Justice Data Lab analysis: reoffending behaviour after receiving treatment from Key4Life

October 2018

This analysis looked at the reoffending behaviour of 62 young men who took part in the Key4Life programme while in prison. The results show that people who participated in the programme were less likely to reoffend in the year following their release from prison than similar people who didn't participate, and the number of reoffences they committed in that period was also lower.

Key4Life's prison programme works to break the cycle of youth offending by focusing on emotional resilience, employability skills and providing on-going support after release from prison.

The main analysis measured proven reoffences in a one-year period for a 'treatment group' of 62 offenders who received support some time between 2012 to 2017; and for a much larger 'comparison group' of offenders who did not receive the support. This analysis estimates the impact that the programme would be expected to have on the reoffending behaviour of any people who are similar to those in the analysis.

Out of 86 records submitted to the Justice Data Lab, there were 62 people who were eligible for inclusion in the main analysis. The programme may have had a different impact on the other 24 people.

Overall measurements of the treatment and comparison groups

For any 100 typical men in the **treatment** group, the equivalent of:

29 of the 100 men committed a proven reoffence within a one-year period (a rate of 29%), **18 men fewer** than in the comparison group

50 proven reoffences were committed by these 100 men during the year (a frequency of 0.5 offences per person), **114 offences fewer** than in the comparison group.

Time to first reoffence has not been included as a headline result due to low numbers of reoffenders, which could give misleading results.

For any 100 typical men in the **comparison** group, the equivalent of:

47 men committed a proven reoffence within a one-year period (a rate of 47%)

164 proven reoffences were committed by these 100 men during the year (a frequency of 1.6 offences per person)

Overall estimates of the impact of the intervention

For any **100** typical men who receive the intervention, compared with any **100** similar men who do not receive it:

The number of men who commit a proven reoffence during one year after release could be **lower by between 7 and 30 men.** **This is a statistically significant result.**

The number of proven reoffences committed during the year could be **lower by between 87 and 140 offences.** **This is a statistically significant result.**

Time to first reoffence has not been included as a headline result, as the low number of reoffenders used to calculate the measure (18 people) could provide misleading results.

Please note totals may not appear to equal the sum of the component parts due to rounding.

✓ **What you can say about the one year reoffending rate:**

"This analysis provides evidence that, for every 100 participants, Key4Life may decrease the number of proven reoffenders during a one year period by between 7 and 30 men."

✗ **What you cannot say about the one year reoffending rate:**

"This analysis shows that Key4Life decreases the one-year proven reoffending rate of its participants."

✓ **What you can say about the one year reoffending frequency:**

"This analysis provides evidence that, for every 100 participants, Key4Life may decrease the number of proven reoffences during a one year period by between 87 and 140 offences."
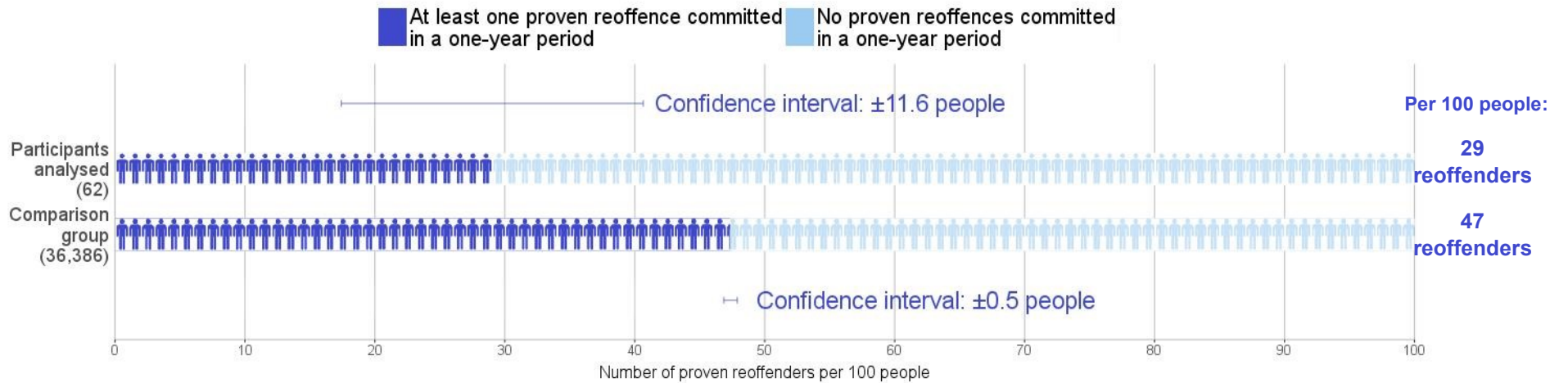
✗ **What you cannot say about the one year reoffending frequency:**

"This analysis shows that Key4Life decreases the frequency of reoffending."
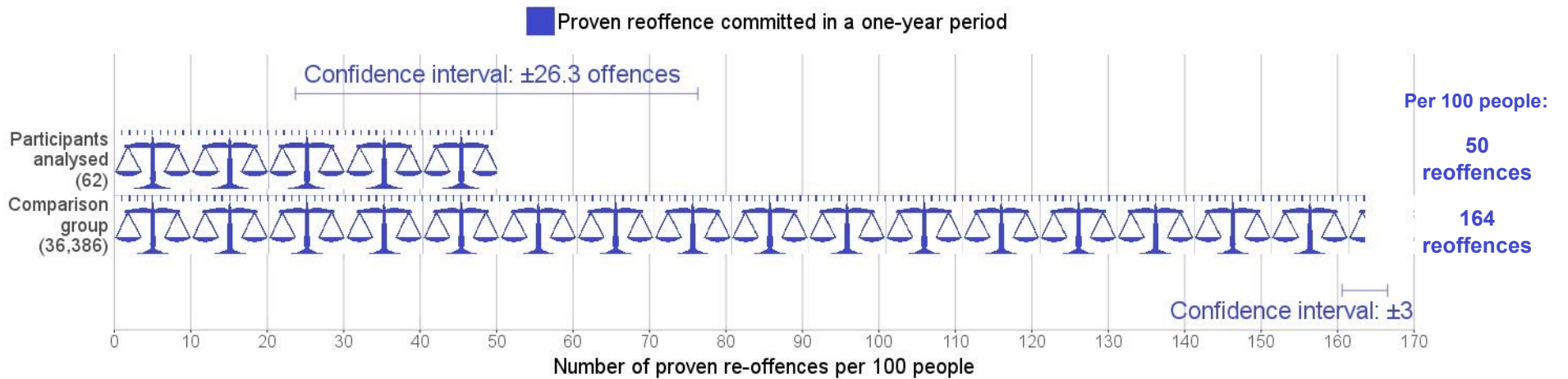
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One-year proven reoffending rate after participation in Key4Life

At least one proven reoffence committed in a one-year period

No proven reoffences committed in a one-year period

Confidence interval: ±11.6 people

Per 100 people:

Participants analysed (62)

29 reoffenders

Comparison group (36,386)

47 reoffenders

Confidence interval: ±0.5 people

Number of proven reoffenders per 100 people

Significant difference between groups

One-year proven reoffending frequency after participation in Key4Life

Proven reoffence committed in a one-year period

Confidence interval: ±26.3 offences

Per 100 people:

Participants analysed (62)

50 reoffences

Comparison group (36,386)

164 reoffences

Confidence interval: ±3

Number of proven re-offences per 100 people

Significant difference between groups

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Key4Life's programme: in their own words

" Key4Life is a UK charity that addresses the root causes of youth reoffending. Its mission is to break the cycle of crime for 18-26 year old young men in prison and those at risk of going to prison through an innovative 7-step model focusing on emotional resilience, employability skills and on-going support, to those in prison and those at risk of going to prison.

Participants are provided with mentoring for up to a year; offered a series of employability workshops; and access into further training including three-day work tasters that for many have led to permanent employment or training. The initial stages of the programme provide the bedrock to emotional and behavioural change through a series of workshops and on-going support encompassing one-to-one Emotional Resilience sessions, and using vehicles such as Horses, Music and Sport to unlock the participants' negative behaviours and emotions – all while in custody.

On release, we accompany service users to probation, meet and liaise with their family and continue to offer the one-to-one support sessions. We work with the young men on their CVs, discuss their career options, and arrange Work Tasters with a view to long-term sustainable employment. We also arrange group visits to employment fairs and have weekly support workshops with external recruiters. Key4Life staff maintain weekly contact with participants and also ensure they are having regular contact with their Mentors. The young men are also encouraged to attend a 2-day Rural Residential and are given the possibility to engage with Rural Away Days throughout the duration of the programme.

Working with 80 businesses, 81% of Key4Life participants have completed work tasters, with 76% in education or employment at the end of the programmes. "

Key4Life's response to the Justice Data lab analysis

" Key4Life is hugely encouraged by the Ministry of Justice Data Lab's analysis and validation, providing statistically robust evidence showing that Key4Life participants are significantly less likely to commit a re-offence compared with non-participants, and that Key4Life participants commit significantly fewer re-offences. Behind any statistics, there is always a more complex story to tell. Key4Life works hand-in-hand with young men with complex needs, with over half leaving mainstream education before 16, 2 in 3 are not in regular contact with their fathers when growing up, and all are caught in the cycle of re-offending.

Key4Life focusses on building emotional resilience and employability skills through its innovative 7-step model, pre- and post-release, tackling the multiple underlying causes of offending. As a result, as well as the reduction in re-offending, 76% of Key4Life participants are in employment or education a year after release. The majority of Key4Life's participants are securing and sustaining legal work for the first time.

Thank you to all those at the Ministry of Justice Data Lab for their support and guidance. Our staff, mentors, supporting employers and the young men on both our Prison and 'At Risk' preventative programmes can take great support from this positive validation. "

Results in detail

One analysis was conducted, controlling for offender demographics and criminal history.

Analyses
1.   **National analysis:** treament group matched to offenders in England and Wales using demographics and criminal history.

The size of treatment and comparison groups for reoffending rate and frequency analyses are provided below.

Treatment Group Size	Comparison Group Size	Reoffenders in treatment group	Reoffenders in comparison group
62	36,386	18	18,654

The **three headline measures** of one-year reoffending were analysed (see results in Tables 1-3):

1.   Rate of reoffending

2.   Frequency of reoffending

3.   Time to first reoffence

Significant results

Two measures show a statistically significant result. These provide significant evidence that:

- **Participants are less likely to commit a reoffence** compared with non-participants
- **Participants commit fewer reoffences** compared with non-participants

Tables 1-3 show the overall measures of reoffending. Rates are expressed as percentages and frequencies expressed per person. The average time to first reoffence includes reoffenders only.

Table 1: One-year proven reoffending rate for people after support from Key4Life, compared with a matched comparison group

| Number in treatment group | Number in comparison group | One-year proven reoffending rate | | | | |
		Treatment group rate (%)	Comparison group rate (%)	Estimated difference (% points)	Significant difference?	p-value
62	36,386	29	47	-30 to -7	Yes	<0.01

Table 2: Number of proven reoffences committed in a one year period by people after support from Key4Life, compared with a matched comparison group

| Number in treatment group | Number in comparison group | One-year proven reoffending frequency (offences per person) | | | | |
		Treatment group frequency	Comparison group frequency	Estimated frequency	Significant difference?	p-value
62	36,386	0.50	1.64	-1.40 to -0.87	Yes	<0.01

Table 3: Average time to first proven reoffence in a one-year period for people who received support from Key4Life, compared with a matched comparison group

The time to first reoffence between participants and the comparison group is based on a group of only 18 participants. A larger group of reoffenders (usually a minimum of 30) would be required to calculate a meaningful estimate of the time to first reoffence, and to more confidently determine any effect of the Key4Life programme on this measure.

| Number in treatment group | Number in comparison group | Average time to first proven reoffence within a one-year period, for reoffenders only (days) | | | | |
		Treatment group time	Comparison group time	Estimated difference	Significant difference?	p-value
18	18,654	179	142	-11 to 85	No	0.12

Profile of the treatment group

Key4Life's programme takes place over twelve months in custody and in the community. Intervention takes place towards the end of the sentence, which can be three months to four years after the start of the sentence. The pre-release section focuses on emotional resilience and employability. Post-release contact is very high, and supports participants into employment with on-going support and engagement with their families.

Participants included in analysis (62 offenders)

- Male 100%
- White 35%, Black 58%, Asian 6%
- UK national 92%, Non-UK national 6%, Nationality unknown 2%

- Aged 16 to 28 at the time of index offence (mean age 22 years)

- Sentence type:
  - Less than 1 year   8%
  - 1 to 4 years   79%
  - 4 to 10 years   13%

Participants not included in analysis (14 offenders)

- Male 100%
- White 36%, Black 50%, Asian 7%, unknown 7%
- UK national 93%, Non-UK national 7%

Information on index offences is not available for this group, as they could note be linked to a suitable sentence.

For the **10 people** without any records in the reoffending database, no personal information is available.

Information on individual risks and needs was available for 8 of the 62 people in the national treatment group (13%), recorded near to the time of their original conviction. Since this is such a small number, a breakdown of these risks and needs is not included.

Matching the treatment and comparison groups

The analysis matched a comparison group to the treatment group. A summary of the matching quality is as follows:

- Most variables were well matched.
- The treatment and comparison groups were reasonably well matched on a number of variables, including ethnicity, age at index date, and some criminal history measures.
- The two groups appear poorly matched on the cohort year, mean age at first contact with criminal justice system, court outcomes, sentence type and criminal history. However, these standardised differences can occur due to small numbers in the group. Hence, the standardised differences should be considered alongside the distributions of each characteristic.

Further details of group characteristics and matching quality 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 comparison groups

86 men were submitted for analysis by Key4Life.

86
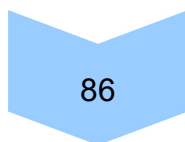
8 men (9%) were excluded because they couldn't be identified on the Police National Computer.

78
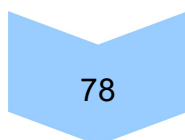
16 men (19%) were excluded because they did not have a record in reoffending database that corresponded to their time period of participation with Key4Life. It is estimated that 2 of these people may not have been released from prison in time to be included in the available reoffending data.

62
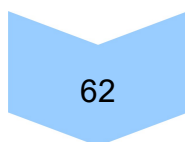
0 men (0%) were excluded because they had been convicted of a sexual offence.

62
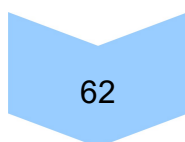
0 men (0%) were excluded because they were not similar enough to anyone in comparison group to be matched.

62
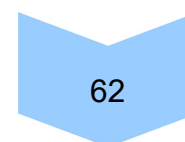
The treatment group contained 72% of the participants submitted.
(**Comparison group**: 36,386 records)