

The Treasury

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[1]	to prevent prejudice to the security or defence of New Zealand or the international relations of the government	6(a)
[4]	to prevent prejudice to the maintenance of the law, including the prevention, investigation, and detection of offences, and the right to a fair trial	6(c)
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[33]	to maintain the current constitutional conventions protecting the confidentiality of advice tendered by ministers and officials	9(2)(f)(iv)
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[38]	to enable the Crown to negotiate without disadvantage or prejudice	9(2)(j)
[39]	to prevent the disclosure of official information for improper gain or improper advantage	9(2)(k)
[40]	Not in scope	

In preparing this Information Release, the Treasury has considered the public interest considerations in section 9(1) and section 18 of the Official Information Act.

Track 1 Initiative Submission Template

Vote	Vote Justice (with funding implications for Vote Social Development)
Responsible Minister	Hon Amy Adams, Minister of Justice (lead Minister)
Initiative title	Investment Approach to Justice – Reducing Youth Offending
Initiative description	<p>As part of the Investment Approach to Justice, the Ministry of Justice with the support of the New Zealand Police, Department of Corrections and Ministry of Social Development is submitting an initiative aiming to reduce youth offending among high-risk 14-16 year olds.</p> <p>There are 1,833 14-16 year olds in New Zealand who have committed a serious offence in the past 2 years.</p> <p>Over the next 30 years, we predict this cohort to offend 17,700 times – an average of 10 offences per person. This average is higher than 99% of the New Zealand population, indicating that this is one of the highest-risk cohorts identified so far as part of the Investment Approach.</p> <p>We have identified three evidence-based services for young people in the Justice system that are likely to reduce and prevent future instances of offending and victimisation:</p> <ul style="list-style-type: none"> • Cognitive Behavioural Therapy (CBT) • Functional Family Therapy (FFT) • Professional Youth Mentoring (PYM) <p>These services will help young people alter harmful behaviour, increase self control, and reduce their likelihood of offending.</p>
Responsible Vote Analyst	[Please provide your name and extension number]

Funding Sought (\$m)	2017/18	2018/19	2019/20	2020/21	2021/22 & outyears	TOTAL
Operating	1.691	2.836	4.082	5.327	5.327	19.263
Capital	-	-	-	-	-	-

SUPPORTING INFORMATION AND CONTEXT

The aim of this investment case is to use social investment approach principles to ensure the most at-risk young people receive effective, evidence-based, well-delivered services when they need them most, particularly before adult criminal behaviours become entrenched, and the likelihood of altering their life course reduces.

Supporting Information:

- ILM
- Implementation Gantt chart
- High level process flow
- Evidence Briefs: Functional Family Therapy, Cognitive Behavioural Therapy, Professional Youth Mentoring
- Initiative Dashboard - Example
- 14-16 Year Old Cohort Profile
- Governance terms of reference

There are a range of services currently funded for young people and their families, however there is a large unmet need for

professional, evidence-based services (such as FFT) designed to specifically address conduct problems for high needs young offenders.

For example, there are 411 people in Auckland between the ages of 14 and 16 who have committed a serious offence in the past two years. There is limited availability of evidence-based services for these young people. MSD currently funds 231 places for CBT and FFT in Auckland, for clients of all ages up to 17, for both care and protection and youth justice purposes.

There is a cross-agency project to develop a whole of government response to children and young people with conduct problems. Justice officials will continue to work with this group to identify opportunities to work together, avoid duplication, and any risk of double investment

Social Investment Panel Feedback

The Social Investment Panel advised us that this initiative should be joined up, understand how it relates to other initiatives across the sector, describe the supply side capability of the ancillary market (with particular regard to CBT providers) and what the relative returns are. There was also a request to define the cohort further.

Following feedback from the Social Investment Panel, Justice Sector representatives have sought to understand any perceived or real overlap between this and other bids by meeting with other agencies including working groups from MOH, MOE, MSD, and Oranga Tamariki. From what we can establish, this initiative is bespoke, and complementary to other initiatives already existing, or being proposed through Track 1. To ensure this doesn't change we plan to have representatives from multiple agencies involved in detailed design and implementation planning. Oranga Tamariki (OT) in particular will be critical to ensure the success of this initiative. OT plan to address Service Transformation in Year 3, so the timing of this case is ideal for learning application and handover.

We are partners with Community Investment in this case and benefit from their considerable market expertise, we also have the exciting opportunity to demonstrate social investment and commissioning in action by using results based contracting. There is only one licensed provider of FFT in New Zealand; concerns around this and the ancillary market are addressed in the implementation section of this case.

The target population has been comprehensively defined, and a supplementary cohort report has been included for your information. The relative returns of the case are clearly outlined in the 'expected returns' section.

Work being led by the Chief Science advisors to address self-control in children may address flow-on effects into the proposed cohort, however does not negate the need to address the problem now. The intensive wraparound support component of the self-control package can be complementary to this bid. Justice officials are involved at practical working group level, and implementation planning will include key agencies and NGO representatives if we are successful in being funded through Budget 17.

VOTE ANALYST OVERVIEW

Please provide a description of how well the initiative aligns with social investment principles (refer to section 1.2 of the guidance for a definition), whether the initiative has significantly changed from the November check-point and an overall view of how well the initiative has reflected feedback from the Social Investment Panel. Does the initiative have all the relevant supporting information?

[Vote Analyst to complete]

1. TYPE OF INTERVENTION

This intervention is a cross agency initiative which recognises the need for agencies to work together to meet the needs of highly vulnerable populations where there is established effectiveness. It is also scaling up limited investment of a highly effective programme, Functional Family Therapy (FFT). The interventions are described in full in the case for change.

2. CASE FOR CHANGE

Many young people in New Zealand enjoy the benefits of growing up in a stable home environment, with two parentsⁱ, and aspirations for a successful future. Teenagers often work part-time after school, and some leave school to begin apprenticeships or full-time work. Attendance at school and employment helps equip young people with some of the skills required to transition to adulthood.

At age 16, teenagers are legally permitted to obtain a drivers' license, leave home, and earn the adult minimum wage, further promoting their independence and autonomy in society. Although many young people choose to continue to live with their parents, this important marker of economic and social independence at 16 provides a wealth of choices for well-adjusted young people.

For young people in the Justice system, the story can be quite different. The following section will demonstrate why young offenders have been chosen as the focus of this initiative and highlight the compelling need to alter the life course for young offenders before they age into the adult criminal justice system. Insights from Integrated Data Infrastructure (IDI) and the actuarial model which supports the Investment Approach to Justice will be shared to highlight the need for investment, showcasing the stark difference between the majority of young people in New Zealand, and young offenders.

- There are 1,833 14-16 year olds in New Zealand who have committed a serious offence in the past 2 years. Most of the offenders are male (79%) and half are aged 16. Most offenders are Māori (65%). In comparison, only 24% of all 14-16 year olds in New Zealand are Māori.
- As part of the Investment Approach to Justice, we have built a model that predicts the future offending patterns of all New Zealanders, including this cohort.
- Over the next 30 years, we predict this cohort to offend 17,700 times – an average of 9.71 offences per person. This average is higher than 99% of the New Zealand population, indicating this is one of the highest-risk cohorts identified so far as part of the Investment Approach.
- 61% of their offences are predicted to occur in the next 5 years, before the cohort turns 21. This suggests a large number of the offenders will only offend while they are adolescents, with a smaller proportion of offenders persisting in their criminal activity through to middle adulthood. This means we can, and should act now to prevent further escalation.

This investment case is designed to complement the existing services with new services that evidence shows are most likely to reduce offending by this cohort. These evidence-based services are currently available to this cohort only rarely. These new services are:

- Functional Family Therapy (FFT)
- Cognitive-Behavioural Therapy (CBT)
- Professional Youth Mentoring (PYM).

Functional Family Therapy (FFT) is a structured, professional programme developed by clinical psychologists. Only accredited providers may deliver the programme. The clinical model for Functional Family Therapy concentrates on

decreasing risk factors and on increasing protective factors that directly help young people to overcome adolescent behaviour problems, conduct disorder, substance abuse and delinquency. Therapists work with families to assess family behaviours that maintain delinquent behaviour, modify dysfunctional family communication, train family members to negotiate effectively, and set clear rules about privileges and responsibilities.

Cognitive-Behavioural Therapy (CBT) is a core form of psychological treatment. CBT has been well researched and shown to reliably reduce reoffending among many groups of offenders. There is substantial potential to increase its provision for young offenders.

Internationally, CBT is one of the most widely used evidence-based practices for treating a range of mental and behavioural disorders, including offending. Guided by empirical research, CBT focuses on the development of personal coping strategies that target solving current problems and changing unhelpful patterns in cognitions, (e.g. thoughts, beliefs, and attitudes) behaviours, self-control, and emotional regulation.

Professional Youth Mentoring (PYM) PYM in the context of this initiative would be a role for a professional adult to support and mentor young offenders to help them achieve their goals and reduce their likelihood of reoffending. The need for professional mentoring stems from the lack of stability in the lives of young offenders, and would only be deployed in an operational context when required. There is consistent international evidence that youth mentoring reduces crime, particularly when professionally delivered.

Members of the cohort will be offered one of these three services, depending on which best meets their needs. For example, 14-year olds in a family environment may benefit most from Functional Family Therapy, whereas a 16-year old in an independent living situation may benefit most from Cognitive-Behavioural Therapy.

Our starting assumption is that 15% of those receiving a service will receive CBT, 42% will receive FFT and 43% will receive Mentoring. We will adjust these proportions over time during implementation as we learn more about what services are most effective for different groups of people within the cohort. By providing the three services we also protect against implementation risk, as if there are implementation problems with one of the services, we can re-route offenders to one of the other services instead.

There are three primary referral points for these services:

- as a condition of a police alternative action plan
- as a condition of a Family Group Conference plan
- as part of a supervision sentence ordered by the Youth Court.

We plan to work closely with frontline delivery agencies, NGOs, schools, and young people themselves in order to have a client-centred design and implementation plan. Representatives from Oranga Tamariki are involved with, and supportive of this initiative.

CASE FOR CHANGE ASSESSMENT

Please provide comments on how well the initiative and supporting information addresses the following:

- Definition of the problem or opportunity.
- Outline of the existing services provided to the identified target population and what need/gap this initiative helps to address. Have other alternative options been considered?
- Description of the target population.
- Explanation of the outcomes expected as a result of the intervention (intervention logic) and robustness of evidence and assumptions underpinning this.

[Vote Analyst to complete]

3. EXPECTED RETURNS

Agencies will need to complete a CBAX assessment for all Track 1 initiatives and fill out the sections below on impact analysis.

Refer to section 1.3.3 for further guidance and explanation on requirements

[Agency to complete]

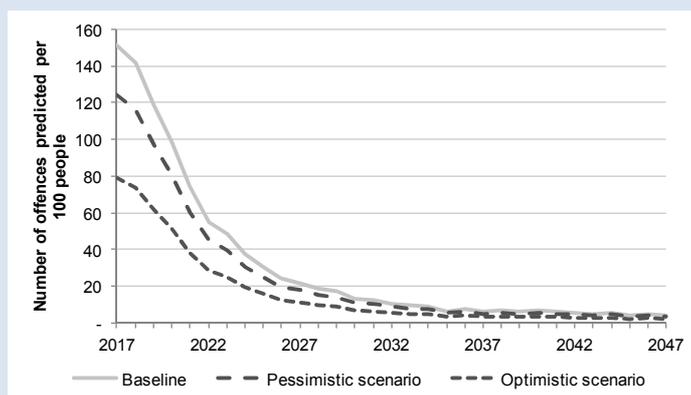
Impact Analysis

An explanation of who is impacted (winners and losers), what the impacts are (costs and benefits), and when the impacts will be realised and for how long. The impacts should be quantified and monetised if possible.

The primary purpose of this investment is to reduce future offending, and therefore reduce the associated costs of crime to government and society. These are the only impacts that are quantified and monetised, but based on these impacts alone the initiative is projected to have a positive ROI.

The impact on crime is calculated using two main inputs. The first is the baseline risk prediction that is generated by the actuarial model. The second is the estimated reduction off this baseline that is suggested by the international evidence behind the three services in this initiative. Most of the benefits are predicted to be produced within five years, as demonstrated in the following graph that presents the profile of offending for the 2017 cohort before and after investment in Family Functional Therapy.

Figure 1: Predicted offending before and after investment in Family Functional Therapy



Because offending leads to a wide range of other problems for offenders, and because the anti-social cognitions targeted for change also cause broader behavioural problems, the initiative could potentially have a wide range of secondary impacts, for example:

- Reduced conduct problems and substance abuse
- Improved school attendance and school achievement
- Greater employment and reduced welfare receipt
- The same benefits for the siblings of the young offenders

These secondary impacts are illustrated in the attached intervention logic. The intervention logic also illustrates that the services lead to a reduction in crime through two main causal mechanisms: changes in peer relationships and changes in antisocial cognitive patterns. These two causal mechanisms relate to a theory of crime known as Social Learning Theory, which has strong empirical support.²

We do not have sufficient evidence to quantify or monetise these secondary impacts, but we will include as many of these impacts as possible in the impact evaluation to better understand the full return generated by the initiative.

The impacts on crime are quantified and monetised in the following table. The ROI is an underestimate because many of the

² Pratt, T., Cullen, F., Sllers, C., Winfree, T., Madensen, T., Daigle, L., Fearn, N. & Gau, J. (2010). The empirical status of social learning theory: a meta-analysis. *Justice Quarterly*, 27(6).

potential savings are un-quantified, including fiscal savings through reduced need for police, the judiciary, legal aid, and reduced costs to the health sector and ACC from crime.

- There is no central ROI; the ROI estimates are provided as a range between two scenarios, one with pessimistic assumptions and one with optimistic assumptions. This range is not a confidence interval, but the true return can be expected to be within this range assuming that the services are implemented well, and assuming that their impact reflects the evidence.

Impact Summary Table

All monetised and non-monetised impacts should be listed.

Fill out the table below to summarise the costs and benefits of the proposal. Delete the illustrative example. The impacts might differ; so consider other impacts than those in the illustration. Summarise the **assumptions and evidence** that inform your assessment of each impact.

Start by including the estimated impact on **key outcomes**. This should be the biggest, most immediate impact. If this impact can be converted into monetary values, include these values in the next part of the table (government/wider society benefits and costs). Also include unquantified impacts on people or the government, and the fiscal cost of the initiative. In the example below, the key impact is on employment outcomes, which creates benefits for the government (reduced welfare spending) and individuals (higher income), as well as unquantified impacts on mental health and education.

Present any **monetary impacts** (including the fiscal cost) in present value (PV) terms using the discount rates above. This converts future cash flows into today's dollar terms and enables comparison between initiatives with different patterns of costs and benefits over time. Treasury's CBA guide explains PV and how to calculate it in more detail. The CBAX spreadsheet tool also has a simple calculator you can use to convert your initiative cost into a PV.

You can include an **additional option** or scenario to show how impacts change with different assumptions or policy settings.

Calculate the **net present value (NPV)** of your initiative using all the monetised benefits and costs set out in the Impact Summary Table below. This NPV calculation won't include unquantified benefits and costs. You can discuss how unquantified impacts affect your assessment. Agencies should use a 50-year time period for their NPV calculation.

Impacts - Identify and list

Option/scenario

Assumptions and evidence

Certainty³

³ Rate your level of confidence in the assumptions and evidence as high (green) if based on significant research and evaluations that is applicable, medium (amber) if based on reasonable evidence and data, or low (red) if there is little relevant evidence. Colour the rating box for each impact.

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Estimated impact on key outcomes				
Reduction in offending for those provided with Functional Family Therapy	18%	48%	The effect size assumptions are based on the three attached evidence briefs. The evidence briefs summarise the entire extant evidence base. For example, the CBT brief summarises the findings of 26 meta-analyses, each of which in turn incorporates the findings of up to 50 separate robust evaluations.	High
Reduction in offending for those provided with Cognitive-Behavioural Therapy	16%	26%	This allows us to clearly observe the distribution in impact that is achieved under more or less successful implementations of the intervention.	High
Reduction in offending for those provided with Mentoring	18%	18%		Medium
<i>Overall reduction in offending assuming 15% of cohort members receiving a service receive CBT, 42% receive FFT and 43% receive mentoring</i>	18%	32%	<p>The approach taken to select appropriate effect size assumptions was to:</p> <ul style="list-style-type: none"> - look at the spread of effect sizes across different meta-analyses - focus wherever possible on meta-analyses with a similar target population (in this case young offenders) - focus wherever possible on meta-analyses with the most relevant outcome measure (crime, reoffending, etc) - avoid outlier effect sizes - select optimistic scenario as at the third quartile or thereabouts - select pessimistic scenario at the first quartile or thereabouts <p>The optimistic and pessimistic scenarios capture uncertainty around the quality of implementation</p> <p>The effect sizes reported in the meta-analyses are converted to a percentage reduction in offending using a two-step process. First, the effect size (a cohen's d, correlation coefficient or odds ratio) is converted into a percentage point reduction using the relevant formula in the Cochrane collaboration handbook : http://handbook.cochrane.org/chapter_12/12_5_4_3_computing_absolute_risk_reduction_or_nnt_from_an_odds.htm</p> <p>The second step is to convert the percentage point reduction into a percentage reduction by dividing the percentage point reduction by control risk.</p> <p>The percentage reduction is then applied to the baseline risk produced by the actuarial model in order to provide an estimate of the number of offences prevented through investment. These offence counts are then monetised using estimates of the fiscal and social costs of each crime type.</p> <p>For FFT and CBT the evidence certainty is rated as 'high' to reflect the evidence rating of 'Strong' under the Justice evidence rating scale; see the evidence briefs for details.</p> <p>For mentoring the evidence certainty is rated as 'medium' to reflect the evidence rating of 'Very Promising' under the Justice evidence rating scale; see the evidence brief for details.</p> <p>Other assumptions are that:</p> <p><i>There is no decay in effectiveness over time</i></p> <ul style="list-style-type: none"> - this reflects the approach of the Washington State Institute 	High

			<p>for Public Policy (WSIPP). WSIPP has analysed decay rates for different outcome measures, and uses a general assumption of no decay for crime. This means that interventions that are successful in reducing crime over a 1-2 year period tend also to be effective at reducing crime over a longer time period.⁴</p> <p><i>There will be an equal effect on all offence types</i></p> <ul style="list-style-type: none"> - this reflects that the investments are general to all types of offence, and that most offenders are generalists (commit multiple types of crime) <p><i>The effect on the number of offences is equal to effect on the offending rate</i></p> <ul style="list-style-type: none"> - this reflects the structure of the actuarial model, with the offence count being a function of the offence rate <p>Assumption: 2017 and later cohort identical to 2015 cohort</p> <ul style="list-style-type: none"> - the baseline prediction applies to the 2015 cohort, as this is the most recent data available on the IDI. We assume that the 2017 and later cohorts who receives the intervention will be equivalent to the 2015 cohort. 	
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Cost of the Initiative				
Operating costs of the initiative over first 20 years	(\$44m)	(\$44m)	Costs are presented for the first 20 years to reflect the 50-year analysis, given that the benefits associated with each year's investment are modelled over a 30 year horizon.	High
Government Benefits/(Costs)				
Proactively detected, less serious offences - avoided fiscal cost to district courts and corrections	\$12m	\$22m	<p>Fiscal savings for each crime type are the lifecycle costs associated with each police proceeding. Detail is provided in a separate excel workbook (Corrections and DC costs per proceeding.xlsx). Savings relate to unit costs in 2015/16 year and are assumed to be constant over time.</p> <p>The fiscal savings modelled are potential savings. Realising the savings would require explicit decisions to reduce capacity, including both facilities and staff.</p> <p>The fiscal savings are a substantial underestimate as data is not currently available to model any potential savings relating to:</p> <ul style="list-style-type: none"> - Police costs - Judicial costs - Collections, legal aid and public defence - ACC and the health system - Welfare 	High
Acquisitive offences, less serious - avoided fiscal cost to district courts and corrections	\$3m	\$5m		High
Non-sexual violent offences, less serious – avoided fiscal cost to district courts and corrections	\$2m	\$4m		High
Acquisitive offences, more serious - avoided fiscal cost to district courts and corrections	\$22m	\$40m		High
Non-sexual violent offences, more serious – avoided fiscal cost to district courts and corrections	\$15m	\$27m		High
Proactively detected, more serious offences – avoided fiscal cost to district courts and corrections	\$3m	\$7m		High

⁴ <http://wsipp.wa.gov/TechnicalDocumentation/WsippBenefitCostTechnicalDocumentation.pdf>

Sexual offences – avoided fiscal cost to district courts and corrections	\$3m	\$6m		High
Total Quantified Government Impact	\$60m	\$111m		High
Wider Societal Benefits/(Costs)				
Proactively detected, less serious offences – avoided social cost	\$46m	\$85m	Societal benefits are based on the 2006 report from Treasury on the costs of crime. These have been indexed to GDP growth but are assumed to be otherwise unchanged.	High
Acquisitive offences, less serious – avoided social cost	\$2m	\$4m	The Treasury costings have been mapped to the Investment Approach methodology using a weighted average method – see the attached workbook for details (Social costs of crime for Investment Approach.xlsx)	High
Non-sexual violent offences, less serious – avoided social cost	\$10m	\$18m		High
Acquisitive offences, more serious – avoided social cost	\$22m	\$41m		High
Non-sexual violent offences, more serious – avoided social cost	\$65m	\$122m		High
Sexual offences – avoided social cost	\$5m	\$10m		High
Total Quantified Wider Societal Impact	\$150m	\$280m		
Net Present Value of Total Quantified Societal Impacts	\$210m	\$391m		High

Summary of monetised results [only fill this out if you have monetised costs and benefits]

Fill this table out with the NPV, benefit cost ratio and return on investment for your initiative. These can all be calculated with the information you included in the summary table above, and is available in the CBAx Output Summary (NB totals can vary due to rounding). We ask you to present all these measures, because they each provide a different perspective.

Use ranges for values where appropriate	Discount Rate	
	6% real (default)	3% real (sensitivity)
Net Present Value (NPV) ⁵	Between \$166m and \$347m	Between \$258m and \$542m
Benefit Cost Ratio (BCR) ⁶	Between 4.8 and 8.9	Between 5.4 and 10.3
Return on Investment (ROI) – Societal Total ⁷	Between 4.8 and 8.9	Between 5.4 and 10.3
Return on Investment (ROI) – Government ⁸	Between and 1.4 and 2.5	Between 1.5 and 2.9

Supporting Evidence

i.e., the bibliography

Cognitive-Behavioural Therapy

Advisory Group on Conduct Problems (2013). *Effective Programmes for Adolescents by the Advisory Group on Conduct Problems*. Wellington: Ministry of Social Development. <https://www.msd.govt.nz/about-msd-and-our-work/publications-resources/research/conduct-problems-best-practice/effective-programmes-for-adolescents.html>

Allen, L., Mackenzie, D. & Hickman, L. (2001). The effectiveness of cognitive-behavioral treatment for adult offenders: A methodological, quality-based review. *International Journal of Offender Therapy and Comparative Criminology*, 45(4).

Andrews, D. & Bonta, J. (2010). *The Psychology of Criminal Conduct (fifth edition)*. Cincinnati, OH: Anderson.

Andrews, D. & Dowden, C. (2006). Risk principle of case classification in correctional treatment: a meta-analytic investigation. *International Journal of Offender Therapy and Comparative Criminology*, 50.

Andrews, D. A. & Dowden, C. (2005). Managing correctional treatment for reduced recidivism: a meta-analytic review of programme integrity. *Legal and Criminological Psychology*, 10, 173–187.

Andrews, D., Zinger, I., Hoge, R., Bonta, J., Gendreau, P., & Cullen, F. (1990). Does correctional treatment work? A clinically relevant and psychologically informed meta-analysis. *Criminology*, 28(3), 369–404

Armeliuss, B & Andresassen, T. (2007). Cognitive-behavioral treatment for antisocial behavior in youth in residential treatment. *Campbell Systematic Reviews* 2007:8

Austin, K., Williams, M. & Kilgour, G. (2011). The effectiveness of motivational interviewing with offenders: an outcome evaluation. *New Zealand Journal of Psychology*, 40(1).

Bakker, L. & Riley, D. (1993). *The re-conviction study 1990/91*. Psychological Service Report, Department of Justice. Wellington, New Zealand.

Bakker, L. & Riley, D. (1996). *Remission or cure? The re-conviction study five years on*. Psychological Service Report, Department of Corrections.

⁵ **Net Present Value (NPV)** - The NPV is the sum of the discounted benefits, less the sum of the discounted costs (relative to the counterfactual). This gives a dollar value representing the marginal impact on the collective living standards of all New Zealanders of the initiative, in today's dollar terms.

⁶ **Benefit Cost Ratio (BCR)** - The BCR is the ratio of total discounted benefits to the total discounted costs. A proposal with a BCR greater than 1.0 has a positive impact, because the benefits exceed the costs. The BCR is the same as the Return on Investment Societal Total, unless there are negative impacts in addition to the fiscal cost of the initiative. All negative impacts are included in the denominator for the BCR measure.

⁷ **Return on Investment (ROI) - Societal Total** - Calculate the ROI by dividing the discounted net change in wider societal impact, including benefits to government, by the discounted cost of the initiative. This can be interpreted as the impact for New Zealanders per dollar the government spends on the initiative, eg, for every \$1 the government spends on this programme, New Zealanders receive benefits of \$3.

⁸ **Return on Investment (ROI) – Government** – Calculate the ROI by dividing the discounted net change in impact for the government by the discounted cost of the initiative. This measures the discounted net marginal (fiscal) benefits to the government.

Wellington: New Zealand.

Barnes, T., Smith, S. & Miller, M. (2014). School-Based Cognitive-Behavioral Interventions in the Treatment of Aggression in the United States: A Meta-Analysis. *Aggression and Violent Behavior* (2014).

Debidin, M. & Dryden, W. (2011). A systematic review of the literature on the use of rational emotive behaviour therapy in criminal justice work to reduce re-offending. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, 29(2).

Dowden, C. & Andrews, D. (1999a). What works in young offender treatment: a meta-analysis. *Forum for Corrections Research*, 11.

Dowden, C. & Andrews, D. (1999b). What works for female offenders: a meta-analytic review. *Crime and Delinquency*, 45.

Dowden, C. & Andrews, D. (2000). Effective correctional treatment and violent reoffending: a meta-analysis. *Canadian Journal of Criminology and Criminal Justice*, 42.

Dowden, C. & Andrews, D. (2004). The importance of staff practice in delivering effective correctional treatment: a meta-analytic review of core correctional practice. *International Journal of Offender Therapy and Comparative Criminology*, 48.

Dowden, C., Antonowicz, D. & Andrews, D. (2003). The effectiveness of relapse prevention with offenders: a meta-analysis. *International Journal of Offender Therapy and Comparative Criminology*, 47.

Ferguson, L. & Wormith, J. (2013). A meta-analysis of moral reconnection therapy. *International Journal of Offender Therapy and Comparative Criminology*, 57(9).

Frazier, S. & Vela, J. (2014). Dialectical behaviour therapy for the treatment of anger and aggressive behaviour: a review. *Aggression and Violent Behavior*, 19(2).

Garrido, V. & Morales, L. (2007). Serious (violent or chronic) juvenile offenders: A systematic review of treatment effectiveness in secure corrections. *Campbell Systematic Reviews* 2007:7

Gendreau, P., Smith, P. & French, S. (2006). The theory of effective correctional intervention: empirical status and future directions. In F. Cullen, J. Wright & K. Blevins (eds.) *Taking Stock: The Status of Criminological Theory*. New Brunswick, NJ: Transaction.

Gobeil, R., Blanchette, K. & Stewart, L. (2016). A meta-analytic review of correctional interventions for women offenders: gender-neutral versus gender-informed approaches. *Criminal Justice and Behavior*, 43(3).

Henwood, K., Chou, S. & Browne, K. (2015). A systematic review and meta-analysis on the effectiveness of CBT informed anger management. *Aggression and Violent Behavior*, 25(B).

Hoffman, S., Asnaani, A., Vonk, I., Sawyer, A. & Fang, A. (2012). The efficacy of cognitive behavioral therapy: a review of meta-analysis. *Cognitive Therapy and Research*, 36(5).

Hoogsteder, L., Stams, G., Figge, M., Changoe, K., van Horn, J., Hendriks, J. & Wissink, I. (2015). A meta-analysis of the effectiveness of individually oriented cognitive behavioural treatment for severe aggressive behaviour in adolescents. *The Journal of Forensic Psychiatry and Psychology*, 26(1).

Illescas, S., Sanchez-Meca, J. & Genoves, V. (2001). Treatment of offenders and recidivism: assessment of the effectiveness of programmes applied in Europe. *Psychology in Spain*, 5(1).

Izzo, R & Ross, R. Meta-analysis of rehabilitation programs for juvenile delinquents: a brief report. (1990). *Criminal Justice and Behavior*, 17.

Kim, B., Merlo, A. & Benekos, P. (2013). Effective correctional intervention programmes for juveniles: review and synthesis of meta-analytic evidence. *International Journal of Police Science and Management*, 15(3).

Koehler, J., Losel, F., Akoensi, T. & Humphreys, D. (2013). A systematic review and meta-analysis on the effects of young offender treatment programs in Europe. *Journal of Experimental Criminology*, 9(1).

Landenberger, N., & Lipsey, M. (2005). The positive effects of cognitive-behavioural programs for offenders: a meta-analysis of factors associated with effective treatment. *Journal of Experimental Criminology*, 1(4), 451–476

Lee, S., Aos, S., Drake, E., Pennucci, A., Miller, M. & Anderson, L. (2012). *Return on Investment: Evidence-based options to improve statewide outcomes, April 2012*. Document no. 12-04-1201. Olympia, Washington: Washington State Institute of Public Policy.

Lipsey, M., Landenberger, N., & Wilson, S. (2007). Effects of cognitive-behavioral programs for criminal offenders. *Campbell Systematic Reviews* 2007:6

Lipsey, M. & Cullen, F. (2007). The Effectiveness of Correctional Rehabilitation: A Review of Systematic Reviews. *Annual Review of Law and Social Science*, 3.

Lipsey, M. (2009). The primary factors that characterise effective interventions with juvenile offenders: a meta-analytic overview. *Victims and Offenders*, 4(2).

Little, G. (2005). Meta-analysis of moral reconnection therapy recidivism results from probation and parole implementations. *Cognitive Behavioral Treatment Review*, 14(1/2).

MacKenzie, D. (2006). *What works in corrections? Reducing the criminal activities of offenders and delinquents*. Cambridge University Press.

McCart, M., Priester, P., Davies, W. & Azen, R. (2006). Differential effectiveness of behavioural parent-training and cognitive-behavioral therapy for antisocial youth: a meta-analysis. *Journal of Abnormal Child Psychology*, 34.

McMurrin, M. (2011). Motivational interviewing with offenders: a systematic review. *Legal and Criminological Psychology*, 14(1).

Miceli, V. (2009). *Analyzing the Effectiveness of Rehabilitation Programs*. University of Rhode Island.

Parhar, K., Wormith, J., Derkzen, D. & Beauregard, A. (2008). Offender coercion in treatment: A meta-analysis of effectiveness. *Criminal Justice and Behavior*, 35(9).

Pearson, F., Lipton, D., Cleland, C. & Yee, D. (2002). The effects of behavioural/cognitive-behavioural programs on recidivism. *Crime and Delinquency*, 48(3).

Polaschek, D. (2011). High-intensity rehabilitation for violent offenders in New Zealand: reconviction outcomes for high- and medium-risk prisoners. *Journal of Interpersonal Violence*, 26(4).

Polaschek, D., Wilson, N., Townsend, M. & Daly, L. (2005). Cognitive-behavioural rehabilitation for high-risk violent offenders: an outcome evaluation of the violence prevention unit. *Journal of Interpersonal Violence*, 20.

Pratt, T., Cullen, F., Sillers, C., Winfree, T., Madensen, T., Daigle, L., Fearn, N. & Gau, J. (2010). The empirical status of social learning theory: a meta-analysis. *Justice Quarterly*, 27(6).

Tong, L. & Farrington, D. (2008). Effectiveness of 'Reasoning and Rehabilitation' in reducing reoffending. *Psicothema*, 20(1).

Usher, A. & Stewart, L. (2014). Effectiveness of correctional programs with ethnically diverse offenders: a meta-analytic study. *International Journal of Offender Therapy and Comparative Criminology*, 58(2)

Wilson, D., Bouffard, L., & MacKenzie, D. (2005). A quantitative review of structured, group-oriented, cognitive-behavioral programs for offenders. *Criminal Justice and Behavior*, 32(2), 172–204

Functional Family Therapy

Advisory Group on Conduct Problems. (2009). *Conduct Problems: Best Practice Report*. Wellington: Ministry of Social Development.

Advisory Group on Conduct Problems (2013). *Conduct Problems: Adolescent Report*. Wellington: Ministry of Social Development.

Baldwin, S., Christian, S., Berkeljon, A., Shadish, W. & Bean, R. (2012). The Effects Of Family Therapies For Adolescent Delinquency And Substance Abuse: A Meta-analysis. *Journal of Marital & Family Therapy*, 38(1), 281-305.

Curtis, N., Ronan, K., Heiblum, N. & Crellin, K. (2009). Dissemination and Effectiveness of Multisystemic Treatment in New Zealand: A Benchmarking Study. *Journal of Family Psychology*, 23(2), 119-129.

Evans-Chase, M. & Zhou, H. (2014). A Systematic Review of the Juvenile Justice Intervention Literature: What It Can (And Cannot) Tell Us About What Works With Delinquent Youth. *Crime & Delinquency*, 60(3), 451-470.

Farrington, D. & Welsh, B. (2003). Family-based prevention of offending: a meta-analysis. *The Australian and New Zealand Journal of Criminology*, 36(2).

Filges, T., Andersen, D. & Jorgensen, A-M. (2015). Functional Family Therapy (FFT) for Young People in Treatment for Non-opioid Drug Use: A Systematic Review. *Campbell Systematic Reviews*, 2015 (14).

Grace, R., McLean, A. & Warren, J. (2008). *Reducing Youth Offending Programme: Phase 2 Pilot Evaluation Report*. Wellington: Ministry of Social Development.

Heywood, C. (2014). *Youth Horizons' Functional Family Therapy Pilot Study*. Auckland: Youth Horizons Trust.

Latimer, J. (2001). A meta-analytic examination of youth delinquency, family treatment, and recidivism. *Canadian Journal of Criminology*, 237-253.

Lee, S., Aos, S., Drake, E., Pennucci, A., Miller, M. & Anderson, L. (2012). *Return on Investment: Evidence-based options to improve statewide outcomes, April 2012*. Olympia: Washington State Institute of Public Policy.

Lipsey, M. (2009). The primary factors that characterize effective interventions with juvenile offenders: A meta-analytic overview. *Victims and Offenders*, 4.

McLaren, K. (2002). *Building Strength: A review of research on how to achieve good outcomes for young people*. Wellington: Ministry of Youth Development.

Suter, J. & Bruns, E. (2009). Effectiveness of the wraparound process for children with emotional and behavioural disorders: a meta-analysis. *Clinical Child Family Psychology Review*, 12.

Van der Stouwe, T., Asscher, J., Stams, G., Deković, M. & van der Laan, P. (2014). The effectiveness of Multisystemic Therapy (MST): A meta-analysis. *Clinical Psychology Review*, 34, 468-481.

Vermeulen-Smit, E., Verdurmen, J. & Engels, R. (2015). The Effectiveness of Family Interventions in Preventing Adolescent Illicit Drug Use: A Systematic Review and Meta-analysis of Randomized Controlled Trials. *Clinical Child and Family Psychology Review*, 18, 218-239.

Welsh, B. & Farrington, D. (2006). Effectiveness of family-based programs to prevent delinquency and later offending. *Psicothema*, 18(3).

Woolfenden, S., Williams, K. & Peat, J. (2009). Family and parenting interventions in children and adolescents with conduct disorder and delinquency aged 10-17. *The Cochrane Library*, 2009 (1).

Professional Youth Mentoring

Crime Lab, BAM - Sports Edition, University of Chicago Crime Lab Research and Policy Brief, July 2012

Du Bois et al (2002) Effectiveness of mentoring programmes for youth: a meta-analytic review *American Journal of Community Psychology*, Vol. 30, No. 2, April 2002 pp. 157 – 197;

DuBois, D.L., Portillo, N., Rhodes, J.E., Silverthorn, N., & Valentine, J.C. (2011) *How Effective are Mentoring Programs for Youth? A systematic assessment of the evidence*, *Psychological Science in the Public Interest* 12(2) 57–91.

Farrugia, S., Bullen, P., Dunphy, A., Solomon, F., Collins, E. (2010) *The Effectiveness of Youth Mentoring Programmes in New Zealand*. Auckland: Youth Mentoring Network.

Jolliffe, D., & Farrington, D. P. (2007) *A Rapid Evidence Assessment of the Impact of Mentoring on Re-offending: A Summary*. Cambridge University: The Home Office.

Lipsey M W. (2009) *The Primary Factors that Characterise Effective Interventions with Juvenile Offenders: A Meta-Analytic Overview*. Peabody Research Institute, Vanderbilt University: Nashville, Tennessee.

Sullivan, C. J., & Jolliffe, D. Peer Influence, Mentoring, and the Prevention of Crime in Welsh, B. C., & Farrington, D. P. (Eds.) (2012) *The Oxford Handbook of Crime Prevention*. New York: Oxford University Press.

Thomas RE, Lorenzetti, D., Spragins W., (2011) *Mentoring adolescents to prevent drug and alcohol use (Review)* The Cochrane Collaboration, John Wiley and Sons.

Tolan P., Henry D., Schoeny M., Bass A., Lovegrove P., & Nichols E. (2013) *Mentoring Interventions to Affect Juvenile Delinquency and Associated Problems: A Systematic Review*. *Campbell Systematic Reviews* 2013:10. DOI: 10.4073/csr.2013.10.

Wood S., & Mayo-Wilson E. (2012) *School-Based Mentoring for Adolescents: A Systematic Review and Meta-Analysis*. *Research on Social Work Practice* 22(3) 257 – 269.

4. CONFIDENCE IN EVIDENCE

Each initiative in this bid was chosen after completing a robust evidence review process culminating in an Evidence Brief. Each Evidence Brief is overseen and approved by a research committee chaired by the Justice Sector Science advisor, Associate Professor Ian Lambie. This ensures that the briefs fairly reflect the evidence.

Each Evidence Brief is designed to advise decision makers on how confident they can be that investment will reduce crime, based on the strength of the evidence. Each Evidence Brief provides an evidence rating based on the same objective criteria. The final rating is built around two separate assessments, one reflecting international evidence, and another – New Zealand evidence.

This approach reflects that effective programmes in one country often, but not always, work in other countries. Therefore, even if international research shows that an investment type can reduce offending, it may not be a strong investment option unless we are able to replicate the results in New Zealand's crime environment.

Both international and New Zealand evidence is assessed using the Maryland Scale of Scientific Methods, a 5-point scale with randomised controlled trials at the top (level 5) of the scale. At lower levels, there is an increasing risk that findings are subject to selection bias and a wide range of other challenges to validity. The academics who developed the scale consider Level 3 the minimum in order to conclude the intervention reduces crime¹.

The final rating is measured in a six-grade scale varying from “poor” evidence to “very strong” evidence, as shown in the following table.

Of the three initiatives in this bid, CBT and Functional Family Therapy both merit a grade of ‘Strong’ evidence, and Youth

Mentoring merits a grade of 'Very Promising' evidence.

		New Zealand studies				
		At least one level 4 or 5 study finds a statistically significant negative impact, no conflicting L4+ studies	Studies show conflicting results, or no impact, or no level 3+ study exists	At least one level 3 study finds a statistically significant positive impact, no conflicting L3+ studies	At least one level 4 study finds a statistically significant positive impact, no conflicting L4+ studies	At least one level 5 study find a statistically significant positive impact, no conflicting L5 studies
International studies	Meta-analysis/systematic review of 5+ studies finds a statistically significant positive impact, no conflicts	Fair (promising)	Very promising	Strong	Strong	Very strong
	MA/SR with fewer than 5 studies finds positive impact, or no MA/SR exists and level 4 or 5 studies find a positive impact	Speculative	Fair (promising)	Fair (promising)	Very promising	Strong
	MA/SR find conflicting results	Speculative	Speculative	Fair (promising)	Very promising	Strong
	MA/SR shows no impact, or no MA/SR exists	Poor	Speculative	Fair (promising)	Very promising	Strong
	MA/SR shows negative impact, no conflicting results	Poor	Poor	Speculative	Fair (promising)	Strong

There is also a standard interpretation for each evidence rating, as summarised in the following table.

Investment category	Interpretation
Very strong	<ul style="list-style-type: none"> • Very robust international and local evidence that investment tends to reduce crime. • Investment likely to generate a return if implemented well. • Simple monitoring approach should confirm the investment is providing a positive return. • Little additional evaluation required.
Strong	<ul style="list-style-type: none"> • Robust international and local evidence that investment tends to reduce crime. • Investment likely to generate a return if implemented well. • Could benefit from additional evaluation to confirm investment is delivering a positive return and to support fine-tuning of the investment design.
Very promising	<ul style="list-style-type: none"> • Robust international or local evidence that investment tends to reduce crime. • Investment may well generate a return if implemented well. • Further evaluation desirable to confirm investment is delivering a positive return and to support fine-tuning of the investment design.
Fair/promising	<ul style="list-style-type: none"> • Some evidence that investment can reduce crime. • Uncertain whether investment will generate return even if implemented well. • May be unproven in New Zealand or be subject to conflicting research. • May benefit from trial approaches with a research and development focus. • Robust evaluation needed to confirm investment is delivering a positive return and to aid in detailed service design.
Speculative	<ul style="list-style-type: none"> • Little or conflicting evidence that investment can reduce crime. • Highly uncertain whether investment will generate return even if implemented well. • Primarily suited to trial approaches with a strong research and development focus. • Full rollout should be subject to high-quality evaluation to ensure investment is delivering a positive return, and to deliver insights into detailed service design questions.
Poor	<ul style="list-style-type: none"> • Robust evidence that investment does not reduce crime or that it increases crime. • Should be priority for divestment.

¹ Sherman, L., Farrington, D., Welsh, B., & Mackenzie, D. (Eds). (2002). *Evidence-Based Crime Prevention*. New York: Routledge

VALUE-FOR-MONEY ASSESSMENT

Please provide a comment on how well the initiative and supporting information addresses the following:

- What is the RoI and NPV score and are the assumptions and judgements around expected outcomes reasonable/clearly explained in the impact summary tables
- The Societal RoI is a combination of monetised impacts, un-monetised impacts and the assumptions underlying the impacts. Initiatives will need to demonstrate a societal ROI of at least 2.
- The Government RoI calculates how much one dollar of government spending reduces fiscal cost i.e. the fiscal return on investment. . Initiatives will need to demonstrate a Government ROI of at least 1.

[Vote Analyst to complete]

5. IMPLEMENTATION AND SCALABILITY

This section should detail what changes are required to implement the initiative and the critical success factors to ensure successful implementation in the New Zealand context. It should also consider how decisions around scaling up (or down) will be made and what the key decision points are. **Please attach an implementation/procurement plan as supporting information to this template if available.**

Community Investment and Justice would like to trial Results Based Contracts (RBC) in order to achieve the best outcomes for clients, providers, and the Government by ensuring we can follow the principles of Social Investment, and quickly apply learning loops in an adaptive environment.

- An RBC is a contract:
 - that specifies desired results or outcomes for the client,
 - where there is a risk of the provider losing that contract if the desired level of results are not achieved,
 - and payment may or may not be attached to milestones of achievement of those results.

There is currently only one licensed provider of FFT in New Zealand, however we have had extensive discussions with MOH and the provider regarding this matter. The provider has National coverage and a comprehensive staff training and retention plan. They can easily meet the demand for this initiative, and have impressive governance and accountability framework with international oversight and a local board who oversee day-to day-performance and professional standards.

For CBT we intend to follow a standard procurement plan as per the following steps.

When the preferred option moves to the approval stage, The Ministry of Justice and Community Investment will use a standard procurement strategy where an external contractor is required to provide a service. The procurement strategy is guided by the following principles:

- value for money (taking a long-term view)
- open and effective competition
- full and fair opportunity for domestic suppliers
- improving business capabilities; and
- recognition of New Zealand's international trade obligations and interests.

The programme team will work with teams within Finance and Contracts who have the expertise to assist in the procurement process if services are needed to be purchased for which the Ministry of Justice or Ministry of Social Development do not have a supply agreement.

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IMPLEMENTATION AND EFFECTIVENESS ASSESSMENT

Please provide a comment on how well the initiative and supporting information addresses the following:

- Fit-for-purpose impact evaluation plan with consideration of how the initiative will be evaluated as it is implemented rather than just ex-post.
- Capability and capacity of the agency to deliver the initiative (implementation, project management and procurement). This should also take into consideration the agency's Four Year Plan and previous track record.
- Does the implementation and evaluation plan allow enough flexibility for scalability?

[Vote Analyst to complete]

ⁱ http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/projections-overview/nat-family-hhold-proj.aspx