



Summary

This analysis assessed the impact on re-offending of a programme provided by the organisation St. Helens Integrated Offender Management (IOM). The one year proven re-offending rate¹ for 54 offenders who were targeted by St. Helens IOM was 81%, compared with 73% for a matched control group of similar offenders. Statistical significance testing has shown that this difference in the re-offending rates is not significant²; suggesting that at this stage there is insufficient evidence to draw a conclusion about the impact of participating in the programme run by St. Helens IOM on re-offending. However, the results of the analysis do not mean that the programme failed to impact on re-offending.

The offenders included in this analysis are prolific and recognised as high-risk/complex needs in the St. Helen's area, many of whom have drug/alcohol dependency and mental illness, and are identified as a 'hard to help' group. Due to the nature of our underlying data, it is not possible to control for these characteristics when creating the control group, meaning that the results should be interpreted with care.

What you can say: There is insufficient evidence at this stage to draw a conclusion about the impact of participating in the St. Helens IOM programme, on re-offending.

What you cannot say: This analysis shows that participating in the St. Helens IOM programme increased proven re-offending by 9 percentage points or by any other amount.

Introduction

The St. Helens IOM programme identifies and targets offenders in the community and in custody who commit the highest volume of crime and disorder in the St. Helens area, using a range of multi-agency partners to offer support to address the seven offending 'pathways' on a case-by-case basis; these include issues around accommodation, employment, mental/physical health, drugs/alcohol, finance, family and attitudes and behaviours. Interventions aim to enhance participants' involvement in Prolific and other Priority Offender (PPO) schemes, Drug Interventions Programmes (DIP), Deter Young Offenders (DYO) schemes, Multi-

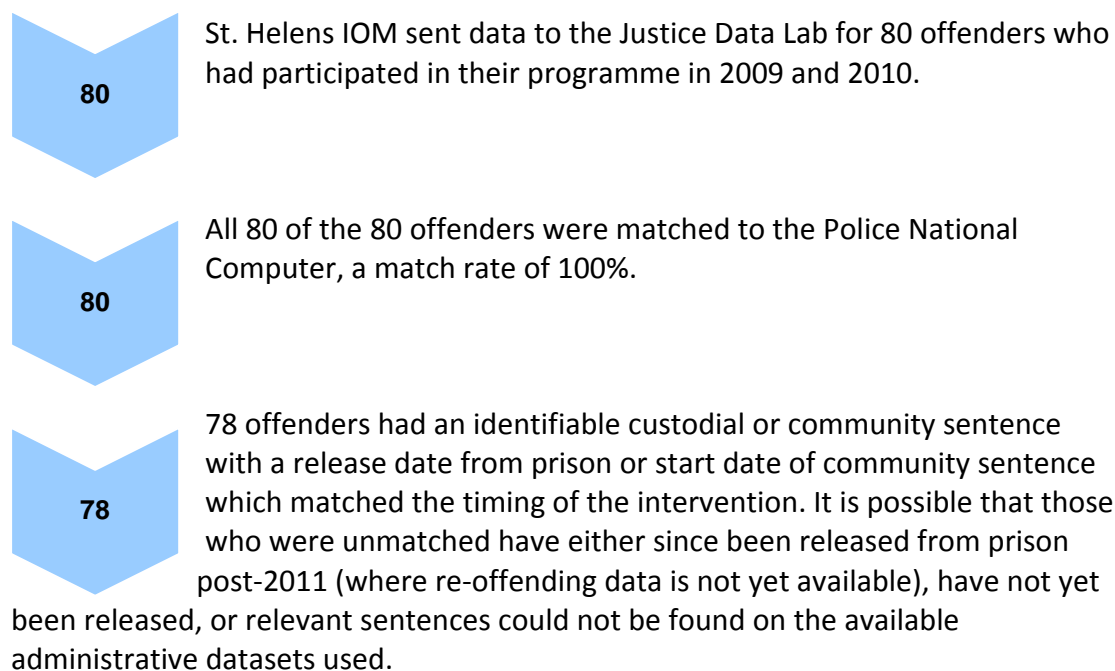
¹ The **one year proven re-offending rate** is defined as the proportion of offenders in a cohort who commit an offence in a one year follow-up period which was proven through receipt of a court conviction, caution, reprimand or warning during the one year follow-up or in a further six month waiting period. The one year follow-up period begins when offenders leave custody or start their probation sentence.

² The difference was non-significant, $p = 0.12$. Statistical significance testing is described on page 4 of this report.

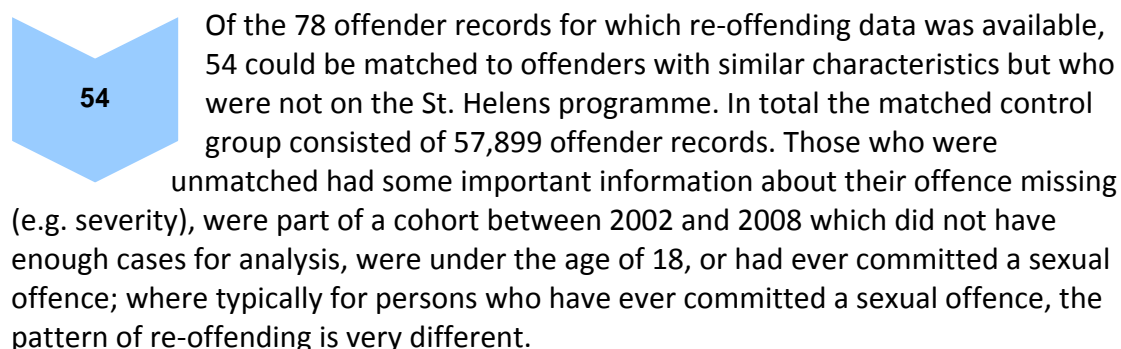
Agency Risk Assessment Conferences (MARAC) and Multi-Agency Public Protection Arrangements (MAPPA). The St. Helens programme aims to coordinate available programmes with a targeted focus on high priority/highly damaging offenders. Further and detailed information about the St. Helens cohort selection criteria is available here:

moderngov.sthelens.gov.uk/mgConvert2PDF.aspx?ID=8879

Processing the Data



Creating a Matched Control Group



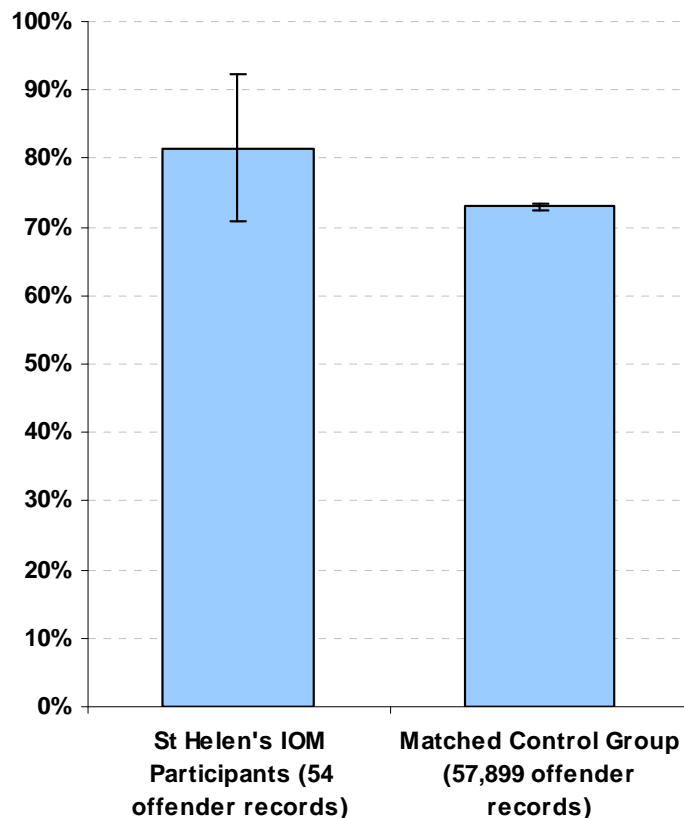
The Annex provides information on the similarity between the treatment and control groups. Further data on the matching process is available upon request.

Results

The one year proven re-offending rate for 54 offenders who were targeted by St. Helens IOM was 81%, compared with 73% for a matched control group of similar offenders. This information is displayed in Figure 1 on the next page.

Figure 1 below presents the 95 per cent confidence intervals for the re-offending rates of both groups, i.e. the range in which we can be 95 per cent sure that the true re-offending rate for the groups lie. For this analysis we can be confident that the true difference in proven re-offending between the groups is somewhere between -3 and 20 percentage points. However because these values cross 0, we cannot be sure either way whether participating in the St. Helens IOM programme lead to a real increase or decrease in re-offending. It is important to show confidence intervals because both the treatment and matched control groups are samples of larger populations; the re-offending rate is therefore an estimate for each population based on a sample, rather than the actual rate.

Figure 1: The best estimates for the one year proven re-offending rate for offenders on the St. Helens IOM programme and a matched control group.



The precision of this estimate could be improved if the size of the St Helens IOM programme group used in the analysis was increased. It is recommended that the analysis is repeated on a larger sample, including previous years of information, and when additional years of data become available.

Caveats and Limitations

The statistical methods used in this analysis are based on data collected for administrative purposes. While these include details of each offender's previous criminal, benefit and employment history alongside more basic offender characteristics such as age, gender and ethnicity, it is possible that other important contextual information that may help explain the results has not been accounted for. It is possible that underlying characteristics about the individuals included in the analysis which were not captured by the data (e.g. employment history; education history) may have impacted participants' success in achieving the aims of the programme, and re-offending behaviour. It is also possible that there are additional underlying characteristics about the individuals included in the analysis which were not captured by the data, for example attendance at other interventions targeted at offenders, that may have impacted re-offending behaviour.

Many organisations that work with offenders will look to target specific needs of individuals; for example improving housing, or employability. However, how the organisations select those individuals to work with could lead to selection bias, which can impact on the direction of the results. For example; individuals may self select into a service, because they are highly motivated to address one or more of their needs. This would result in a positive selection bias, meaning that for these persons we would generally expect a better re-offending outcome as they are more motivated. Alternatively, some organisations might specifically target persons who are known to have more complex needs and whose attitudes to addressing their needs are more challenging. This would result in a negative selection bias, meaning that for these persons we would generally expect a poorer re-offending outcome as they are not motivated. However, factors which would lead to selection bias in either direction are not represented in our underlying data, and cannot be reflected in our modelling. This means that all results should be interpreted with care, as selection bias cannot be accounted for in analyses. For this analysis in particular, it is known that the St. Helen's IOM programme engages with offenders who have particularly complex needs (including addictions to drugs and alcohol, and complex mental health problems), and who are at very high risk of re-offending, and as such could be considered to be harder to help to break the cycle of re-offending. Having particularly complex needs and being at very high risk of re-offending is not well reflected in the administrative datasets which have been used for this analysis, which means that the results of this analysis should be interpreted with care.

Furthermore, only 54 of the 80 offenders on the St. Helens IOM programme were in the final treatment group. The section "Processing the Data" outlines key steps taken to obtain the final group used in the analysis. In many analyses, the creation of the matched control group will mean that some individuals, who will usually have particular characteristics – for example a particular ethnicity, or have committed a certain type of offence, will need to be removed to ensure that the modelling will work. Steps will always be taken at this stage to preserve as many individuals as possible, but due to the intricacies of statistical modelling some attrition at this stage will often result. As such, the final treatment group may not be representative of all offenders who have been on the St. Helens IOM programme. In all analyses from the Justice Data Lab, persons who have ever been convicted of sex offences will be

removed, as these individuals are known to have very different patterns of re-offending.

The re-offending rates included in this analysis **should not** be compared to the national average, nor any other reports or publications which include re-offending rates – including those assessing the impact of other interventions. The re-offending rates included in this report are specific to the characteristics of those St. Helens IOM participants who could be matched. Any other comparison would not be comparing like for like.

For a full description of the methodology, including the matching process, see www.justice.gov.uk/downloads/justice-data-lab/justice-data-lab-methodology.pdf.

Assessing Statistical Significance

This analysis uses statistical testing to assess whether any differences in the observed re-offending rates are due to chance, or if the intervention is likely to have led to a real change in behaviour. The outcome of the statistical testing is a value between 0 and 1, called a 'p-value', indicating the certainty that a real difference in re-offending between the two groups has been observed. A value closer to 0 indicates that the difference in the observed re-offending rates is not merely due to chance. For example, a p-value of 0.01 suggests there is only a 1 per cent likelihood that any observed difference in re-offending has been caused by chance.

For the purposes of the analysis presented in this report, we have taken a p-value of up to 0.05 as indicative of a real difference in re-offending rates between the treatment and control groups.

The confidence intervals in the figure are helpful in judging whether something is significant at the 0.05 level. If the confidence intervals for the two groups do not overlap, this indicates that there is a real difference between the re-offending rates.

Annex

Table 1: Characteristics of offenders in the treatment and control groups

| | Treatment Group | Matched Control Group | Standardised Difference |
|--|-----------------|-----------------------|-------------------------|
| Number in group | 54 | 57,899 | |
| Gender | | | |
| Proportion that were male | 93% | 93% | -3 |
| Cohort Year | | | |
| 2009 | 7% | 7% | 2 |
| 2010 | 93% | 93% | -2 |
| Age | | | |
| Mean age at Index Offence | 29 | 29 | 5 |
| Mean age at first contact with CJS | 15 | 15 | 7 |
| Index Offence¹ | | | |
| Violent offences including robbery | 20% | 19% | 3 |
| Burglary | 15% | 16% | -3 |
| Theft and handling | 33% | 34% | 0 |
| Fraud and Forgery/Criminal Damage/Other | 17% | 17% | -2 |
| Motoring offences, including theft of and from Vehicles | 7% | 7% | 2 |
| Drugs | 7% | 7% | 1 |
| Type of Sentence | | | |
| Custodial | 31% | 33% | -2 |
| Community | 69% | 67% | 2 |
| Criminal History² | | | |
| Mean Copas Rate | 0.1 | 0.1 | -4 |
| Mean total previous offences | 64 | 63 | 4 |
| Mean previous criminal convictions | 29 | 28 | 5 |
| Mean previous custodial sentences | 11 | 10 | 9 |
| Mean previous court orders | 7 | 7 | -4 |
| Employment and Benefit History | | | |
| In P45 employment (year prior to conviction) | 17% | 16% | 3 |
| In P45 employment (month prior to conviction) | 6% | 5% | 3 |
| Claiming Out of Work Benefits (year prior to conviction) ³ | 87% | 88% | -4 |
| Claiming Job Seekers Allowance (year prior to conviction) | 54% | 58% | -9 |
| Claiming Incapacity Benefit (year prior to conviction) | 46% | 46% | 0 |
| Claiming Income Support (year prior to conviction) | 15% | 15% | 1 |
| Notes: | | | |
| 1 Index Offence is based on OGRS categories. Further details on make-up of categories available upon request. | | | |
| 2 All excluding Penalty Notices for Disorder. All prior to Index Offence. | | | |
| 3 Out of Work Benefits include people on Jobseeker's Allowance (JSA), Employment and Support Allowance (ESA), Incapacity Benefits (IB) and Income Support (IS) but it does not count people whose primary benefit is Carer's Allowance (CA). | | | |
| All figures (except mean copas rate) are rounded to the nearest whole number, this may mean that percentages do not sum to 100%. | | | |
| Nationality and Ethnicity are not included in this table as both final treatment and control groups only contained one nationality (UK) and one ethnicity (white). | | | |

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|---|
| Standardised Difference Key |
| Green - the two groups were well matched on this variable (5% or less) |
| Amber - the two groups were reasonably matched on this variable (6%-10%) |
| Red - the two groups were poorly matched on this variable (10% +) |

Table 1 on the previous page shows that the two groups were well matched on most variables found to have associations with receiving treatment and/or re-offending. The standardised mean differences highlighted green were between -5% and 5%, indicating close matches on these characteristics, and those highlighted amber were between 6% and 10% or -6% and -10%, indicating that the two groups were not as well balanced in these instances, but overall were well balanced on the vast majority of characteristics.

Contact Points

Press enquiries should be directed to the Ministry of Justice press office:
Tel: 020 3334 3555

Other enquiries about the analysis should be directed to:

Justice Data Lab Team

Ministry of Justice
Justice Data Lab
Justice Statistical Analytical Services
7th Floor
102 Petty France
London
SW1H 9AJ
Tel: 0203 334 4396
E-mail: Justice.DataLab@justice.gsi.gov.uk

General enquiries about the statistical work of the Ministry of Justice can be e-mailed to: statistics.enquiries@justice.gsi.gov.uk

General information about the official statistics system of the United Kingdom is available from www.statistics.gov.uk

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