

Summary

This analysis assessed the impact on re-offending of women who resided in the D Wing Resettlement Unit at HMP Downview. The one year proven re-offending rate¹ for 33 offenders who resided in the D Wing Resettlement Unit at HMP Downview was 15%, compared with 15% for a matched control group of similar offenders. Statistical significance testing has shown that this difference is not significant²; suggesting that at this stage there is insufficient evidence to draw a conclusion about the impact of residing in the D Wing Resettlement Unit at HMP Downview on re-offending. However, the results of the analysis do not mean that residing in the D Wing Resettlement Unit at HMP Downview failed to impact on re-offending.

What you can say: There is insufficient evidence at this stage to draw a conclusion about the impact of residing in the D Wing Resettlement Unit at HMP Downview on re-offending.

What you cannot say: This analysis shows that residing in the D Wing Resettlement Unit at HMP Downview failed to impact on re-offending.

Introduction

HMP Downview D Wing Resettlement Unit is a 40 bed resettlement unit designed to enable women offenders suitable for open conditions to work or learn in the local and wider community. The unit works with employers from the voluntary sector as well as national employers to secure employment for women offenders whilst they are still in custody. In addition to the resettlement, the women offenders are offered support in finding housing. This analysis relates to the women offenders who have resided at the HMP Downview D Wing Resettlement Unit between 2002 and 2010.

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, $p = 0.98$. Statistical significance testing is described on page 5 of this report.

Processing the Data

109 HMP Downview Wing D Resettlement Unit sent data to the Justice Data Lab for 109 offenders who resided in the HMP Downview Wing D Resettlement Unit between 2002 and 2010.

70 70 of the 109 offenders were matched to the Police National Computer, a match rate of 64%. Offenders were matched by using their prison number which was provided for all individuals. Furthermore, dates of birth were not available for all 109 offenders sent to the Justice Data Lab, and first name or surnames were not provided for 13 (12%) individuals; these individuals could not be matched as surname and forename are requirements for matching.

35 35 offenders had an identifiable custodial sentence with a release date from custody before 2010. Three offenders could not be included in the analysis as their index offence appeared to be of a sexual nature. Analysis on the unmatched offenders revealed that the relevant sentences could not be found on the administrative datasets used, this could be because the individuals have not yet been discharged and may still be residing at HMP Downview Wing D Resettlement Unit – unfortunately the date information provided by HMP Downview made it difficult for the Justice Data Lab to determine the relevant sentence on many occasions.

Creating a Matched Control Group

33 Of the 35 offender records for which re-offending data was available, 33 could be matched to offenders with similar characteristics but who did not reside in the HMP Downview Wing D Resettlement Unit. In total the matched control group consisted of 4,745 offender records.

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

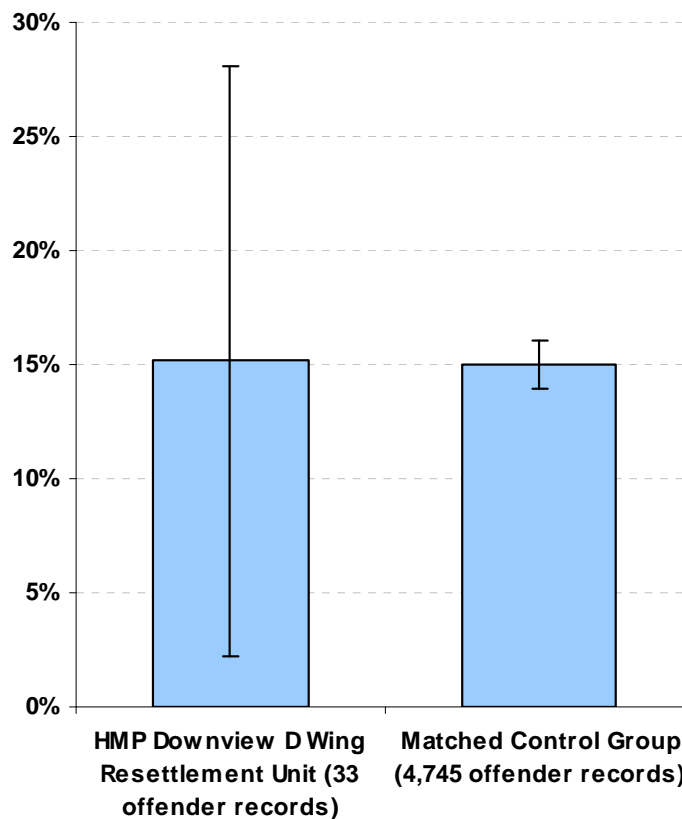
Results

The one year proven re-offending rate for 33 offenders who resided in the D Wing Resettlement Unit at HMP Downview was 15%. This compares to 15% for a matched control group of similar offenders. This information is displayed in Figure 1 on the next page.

Figure 1 on the next page 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 re-offending between two groups is between 14

and -14 percentage points. However, because this difference crosses 0, we cannot be sure either way that residing in the D Wing Resettlement Unit at HMP Downview led to a reduction or an increase in re-offending and thus cannot draw a firm conclusion about its impact. 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 who resided in the HMP Downview D Wing Resettlement Unit



In this case the confidence intervals are particularly wide; this is to be expected when the size of the treatment group (in this case, HMP Downview D Wing Resettlement Unit) is very small. The precision of this estimate could be improved if the size of the offender 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.

Additional proven re-offending measures

Frequency of re-offending

The frequency of one year proven re-offending for 33 offenders who resided in the D Wing Resettlement Unit at HMP Downview was 0.45 offences per individual, compared with 0.53 per individual in the matched control group. Statistical

significance testing has shown that this difference in the re-offending rates is not statistically significant³.

This result is 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 below.

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 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 on 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.

Furthermore, only 33 of the 109 offenders originally shared with the MoJ 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 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

³ The p-value for this significance test was 0.80. Statistical significance testing is described on page 5 of this report.

offenders who resided in the D Wing Resettlement Unit at HMP Downview. 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 persons who resided in the D Wing Resettlement Unit at HMP Downview, and 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	33	4,745	
Ethnicity			
White	61%	59%	3
Other	39%	41%	-3
Nationality			
UK Citizen	82%	80%	4
Foreign National	9%	9%	0
Unknown Nationality	9%	11%	-5
Gender			
Proportion that were female	100%	100%	0
Age			
Mean age at Index Offence	35	34	2
Mean age at first contact with CJS	25	25	6
Index Offence¹			
Violent offences including robbery	30%	32%	-3
Burglary and theft	9%	9%	1
Fraud and Forgery	6%	7%	-2
Motoring offences	6%	6%	2
Drugs	36%	35%	3
Other	12%	12%	0
Length of Custodial Sentence			
Less than 4 years	48%	48%	0
More than 4 years	52%	52%	0
Criminal History²			
Mean Copas Rate	-2.05	-2.01	-5
Mean total previous offences	7	7	1
Mean previous criminal convictions	3	3	3
Mean previous custodial sentences	1	0	2
Mean previous court orders	1	1	5
Employment and Benefit History			
In P45 employment (year prior to conviction)	36%	37%	-1
In P45 employment (month prior to conviction)	21%	20%	3
Claiming Out of Work Benefits (year prior to conviction) ³	58%	53%	9
Claiming Job Seekers Allowance (year prior to conviction)	21%	17%	10
Claiming Incapacity Benefit (year prior to conviction)	30%	27%	7
Claiming Income Support (year prior to conviction)	45%	38%	15
Notes:			
<p>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).</p>			

All figures (except mean copas rate) are rounded to the nearest whole number, this may mean that percentages do not sum to 100%.
Standardised Difference Key
Green - the two groups were well matched on this variable (-5% to 5%)
Amber - the two groups were reasonably matched on this variable (6% to 10% or -6% to -10%)
Red - the two groups were poorly matched on this variable (greater than 10% or less than -10%)

Table 1 on the previous page shows that the two groups were reasonably matched on all variables found to have associations with receiving treatment and/or re-offending. The standardised differences are highlighted as amber (i.e. between 6% to 10% or -6% to -10%) and red (i.e. greater than 10% or less than -10%) in a number of cases, suggesting that the control group could have been slightly better matched in these cases, but were still indicative of a control group who exhibit similar characteristics. The average values were higher for the variables Claiming Out of Work Benefits (year prior to conviction), Claiming Job Seekers Allowance (year prior to conviction), Claiming Incapacity Benefit (year prior to conviction) and Claiming Income Support (year prior to conviction). This suggests that the women that resided at HMP Downview D Wing Resettlement Unit were slightly harder to help in terms of overcoming these aspects than a control group, so care should be taken when interpreting the results.

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

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