

Justice Data Lab analysis: Re-offending behaviour after participation in Norfolk and Suffolk's 180° scheme

This analysis looked at the re-offending behaviour of 64 adults who took part in Norfolk and Suffolk's 180° scheme. The overall results show that those who took part in the scheme were more likely to re-offend and had a higher frequency of re-offences than those who did not. However, more people would need to become eligible for analysis in order to determine the direction in which the intervention affects the time to re-offence among participants, but this should not be taken to mean that the programme fails to affect it.

The 180° scheme identifies those at high risk of re-offending and, along with partner agencies, aims to help each offender address the issues underlying their offending. The scheme is run by Norfolk and Suffolk Constabulary and Probation services and their partners.

This analysis of the 180° scheme measured proven re-offences in a one-year period for a 'treatment group' of 64 offenders who took part in the scheme and for a much larger 'control group' of similar offenders who did not take part. These measurements were used to estimate the effects that the programme would be expected to have on the re-offending behaviour of any people who are similar to those in the analysis.

The 64 people who were eligible to be included in the main analysis were from a group of 100 people whose details were submitted to the Justice Data Lab. The effects of the programme on those who were not analysed may be different to the effects on those who were.

Overall measurements of the treatment and control groups

	For 100 typical people in the treatment group:	For 100 typical people in the control group:
† ↑	81 people committed a proven re-offencewithin a one-year period (a rate of 81%),12 people more than in the control group	69 people committed a proven re-offence within a one-year period (a rate of 69%)
▲ ▲	They committed 456 proven re-offences during the year (a frequency of 4.56 offences per person), 131 offences more than in the control group	They committed 325 proven re-offences during the year (a frequency of 3.25 offences per person)
↓	On average, a re-offender committed their first proven re-offence after 97 days, 8 days more quickly than in the control group	On average, a re-offender committed their first proven re-offence after 105 days

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Overall estimates of the impact of the intervention

For **100** typical people who would receive the intervention, compared with **100** similar people who would not receive it:

- The number of people who would commit a proven re-offence during one year after release could be higher by between 2 and 22 people. This is a statistically significant result.
- The number of proven re-offences committed during the year could be **higher by between** 24 and 238 offences. Again, this is a statistically significant result.
- On average, the time before a re-offender committed their first proven re-offence could be shorter by as many as 31 days, or longer by as many as 15 days. More people would need to be analysed in order to determine the direction of this difference.

What you can say about the one-year re-offending rate:

 "This analysis provides evidence that, for every 100 participants, the 180° scheme may increase the number of proven re-offenders during a one-year period by between 2 and 22 people."

What you cannot say about the one-year re-offending rate:

This analysis shows that the 180° scheme decreases/has no effect on the one-year proven re-offending rate of its participants"

What you can say about the one-year re-offending frequency:

"This analysis provides evidence that, for every 100 participants, the 180° scheme may increase the number of proven re-offences during a one-year period by between 24 and 238 offences."

What you cannot say about the one-year re-offending frequency:

This analysis shows that the 180° scheme decreases/has no effect on the one-year proven re-offending frequency of its participants"

What you can say about the time to first re-offence:

 "This analysis provides evidence that, for participants who re-offend during a one-year period, the 180° scheme may shorten the average time to first proven re-offence by up to 31 days or lengthen it by up to 15 days."

What you cannot say about the time to first re-offence:

This analysis shows that, for participants who re-offend during a one-year period, the 180° scheme decreases/increases/has no effect on the average time to first proven re-offence"

At least one proven re-offence committed in a one-year period □ No proven re-offences committed in a one-year period Confidence interval: ±9.8 people 81.3 Participants people analysed (64) 69.4 Control people group Confidence interval: ±0.4 people H (46,892) 0 10 20 30 40 50 60 70 80 90 100 Number of proven re-offenders per 100 people

Significant difference between groups

One-year proven re-offending frequency after participation in the 180° Scheme



Proven re-offence committed in a one-year period

Significant difference between groups

One-year proven re-offending rate after participation in the 180° Scheme

Average time to first proven re-offence after participation in the 180° Scheme



Non-significant difference between groups

Norfolk and Suffolk's 180° scheme in their own words

"Norfolk and Suffolk Constabulary and Norfolk and Suffolk Probation and their partners have a focus on making communities in Norfolk and Suffolk safer through reducing the re-offending behaviour of their most prolific offenders. This is managed through the 180° programme. 180° is based on a national model of Integrated Offender Management (IOM) that aims to tackle the social exclusion of persistent offenders with the objective of reducing their offending behaviour. It addresses overlaps between existing programmes and identifies and fills gaps between arrangements that are already in place for offenders.

The aims of the 180° scheme are to support partners to:

• Reduce crime, reduce reoffending, improve public confidence in the criminal justice system, tackle social exclusion of both offenders and their families, and drive organisational performance delivery improvement – all of which are inter connected.

• Address overlaps, reduce duplication of work and identify gaps in existing provision.

• Align the work of partners more effectively by expanding or improving on established partnerships, to include a wider range of agencies able to work with targeted offenders.

• Provide and maintain clarity around roles and responsibilities. To include leadership, operational decision making and the allocation of resources and accountability.

• To develop local arrangements to oversee the management of offenders in their communities, working within the context of the outcomes.

The priority areas are divided into nine areas of need: accommodation; education, training and employment; health; drugs and alcohol; finance, benefits and debt; children and families, prostitution; abuse; and attitudes, thinking and behaviour.

Each individual offender has been referred to the scheme by our partner agencies and key stakeholders. A full pathways assessment takes place prior to adoption onto the IOM Scheme. This analyses triggers as to why each individual reoffends and enables a bespoke offender management plan to be put in place to focus on the specific pathway that each offender needs help and support in addressing. Work with the offender continues until the individual is deselected.

The results in detail

Four analyses were conducted to account for different types of characteristics:

- National complex analysis a treatment group of 64 people compared with a control group of 46,892 records from England and Wales, matched on offender demographics, recent employment and benefit status, criminal history and individual risks and needs
- Regional complex analysis a treatment group of 49 people compared with a control group of 3,868 records from East of England, matched on offender demographics, recent employment and benefit status, criminal history and individual risks and needs
- National standard analysis a treatment group of 67 people compared with a control group of 116,486 records from England and Wales, matched on offender demographics, recent employment and benefit status and criminal history
- **Regional standard analysis** a treatment group of 55 people compared with a control group of 5,259 records from North-West England, matched on offender demographics, recent employment and benefit status and criminal history

The complex analyses controlled for the following risks and needs: accommodation status, employment and education, relationships, financial management, drug and alcohol use, health, and lifestyle.

In each analysis, fourteen measures of one-year re-offending were analysed. The headline results in this report refer to the three overall measures in the national complex analysis. Tables 1-8 show the results of all analyses for all measures, with rates expressed as percentages and frequencies expressed per person.

One measure shows a significant result in all analyses. A further measure shows significant results in both of the complex analyses and the regional standard analyses.

Significant results

The estimates for all measures in all analyses show the following statistically significant results:

- All four analyses provide significant evidence that the intervention **increases the number of re-offences committed** (Table 2).
- Both of the complex and the regional standard analyses provide significant evidence that the intervention **increases the number of people who re-offend** (Table 1). The national standard analysis also shows an increase, but this is not statistically significant.
- The national complex analysis also shows a significant increase in the number of tier 2 reoffences (Table 5).

Tables 1-3 show the overall measures of re-offending. The average time to first re-offence includes re-offenders only.

Table 1: Number of participants in Norfolk Constabulary's 180° scheme who committed a proven reoffence in a one-year period, compared with control groups

		Number in	Number in control group	One-year proven re-offending rate						
Model	Area	treatment group		Treatment group rate (%)	Control group rate (%)	Estimated difference (% points)	Significant difference?	p-value		
Complex	National	64	46,892	81.3	69.4	+2.1 to +21.7	Yes	0.02		
Complex	Regional	49	3,868	83.7	68.9	+3.9 to +25.5	Yes	0.01		
Standard	National	67	116,486	82.1	73.7	-1.1 to +17.8	No	0.08		
Standard	Regional	55	5,259	83.6	72.0	+1.4 to +21.8	Yes	0.03		

Table 2: Number of proven re-offences committed in a one-year period by participants in Norfolk Constabulary's 180° scheme, compared with control groups

		Number in	Number in control group	One-year proven re-offending frequency (offences per person)							
Model	Area	treatment group		Treatment group frequency	Control group frequency	Estimated difference	Significant difference?	p-value			
Complay	National	64	46,892	4.6	3.2	+0.2 to +2.4	Yes	0.02			
Complex	Regional	49	3,868	4.4	2.9	+0.4 to +2.5	Yes	0.01			
Standard	National	67	116,486	4.6	3.4	+0.2 to +2.3	Yes	0.02			
Standard	Regional	55	5,259	4.6	3.1	+0.4 to +2.5	Yes	0.01			

Table 3: Average time to first proven re-offence in a one-year period for participants in Norfolk Constabulary's 180° scheme who committed a proven re-offence, compared with control groups

Model		Number in		Average time to first proven re-offence within a one-year period, for re-offenders only (days)						
	Area	treatment group	control group	Treatment group time	Control group time	Estimated difference	Significant difference?	p-value		
Complay	National	52	35,960	96.6	104.5	-31.3 to +15.3	No	0.50		
Complex	Regional	41	2,872	104.9	124.0	-46.3 to +8.1	No	0.16		
Ctondord	National	55	81,971	92.3	112.3	-42.2 to +2.3	No	0.08		
Standard	Regional	46	3,695	98.3	117.5	-44.2 to +5.7	No	0.13		

Tables 4-6 show measures of the severity of re-offending, for re-offenders only, with Table 6 comparing the severity of the first re-offence to that of the original (index) offence. Tier 1 offences are the most severe and tier 3 offences are the least severe.

Table 4: Number of participants in Norfolk Constabulary's 180° scheme who committed their first proven re-offence in a one-year period in each tier of severity, compared with control groups (tiers 1 and 2 are excluded because low numbers prevent a reliable estimate of difference)

Model	Area									Number	Number	One-yea	One-year proven re-offending rate by severity tier of first re-offence, for re-offenders only								
		in treatment group	in control group	Severity tier	Treatment group rate (%)	Control group rate (%)	Estimated difference (% points)	Significant difference?	p-value												
Complex	National	52	35,739	3	84.6	86.2	-11.7 to +8.6	No	0.76												
Complex	Regional	41	2,856	3	87.8	84.1	-6.8 to +14.3	No	0.48												
Otan dand	National	55	81,470	3	85.5	83.4	-7.6 to +11.7	No	0.67												
Standard	Regional	46	3,685	3	87.0	81.5	-4.7 to +15.7	No	0.29												

Table 5: Number of proven re-offences committed in a one-year period in each tier of severity by participants in Norfolk Constabulary's 180° scheme who committed a proven re-offence, compared with control groups (tier 1 is excluded because low numbers prevent a reliable estimate of difference)

		Number in treatment group	Number in control group	One-year proven re-offending frequency by severity tier, for re- offenders only (offences per person)							
Model	Area			Severity tier	Treatment group frequency	Control group frequency	Estimated difference	Significant difference?	p-value		
	National	52	35,739	2	0.8	0.5	+0.1 to +0.6	Yes	0.02		
Complex	National	52	55,759	3	4.8	4.2	-0.6 to +1.7	No	0.33		
Complex	Regional	al 41	2,856	2	0.6	0.4	-0.1 to +0.4	No	0.26		
				3	4.6	3.8	-0.2 to +1.9	No	0.11		
	National		81,470	2	0.7	0.5	-0.0 to +0.5	No	0.08		
Ctondord	National	55		3	4.8	4.1	-0.4 to +1.8	No	0.19		
Standard	Regional	nal 46	3,685	2	0.7	0.5	-0.1 to +0.5	No	0.21		
				3	4.7	3.8	-0.2 to +2.0	No	0.12		

Table 6: Number of participants in Norfolk Constabulary's 180° scheme who committed their first reoffence in a one-year period in a lower tier, the same tier or a higher tier of severity than their original (index) offence, compared with control groups

		Number in	Number in control group	One-year proven re-offending rate by severity tier of first re-offence relative to index offence, for re-offenders only							
Model	Area	treatment group		Relative severity	Treatment group rate (%)	Control group rate (%)	Estimated difference (% points)	Significant difference?	p-value		
	National	52	35,739	Less	26.9	19.2	-4.8 to +20.2	No	0.22		
Complay	Inational	52		Same	65.4	74.0	-22.0 to +4.8	No	0.20		
Complex	Regional	onal 41	2,856	Less	29.3	21.6	-6.9 to +22.3	No	0.29		
				Same	65.9	69.9	-19.3 to +11.2	No	0.60		
	National		04 470	Less	27.3	21.4	-6.3 to +18.0	No	0.34		
Otomological	National	itional 55	81,470	Same	65.5	71.1	-18.6 to +7.4	No	0.39		
Standard	Regional	egional 46	3,685	Less	28.3	23.9	-9.2 to +18.0	No	0.52		
				Same	67.4	66.1	-12.9 to +15.4	No	0.86		

Tables 7-8 show measures of custodial sentencing, for re-offenders only.

Table 7: Number of participants in Norfolk Constabulary's 180° scheme receiving a custodial sentence for their first re-offence in a one-year period, compared with control groups

		Number in	Number in control group	One-year rate of custodial sentencing for first proven re-offence, for re-offenders only						
Model	Area	treatment group		Treatment group rate (%)	Control group rate (%)	Estimated difference (% points)	Significant difference?	p-value		
Complay	National	52	35,739	48.1	50.0	-16.0 to +12.1	No	0.78		
Complex	Regional	41	2,856	53.7	45.1	-7.4 to +24.6	No	0.29		
Ctondord	National	55	81,470	50.9	50.7	-13.4 to +13.9	No	0.97		
Standard	Regional	46	3,685	54.3	46.1	-6.8 to +23.3	No	0.27		

Table 8: Number of custodial sentences received in a one-year period by participants in Norfolk Constabulary's 180° scheme who committed a proven re-offence, compared with control groups

		Number in	Number in	One-year frequency of custodial sentencing, for re-offenders only (sentences per person)							
Model	Area	treatment group	control group	Treatment group frequency	Control group frequency	Estimated difference	Significant difference?	p-value			
Complay	National	52	35,739	3.0	2.5	-0.4 to +1.4	No	0.27			
Complex	Regional	41	2,856	2.6	2.1	-0.1 to +1.2	No	0.09			
Ctondard	National	55	81,470	3.0	2.4	-0.3 to +1.4	No	0.21			
Standard	Regional	46	3,685	2.8	2.2	-0.1 to +1.4	No	0.11			

Profile of the treatment group

The 180° scheme took place in Norfolk and Suffolk, in the East of England. The people in the national complex treatment group took part in the scheme between February 2010 and December 2011. The majority of them participated during and/or following a custodial sentence, with the remainder participating after receiving a community sentence. The scheme is not optional and each person was referred by partners and key stakeholders, with work continuing until the individual was deselected.

The 64 people in the national complex treatment group were between 16 and 43 years old at the beginning of their one-year re-offending period, with an average age of 28 years. 95% of them were male, at least 97% were ethnically white and at least 99% were UK nationals. By comparison, 32 people whose details were found on the PNC but who could not be included in the national complex treatment group were 97% male, at least 94% ethnically white and at least 94% UK nationals.

Information on individual risks and needs was available for 39 people in the national complex treatment group (61%), recorded near to the time of their original conviction. Among these people, it is estimated that:

- 59% used drugs at least once a week
- 54% had significant problems with impulsivity
- 54% had significant problems with activities encouraging offending
- 41% had no current fixed abode

Matching the treatment and control groups

Each of the four analyses matched a control group to the relevant treatment group. A summary of the matching quality is as follows:

- The national complex analysis showed good matching on most of the main characteristics used, with the proportion claiming out of work benefits being reasonably well matched.
- Both of the complex analyses showed good matching on most of the variables addressing the
 risks and needs of the treatment group, with a small number being reasonably well matched.
 For the national complex analysis, these were the proportion who used drugs at least weekly
 and the proportion of offenders who had significant problems with drug use being a main
 activity. For the regional complex analysis this was the proportion who had significant
 problems with their current alcohol use.
- Both of the standard analyses showed good matching on all of the characteristics used.

Further details of group characteristics and matching quality, including risks and needs recorded by the Offender Assessment System (OASys), can be found in the Excel annex accompanying this report.

This report is also supplemented by a general annex, which answers frequently asked questions about Justice Data Lab analyses and explains the caveats associated with them.

Numbers of people in the treatment and control groups

100 records were submitted for analysis, corresponding to 100 individual participants, all of whom were identified on the Police National Computer (PNC).

100

21 people (21%) were excluded because they did not have a record in the re-offending database that corresponded to their period of participation in the Norfolk 180° scheme. This may be because they were still in custody, or because less than one year had elapsed since their release, at the time the latest re-offending information was recorded, or if more than 6 months had elapsed since their release from prison or they started a community sentence before this intervention

79

1 person (1%) was excluded because they had committed at least one proven sexual offence before starting the programme. They were excluded because the re-offending patterns of sex offenders are generally very different to those of non-sex offenders.



10 other people (10%) were excluded because they had already re-offended before they joined the scheme.



A small number of other people were excluded from each analysis, because they could not be matched to any individuals in the control group. The national complex treatment group contained 64% of the people originally submitted.



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