



Summary

This analysis assessed the impact on re-offending of individuals completing the Therapeutic Communities (TC) programme run by the charity Phoenix Futures to offenders in custody. The one-year proven re-offending rate¹ for 93² offenders who completed this programme was 39%, compared with 44% for a matched control group³ of similar offenders when controlling for the most complex needs⁴. Testing has shown that this difference is not statistically significant⁵; suggesting that at this stage there is insufficient evidence to draw a conclusion about the impact of the TC programme on the re-offending rate of its participants. However, the results of the analysis do not mean that the TC programme failed to impact on re-offending behaviour.

This is the first official analysis by the Justice Data Lab which incorporates the use of Offender Assessment (OASys) data into the analyses reported on. OASys data provides additional information on the needs and risks of offenders across a wide spectrum of issues. Individuals with particular problems, such as substance misuse or mental health, are known to have particular difficulties in breaking the cycle of re-offending and, as Phoenix Futures deals with individuals with substance misuse issues for example, the Justice Data Lab have provided additional analyses that control for complex needs of the treatment group. In order to fully understand the impact of controlling for these more complex needs, relevant OASys data items will be selected. This analysis for Phoenix Futures looks at three variations that build upon each other:

- 1) Basic model: This is the standard Justice Data Lab process without including any OASys information.

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 In all 3 models 93 individuals were matched from a cohort of 155 individuals whose details were sent to the Justice Data Lab, as described on page 4 of this report.

³ The one-year proven re-offending rate for the matched control group is different for each of the 3 models, which are described on page 1 and 2 of this report. The rate for the matched control groups are 45% in the intermediate and 43% in the basic models, shown in table 1 on page 5 of this report.

⁴ Please see Annex C for a profile of the needs and issues experienced by the treatment group as recorded by Offender Assessment data.

⁵ The p-value for the one-year proven re-offending rate is shown in table 1 on page 5. Statistical significance testing is described on page 13 of this report.

- 2) Intermediate model⁶: includes OASys information to control for mental health issues as well as drugs/alcohol misuse issues.
- 3) Complex model⁶: Builds on the intermediate with additional controls incorporated for accommodation and relationship issues.

This report will headline the results for the complex model as it controls for the most issues that individuals completing the Phoenix Futures TC programme face and the results are more indicative of the range of work Phoenix Futures provide.

What you can say: There is insufficient evidence at this stage to draw a conclusion about the impact of the Therapeutic Communities (TC) programme run by Phoenix Futures on the one-year proven re-offending rate.

What you cannot say: This analysis shows that completing the prison-based Therapeutic Communities (TC) programme run by Phoenix Futures decreased the one-year proven re-offending rate by 15 percentage points, or by any other amount.

⁶ 86 of the 93 individuals in the treatment group have OASys records. The remaining 7 with no OASys record remain in the treatment group

Introduction

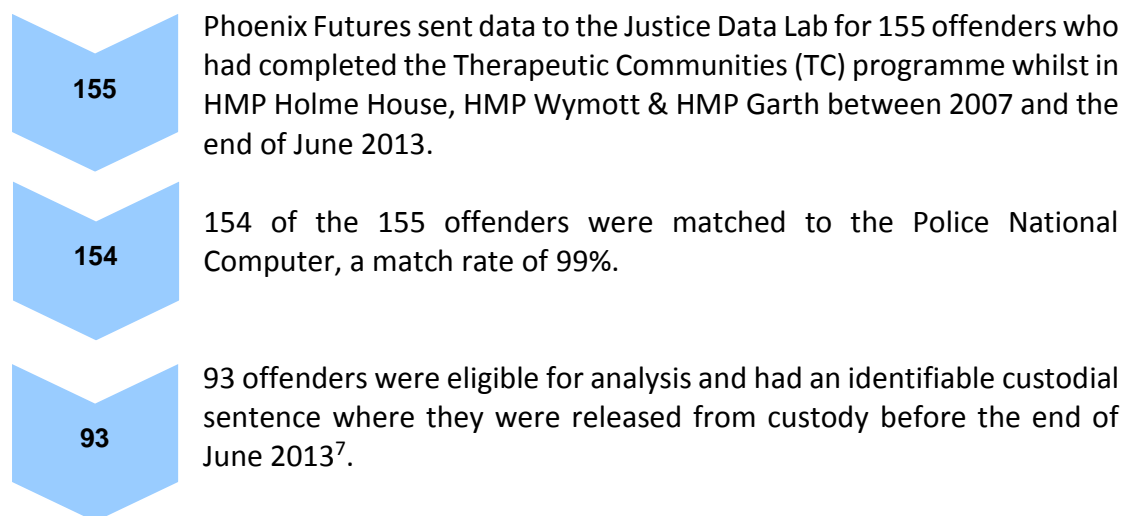
Phoenix Futures' prison-based Therapeutic Communities (TC) are self-help communities that assist to rebuild the lives of those with substance misuse issues. These communities are run by the residents themselves who support one another to examine their attitudes and behaviours in order to bring about change. They are consciously designed, community-based social environments designed to evoke social, psychological and behavioural change. The TC programme itself is an intensive, structured programme, involving regular group and one-to-one sessions where residents are challenged in order to un-learn addictive and anti-social behaviours and replace these with 'right-living'; a concept involving the learning of social norms, pro-social attitudes and values and effective thinking skills. The TC view of addiction highlights a complex interaction of biological, social and individual factors. The TC rationale views drug dependency as a 'disorder of the person'. It is a sign that something is wrong with how the person feels about themselves, others and the world around them. TC treatment allows people to learn how to 'live right' through addressing their unhappiness and challenging and changing negative behaviours (cognitive behavioural therapy-based). Offenders become residents in a community and live on a separate wing for the year they are in TC treatment and have no contact with the rest of the prison. Residents have a strict and structured day of activities, jobs roles, lessons and communal time all geared towards developing changing in thinking and behaving with the ultimate goal to stop offenders using substances and reoffending.

Offenders had to be interested in the TC, be motivated to change, to put the work in and be abstinent. Only adult males could attend the communities and had to have some form of drug or alcohol issues, not necessarily linked to their offence, although most were. Offenders generally stay about a year on the programme. Offenders would have to have a year left on their sentence to complete the programme. This began to change in 2011 and the programme could be completed in shorted space of time.

Prison staff are there to guide behaviours and oversee decisions of the community. Residents learn about substances and the dangers of these and the impact using has on themselves, their families and their own futures in order to bring about and solidify change. Residents have individual key work sessions tailored to their individual needs, with challenges geared to the person to address their individual issues and learn from them.

This analysis relates to male offenders who completed the programme between 2007 and June 2013 from three of the prison TCs; HMP Holme House, HMP Wymott & HMP Garth. Some offenders can leave custody and attend the residential rehab in the community, however very few would have done this.

Processing the data

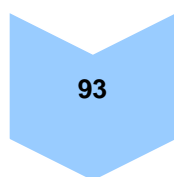


Analysis of these 61 unmatched individuals revealed the following:

- There were 39 individuals who participated in the TC programme run by Phoenix Futures but the given start date for the programme did not fall within or near the custodial sentence recorded (i.e. this conflicts with information about the programme).
- There were 15 individuals who did not have a custodial sentence for the most recent proven offence before participating in the TC programme run by Phoenix Futures; this includes persons who appear to have received community sentences, conditional discharges, or cautions.
- There were 4 individuals who could not be included in the analysis as they had previous sexual offences.
- There was 1 individual who could not be included in the analysis for modelling purposes.
- Sentences could not be found on the administrative datasets for the remaining 2 individuals.

⁷ 86 of the 93 individuals in the treatment group have OASys records. The remaining 7 without OASys information remain in the treatment group
Please see the methodology for incorporating OASys information into the JDL process for further information - www.gov.uk/government/uploads/system/uploads/attachment_data/file/491688/oasys-methodology.pdf

Creating matched treatment and control groups



All of the 93 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 TC programme. In total, the matched control group when looking at the most complex needs (i.e. controlling for mental health, alcohol/drug usage, accommodation and relationship issues) consisted of 43,580 records⁸.

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

Results

One year re-offending rate

Table 1 compares, for each model, the reoffending rate of those who completed the TC programme (the treatment group) against the matched control groups of similar offenders for each model. It gives an indication of whether the change was significant and gives the range of values in which we can be confident that the true difference in reoffending lies.

Table 1: One year re-offending rates and p-values

Model Type	Matched Treatment Group	Matched Control Group	1 year proven reoffending rate				P value
			Treatment Group (%)	Control Group (%)	Statistically significant	Estimate of Impact On Reoffending	
Complex - additional controls for mental health, substance misuse, accommodation and relationship needs	93	43,580	39	44	No	-15 to +5% pts	0.32
Intermediate - additional controls for mental health and substance misuse needs	93	43,650	39	45	No	-16 to +4% pts	0.23
Basic - no OASys data	93	67,502	39	43	No	-14 to +6% pts	0.43

When controlling for mental health, alcohol/drugs, accommodation and relationship issues (complex model), the one-year proven re-offending rate¹ for 93² offenders who completed the TC programme was 39%. This compares to 44% for a matched control group of 43,580 similar offender records⁹.

⁸ The size of the matched control groups differ for each model, please see table 1.

⁹ In the intermediate model (controlling for alcohol/drugs and mental health issues) the rate was the same for the treatment group and 45% for the matched control group while the basic model (without controlling for OASys information) has the same rate for the treatment group and 43% for a matched control group.

All models showed inconclusive results and the one year re-offending rates are broadly similar with minor differences, most likely due to the changes in the number of individuals in the matched control groups.

Figure 1: The best estimates for the one year proven re-offending rate for the Phoenix Futures treatment group and matched national control groups

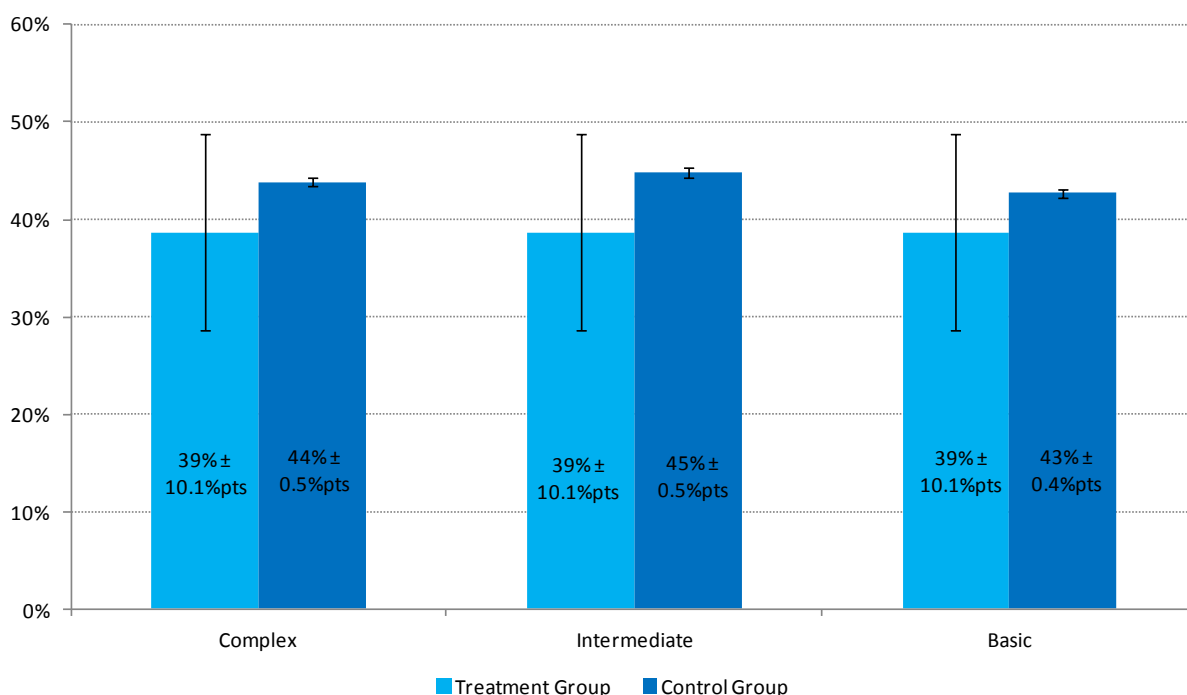


Figure 1 shows the 95 per cent confidence intervals for the re-offending rates of both groups, i.e. the range in which we can be 95 per cent sure that the true re-offending rate for the groups lie. For the analyses we can be confident that the true difference in re-offending between the treatment and control groups is

- Between a 15 percentage point reduction and a 5 percentage point increase in the one year re-offending rate for the complex model (controlling for mental health, alcohol/drugs, accommodation and relationship issues).
- Between a 16 percentage point reduction and a 4 percentage point increase in the one year re-offending rate for the intermediate model (controlling for alcohol/drugs and mental health issues).
- Between a 14 percentage point reduction and a 6 percentage point increase in the one year re-offending rate for the basic model (without controlling for OASys information).

Therefore we do not have significant evidence that completing the TC 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.

The precision of these estimates could be improved if the sizes of the Phoenix Futures treatment group used in these analyses were increased¹⁰. The impact on the models by adding OASys variables is quite small, showing that accounting for the most complex needs in the control group for this analysis did not alter the impact on the one year re-offending rate.

Additional proven re-offending measures

Frequency of re-offending

Table 2: Frequency of re-offending rates and p-values

Model Type	Matched Treatment Group	Matched Control Group	Frequency of reoffending (offences per person)			
			Treatment	Control	Statistically significant	P value
Complex - additional controls for mental health, substance misuse, accommodation and relationship needs	93	43,580	1.19	1.37	No	0.44
Intermediate - additional controls for mental health and substance misuse needs	93	43,650	1.19	1.39	No	0.37
Basic - no OASys data	93	67,502	1.19	1.28	No	0.71

When controlling for mental health, alcohol/drugs, accommodation and relationship issues (complex model), the frequency of one-year proven re-offending¹¹ for 93² offenders who completed the TC programme was 1.19 offences per individual, compared with 1.37 offences per record in the matched control group. Table 2 shows that the results for the frequency of re-offending are similar in the other models (intermediate and basic) and are not statistically significant for any model. The models with OASys variables (intermediate and complex) gave higher frequency of offences per person for the matched control groups, indicating that when controlling for more complex needs there are small increases in the frequency of re-offending rates. The inclusion of OASys variables has altered the frequency of re-offending for the control groups, but not the overall result.

¹⁰ 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 in the Complex model contained at least 1,215 individuals. The corresponding figures for the intermediate and basic models are 839 and 2,005 respectively.

¹¹ 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.

Time to re-offending

Table 3: Time to first re-offence and p-values

Model Type	Reoffenders from treatment group	Reoffenders from control group	Average days to first offence			
			Treatment	Control	Statistically significant	P value
Complex - additional controls for mental health, substance misuse, accomodation and relationship needs	36	18,540	121	138	No	0.24
Intermediate - additional controls for mental health and substance misuse needs	36	18,587	121	140	No	0.18
Basic - no OASys data	36	27,318	121	143	No	0.13

The average time to the first re-offence for the 36 individuals who completed the TC programme, and who re-offended within a one-year follow-up period, was 121 days. This compares to 138 days for the 18,540 records with re-offences in a one-year follow-up period from the matched control group for the complex model (i.e. controlling for mental health, alcohol/drug usage, accommodation and relationship issues). The results for the time to first re-offence are not statistically significant for any model.

The time to first re-offence is the same for the 're-offending matched treatment group' in each model, whilst the 're-offending matched control group' for the two OASys-based models have fewer average days than the basic model, again due to the different numbers in each re-offending control group. The intermediate and complex models have small differences in the size of the re-offending control cohort yet the complex model produces fewer average days to first re-offence. This shows that controlling for more complex needs can affect how some people with a combination of these needs can be matched, meaning there are people in the control group who matched in the intermediate model yet failed to match in the complex model, altering the results. The addition of OASys variables appears to have little impact on the time to re-offending with minor differences in the control groups due to different numbers in the re-offending control groups

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 aim 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 (36 within the matched treatment group and 18,269 in the matched control group for the complex model (i.e. controlling for mental health, alcohol/drugs, accommodation and relationship issues)¹²).

Measures of severity of re-offending

These measures report on the severity¹³ 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 4 shows the rates of re-offending for those individuals who committed their *first* re-offence in tier 3 during a one-year follow-up period. Testing has shown that none of these differences is statistically significant. The results for all models are very similar and the majority of first re-offences are in the lowest tier of severity, tier 3. Low numbers involved for tier 1 and tier 2 re-offences prevented a valid statistical test with the control group.

Table 4: Tier of first re-offence for those who re-offend within a one-year follow-up period¹⁴

Model Type	Re-offending measure	Treatment group	Control group	Statistically significant	p-value
Complex - additional controls for mental health, substance misuse, accommodation and relationship needs	First re-offence in tier 3:	89%	81%	No	0.17
Intermediate - additional controls for mental health and substance misuse needs	First re-offence in tier 3:	89%	80%	No	0.12
Basic - no OASys data	First re-offence in tier 3:	89%	81%	No	0.15

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

Table 5 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 the re-offending frequencies for tier 2 and 3 offences are not statistically significant. The results are again very similar in all models and the general trend is the same.

¹² 18,269 is the number of people who have re-offended and have severity data available in the matched control group for the complex model. The number in the matched control group for the Intermediate and basic are 18,319 and 26,915 respectively.

¹³ See Annex D definition from glossary.

¹⁴ In table 4 the statistical tests for first re-offence in tier 1 and tier 2 are not included as certain conditions have not been met for the statistical test to be valid

Table 5: Frequency of re-offending in each tier for those who re-offend within a one-year follow-up period¹⁵

Model Type	Re-offending measure	Treatment group	Control group	Statistically significant	p-value
Complex - additional controls for mental health, substance misuse, accomodation and relationship needs	Re-offending frequency in tier 2:	0.36	0.47	No	0.41
	Re-offending frequency in tier 3:	2.72	2.61	No	0.80
Intermediate - additional controls for mental health and substance misuse needs	Re-offending frequency in tier 2:	0.36	0.46	No	0.44
	Re-offending frequency in tier 3:	2.72	2.60	No	0.77
Basic - no OASys data	Re-offending frequency in tier 2:	0.36	0.42	No	0.63
	Re-offending frequency in tier 3:	2.72	2.52	No	0.63

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

Table 6 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 none of these differences is statistically significant. The results are almost identical for all models.

Table 6: Severity of first re-offence relative to index offence¹⁶

Model Type	Re-offending measure	Treatment group	Control group	Statistically significant	p-value
Complex - additional controls for mental health, substance misuse, accomodation and relationship needs	First re-offence of same severity as index offence:	50%	55%	No	0.54
	First re-offence less severe than index offence:	50%	38%	No	0.16
Intermediate - additional controls for mental health and substance misuse needs	First re-offence of same severity as index offence:	50%	55%	No	0.55
	First re-offence less severe than index offence:	50%	38%	No	0.15
Basic - no OASys data	First re-offence of same severity as index offence:	50%	55%	No	0.57
	First re-offence less severe than index offence:	50%	38%	No	0.16

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 7 summarises the tests of these measures.

¹⁵ In table 5 the statistical test for re-offending frequency in tier 1 is not included as certain conditions have not been met for the statistical test to be valid.

¹⁶ In table 6 the statistical test for first re-offence being more severe than index offence is not included as certain conditions have not been met for the statistical test to be valid.

Table 7: Custody rate for first re-offence and frequency of one-year custodial sentencing

Model Type	Re-offending measure	Treatment group	Control group	Statistically significant	p-value
Complex - additional controls for mental health, substance misuse, accomodation and relationship needs	Rate of custody for first re-offence:	44%	49%	No	0.59
	Frequency of one-year custodial sentencing:	1.28	1.57	No	0.21
Intermediate - additional controls for mental health and substance misuse needs	Rate of custody for first re-offence:	44%	49%	No	0.57
	Frequency of one-year custodial sentencing:	1.28	1.56	No	0.23
Basic - no OASys data	Rate of custody for first re-offence:	44%	48%	No	0.68
	Frequency of one-year custodial sentencing:	1.28	1.49	No	0.37

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 44% for the matched treatment group, compared with 49% of records in the matched control group¹⁷. Testing has shown that this difference is not statistically significant and the results are similar in each model.

Frequency of one-year custodial sentencing¹⁸

The frequency of custodial sentences received during a one-year follow-up period was 1.28 sentences per re-offending individual for the matched treatment groups, compared with 1.57 sentences per record for the matched control group¹⁹ in the complex model. Testing has shown that this difference is not statistically significant, with the biggest difference between the matched treatment and matched control groups being when controlling for more intricate needs in the complex model. The differences in the control group rates between the basic model and the two models that control for more of the issues experienced by the treatment group are due to the different sizes of the matched control groups.

¹⁷ In the intermediate model the rate of custody for first re-offence for the control group was also 49% and in the basic it was 48%.

¹⁸ Please note that the length of a custodial sentence given to an offender can impact the frequency of one-year custodial sentencing.

¹⁹ In the intermediate model this is 1.56 sentences per record and 1.49 in the basic model.

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. The inclusion of OASys data in this analysis of the TC programme has allowed for certain issues and needs linked to drugs/alcohol, mental health, accommodation and relationships to be statistically controlled for, where previously the Justice Data Lab was unable to do this.

Many organisations that work with offenders will target specific needs of individuals, such as housing or substance misuse. 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, the inclusion of OASys data which indicates the motivation an individual has to tackle their drug or alcohol misuse may address some of these factors; some 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 93 of the 155 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 a 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 participated in the TC programme provided by Phoenix Futures. 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 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 TC programme run by Phoenix Futures, 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 – Quality of matching summary

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 (please see Tables A1-A3 in the Excel annex accompanying this report). Tables A1 (complex model) and A2 (intermediate model) shows that the two groups that control for various needs and issues of those in the treatment group were well matched on most variables found to have associations with receiving treatment and/or re-offending.

The standardised differences highlighted as amber (i.e. between 6% to 10% or -6% to -10%) whether an individual has significant problems in their motivation to tackle drug misuse, reducing their drug dependency and whether that individual is capable of change, suggesting that the control groups could have been slightly better matched in this case, but were still indicative of a control group who exhibit similar characteristics.

Table A3 (basic model that does not include OASys information) shows that all 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 – Profile of the treatment group

Charts B1-B3 (in the Excel annex accompanying this report) give a profile of the 86 individuals in the treatment group with OASys records, showing the needs and issues relevant to this group as determined by their OASys records.

Chart B1 shows a high proportion (37%) having significant problems in their drug use activity (this is not surprising as Phoenix Futures' TC programme primarily focuses on drug misuse needs) and in accommodation needs with 36% having had no fixed abode. 19% had significant problems with relationships, 16% had significant problems with alcohol misuse and 13% with significant psychological problems, demonstrating that the TC programme deal with those with a mix of needs and issues.

Chart B2 shows 14% of the treatment group with OASys records have significant problems with drug use activity and no other significant problems in any of the identified needs. Those including significant problems in drug use activity and no fixed abode make up the next largest of these groups (12%). When combining any other two categories these become a small minority (3% or less). There are some individuals (6%) with multiple needs across three categories (drugs, relationships and no fixed abode) though these become a small minority (1 or less) when any three other issues are combined. This indicates that most individuals in the Phoenix Futures treatment group have one or two particular issues though a small minority have multiple needs.

Chart B3 compares those with current problems related to drugs and alcohol to those who previously had these problems. 99% indicate that they have used drugs some point in their lives, with 22% having previously injected drugs and 19% currently

injecting drugs at the time of the OASys assessment. A third of the treatment group have had previous significant problems in their past misuse of alcohol and this is the same for those who have no previous or current significant problem in their alcohol misuse. 16% have current significant problems with alcohol misuse at the time of their OASys assessment. This indicates that individuals in the Phoenix Futures treatment group with OASys records represents those who have had problems in the past as well as those with current substance misuse at the time of their OASys assessment.

Annex D

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.

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:

Sarah French

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 4770

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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psi@nationalarchives.gsi.gov.uk

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