Ministry of Justice

Modelled management information on offender cohorts and re-offending in the 21 planned Transforming Rehabilitation Programme Contract Package Areas

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Introduction

The Ministry of Justice has published “Transforming Rehabilitation: A Strategy for Reform” – the Government’s response to the consultation document “Transforming Rehabilitation: a revolution in the way we manage offenders”. The strategy sets out the Government’s plans for transform the way in which offenders are managed in the community in order to bring down reoffending rates[1].

Transforming Rehabilitation (TR) proposes methods to reduce re-offending rates whilst delivering improved value for money for the tax payer. The reforms will include: opening up the market to a diverse range of new rehabilitation providers, with incentives to reduce re-offending through payment by results (PbR); key functions, including the direct management of offenders who pose the highest risk of serious harm, will remain with a new public sector National Probation Service, which will be part of the National Offender Management Service (NOMS); the extension of statutory rehabilitation to virtually all offenders leaving custody; and a new nationwide “through the prison gate” resettlement service.

The purpose of this publication is to provide figures that enable users to understand the approximate size, composition and re-offending rates of offender cohorts over time in each of the 21 new Contract Package Areas (CPAs).

This publication provides modelled data for the 6 years from 2005 to 2010 and shows the number of offenders in each PbR cohort and the 1-year re-offending rates among those offenders. The re-offending rates are based on the National Statistics proven re-offending measure; they count both cautions and court convictions as a re-offence.

Offenders posing a high risk of serious harm from the outset are not included because they will continue to be managed within the public sector by the new National Probation Service

The 21 CPAs have been constructed by amalgamating existing Probation Trust areas.

[1] consult.justice.gov.uk/digital-communications/transforming-rehabilitation

Contract Package Areas

1. Northumbria
2. Cumbria and Lancashire
3. Durham and Cleveland
4. North Yorkshire, Humberside and Lincolnshire
5. West Yorkshire
6. Cheshire and Greater Manchester
7. Merseyside
8. South Yorkshire
9. Staffordshire and West Midlands
10. Derbyshire, Nottinghamshire and Leicestershire
11. Wales
12. West Mercia and Warwickshire
13. Gloucestershire, Avon, Somerset and Wiltshire
14. Dorset, Devon and Cornwall
15. Hampshire
16. Thames Valley
17. Northamptonshire, Bedfordshire, Hertfordshire and Cambridgeshire
18. Norfolk and Suffolk
19. Essex
20. London
21. Kent, Surrey and Sussex

Methodology

Data sources

The main sources of data used in the modelling of TR are the re-offending cohorts used in the published National Statistics on Proven Re-offending. These have been supplemented by offender management statistics on the numbers released from prison or starting sentences supervised in the community.

Modelling CPA cohorts

The TR cohorts will include adult offenders (aged 18 and over) released from custodial sentences or starting a court order (community orders and suspended sentence orders - SSOs). Offenders receiving other sentences are not included.

Offenders posing a high risk of serious harm from the outset are also excluded, because they will continue to be managed within the public sector. For modelling purposes we have had to use a proxy measure to exclude these offenders. The proxy measure is based on offenders who had, at any time in their past, been convicted of a serious offence[2], adjusted to reflect the proportion of offenders we expect to be in this category in future.

[2] Serious offences as listed in Appendix A of Proven re-offending statistics: definitions and measurement Ministry of Justice (October 2012) www.gov.uk/government/publications/proven-re-offending--2.

In line with proposals set out in the Payment Mechanism Straw Man[3], some specific groups of custodial or community sentenced offenders have also been excluded – for example those sentenced to standalone electronic monitoring or unpaid work requirements and foreign nationals subject to deportation.

In modelling the historic cohorts published here, the eligible offenders were identified and then allocated to one of the new CPAs using the most up-to-date address for the offender recorded on the Police National Computer.

The cohort sizes are the number of offenders meeting the criteria above within each CPA.

Re-offending cohorts are compiled by matching offenders released from prison or starting a court order with records in the Police National Computer so that their previous and future offending can be measured. The process of matching uses identification numbers, names, dates of birth and sentencing information, but can never be 100% accurate, leaving a small proportion of offenders who cannot be matched.

Because match rates vary across the 3 types of sentence (community, less than 12 months custody, 12 months or more custody) the re-offending rates for each CPA have been derived by weighting the re-offending rates for each subgroup by the total number (i.e. matched and unmatched) of expected offenders with that sentence.

While the National Statistics on Proven Re-offending show figures for annual cohorts (all offenders released from prison or starting a court order over a 12 month period), the rehabilitation providers will be expected to work with CPA cohorts that are compiled quarterly, with each cohort comprising offenders released from prison or starting a court order over a three month period. The data being published shows both quarterly and annual cohorts for each CPA.

The adjustments to source data described above enable the production of a modelled dataset from historic data that mimics CPA cohorts and can be used to examine the proposed CPA structure, and this is the use for which it is intended. For more general information on re-offending over time we recommend using the National Statistics on proven re-offending. In particular, the re-offending rates published here are higher than the national proven re-offending rates because the TR cohorts exclude some groups of offenders who have relatively low re-offending rates (for example serious offenders and those sentenced to standalone unpaid work – both of these groups have lower re-offending rates than the offender population as a whole).

Variability of re-offending data by Contract Package Area

The data can be used to assess the variability of re-offending rates in each CPA. This is important in understanding the size of change in re-offending rates we would need to see to be confident that it could be attributed to activity by CPA providers.

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[3] Rehabilitation Programme Market Engagement, May 2013 Payment Mechanism – Straw Man (Ministry of Justice May 2013) www.justice.gov.uk/transforming-rehabilitation/competition

Before analysing the variability we first need to take account of the mix of offenders entering each successive cohort. Re-offending is related to the characteristics of offenders, for example offenders with a large number of previous convictions are more likely to re-offend than those with fewer previous convictions, and changes in re-conviction rates over time can be related to changes in the mix of offenders being worked with rather than a real change in the level of their re-offending.

The Offender Group Reconviction Scale (OGRS)[4] is a predictor of re-offending based on age, gender and criminal history, which are risk factors known to be associated with the likelihood of re-offending. OGRS scores range from 0 to 1, with a lower score representing a lower likelihood of re-offending. The scores can be used to compare the relative likelihood of re-offending either over time or between different groups of offenders, with a higher/lower rate meaning a group of offenders who are more/less likely to re-offend. For example if Offender Group A have an average OGRS score of 0.44, and Offender Group B have an average OGRS score of 0.58, this means that Offender Group A are less likely to re-offend.

In order to take account of the mix of offenders, OGRS scores were calculated for each cohort in a CPA, and these scores were used to produce an OGRS-adjusted binary re-offending rate. This calculation effectively standardises the mix of offenders in each cohort of a given CPA to the 2010 mix for that same CPA.

The OGRS-adjusted re-offending rate for a cohort is calculated as the observed re-offending rate for that quarterly/annual cohort plus any change in the OGRS score between that cohort and the 2010 cohort.

There is no equivalent to the Offender Group Reconviction Scale for frequency of re-offending measures, so no similar adjusted rate has been produced for the frequency of re-offending measures shown.

Although re-offending rates nationally have remained largely flat between 2005 and 2010, some individual CPAs may have experienced a falling or rising trend over the period. In such areas, estimates of variability will tend to be exaggerated by the existence of a linear trend. In order to account for this effect, a regression analysis was used to remove this effect of the linear trend from each CPA before estimates of variability were calculated.

The resulting estimates of variability are expressed as confidence intervals in the data table at Appendix A. These intervals show the range of values within which the re-offending rate for most cohorts would lie if inherent volatility of the data were the only cause of difference i.e. if there were no real systematic change in re-offending. The 80% and 95% intervals are both shown here.

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[4] For more details on OGRS see Ministry of Justice Research Summary 7/09 *OGRS 3: the revised Offender Group Reconviction Scale* at webarchive.nationalarchives.gov.uk/20110201125714/http:/www.justice.gov.uk/publications/offender-assessment-system.htm

The 80% confidence interval shows the range within which we could expect the re-offending rate for 4 out of every 5 (80%) cohorts to lie, and the 95% interval shows the range within which we could expect 19 out of every 20 (95%) cohorts to lie. Of the remaining cohorts outside these ranges, half (10% and 2.5% respectively for the 80% and 95% confidence intervals) would be expected to have re-offending rates above the upper end of this range, and the other half below the lower end.

In order for us to be statistically confident that the re-offending rate for a given cohort had been changed by intervention, that rate would need to fall outside the range of the confidence interval.