Reference: 20150523

4 February 2016

Thank you for your Official Information Act request, received on 17 December 2015. You requested the following:

> "1. A paper written by Ruth Isaac (Treasury)on Budget 2015 social sector investment in vulnerable populations: Update on the social investment for at risk families including:-
> a) Summary of analysis
> b) Current amount spent on vulnerable population group
> c) Evidence on effectiveness and recommendations/ next steps.
> This paper was referred to in the Social Sector Priorities Ministers meeting Minutes, actions and forward agenda, Monday 16 March 2015. Minutes item 5."

Information Being Released

Please find enclosed the following documents:

Item	Date	Document Description	Decision
1.	March 2015	Social Investment for at risk families	Release in full

I have decided to release the above document in full.

Information Publicly Available

The following information is also covered by your request and is publicly available on the Treasury website:

Item	Date	Document Description	Website Address
1.	13 March 2015	Treasury Report T2015/464: Social Sector Budget Package: Treasury Advice, dated 13 March 2015. Page 15 is the A3 attachment to the requested report.	http://www.treasury.govt.nz/publications/informationreleases/budget/2015/key

Some relevant information has been removed from the above document and should continue to be withheld under the Official Information Act, on the grounds described in the documents.

Although not part of your OIA request, there is other publicly available information that may be of interest to you. This information is noted in the table below:

Item	Date	Document Description	Website Address
1.	September 2015	Using Integrated Administrative Data to Understand Children at Risk of Poor Outcomes as Young Adults	http://www.treasury.govt.nz/publications/research-policy/ap/2015/15-01/
2.	October 2015	CBAx: a cost benefit analysis tool	http://www.treasury.govt.nz/publications/guidance/planning/costbenefitanalysis/cbax
3.	December 2015	Using Integrated Administrative Data to Identify Youth Who Are at Risk of Poor Outcomes as Adults	http://www.treasury.govt.nz/publications/research-policy/ap/2015/15-02/

Please note that this letter (with your personal details removed) and enclosed documents may be published on the Treasury website.

This fully covers the information you requested. You have the right to ask the Ombudsman to investigate and review my decision.

Yours sincerely

Zoe Wyatt
Team Leader, Fiscal & State Sector Management

SSPM Meeting Monday 16 March: Agenda item 3
Social Investment for At-risk Children and Families

A. Summary of the data analysis

1. In 2014 Cabinet agreed to focus on at-risk children and their families as part of Budget 2015. To inform this officials have done further work with administrative data to understand the population that ends up in prison, on a benefit, and with poor educational attainment.

2. This analysis can help to identify **which population groups drive longer term costs** and thus for which groups there is the potential for interventions that improve outcomes and reduce costs over the longer term (if we can identify cost-effective interventions). The data doesn't on its own indicate when, where or how best to intervene to make things better – it may, however, help to identify points in children's lives and in their family circumstances where there is potential to make a difference.

3. The data used is an extended version of the data used to identify children for the work on vulnerable children. It includes various administrative datasets from CYF, Corrections and MSD between 1990 and 2012. Broadly we have two analyses:
   - Analysis of the cohort of children born in 1990/91, including their interactions with key government services, outcomes and costs up to age 21 and estimated costs up to age 36;
   - A national and local analysis of all children aged 0 to 17 years in June 2012, including interactions with key services since birth.

4. The data we have used does not include information on all of the factors which research evidence indicates are associated with these poor outcomes. The modelling identifies groups of children based on their service use that are strongly associated with poor outcomes as young adults. They are not casual factors. The causal mechanisms are likely to include characteristics such as cognitive ability, conduct disorder, mental health, drug and alcohol abuse and parents educational attainment which are not identified in the data.

The analysis shows that.....

- The **number of children** in the current population aged 0-17 years at highest risk of poor outcomes is estimated to be around **28,000 children or 2.5%** of all children. These are the children who at some point in their childhood had the following three factors present:
    - one parent convicted of a crime requiring a custodial or community sentence;
    - spent at least 75% of their life with welfare as their main income; and
    - had substantive contact with CYFs.

- The number of children with two of the three factors present is much larger – around **8.9% of children or 97,000** children in the current 0-17 population.

- Characteristics associated with poor outcomes vary to some extent by age. For example for children under 2 years old, parents' benefit history and siblings' CYF history are important factors, while for those aged 16 school achievement, stand-downs and suspensions and interactions with MSD's youth justice services are the important additional factors (i.e. in addition to duration supported by benefits, contact with CYF and parents contact with Corrections).

- Other factors, such as being Maori, are also associated with poor outcomes and high costs, *when combined with the characteristics above*.

- These children are spread around the country (we have analysed by TLA). Some areas have higher *proportions* of such children, but the numbers are largest in the main cities.

Chart 1: Analysis of estimated costs birth to 35 years by number of factors at age 5 (1990 cohort)
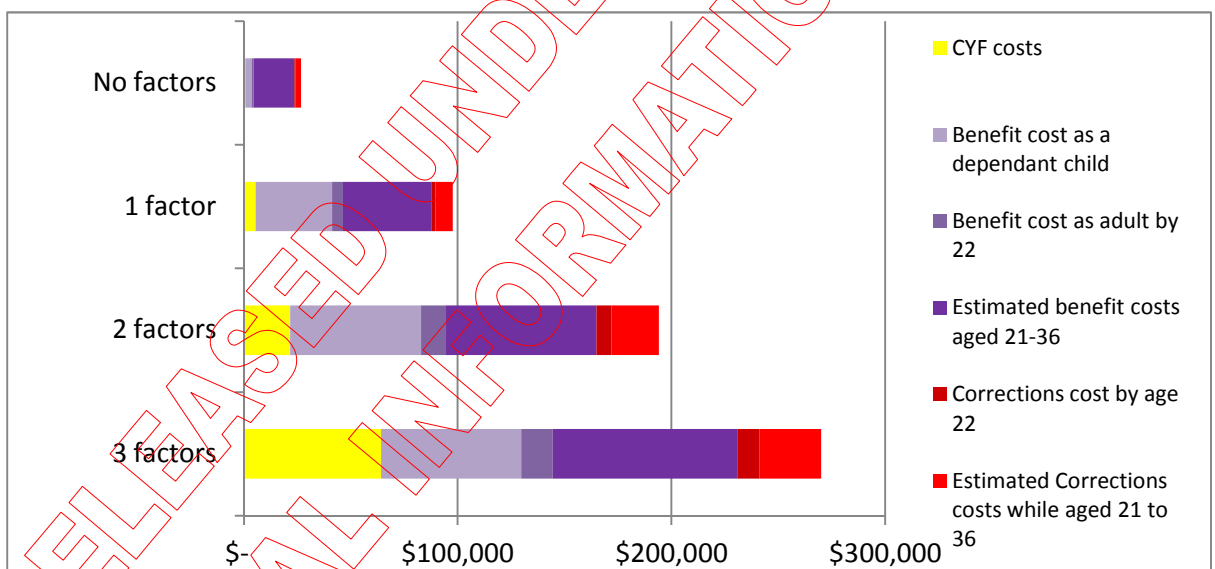
- **The long-term outcomes for children included in a caregiver's main benefit at birth are considerably worse than for other children**. On average, children who were included in a benefit at birth spent a large proportion of their childhood in a benefit dependent family, had high rates of substantiated findings of abuse and neglect, educational failure, contact with the benefit system as an adult, and elevated levels of contact with Corrections. One implication is that inclusion of a new born child in a caregiver's benefit is potentially a point at which a range of more intensive services might be delivered (such as evidence-based parenting programmes).

- The group of **children with the highest observed average costs from birth to age 36 are those in CYF care and placement** (although they may still be better off than without CYF intervention).[1] The Children's Action Plan, Children's Teams and the CYF modernisation programme may provide appropriate and sufficient responses. One implication is that there is likely to be a good investment case for this group if cost-effective interventions are identified.

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[1] Note that this analysis does not include health costs. It is likely that other groups with very high health needs have higher average costs.

- The **rough 'fiscal liability'** of one annual cohort of children is estimated at $3.6 billion – this is the total predicted costs to the welfare, corrections and CYF systems of a one year cohort of children from birth to age 35. It does not include health and education system costs, or the costs associated with additional targeted programmes that may reach these children and their families. Agencies have begun work to estimate the wider total spend (see section B). We also expect to be able to include wider costs once we start using the wider datasets through the IDI (from April this year).

- You have choices about which return on investment to target:

    - Potentially the **greatest return per child** would come from investing in children with all three markers present in their childhood before school *if* we can find cost-effective interventions that can be efficiently targeted at these children. Given how hard it is to bring about change for the hardest end, improving outcomes for less challenging groups may have a greater return.

    - The **greatest overall return** would come from investing in larger numbers of children with fewer markers if the costs of doing so do not outweigh the benefits.

Related findings...

- Recent analysis included in the latest valuation of the benefit system on family benefit receipt history shows that being from a long-term beneficiary family as a teenager significantly increases average lifetime benefit costs as an adult.

- Feasibility testing for the Vulnerable Children's predictive model showed that duration on benefit prior to a child's birth is a strong predictor of abuse and neglect by age 2.

- Modelling by the Ministry of Education has identified that the group of children with the following characteristics have the highest risk of not achieving NCEA level 2: having a CYF finding of abuse, a parent on a benefit, both parents having NCEA level 1 or lower educational attainment, and being of Maori ethnicity.

- Justice sector analysis shows that age at first offence and offending history are key predictors of likely future offending – eg, 90% of 16 year olds with a previous youth court appearance will have a conviction within 5 years.

The analysis does not show...

- **Causal relationships**, or an exhaustive list of all the factors that matter for outcomes.

- **That only children in these groups or at particular ages should be the focus of policy.** For example:
    - If you are concerned about increasing educational attainment, you might target a wider set of children who are at risk of educational failure but have a

lower risk of benefit receipt and corrections contact (and lower overall long-run costs to the government).

- Effective interventions are still likely to span the range of early intervention/prevention activities (eg acting on causes such as reducing unplanned pregnancies or increasing educational attainment of parents) and 'treatment' (eg educational interventions for older children at risk).

- The realistic scope for improvement and to what extent it is possible to **reduce the fiscal liability** – this depends on the **cost-effectiveness** of intervening to improve outcomes, how well current services are targeted and how effective they are at improving outcomes for this group, as well as whether new approaches can do better. (The data will support better cost-benefit analysis on these points, including estimating the costs associated with the status quo over time, which will form the backbone 'counterfactual' for assessing and measuring the marginal value of interventions).

Recommended next steps

5. Ministers can **use the groups identified as highest risk as a way to help prioritise any discretionary spending in Budget 15**. We could use this analysis:
   a. To inform the targeting of initiatives where possible, such as the Year 9 Plus initiative, Whanau Ora, Social Sector Trial extensions; and
   b. To assess the relative priority of initiatives in the budget package, such as expansion of Children's Teams or Tamaki regeneration; for example, by asking whether initiatives are likely to have a low, medium, or high impact on the highest risk children over time. A rough assessment could be prepared by officials by 30 March to support finalisation of the margins of the B15 package.

6. Officials are also keen to extend and refine this analysis in a number of ways to support further work ahead of Budget 2016 (see next section). In particular, officials will **use the analysis as an input to the development of the investment framework for Budget 2016** and the 'social sector pipeline' to support future social investment decisions.

7. Officials also think there is value in **keeping a focus on the shared groups most at-risk identified above**. *Our work here is not done – this is a starting point if you want to work out what to stop, start or keep doing.* As noted above, further work is needed to understand the effectiveness of current spending and interventions on these groups and where we could do things better. This could mean focusing on particular age groups (such as youth) within those at-risk, if you consider there is good scope for a review of the effectiveness of spending. Agreeing early (ie, in April) which groups and outcomes will be a priority for reviewing ahead of Budget 2016 would facilitate this work being completed in time.

B. Further analysis of existing investment in at-risk children and families

Using current data, a high level estimate can be provided…

The information underpinning the Treasury/iMSD analysis is partial on the costs front. Agencies have estimated the total investment available for a wider group of at-risk children and families to go alongside this analysis. This takes a broad view of the definition of at-risk children and families, and includes both contracted programmes and some core services. Universal services (such as funding for primary schools) have only been included where there are identified components targeted to at-risk populations.

Snapshot of Expenditure on Vulnerable Population	
Risk/Need Level	**$ M**
Acute Need	97
High Risk/Need	256
Medium Risk/Need	3,405
Universal	1,723
TOTAL	**5,481**

... but this does not tell us about social sector investment in individuals or cohorts

This level of analysis does not allow us to interrogate the data at a more granular level to determine the amount of social sector funding received by individuals or to estimate the funding that an individual with particular characteristics may be eligible for.

The Board has established a Taskforce to resolve these information gaps

To prepare for Budget 2016, the Social Sector Board has established a Taskforce on Social Sector Investment that will be responsible for further analysis and advice on three workstreams to facilitate:

1. For the priority population group that has been identified in Budget 2015, extending the analysis of costs done to date to estimate current expenditure and total expenditure from birth to 35 years – covering aspects of core services as well as targeted services and programmes, and report on what is known about the effectiveness of the services, programmes and approaches taken with that group. Completion date: 30 June.
2. To show current social sector expenditure across the New Zealand population by broad age cohorts (pre- birth to pre-school, school age children, youth, working age and senior), and establish a work programme to add in additional information about numbers receiving services, and flows of people through the system. Completion date: 30 April.
3. To work with Treasury on the development of the investment framework.

C. SSB advice on what more could or should be done for this population group

While there is significant funding potentially available, we continue to see evidence that the outcomes for these disadvantaged groups across the social sector are either not improving or, in some areas, are worsening.

Overall, the social sector has a considerable body of evidence about our core services, but our knowledge on the effectiveness of some of our interventions is patchy. For some we have very good evidence for establishing them, but evaluations may not have been done, and for some we don't yet have evaluations. In these cases, lack of proof does not mean that the approach is not working. Some of our approaches, such as Children's Teams and Whänau Ora, are already helping us to reconfigure delivery on the ground.

It is in this context that we recommend:
- more strongly evaluating existing programmes or approaches, and stopping them where the evidence does not demonstrate effectiveness
- only expanding existing programmes if there is evidence that it is working, and working for the groups we are most worried about
- establishing new programmes only where any new activity is based on evidence about what works and/or has in place quality data collection and evaluation to develop new evidence about what works
- actively fostering a culture of evidence- and analytics-driven innovation across our sector, supported by active learning disciplines such as rapid cycle change or random controlled trial methodologies. These approaches to innovation can be targeted to how we change the way we work together to put vulnerable or at-risk clients at the centre, and demonstrate what delivers better results for these clients.

These recommendations support a continued focus in Budget 16 on continuing to develop a social investment framework that enables a more rigorous discussion of value for money, while also considering wider social benefits from investment in priority populations. We envisage that this would include using and developing tools for a common return on investment analysis (including Treasury's draft CBAX model) to support ex ante assessment of possible interventions. The social investment framework would also reinforce the value of ensuring that contracting, monitoring and evaluation delivers robust data that measures the impact of interventions, and supports future decisions about exit strategies or expansion.

D. Update on the cost-benefit analysis undertaken for three Budget initiatives

[refer to attached A3]