Justice Data Lab
Re-offending analysis:
Family Man programme run by Safe Ground
(Fifth request)

Summary

This analysis assessed the impact on re-offending of attending the Family Man programme run by the charity Safe Ground. The one-year proven re-offending rate[1] for 184[2] offenders who completed this intervention was 31%, compared with 37% for a matched control group of similar offenders. Testing has shown that this difference is not statistically significant[3], suggesting that at this stage there is insufficient evidence to draw a conclusion about the impact of the Family Man Programme on the re-offending rate of its participants. However, the results of the analysis do not mean that the Family Man Programme failed to impact on re-offending behaviour.

This is the fifth analysis through the Justice Data Lab of the Family Man programme run by Safe Ground[4]. Each of the four previous requests has found a similar impact of the programme on one-year re-offending measures. Each analysis has included and expanded on the cohort reviewed in the previous analyses. This report recommends that future Justice Data Lab analyses continue to expand the size of the Family Man cohort on which analysis is carried out, and looks into the feasibility of including contextual information on family relationships in the matching process.

What you can say: There is insufficient evidence at this stage to draw a conclusion about the impact of Family Man Programme run by Safe Ground on the one-year proven re-offending rate.

What you cannot say: This analysis shows that attending the Family Man Programme run by Safe Ground decreased the one-year proven re-offending rate by 6 percentage points, or by any other amount.

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

[2] 184 individuals were matched from a cohort of 675 individuals whose details were sent to the Justice Data Lab, as described on page 3 of this report.

[3] The p-value for the one-year proven re-offending rate is 0.09. Statistical significance testing is described on page 10 of this report.

[4] For each successive analysis, new individuals are added to the existing group of offenders. This, in turn, brings new individuals into the matched control group. As a result, the re-offending rate and other re-offending measures can go up or down in each group relative to the previous analysis.

Introduction

Safe Ground is a charity working with offenders on a range of projects, both in prison and in the community, with the aim of reducing re-offending by developing relationship skills. In 1999, Safe Ground was commissioned by the Home Office to develop a programme for male prisoners. The result was 'Family Man': a family relationships programme, delivered on 4 days per week over 7 weeks, which uses group work, drama and role play in combination with written work to engage learners who tend to struggle in a more traditional classroom environment. The programme focuses on relationship skills and trying to improve the relationships that these individuals have with their families. The programme also incorporates working with an adult family supporter (nominated by each student – usually a partner or relative but occasionally a friend, volunteer or offender manager), who will work with the student towards a bespoke action plan with targeted, achievable goals.

The programme's participative methodology is also designed to challenge prevailing attitudes, thinking and behaviours, whilst also developing essential employment skills such as communication, teamwork, eye contact and the ability to give and receive constructive criticism. The programme includes a 'What Next' day (a resettlement event bringing together internal and external support services) and a family presentation day. The programme is taught by two full-time tutors (usually prison education staff or officers) and a part-time family support worker. Class sizes vary from 10 to 20 men, and there is a completion rate of roughly 75%. All offenders are eligible to participate in the Family Man programme, with exception of offenders convicted of sexual offences or offences where the victim was a child.

In enhancing participants' ability to think and communicate critically, the programme aspires to increase participation in education, training and employment, whilst contributing to the process of desistance from crime. This may help these individuals to recognise the effects that their behaviour and their participation in criminal acts have on their families, which may cause them to think about their past actions and future decisions.

This analysis relates to male offenders who completed the Family Man programme between 2005 and 2013 in HMP Belmarsh, HMP Birmingham, HMP Bristol, HMP Highpoint, HMP Isis, HMP Kingston, HMP Leeds, HMP Parc or HMP Wandsworth. It includes individuals from the four previous Safe Ground requests that were published in October 2013, November 2013, March 2014 and December 2014.

Processing the data

675

Safe Ground sent data to the Justice Data Lab for 675 offenders who had completed the Family Man programme whilst in HMP Belmarsh, HMP Birmingham, HMP Bristol, HMP Highpoint, HMP Isis, HMP Kingston, HMP Leeds, HMP Parc or HMP Wandsworth between 2005 and 2013. This analysis includes 26 new individuals whose information was provided by Safe Ground for this fifth analysis and 649 individuals whose details were submitted for the previous analyses. These records were kept in agreement with Safe Ground for subsequent analysis when further periods of data became available, as recommended in previous reports.

556

556 of the 675 offenders were matched to the Police National Computer, a match rate of 82%. This includes 25 of the 26 new individuals whose details were provided by Safe Ground.

184

184 offenders were eligible for analysis and had an identifiable custodial sentence where they were released from custody before the end of June 2013.

Analysis of these individuals revealed the following:
- The 675 individuals were drawn from 708 submitted records. The 33 excluded records referred to individuals who already appeared in another record, because people may attend the Family Man programme more than once during their prison sentence.
- There were 369 individuals who could not be included in the analysis because appropriate information could not be found in the administrative data sets used. These individuals may have been released from custody after June 2013 (or not yet have been released), meaning that the re-offence data for a one-year follow-up period is not yet available.
- There were 3 individuals who could not be included in the analysis as they had previous sexual offences.

92% of the 184 eligible individuals undertook prison sentences of 12 months or more (see Appendix B). If many of those without available re-offence data had not been released by the end of June 2013, it is possible that the ineligible individuals may have an even higher proportion of longer sentences.

Creating matched treatment and control groups

184
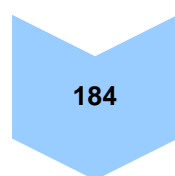
All of the 184 eligible individuals for whom re-offending data was available were successfully matched to offenders who had similar characteristics but who did not take part in the Family Man programme. In total, the matched control group consisted of 312,818 records.

Annex B 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[1] for 184[2] offenders on the Family Man Programme run by Safe Ground was 31%. This compares to 37% for a matched control group of 312,818 similar offender records (see Figure 1).

Figure 1 also presents the 95% confidence intervals for the re-offending rate of each group, showing the ranges in which the true re-offending rates are likely to lie. The true difference in the re-offending rate of the treatment group, relative to the control group, is between a 12 percentage point reduction and a 1 percentage point increase. Therefore we do not have significant evidence that attending the Family Man programme led to a reduction or an increase in re-offending by the treatment group and, as such, cannot draw a firm conclusion about its impact. The confidence intervals illustrate the fact that both the treatment and control groups are samples of larger populations, and so the re-offending rates are estimates of the true values.

Figure 1: The best estimates for the one-year proven re-offending rate for offenders attending the Family Man Programme provided by Safe Ground, and a matched control group
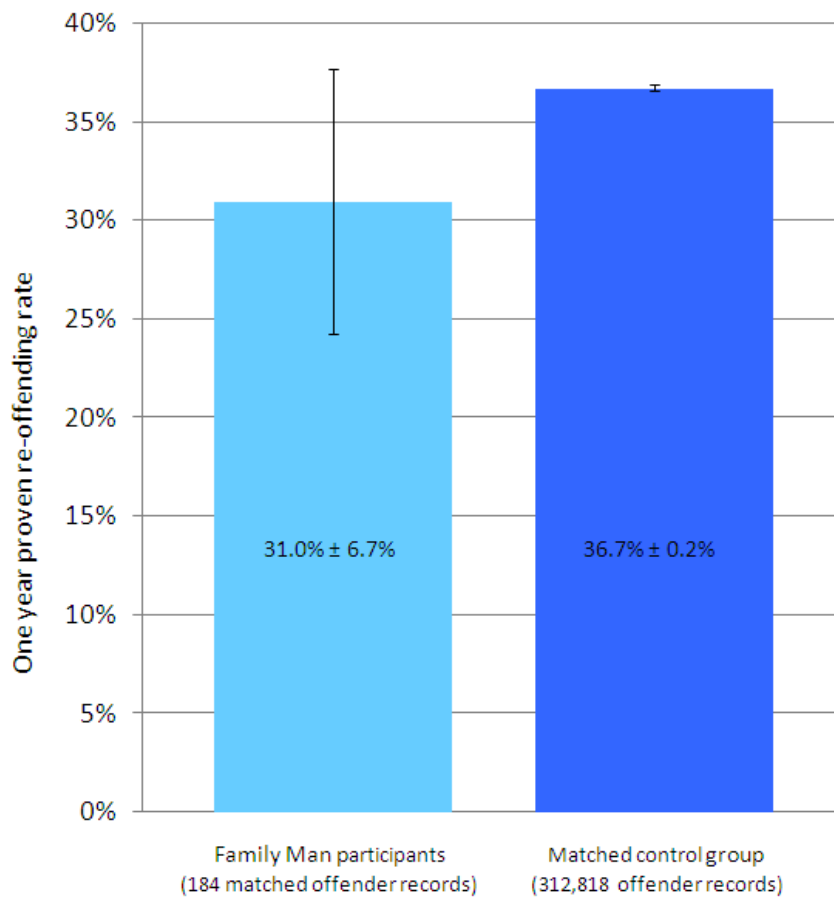
In this case the confidence interval of the treatment group is wide, which is expected because the size of the treatment group is small. It is recommended that the analysis is repeated on a larger sample in order to increase the precision of the results[5], including individuals who completed the Family Man programme and were released from custody after the end of June 2013, once their re-offence data becomes available. Additionally, it would be advantageous if future analyses were able to include contextual information on family relationships in the matching process.

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[5] If the measured difference in the one-year re-offending rate is correct, there is a 95% chance that this difference would become statistically significant if the treatment group contained at least 847 individuals.

Additional proven re-offending measures

Frequency of one-year proven re-offending

The frequency of one-year proven re-offending[6] for 184[2] offenders attending the Family Man Programme was 0.93 offences per individual, compared with 1.15 offences per record in the matched control group. Testing has shown that this difference in the re-offending rates is not statistically significant[7].

Time to first re-offence within a year

The average time to the first re-offence for the 57 individuals who attended the Family Man programme, and who re-offended within a one-year follow-up period, was 137 days. This compares to 144 days for the 144,419 records with re-offences in a one-year follow-up period from the matched control group. Testing has shown that this difference in the time to first re-offence within a year is not statistically significant[8].

Both of the above results are in line with the findings around the indicator of one-year proven re-offending, the subject of this report. The same caveats and limitations apply to these findings, which are described in Appendix A.

Note: The following measures are new and experimental, aiming to provide greater detail to users on re-offending outcomes. We look for feedback on them to ensure they are as useful as possible. All of these measures consider only those who committed a proven re-offence during a one-year follow-up period and for whom re-offence severity data was available (57 within the matched treatment group and 141,977 in the matched control group).

Measures of severity of re-offending

These measures report on the severity[9] of re-offences that occurred within a one-year follow-up period, with tier 1 representing the most serious offences.

One-year proven re-offending rates in each tier of severity

Table 1 shows the rates of re-offending for those individuals who committed their *first* re-offence in each tier during a one-year follow-up period. Testing has shown that none of these differences is statistically significant. Over three-quarters of first re-offences are in the lowest tier of severity, tier 3.

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[6] The **frequency of one-year proven re-offending** is defined as the number of re-offences that were committed during a one-year follow-up period and that were proven through receipt of a court conviction, caution, reprimand or warning during the follow-up or during a further six-month waiting period. The one-year follow-up period begins when an offender leaves custody, starts their court sentence or receives their caution.

[7] The p-value for the frequency of one-year proven re-offending is 0.09. Statistical significance testing is described on page 10 of this report.

[8] The p-value for the time to first re-offence is 0.60.

[9] See Annex C definition from glossary.

Table 1: Tier of first re-offence for those who re-offend within a one-year follow-up period

Re-offending measure	Treatment group	Control group	Statistically significant?	p-value
First re-offence in tier 1:	2%	1%	No	0.86
First re-offence in tier 2:	21%	16%	No	0.38
First re-offence in tier 3:	77%	82%	No	0.36

Frequencies of one-year proven re-offending in each tier of severity

Table 2 shows the frequencies of re-offending in each tier of severity for those individuals who committed a re-offence during a one-year follow-up period. Testing has shown that none of these differences is statistically significant. The majority of re-offences committed are in tier 3, which is consistent with the re-offending rates above.

Table 2: Frequency of re-offending in each tier for those who re-offend within a one-year follow-up period

Re-offending measure	Treatment group	Control group	Statistically significant?	p-value
Re-offending frequency in tier 1:	0.02	0.03	No	0.61
Re-offending frequency in tier 2:	0.46	0.40	No	0.58
Re-offending frequency in tier 3:	2.53	2.68	No	0.56

Severity of first re-offence within a year relative to index offence

Table 3 shows the rates of re-offending for those individuals who committed their *first* re-offence either in a more severe tier than their index offence, in the same tier or in a less severe tier. Testing has shown that the difference in the proportion committing a *less* severe re-offence is statistically significant, while the differences in the other two proportions are not statistically significant.

Table 3: Severity of first re-offence relative to index offence

Re-offending measure	Treatment group	Control group	Statistically significant?	p-value
First re-offence more severe than index offence:	12%	6%	No	0.15
First re-offence of same severity as index offence:	65%	56%	No	0.16
First re-offence less severe than index offence:	23%	38%	Yes	0.01

Measures of re-offending resulting in custody

These measures refer to re-offences that occurred within a one-year follow-up period and resulted in the individual receiving a custodial sentence. They do not specify the lengths of sentences given, or detail any reasoning behind the custodial sentence. Table 4 summarises the tests of these measures.

Table 4: Rate of custody for first re-offence and frequency of custodial sentencing

Re-offending measure	Treatment group	Control group	Statistically significant?	p-value
Rate of custody for first re-offence:	58%	48%	No	0.15
Frequency of one-year custodial sentencing:	1.77	1.57	No	0.44

Rate of custody for first re-offence within a year
The rate of re-offending individuals who received a custodial sentence for their *first* re-offence was 58% for the matched treatment group, compared with 48% of records in the matched control group. Testing has shown that this difference is not statistically significant, as the true difference lies between an increase of 23 percentage points and a reduction of 4 percentage points for the treatment group when compared with the control group.

Frequency of one-year custodial sentencing
The mean number, or frequency, of custodial sentences received during a one-year follow-up period was 1.77 sentences per re-offending individual for the matched treatment group, compared with 1.57 sentences per record for the matched control group. Testing has shown that this difference is not statistically significant, as the true difference lies between an increase of 0.73 sentences per individual and a reduction of 0.32 sentences per individual for the treatment group when compared with the control group.

Appendix A

Caveats and limitations

The statistical matching used in this analysis is based on data collected for administrative purposes, and it has only been possible to control for a limited amount of information about the offenders within the treatment and control groups. While these include details of each offender's previous criminal history, alongside more basic offender characteristics such as age, gender and ethnicity, it is possible that other important contextual information that may help to explain the results has not been accounted for. In particular, it has not been possible to statistically control for family relationships in this analysis. This information may be important in the characteristics of the treatment group, as one of the main aims of the Family Man programme is to improve family relationships. The control group may include offenders both with and without the specific relationship needs that Safe Ground are seeking to address.

Many organisations that work with offenders will target specific needs of individuals, such as housing or employability. However, the processes used to select those individuals could lead to selection bias, which can impact on the results. Individuals may, for example, 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 these people would generally be expected to have a better re-offending outcome than a randomly selected sample. Alternatively, some organisations might specifically target those 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 these individuals would generally be expected to have a poorer re-offending outcome than a randomly selected sample, because they are not motivated to address their needs. 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 fully accounted for in analyses.

Furthermore, only 184 of the 675 offenders whose details were given to the Justice Data Lab featured in the matched treatment group (see 'Processing the data' section). In this case, it appears that many of those who could not be matched may still have been in custody at the end of June 2013, and this may mean that a high proportion of individuals undertook the Family Man programme many months or years before their projected release date. As such, the final treatment group may not be representative of all offenders who attended the programme, and may instead preferentially select those who had shorter sentences or who completed the programme closer to their release date. In addition, people who have ever been convicted of a sexual offence are removed from all analyses by the Justice Data Lab, as the re-offending patterns of these individuals are known to be very different from those of other offenders.

The re-offending rates included in this analysis **should not** be compared with the national average, nor with 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 people who attended the Family Man programme run by Safe Ground, and who could be matched to a control group. 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 a measured difference in re-offending behaviour can reasonably be attributed to chance, or if the intervention is likely to have led to a real change in behaviour. The outcome of each statistical test is a 'p-value', which is between 0 and 1, indicating the certainty that a real difference in re-offending between the two groups has been observed. The smaller the p-value, the less likely it is that chance is the explanation for the measured difference.

If the p-value is less than, or equal to, 0.05, the result is regarded as 'significant' because chance appears to be an unlikely explanation. The measured difference is then attributable either to the treatment intervention or to some other difference between the treatment and control groups (see 'caveats and limitations' above). 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, it indicates that there is significant evidence of a real difference between their re-offending rates.

Annex B

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

Variable	Treatment group	Matched control group	Standardised difference (%)
Number in group	**184**	**312,818**	
Ethnicity			
White	57%	57%	**-1**
Black	33%	32%	**2**
Asian and Other	10%	11%	**-1**
Nationality			
UK citizen	91%	91%	**0**
Foreign national or unknown	9%	9%	**0**
Gender			
Proportion who are male	100%	100%	**0**
Age			
Mean age at index offence	31	31	**0**
Mean age at first contact with criminal justice system	17	17	**-1**
Index offence[1]			
Violent offences, including robbery	40%	39%	**1**
Burglary	19%	19%	**0**
Motoring offences including theft of, and from, vehicles	9%	9%	**0**
Drugs offences[2]	22%	22%	**-1**
Other[3]	11%	11%	**0**
Length of custodial sentence			
Less than 12 months	8%	8%	**2**
12 months to less than 4 years	52%	52%	**-1**
4 years to 10 years	36%	36%	**0**
More than 10 years, life and IPP[4]	4%	4%	**0**
Criminal history[5]			
Mean Copas rate	-0.90	-0.91	**1**
Mean total previous offences	30	30	**1**
Mean previous criminal convictions[6]	12	11	**1**
Mean previous custodial sentences	4	4	**1**
Mean previous court orders	3	3	**0**
Employment and benefit history			
In P45 employment (year prior to conviction)	21%	21%	**0**
In P45 employment (month prior to conviction)	15%	15%	**0**
Claiming out-of-work benefits (year prior to conviction)[7]	57%	56%	**0**
Claiming Jobseeker's Allowance (year prior to conviction)	38%	37%	**0**
Claiming Incapacity Benefit and/or Income Support (year prior to conviction)	25%	25%	**0**
Notes:			

1 The index offence type is based on the Offender Group Reconviction Scale (OGRS). Further details on the make-up of categories is available upon request.
2 Drugs offences including importation, exportation, possession and supply of drugs.
3 Other offences include theft and handling, fraud and forgery, absconding or bail offences and criminal or malicious

| damage. |
| 4 Sentences of life and IPP (imprisonment for public protection) are indeterminate in length. |
| 5 This includes all proven offences committed prior to the index offence, except those receiving a penalty notice for disorder. |
| 6 A single conviction can relate to multiple offences. |
| 7 The category of out-of-work benefits includes people on Jobseeker's Allowance (JSA), Employment and Support Allowance (ESA), Incapacity Benefit (IB) and Income Support (IS), but excludes those whose primary benefit is Carer's Allowance (CA). |
| All figures, except mean Copas rate, are rounded to the nearest whole number, so percentages may not sum to 100. |
| **Standardised difference key:** |
| **Green – the two groups are well matched on this variable (-5% to 5%)** |
| **Amber – the two groups are reasonably matched on this variable (6% to 10% or -6% to -10%)** |
| **Red – the two groups are poorly matched on this variable (greater than 10% or less than -10%)** |

The quality of matching between the treatment and control groups is assessed using the standardised differences for all variables that are included in the matching process. Table 1 shows that the standardised differences for key variables are between -5% and 5%, indicating that the two groups are well matched on all available characteristics that were found to have associations with receiving treatment and/or with re-offending.

Annex C

Glossary of terms

95% confidence intervals
If the measured value for a re-offending measure were equal to the true mean, 95% of repeat analyses would give a value that is within the measured 95% confidence intervals.

Copas rate
The Copas rate controls for the rate at which an offender has built up convictions throughout their criminal career. The higher the rate, the more convictions an offender has in a given amount of time.

Custodial sentence
A sentence that requires an individual to serve time in custody as a result of a conviction for one or more offences.

Follow-up period
This refers to the time period for which re-offending is measured from the index date.

Frequency of one-year proven re-offending
The number of re-offences committed in a one-year follow-up period which were proven through receipt of a court conviction, caution, reprimand or warning during the follow-up or in a further six month waiting period. The one-year follow-up period begins when an offender leaves custody, starts their court sentence, or from receipt of their caution.

Index date
The date from which proven re-offences are measured. This is defined as the date of prison discharge for custodial sentences, the date of court conviction for non-custodial sentences, the date of receipt for a caution, reprimand or final warning or the date of a positive drug test.

Index offence
The offence of which an individual has been convicted, which leads to a sentence and an index date.

Matched control group
The matched control group contains all individuals who have available re-offence records, who are eligible for analysis, who did not receive the treatment intervention and who could be matched to at least one member of the matched treatment group.

Matched treatment group
The matched treatment group contains all individuals who have available re-offence records, who are eligible for analysis, who received the treatment intervention and who could be matched to at least one member of the matched control group.

One-year proven re-offending rate
The proportion of offenders in a cohort who commit an offence in a one-year follow-up period, where the offence 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.

p-value
A value, between 0 and 1, that indicates the likelihood that a real difference in re-offending between the treatment and control groups has been observed. A p-value that is less than, or equal to, 0.05 is a significant piece of evidence in support of the idea that the treatment intervention is effective in changing re-offending behaviour – provided the two groups are well matched. Statistical significance testing is described on page 8 of this report.

Re-offence
An offence committed following conviction of the index offence which was proven through receipt of a court conviction, caution, reprimand or warning. The first re-offence refers to the first offence committed after conviction for the index offence.

Severity
The Ministry of Justice and the Home Office have developed a severity classification system to identify three tiers of offences, with tier 1 offences being the most serious and tier 3 offences being the least serious. Annex A of the 'Measurements and definitions' document, which accompanies proven re-offending quarterly statistics, gives the latest classification for tier 1 and tier 2 offences – please see the following link:
www.gov.uk/government/uploads/system/uploads/attachment_data/file/368435/proven-reoffending-definitions-measurement-oct13.pdf

Standardised difference
The standardised differences shown in Annex B measure the differences between the treatment and control groups in terms of the variation within each group. Each standardised difference represents the quality of the matching between the two groups for a single variable, with a smaller difference representing a better match.

Time to re-offending
Time to re-offending is defined as the average number of days between the index date and the date of the first re-offence within a one-year follow-up period. This measure is only calculated for individuals who re-offended during the one-year follow-up period.

Treatment intervention

The programme whose impact on re-offending is being analysed.

True mean
The true mean for a re-offending measure is the mean value that would be obtained from many repeat analyses. It is the 'real value' of the re-offending measure for large populations of people with the characteristics of the matched treatment and control groups. The measured value for a re-offending measure is the best available estimate of the true mean.

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