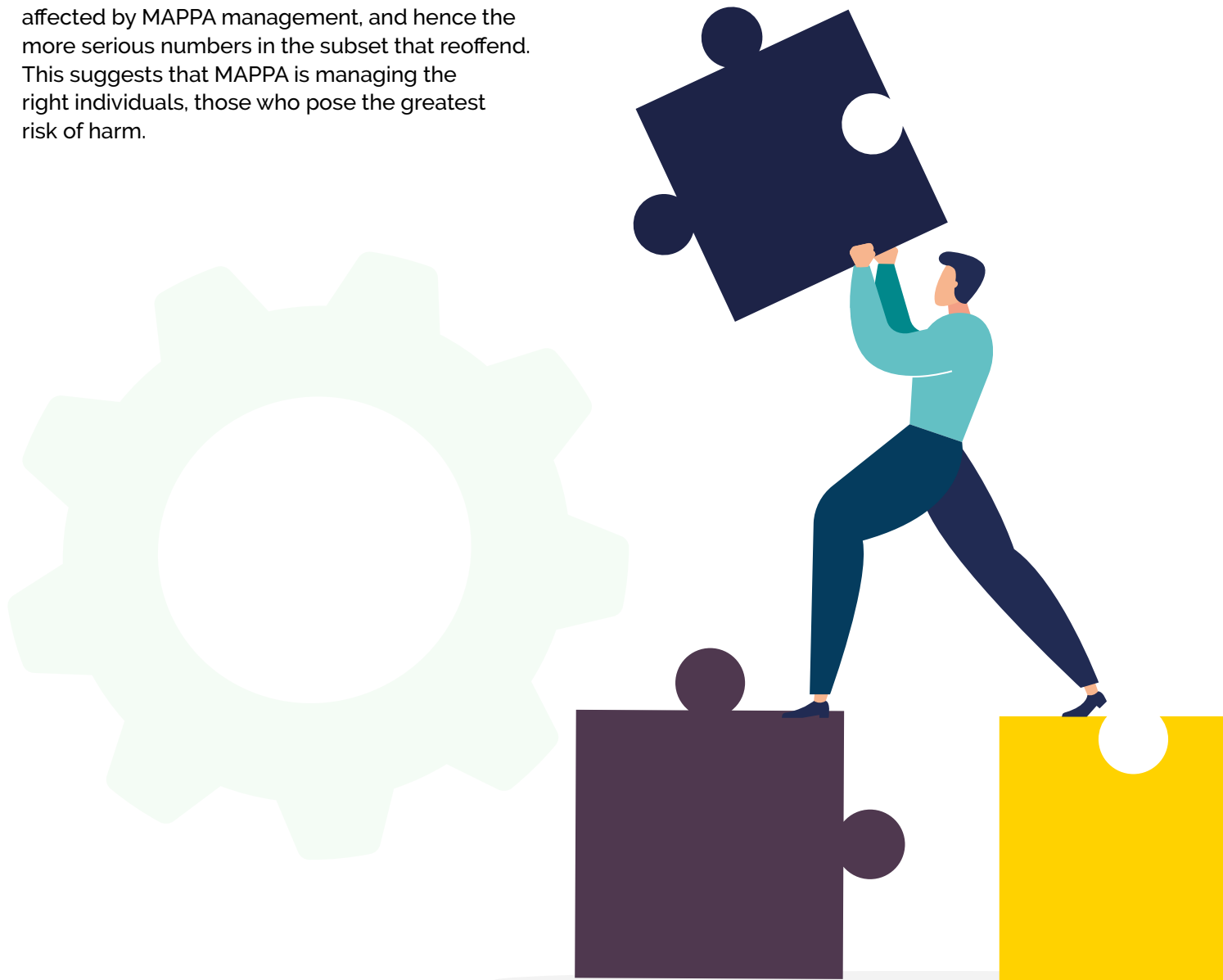


## 4.1 Patterns in reoffending

The first key finding was that, except for reoffending frequency (section 3.1.2.), our analysis of the timing and rates of proven reoffending show that proven reoffending for individuals managed under MAPPA are significantly lower than those reported in proven reoffending statistics for England and Wales. Given that the reoffending rates are significantly lower than other studies/statistics have reported, but our average offences committed per year by reoffenders is comparable (or higher), suggests that MAPPA is effective at preventing reoffences, but for those individuals serious enough to reoffend, there is limited effect. The finding that average reoffence numbers are higher may reflect the 'type' of offender who is supervised under MAPPA, i.e., it takes a particularly hardened offender for their behaviour to not be affected by MAPPA management, and hence the more serious numbers in the subset that reoffend. This suggests that MAPPA is managing the right individuals, those who pose the greatest risk of harm.

## 4.2 Harm reduction over time

The second key finding was the significant differences found in pre- and post-MAPPA managed offending when utilising a pseudo control sample made up of high frequency, low crime harm offences. Although without a control group, it is difficult to firmly attribute this to MAPPA, it provides the best evidence thus far that the application of MAPPA has a real effect on less serious offences which do not typically involve the perpetrator's immediate removal from society.





## Study limitations



It is important to document the potential limitations of the study. Firstly, while our aim was to capture the most comprehensive sample of MAPPA managed individuals possible across the given time-period, a number of issues arose that limited this.

We were unable to obtain Probation Service data for Category 2 individuals who were new to MAPPA in 2012 and 2013 due to differences in how these individuals were recorded on n-Delius during this time. Therefore, it is likely that the sample was missing some of this cohort. Secondly, of those included in the final sample, there was also varying levels of missing data across key demographic and other characteristics.

For example, approximately 18% of individual's records were missing ethnicity data; 70% were missing marital status information and 85% were missing data about educational attainment. Thirdly, we were not able to include a matched comparison group in our analysis and are therefore limited in the extent to which any change can be attributed to MAPPA alone. We are currently exploring the feasibility of further research including a comparison group drawn from individuals who were just outside of MAPPA eligibility criteria.





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