

The economic case for early intervention in the child protection and out-of-home care system in Victoria

Research Paper

November 2019

Funded by the Macquarie Group Foundation



Foreword

The child and family services system needs to provide hope for children and families. It should be a place where families and children experiencing multiple issues can get support that builds their strengths and allows them to thrive. This requires a system with strong complementary components – a robust family services platform, a range of evidence-informed early interventions, and a strong, safe protection system – that sit side by side, are adequately funded, and are responsive to the different needs of the families and children they support.

Unfortunately, in Victoria, the experience of child protection for too many children and families is one of trauma, despair, and family separation. For many, entry to out-of-home care is the start of a pathway to poor health and well-being, social and economic isolation, and disconnection from community.

The numbers of children being removed from their families in Victoria are the highest in Australia. Overall, the number of children in out-of-home-care is growing at around 11 per cent each year. Without a change in our approach, Victoria is on track to have almost 26,000 children in out-of-home-care by 2026. This is more than any other state or territory. The situation is even more dire for Aboriginal families and children, with 24 per cent growth in the number of Aboriginal children in care each year.

It is not inevitable that we end up with almost 26,000 children removed from their families. There is a choice, but to avoid this tragic situation we need to act now.

We acknowledge that we are part of a system that delivers poor outcomes to many families and children experiencing vulnerability. However, together as leaders in the sector, we are strong in our call for change.

We have seen interstate and overseas jurisdictions facing similar challenges – growing numbers of children in care, escalating costs in a tight fiscal environment, and the human cost of staggeringly poor outcomes – emphatically change focus toward early intervention. A body of evidence-based programs and practices that are producing impressive results for many children and families has emerged, and a system culture of continued innovation and commitment to building evidence of what works has been created.

Successive Victorian governments have articulated the need to shift focus toward earlier intervention to address the growing numbers of children in out-of-home care. The latest and strongest signal to date has been the *Roadmap to Reform: strong families, safe children*. While this is a welcome statement of policy intent, decisive action and investment in early intervention within the child and family services system has to date fallen short.

The child and family services sector is vibrant and committed to reorienting the system toward early intervention. Already numerous child and family services agencies across Victoria have invested their own time and funding to adopt evidence-based practices. They continue to innovate, building an

evidence base of what works for families and children experiencing vulnerability in Victoria and Australia.

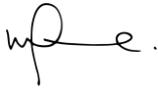
Some organisations, such as the Victorian Aboriginal Child Care Agency, have started to build new programs that are strongly rooted in cultural therapeutic ways, which is in line with Aboriginal Community Controlled Organisations' strong desire to build an evidence base for the application of cultural healing approaches. Together, we are deeply committed to self-determination for Aboriginal and Torres Strait Islander peoples and recognise that decisions on what early intervention looks like for Aboriginal children and families should be owned and directed by Aboriginal organisations and communities.

This report makes it clear that the case for upfront additional investment to reorient the system is compelling, and the only real option available to deliver better outcomes for children and families experiencing vulnerability. This upfront investment must be in addition to the funding needed to deliver, and address immediate demand on, the existing child and family services system.

By investing in targeted early intervention now, over a 10-year period Victoria can save \$1.6 billion in the child protection and out-of-home care system alone and prevent 1,200 children a year from entering out-of-home care. This equates to a \$2 saving for each \$1 invested. The cost of action now is minimal when compared to the enormous social and economic benefits. This additional investment is needed to complement efforts and investment to strengthen the family services platform and stabilise the child protection and out-of-home-care system.

We know that significantly reorienting the children and families service system toward early intervention needs a sustained and collaborative effort. We need decisive action and an ongoing commitment to investment now to seed change, start to improve outcomes for children and young people, and deliver long-term, economically sustainable results.

Signed by:



Michael Perusco
Chief Executive Officer
Berry Street



Deb Tsorbaris
Chief Executive Officer
Centre for Excellence in Child and Family Welfare



Muriel Bamblett
Chief Executive Officer
Victorian Aboriginal Child Care Agency



Lisa Griffiths
Chief Executive Officer
OzChild



Paul McDonald
Chief Executive Officer
Anglicare Victoria



Robyn Miller
Chief Executive Officer
Mackillop Family Services



Teresa Jayet
Chief Executive Officer
Mallee Family Care



Sue White
Chief Executive Officer
Queen Elizabeth Centre



Bronwyn Pike
Chief Executive Officer
Uniting Victoria & Tasmania



Andrew Bruun
Chief Executive Officer
YSAS — Youth Support and Advocacy Service



The authors of this report would like to acknowledge and pay respect to the past, present, and emerging traditional custodians and Elders of this country on which we work. We also acknowledge the injustices and trauma suffered as a result of European settlement, the stolen generations, and other policies such as the forced removed of children from their families, communities, culture, and land. We respect the resilience of the Aboriginal and Torres Strait Islander community in face of this trauma and respect their right to and aspiration for self-determination and empowerment.

Contents

Foreword	2
Executive Summary	7
1. Background	11
1.1 About this report.....	11
1.2 Methodology.....	11
2. Child protection and OOHC in Victoria	13
2.1 Overview	13
2.2 Key components in the CP and OOHC system	13
2.3 Numbers and rates of children in the CP and OOHC system	14
2.4 Costs of the CP and OOHC system.....	17
2.5 Impact on other service costs	19
3. Early intervention in the CP and OOHC System	20
3.1 Reform of the CP and OOHC system in Victoria	20
3.2 Early intervention and evidence-based programs	20
3.3 EBPs implemented in Australia.....	21
3.4 Early intervention for Aboriginal and Torres Strait Islander children	23
4. Cost benefit analysis of selected evidence-based programs in Victoria	24
4.1 Methodology.....	24
4.2 Baseline system costs and estimating the future cost per child in the system	28
4.3 Cost benefit analysis for each EBP.....	29
4.4 Cost benefit analysis across EBPs	35
4.5 The importance of implementation.....	37
5. Conclusion	38
Appendices	40
References.....	40
Appendix 1 – Detailed assumptions for baseline system costs.....	41
Appendix 2 – Evidence-based programs.....	41
Appendix 3 – Additional assumptions and findings in cost benefit analysis	44
Appendix 4 – Sensitivity analysis.....	47

Executive Summary

Purpose and context of this report

Berry Street has signalled its commitment to work with others to reorient the child and family services system¹. With generous support from the Macquarie Group, Berry Street engaged Social Ventures Australia to analyse the economic case for early intervention. This has been a collaborative project with the Centre for Excellence in Child and Family Welfare and key agencies across the child and family services sector.

This report makes the economic case for long-term, additional investment in targeted early interventions to prevent children entering out-of-home care in Victoria. Most importantly, it identifies the significant number of children who would be diverted from the out-of-home care system as a result of increased investment in early intervention.

There are many forms of early intervention across a spectrum – from when vulnerabilities are first identified within a family through to supporting young people leaving out-of-home care. Taking a small number of evidence-based programs as an example, this report uses a simple cost benefit analysis to show the savings that can be achieved by investing at key points in the system.

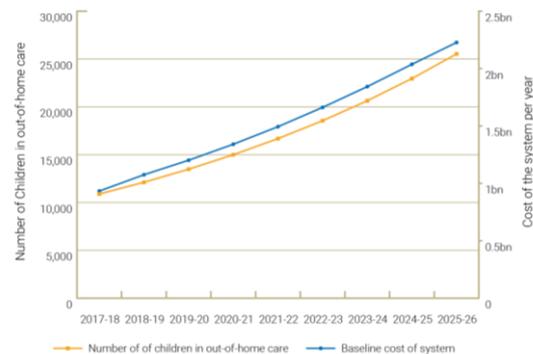
Specifically, the report outlines:

- The current and potential future costs to the Victorian community of the rising number of children in the child protection and out-of-home care system.
- The evidence base for early intervention at key points in the child protection and out-of-home care system to avoid entry into out-of-home care and to shift children in the system from residential to home-based care.
- The number of children who would be diverted from out-of-home care as a result of increased investment in early intervention at key points in the system, using a selection of evidence-based programs as examples.
- The net savings which would be accrued from targeted early intervention at key points in the child protection and out-of-home care system after accounting for program establishment and delivery costs.

The number of children involved in the child protection and out-of-home care system in Victoria is increasing – both in terms of numbers of children as well as a percentage of the population. From 2013 to 2018, the number of children in out-of-home care increased by 11% per year². The total cost of protective intervention and out-of-home care services in Victoria in 2017-18 was \$943 million³.

If recent growth rates in the proportion of children in out-of-home care continue, there would be up to 26,000 children in care by 2026, representing 1.6% of all children aged 0-17⁴. The corresponding annual cost of protective intervention and out-of-home care system would be **\$2 billion**⁵.

Projected growth in the number of children in out-of-home care and cost of the child protection and out-of-home care system



Source: Social Ventures Australia analysis

Figure 1: Projected growth in the number of children in out-of-home care and cost of the system

¹ Berry Street Strategic Plan 2019-2022.

² SVA analysis. Compound annual growth rate of all children in OOHC, based on AIHW Child Protection Australia 2017-18.

³ Productivity Commission, Report on Government Services 2019, 2017-18 costs.

⁴ SVA analysis. Assumes the proportion of Victorian children aged 0-17 who are in OOHC continues at 9% per annum, the growth rate from 2013-2018. Uses ABS population projection for children aged 0-17 years in Victoria – Series C.

⁵ Based on Productivity Commission, 2019, 2017-18 costs and assuming 1.9% indexation per year from FY17/18 dollars.

The Victorian Government's *Roadmap to Reform: strong families, safe children* ("the Roadmap") provides a vision and strategy to transform the children, youth, and family services system from one of crisis response to one of early intervention and prevention, including a shift to more effective and evidence-informed interventions. Notwithstanding the policy direction, most of the Victorian Government's investment since 2014 has been directed towards addressing the immediate demand pressures on the current system and other system risks.

Faced with similar challenges of rising numbers of children in out-of-home care, a number of interstate and overseas jurisdictions have successfully shifted investment focus to early intervention with early positive results. For example, in New South Wales, *Their Futures Matter* (a whole-of-government response to the Tune Review of the New South Wales child protection system) included in the 2016-17 budget a \$190 million investment over four years to help a range of organisations deliver intensive therapeutic programs to prevent out-of-home care entries, increase exits, and improve placement stability, as part of a broader set of reforms focused on shifting the culture of child protection towards family-centred practice and family-led decision-making⁶. Early indications are that this investment has delivered a significant reduction in the number of children entering out-of-home care in New South Wales. In 2017-18 the number of children entering out-of-home care in New South Wales was 0.12% of all children aged 0-17, less than half of Victoria's rate of 0.3% of all children aged 0-17⁷.

Early intervention in the child protection and out-of-home care system

When working with children and families experiencing vulnerability, there is clear value in intervening early to prevent situations from escalating. Early intervention encompasses actions that are early in need as well as actions early in life. This includes intensive family preservation programs to prevent entry into out-of-home care and improving outcomes for Victorian children in out-of-home care.

A component of the Roadmap is a shift to more effective and evidence-informed interventions that make a greater difference in the lives of children and families. Evidence-based programs and evidence-informed practice are becoming an increasingly important addition to the child protection and out-of-home care system. These build upon the existing family services platform to help reorient the system toward early intervention.

There are now a number of evidence-based programs and evidence-informed practices which have been shown to be effective in supporting children and families experiencing vulnerability through interventions at key points in the system, including to prevent children from entering out-of-home care. These programs target children of different ages and many support family capacity-building.

Several evidence-based programs developed and evaluated overseas have now been adopted in Australia in various states and territories. While the depth of evidence of the impact of evidence-based programs in Australia is still emerging, anecdotal evidence from some service providers currently delivering these programs in Australia indicates that they are achieving the same outcomes that have been demonstrated overseas.

A cost benefit analysis of investment in five evidence-based programs is set out in this report as an example of the potential impact that investment in early intervention could have on Victoria's child protection and out-of-home care system. These programs were selected based on a set of criteria such as the strength of available evidence of effectiveness and the extent of implementation in Australia. The programs modelled are SafeCare®, Functional Family Therapy – Child Welfare, Multi-Systemic Therapy, Multi-Systemic Therapy – Child Abuse and Neglect, and Treatment Foster Care Oregon - Adolescents.

⁶ NSW Government Family & Community Services, [Empowering people to live fulfilling lives and achieve their potential](#), FACS stakeholder 2016-17 Budget briefing, 21 June 2016

⁷ AIHW, 2017-18. Note Victoria does not include third party parental responsibility orders.

Specific considerations for early intervention with Aboriginal families and children

As with all families and children, new investment in early intervention is required to support Aboriginal families to stay safely together and reduce the number of Aboriginal children entering care. In Victoria, early intervention needs to be approached with the additional lens of self-determination.

Different approaches to early intervention have emerged, from building new programs rooted in cultural therapeutic ways, to adapting and applying evidence-based programs in an Aboriginal community context. Importantly, Victoria's Aboriginal Community Controlled Organisations have expressed a strong desire to build an evidence base for the application of cultural healing approaches that are focused on early intervention.

While the need for new investment in early intervention initiatives for Aboriginal families and children is clear, it is essential that decisions on what this looks like are owned and directed by Aboriginal organisations and communities.

Methodology and key findings

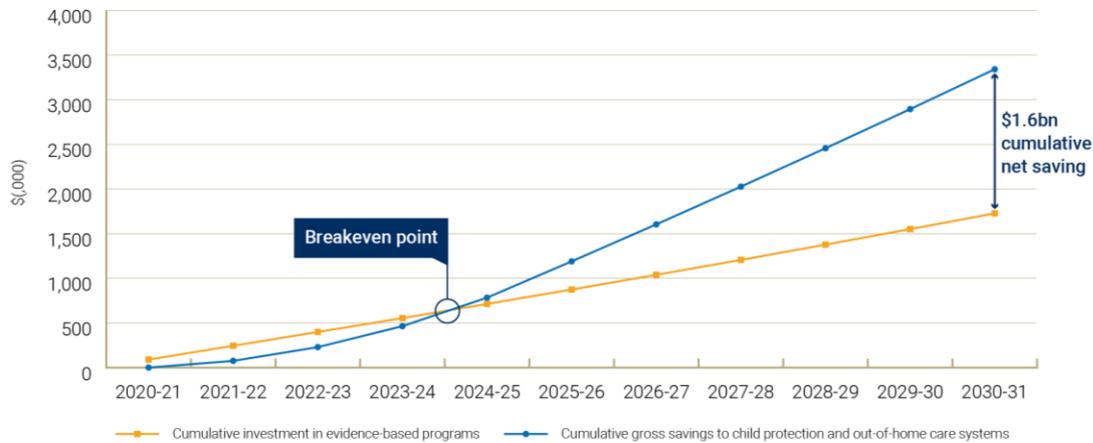
This report models the cost benefit over a 10-year period that additional investment targeted towards early intervention would have on Victoria's current baseline system costs, using the five selected evidence-based programs as an example. The modelling includes all the costs of the Department of Health and Human Services incurred in the delivery of the child protection and out-of-home care system, including funding to service providers and carers. It does not include additional costs, such as the Children's Court or downstream costs to the justice, health and homelessness support systems. A simplified view of the modelling methodology is set out below:



Figure 2: Cost benefit analysis methodology

Cost savings from each evidence-based program are calculated as a result of changing the likelihood of a child progressing through to out-of-home care after deducting the cost of establishment and delivery of the program. The methodology above draws from overseas evidence on the likely impact of the program on a child's pathway into and through care. It also uses program delivery costs drawn from Australian service provision to date.

Savings from investment in evidence-based early intervention programs



Source: Social Ventures Australia analysis

Figure 3: Savings from investment in evidence-based early intervention programs

Over a 10-year period, significant savings can be achieved at a system-wide level, even when allowing for a six-month set up period in the first year before program delivery commences. An investment of approximately \$150 million per year (indexed) **over a 10-year period delivers cumulative net savings** (after deducting program establishment and delivery costs) **of \$1.6 billion** with breakeven occurring during the fifth year of implementation. Most importantly, this **represents approximately 1,200 children per year** who could avoid entering out-of-home care, be placed in home-based care, or be reunited with their families, instead of being in residential care.

Learnings from other jurisdictions such as New South Wales show that increased investment in evidence-based programs should be supported by robust implementation, governance, and accountability mechanisms. This includes government working in partnership with the child and family services sector to support implementation and build the capability to deliver evidence-based programs, as well as to establish centralised mechanisms to ensure the fidelity of evidence-based programs and achievement of outcomes.

1. Background

1.1 About this report

Berry Street's Strategic Plan 2019-2022 signals its commitment to reorient the child and family services system toward early intervention. This mirrors a commitment across the child and family sector to reimagine the child protection and out-of-home care system (the "CP and OOHC system") and reduce the number of children in out-of-home care ("OOHC").

Berry Street, with funding from the Macquarie Group, has engaged Social Ventures Australia to deliver a report on the economic case for targeted evidence-based and evidence-informed early interventions. This has been a collaborative project with the Centre for Excellence in Child and Family Welfare ("the Centre") and key agencies across the sector.

This report outlines:

- The current and potential future costs to the Victorian community of the rising number of children in the child protection and OOHC system
- The evidence base for early intervention at key points in the CP and OOHC system to avoid entry into OOHC and to shift children in the system from residential to home-based care
- The number of children who would be diverted from OOHC as a result of increased investment in early intervention at key points in the system, using a selection of evidence-based programs (EBPs) as examples
- The net savings which would be accrued from targeted early intervention at key points in the CP and OOHC system after accounting for program establishment and delivery costs.

In this report the CP and OOHC system refers to the statutory child protection system in Victoria where the Department of Health and Human Services ("DHHS") has a statutory responsibility under the *Children Youth and Families Act 2005* (Vic) ("the CYF Act") to provide child protection services. Further detail on the CP and OOHC system is set out in Section 2.

This report focusses on Victoria, but some aspects are likely to be applicable to other Australian jurisdictions.

1.2 Methodology

To develop the economic case for early intervention, a cost benefit analysis methodology has been applied. The methodology has enabled an estimate of savings in CP and OOHC costs as a result of investment in a selection of evidence-based, early intervention programs that can reduce the likelihood of a child entering OOHC or requiring more intensive levels of care.

The analysis follows the approach outlined in Figure 4 below and includes:

- Establishment of a 'baseline' model of the system, mapping the numbers of children in different stages of Victoria's CP and OOHC system and the associated costs in 2017-2018
- Research into EBPs to understand the documented outcomes they have achieved (based on randomised control trial studies), and the extent to which they reduced a child's risk of entering OOHC or requiring more intensive levels of care
- Application of this evidence to the baseline model, to estimate the savings in future child protection and OOHC costs when a child undergoes treatment with the program over the course of up to a year
- An extrapolation of the savings at a system level for that year and over a 10-year investment period.

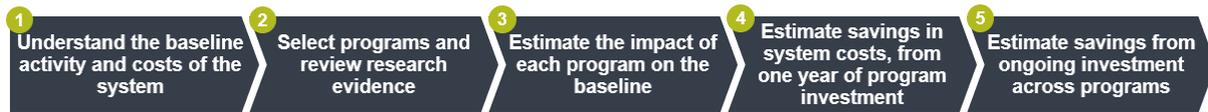


Figure 4: Cost benefit analysis methodology

The methodology takes a simplified approach to modelling the pathways of children through the CP and OOHC system. Actual pathways through the CP and OOHC system for children and families are much more complex than can be modelled based on the data available for this analysis. Specifically, the approach taken does not take into account the churn of children moving back and forth between key points in the CP and OOHC system. It also makes several key assumptions drawing from publicly available datasets.

Further information about the methodology, exclusions, and limitations of the cost benefit analysis is in Section 4.1.

2. Child protection and OOHC in Victoria

2.1 Overview

The overarching aim of the CP and OOHC system is to protect children in Victoria from abuse and neglect. These systems sit within a broader environment of universal and targeted community services, including ChildFIRST and family services, that work with families and children to address a range of vulnerabilities and needs.

States and territories hold primary responsibility for child protection services and are accountable for the safety and wellbeing of children at risk of harm. They set child protection policy, oversee administration of child protection, and are guardians of children in OOHC⁸.

In Victoria, DHHS funds a range of programs and services to help Victorians create safe and caring homes and communities for all families and children.

In the CP and OOHC system, the best interests of the child must be paramount, and both DHHS and service providers must make decisions in accordance with principles set out in the CYF Act.

2.2 Key components in the CP and OOHC system

The CP and OOHC system is complex. In this section, key parts of the process and the terminology are described.

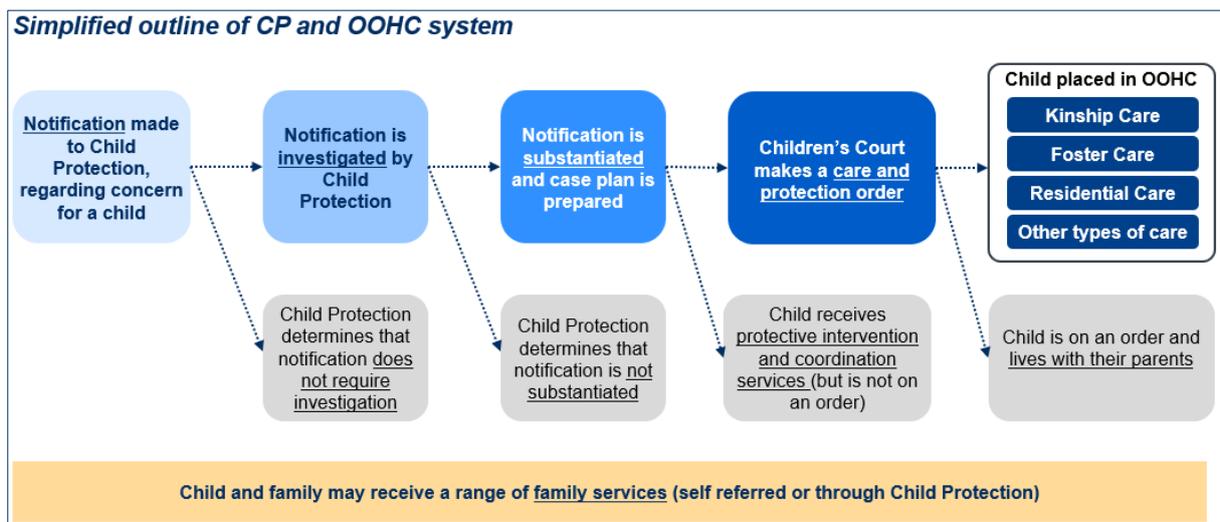


Figure 5: Simplified outline of CP and OOHC system used for the purposes of this analysis

A high-level description of the key parts of the process is as follows:

- A **notification** is made to child protection in relation to a significant concern about the wellbeing or protection of a child or an unborn child. Anyone can make a notification and some professionals (including teachers, nurses, police) have a mandatory obligation to report concerns to child protection.
- Child protection determines whether an **investigation** is required. The investigation assesses the child and their circumstances to determine if the notification from the intake phase is **substantiated**, and whether further protective intervention is required.

⁸ SVA, [SVA Perspectives: Education. Children in out-of-home care](#), September 2019.

- When a report of child abuse or neglect is **substantiated** in the investigation phase, child protection is responsible for preparing a case plan addressing the protective intervention needed.
- A child may be placed on a **care and protection order** by the Children's Court to ensure the child's safety and ongoing wellbeing in accordance with the relevant legislation. The Court may make various protection orders for temporary assessment, custody, or guardianship.
- A child may be placed in different living arrangements whilst in **OOHC**, including:
 - **Kinship care**, where a child is taken into care by a relative or family friend allowing them to remain within the family or local network
 - **Foster care**, where a child is taken into care by a foster carer who has been trained and approved, and who receives an allowance to look after children
 - **Residential care**, where a young person is placed into a home staffed by paid carers
 - **Other forms of care**, such as permanent care (a legal order placing a child with an approved family on a permanent basis until the child turns 18 years) and independent living (where young people live with lead tenants in a semi-independent environment).

The CP and OOHC systems sit alongside the family services system which supports families experiencing parenting and family challenges. Family services are a foundational and comprehensive range of services that promote the safety and stability of families and support family functioning and children's development⁹. They include a range of intensive services aimed at family preservation and reunification. Children and families may be referred to family services by child protection, ChildFIRST¹⁰, or through self-referral.

For the purposes of this report, the numbers of children and families accessing family services and the cost to deliver these services are not included in the baseline.

2.3 Numbers and rates of children in the CP and OOHC system

In 2017-18, **43,333** children were involved in the CP and OOHC system in Victoria, or **3.1%** of all children aged 0-17 in Victoria. This means they were either subject to an investigation of a notification, on a care and protection order, or in OOHC¹¹.

As at 30 June 2018 there were **13,303** Victorian children on care and protection orders and **10,896** children living in OOHC, including permanent care¹². See Figure 6 for the count of children in the CP and OOHC systems in 2017-18.

⁹ DHHS, [Child Protection Manual](#), accessed 21 October 2019.

¹⁰ Child FIRST (Child and family information, referral and support teams) are the entry point into family services.

¹¹ AIHW, 2017-18. Note that this is a unique count of children across the three areas of investigation, care and protection order and in OOHC and not a total count of these three areas.

¹² AIHW, 2017-18; SVA analysis. This report includes children on third party parental care orders in the count of children in OOHC (estimated 3000 children), noting that for 2017-18 the AIHW count of children in OOHC excludes children on third party parental care orders (Table S36).

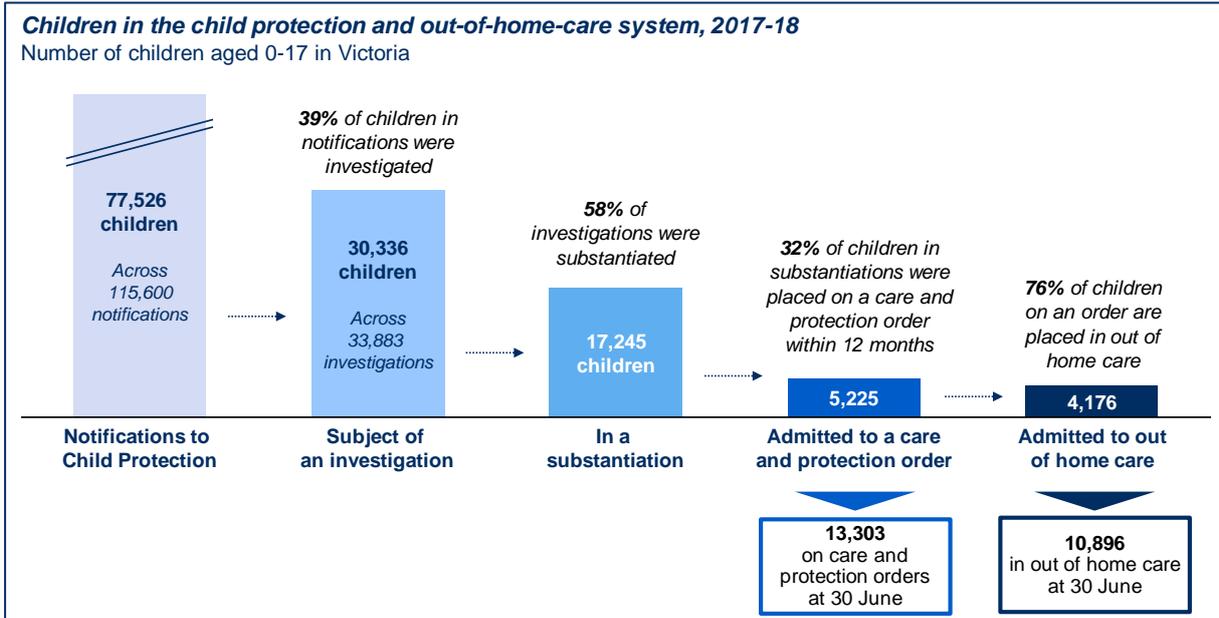


Figure 6: Children in child protection and OOHC¹³

For children in OOHC as at 30 June 2018, there is a spread of ages across 0 to 17 years. Half of the children are in kinship care and 46% of the children have been in continuous care for two years or more. 25% of the children are Aboriginal and Torres Strait Islander children. See Figure 7 below for selected characteristics of children in OOHC.

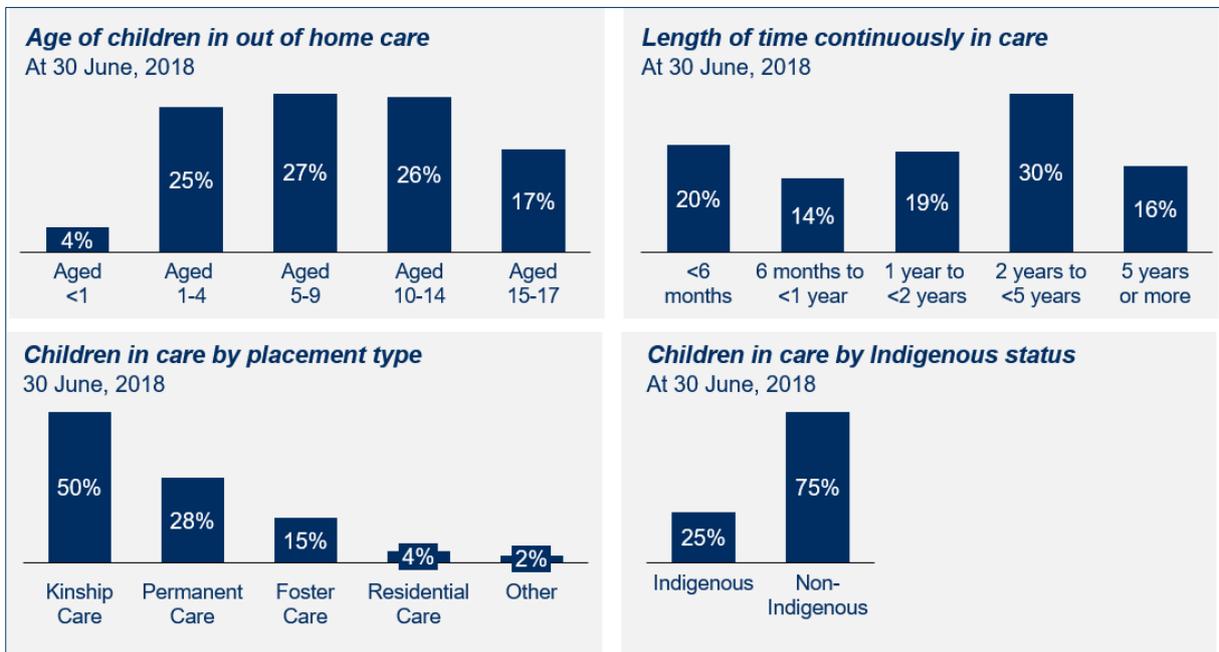


Figure 7: Selected characteristics for children in OOHC¹⁴

¹³ Ibid. Percentages are rounded. Note that this is not a unique count of children.

¹⁴ AIHW, 2017-18; SVA analysis. Breakdown by placement type assumes 3103 children are in third party parental care, including permanent care. Other breakdowns exclude the estimated population in permanent care.

The number of children involved in the CP and OOHC system is increasing – both in terms of numbers of children as well as a percentage of the population. From 2013 to 2018, the number of children in OOHC in Victoria **increased 11% per year**¹⁵. The percentage of the population (0-17 year olds) who are in OOHC rose from 0.5% in 2013¹⁶ to **0.8% in 2018**¹⁷. The number and rate of children in the CP and OOHC system has also increased over time.

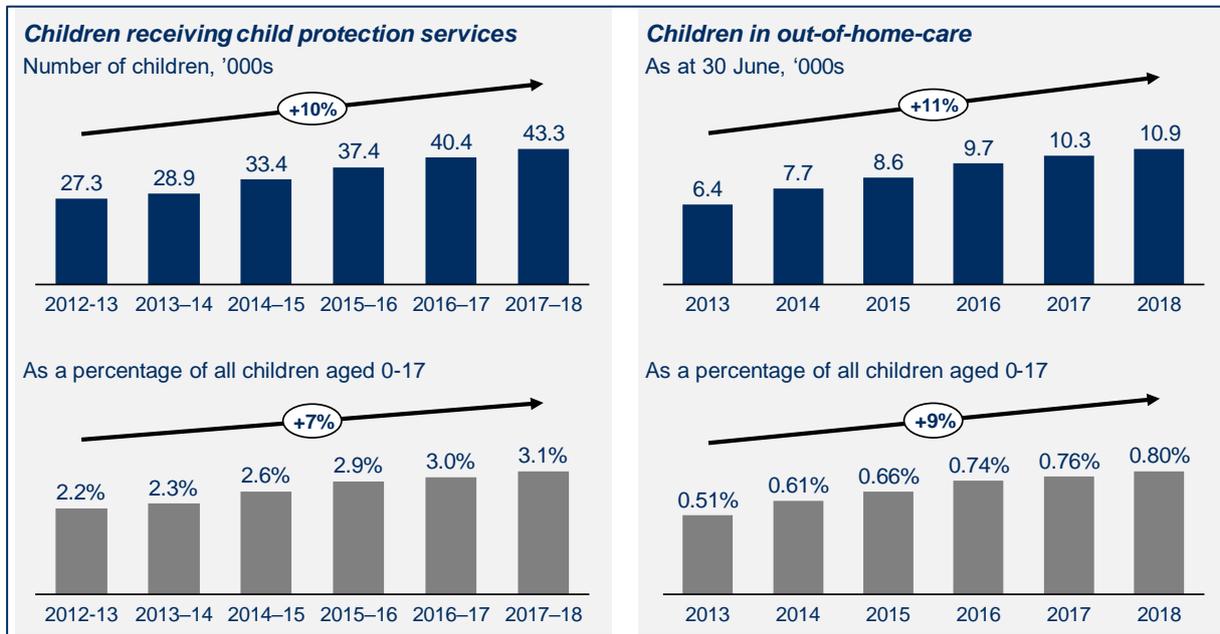


Figure 8: Children in the CP and OOHC system - Historical growth (CAGR) (AIHW Child Protection Australia 2017-18)

In addition, the number and rates of Aboriginal and Torres Strait Islander children in OOHC are growing faster than the number of children in OOHC overall. Based on publicly available data, from 2013 to 2018, the number of Aboriginal and Torres Strait Islander children in OOHC **increased by 24% per year**¹⁸. The percentage of the population (0-17 year-olds) of Aboriginal and Torres Strait Islander children who are in OOHC increased by **21% per year**¹⁹.

Section 3.4 of this report provides further commentary regarding Aboriginal and Torres Strait Islander children in the CP and OOHC system.

If recent growth rates in the proportion of children in OOHC continue, there would be up to 26,000 children in care by 2026, representing 1.6% of all children aged 0-17²⁰ (see Figure 9 below).

¹⁵ Compound annual growth rate of all children in OOHC.

¹⁶ Productivity Commission, 2019; as at 30 June.

¹⁷ Based on ABS population projection for children aged 0-17 years in Victoria – Series C and a total number of 10,896 children in OOHC as at 30 June 2018

¹⁸ Compound annual growth rate. Based on total number of 10,896 children in OOHC as at 30 June 2018.

¹⁹ Compound annual growth rate. Assumes the rate per 1000 ATSI children in 2017/18 grows at same rate as compound annual growth rate for prior 5 years. Based on total number of 10,896 children in OOHC as at 30 June 2018.

²⁰ SVA analysis. Assumes rate per 1000 in the population grows at 9% per annum. Uses ABS population projection for children aged 0-17 years in Victoria – Series C.

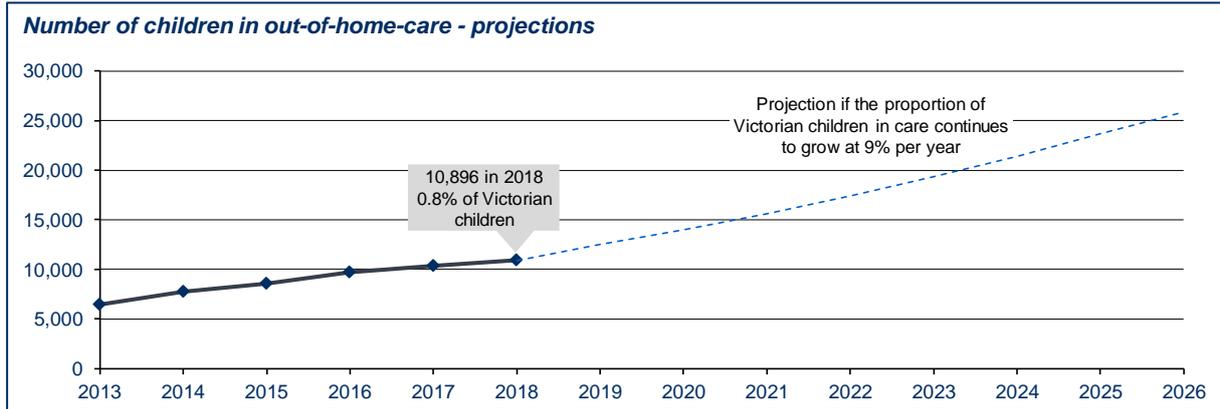


Figure 9: Children in OOHC – projections (SVA analysis)

It is acknowledged that growth of children in OOHC over time will be influenced not only by demand, but by the capacity of the system (for example, the capacity of service providers and the availability of foster carers).

2.4 Costs of the CP and OOHC system

The total cost of protective intervention and OOHC services in Victoria in 2017-18 was **\$943 million**²¹. As seen in Figure 10, this comprises the costs relating to receipt and assessment of notifications, conducting investigations, protective intervention and coordination services for children not on an order, seeking and issuing care and protection orders, protective intervention and coordination services for children on an order, and provision of OOHC services.

77% of the cost (\$729 million) is to provide protective intervention and OOHC services for children on a care and protection order. This includes the provision of OOHC services (**\$646 million**) and the protective intervention and coordination services for children on a care and protection order (**\$83 million**).

These are DHHS costs only, and encompass internal departmental costs, funding to service providers to deliver a range of services, and provision of an allowance to carers. The costs are those DHHS reports annually to the Productivity Commission for inclusion in the *Report on Government Services*. This figure does not include costs of other government departments, such as Children’s Court costs which are not funded through DHHS, or costs incurred by service providers which supplement the delivery of CP and OOHC services but are not funded by DHHS.

²¹ Productivity Commission, 2019, 2017-18 costs.

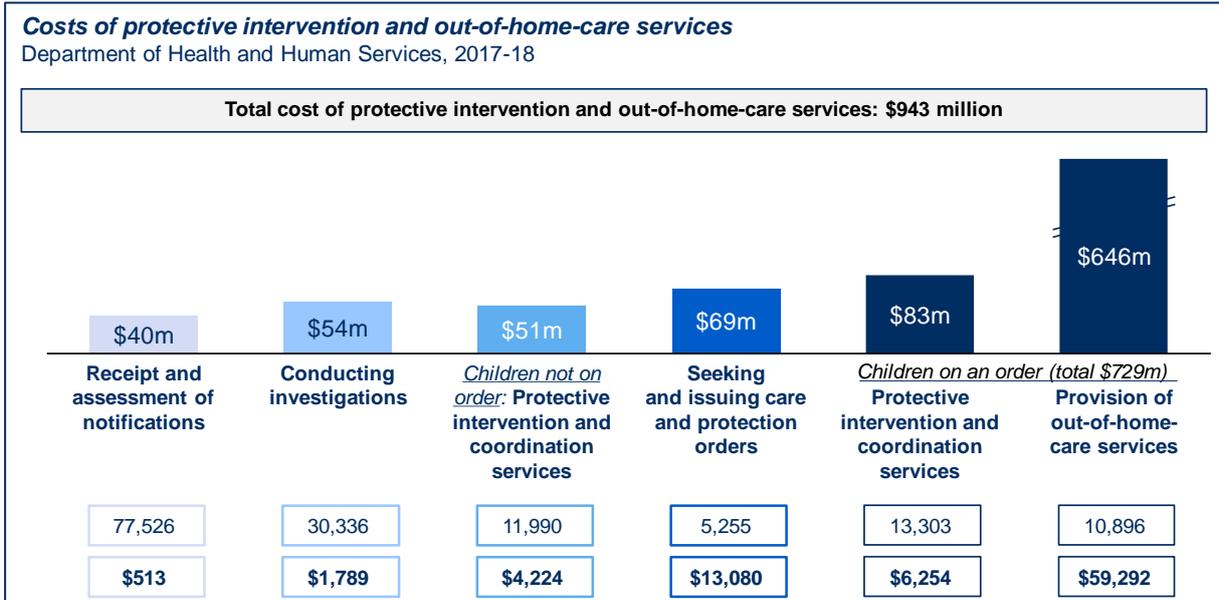


Figure 10: Cost of protective intervention and OOHC services (2017-18 dollars)²²

Appendix 1 sets out the detailed assumptions and data sources for the numbers of children and costs per child included in Figure 10.

The total cost of protective intervention and OOHC services for **children living in OOHC was \$709 million** in FY17-18. Figure 11 shows the breakdown of living arrangements and the associated costs for children in different types of OOHC. The costs of different types of care vary widely. While only 4% of children in OOHC were in residential care, these children incurred 20% of the cost of OOHC services.

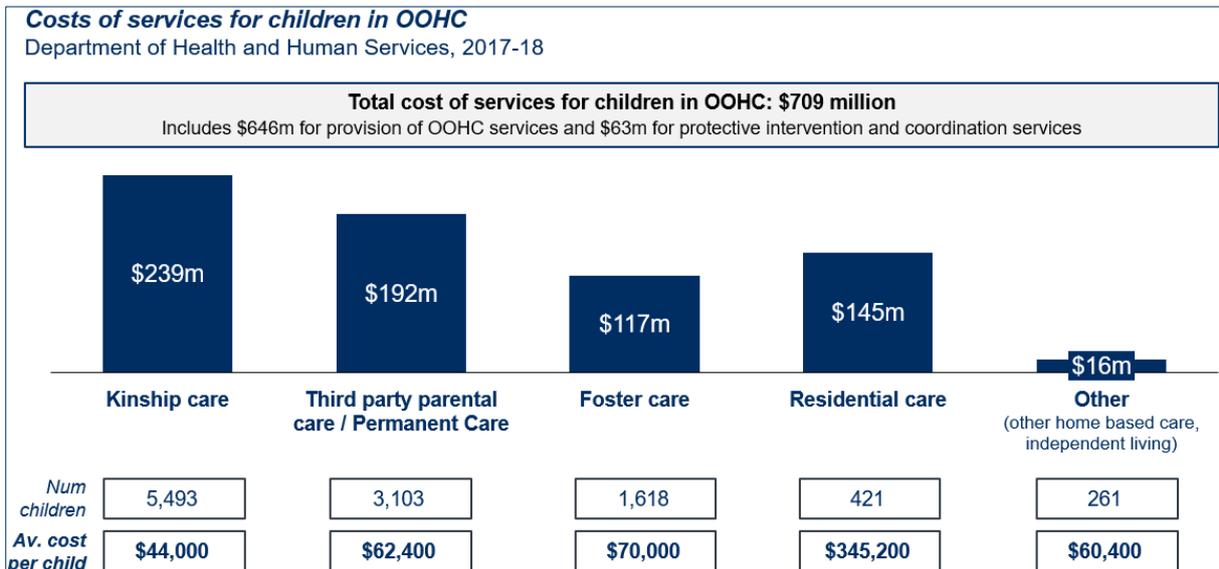


Figure 11: Cost of services for children in OOHC (Productivity Commission Report on Government Services 2019; AIHW Child Protection Australia 2017-18; SVA analysis²³)

²² Productivity Commission, 2019; AIHW, 2017-18; SVA analysis. See Appendix 1 for detailed assumptions.

²³ Productivity Commission, 2019; AIHW, 2017-18; AIHW Child Protection Australia 2017-18; SVA analysis. Note that the reported total cost of protective intervention and coordination services for children on a care and protection order is \$83m. \$63m is estimated the cost of protective intervention and coordination services specifically for children in OOHC, and \$20m is estimated for children care and protection orders but not living in OOHC (living with their parents). See Appendix 1 for detailed assumptions.

Appendix 1 sets out the detailed assumptions and data sources for the numbers of children and costs per child included in Figure 11.

As set out above, if recent growth rates in the number of children in OOHC continue, there could be approximately 26,000 children in care by 2026 (up from 10,896 in 2018). The corresponding cost of OOHC would be **\$1.7 billion**²⁴ (up from \$709 million in 2018, assuming that costs, service levels, and ratios of children in different services are unchanged).

The corresponding cost of all protective intervention and OOHC services would be **\$2.2 billion**²⁵ to 2026 (up from \$943 million in 2018, assuming that costs, service levels, and ratios of children in different services are unchanged).

2.5 Impact on other service costs

This report focuses on the cost benefit – specifically the net cost savings to the CP and OOHC system – which could be achieved from new investment into EBPs.

As such, this analysis has not modelled the cost savings to other service systems as a result of investment in a selection of EBPs. However, there is enough evidence to suggest that reducing the number of children in OOHC, or the duration a child spends in OOHC, will result in cost savings to other service systems.

There are several studies which have examined the extent to which a child's contact with the CP and OOHC system can increase their likelihood of using other services²⁶. This is particularly so for children and young people who have been in OOHC. For example, Deloitte's 2016 report drew on existing evidence (including from overseas) and concluded that for 18-year-old care leavers²⁷:

- The probability of arrest in a given year is 16.3%
- The probability of alcohol or drug dependence is 15.8%
- The probability of homelessness is 39%
- The probability of experiencing at least one hospital admission in the previous year is 29.2%.

These studies have sought to model the costs (lifetime or annual) that are likely to be associated with children leaving OOHC, or who have had contact with the CP and OOHC system²⁸. These studies estimate that the higher costs likely to be incurred by these children are for services related to criminal justice, health, housing, and employment, among others.

In this respect, the net savings estimated in this report are likely to underestimate the net savings to the broader community.

²⁴ Assuming 1.9% indexation per year from FY17/18 dollars

²⁵ Assuming 1.9% indexation per year from FY17/18 dollars

²⁶ See for example: Deloitte Access Economics, [Raising our children: Guiding young Victorians in care into adulthood](#), commissioned by Anglicare Victoria, 1 April 2016; Forbes, C. and Inder, B. [Measuring the cost of leaving care in Victoria](#), Working Paper 18/06, August 2006; Taylor, P., Moore, P., Pezzullo, L., Tucci, J., Goddard, C. and De Bortoli, L., [The Cost of Child Abuse in Australia](#), Australian Childhood Foundation and Child Abuse Prevention Research Australia, 2008; KPMG, [An evidence-based continuum of care and support for child and family services](#), Final Report, September 2016

²⁷ Deloitte Access Economics, *ibid.* 2016

²⁸ Above, n21.

3. Early intervention in the CP and OOHC System

3.1 Reform of the child protection and out-of-home-care system in Victoria

The Victorian Government's 2016 Roadmap for Reform sets a vision with a supporting strategy for reform in the children, youth, and family services system. It seeks to transform the system from one of crisis response to one of early intervention and prevention, aiming to deliver a system focussed on:

- Strengthening communities to better prevent neglect and abuse
- Delivering early support to children and families at risk
- Keeping more families together through crisis
- Securing a better future for children who cannot live at home²⁹.

The Victorian Government has invested approximately \$1.5 billion since 2014 to support children experiencing vulnerability. Approximately 75% of the investment to date has been directed towards addressing the immediate pressures on the CP and OOHC system in meeting escalating demand and other system risks³⁰.

The policy intent of the Roadmap for Reform, with a key focus on prevention and early intervention, is a positive one that builds on a broader body of work underway to invest in early childhood and families in Victoria.

3.2 Early intervention and evidence-based programs

Early intervention for families and children is a broad concept. In effect, **every** intervention in a child's life can be considered early intervention, including prior to a child's birth. At its core, early intervention prevents progression to further disadvantage and high-cost interventions, including residential services, homelessness, and the youth justice system.

Early intervention is possible at many points in the CP and OOHC system to prevent a child from progressing further. It occurs across a spectrum encompassing:

- Intervening earlier with children and families experiencing vulnerability
- Intensive family preservation programs to prevent entry into OOHC
- Improving outcomes for Victorian children in OOHC
- Supporting young people leaving OOHC.

The number of children and families experiencing vulnerability with complex needs requiring protective intervention services continues to grow. The needs of children and families vary, meaning that no single program will work for every child and family in the CP and OOHC system.

Over the last decade, numerous EBPs have emerged overseas with a focus on supporting families, preserving and reunifying families, and preventing the progression of children to residential care. EBPs are programs that have undergone rigorous evaluation and research that have demonstrated their effectiveness with specific population groups, with no negative effects being found. Several organisations have emerged to identify and support the implementation of EBPs. Appendix 2 outlines how these various organisations approach the classification of programs.

Several EBPs developed and evaluated overseas have now been adopted in Australia in various states and territories. Rigorous evidence of their impact in the Australian setting is still emerging, which is consistent with their relatively recent introduction to Australia. However, many EBPs are showing promising results and achieving outcomes consistent with those that have been demonstrated overseas.

²⁹ Department of Health and Human Services website, accessed 16 October 2019.

³⁰ Berry St analysis.

These EBPs are just one form of early intervention used in the CP and OOHC system. However, they can play an integral part within a suite of early intervention programs and approaches to complement the existing suite of family services and underpin the CP and OOHC system.

In NSW, *Their Futures Matter*, a whole-of-government response to the Tune Review, included in the 2016-17 budget a \$190 million investment over four years to help a range of organisations deliver intensive therapeutic programs to prevent OOHC entries, increase exits, and improve placement stability, as part of a broader set of reforms focused on shifting the culture in child protection and the culture of child protection towards family-centred practice and family-led decision-making³¹. Early indications are that this investment has delivered a significant reduction in the number of children entering the OOHC system in NSW. In 2017-18 the number of children entering OOHC care in NSW was 0.12% of all children aged 0-17, less than half of Victoria’s rate of 0.3% of all children aged 0-17³².

3.3 EBPs implemented in Australia

A number of EBPs have been adopted in Australia (see Table 1 below). A range of agencies are delivering EBPs in Australia including OzChild, Anglicare, The Benevolent Society, Uniting, Mackillop Family Services, Nepean Community Centre, Riverina Medical, Life Without Barriers, and Berry Street.

Learnings from implementation are showing that while the programs were developed and evaluated overseas, they have applicability to the Australian setting. To date, EBPs have been implemented in Victoria on a small scale and/or as pilot programs. Service providers have led implementation, self-funding or partnering with philanthropy to fund significant portions of the implementation costs.

There are also several programs developed in Australia that have been well-evaluated such as Cradle to Kinder, Resilient Families, and Newpin. For example, Resilient Families and Newpin have been evaluated through control trials established as part of NSW Government Social Impact Bonds. Cradle to Kinder has been rolled out state-wide by the Victorian government, with a focus on supporting young Aboriginal pregnant women and mothers.

Table 1: Key evidence-based programs and adaptations implemented in Australia, plus Australian programs with strong research evidence

	Program	Description	Implementation in Australia – by state
International	Safe Care	A structured parenting program to address behaviour that can lead to child neglect and abuse.	Victoria
	Functional Family Therapy – Child Welfare	A short-term family therapy that aims to address problems within a family that may result in a child or young person entering OOHC.	Victoria, NSW, ACT
	Treatment Foster Care Oregon	A foster care model for children and young people at risk of entering residential care because of serious emotional and behavioural concerns.	Victoria, NSW, Queensland
	Multi-Systemic Therapy (MST)	An intensive family and community-based treatment that addresses the multiple causes of serious antisocial behaviour in juvenile offenders.	Victoria, NSW

³¹ NSW Government Family & Community Services, [Empowering people to live fulfilling lives and achieve their potential](#), FACS stakeholder 2016-17 Budget briefing, 21 June 2016

³² AIHW, 2017-18. Note Victoria does not include third party parental responsibility orders.

	Program	Description	Implementation in Australia – by state
	Multi-Systemic Therapy – Care and Neglect (MST-CAN)	An adaptation of MST, developed to treat families with children that have come to the attention of Child Protection due to high risk and safety issues.	NSW
	Multi-Systemic Therapy – Psychiatric (MST-Psych)	An adaptation of MST, targeting youth at risk of out-of-home placement due to serious behavioural problems and co-occurring mental health symptoms.	Victoria
	KEEP (Keeping Foster and Kin Carers Supported and Trained)	A program supporting foster and kin parents (carers) to deal with their child's externalising problems, trauma, and other behavioural and emotional problems.	Victoria
	Teaching Family Model (TFM)	A trauma-informed model for children in OOHC, where children learn new behaviours by observing and imitating others.	Victoria
	Nurse Family Partnership	A nurse-led, home visiting program that provides support to women experiencing vulnerability who are pregnant or with an infant child.	Victoria, NSW, Queensland, South Australia, ACT, NT
	Child parent psychotherapy (CPP)	A treatment for trauma-exposed children aged 0-5.	Victoria
Australian	Cradle to Kinder/ Aboriginal Cradle to Kinder	A specialist family support program for young mothers, fathers, and their children experiencing vulnerability.	Victoria
	Tuning into Kids / Tuning into Teens	A parenting program focussing on building the emotional connection between parents and children or teens.	Victoria
	Resilient Families	A program supporting families, through intensive and evidence-based therapies, to create positive home environments and prevent children entering OOHC.	NSW
	New Parent and Infant Network (Newpin)	A program supporting family reunification, working with parents to help their children transition out of care and into a positive, parental environment.	NSW ACT Queensland

3.4 Early intervention for Aboriginal and Torres Strait Islander children

Early intervention in the context of Aboriginal children and families in Victoria has an additional lens. The commitment to self-determination and the right for Aboriginal Victorians to make decisions that affect their lives and communities needs to shape the way in which early intervention is approached and implemented in Victoria.

As for all families and children, increased investment in early intervention is important to support Aboriginal families and children, and to reduce the rates of Aboriginal children entering the CP and OOHC system. It is also equally important to acknowledge that Aboriginal Victorians hold the knowledge and expertise about what is best for themselves, their families, and their communities, including how early intervention is considered and approached in Victoria.

Aboriginal communities, the Victorian government, and the broader child and family services sector are building a stronger understanding of what works to intervene early and support Aboriginal families and children.

Organisations such as the Victorian Aboriginal Child Care Agency (“VACCA”) have started to build new programs that are strongly rooted in cultural therapeutic ways. As an example, VACCA’s approach has focussed on the intersection of cultural practice with trauma and self-determination theories, including centralising the relationship between intergenerational trauma and attachment and highlighting the critical role re-connection with culture, country, and family can have as a protective factor.

Victoria’s Aboriginal Community Controlled Organisations have expressed a strong desire to build an evidence base for the application of cultural healing approaches for early intervention. While Aboriginal agencies are currently involved in developing and delivering early intervention programs, there has been insufficient investment to help build the evidence base of these programs.

A number of organisations have also adapted, applied, and tested a range of EBPs, and foundational elements of evidence-based practice in the Victorian and Australian context. For example, Cradle to Kinder has been adapted in Victoria and is being delivered in multiple locations with examples indicating positive outcomes for Aboriginal people.

These approaches have involved various forms of adaption of models designed for broader populations to Australia’s Aboriginal and Torres Strait Islander communities, rather than promoting ground-up development of new programs and development of an evidence base by Aboriginal people and organisations.

It is essential that decisions on what early intervention looks like for Aboriginal families and children are owned and directed by Aboriginal organisations and communities. There are existing structures, such as the Aboriginal Children’s Forum, that could play a key role in navigating this issue and could discuss how Victoria approaches early intervention with Aboriginal children and families.

4. Cost benefit analysis of selected evidence-based programs in Victoria

This section sets out the cost benefit analysis of new long-term investment in a selection of EBPs to support children and families experiencing vulnerability at key points in the CP and OOHC system.

4.1 Methodology

The cost benefit analysis estimates savings in CP and OOHC costs as a result of investment in EBPs that can reduce the likelihood of a child entering OOHC or requiring more intensive levels of care.

Figure 12 outlines each of the steps taken to develop the cost benefit analysis. This is followed by a description of each of the stages and the key exclusions and limitations of the analysis.

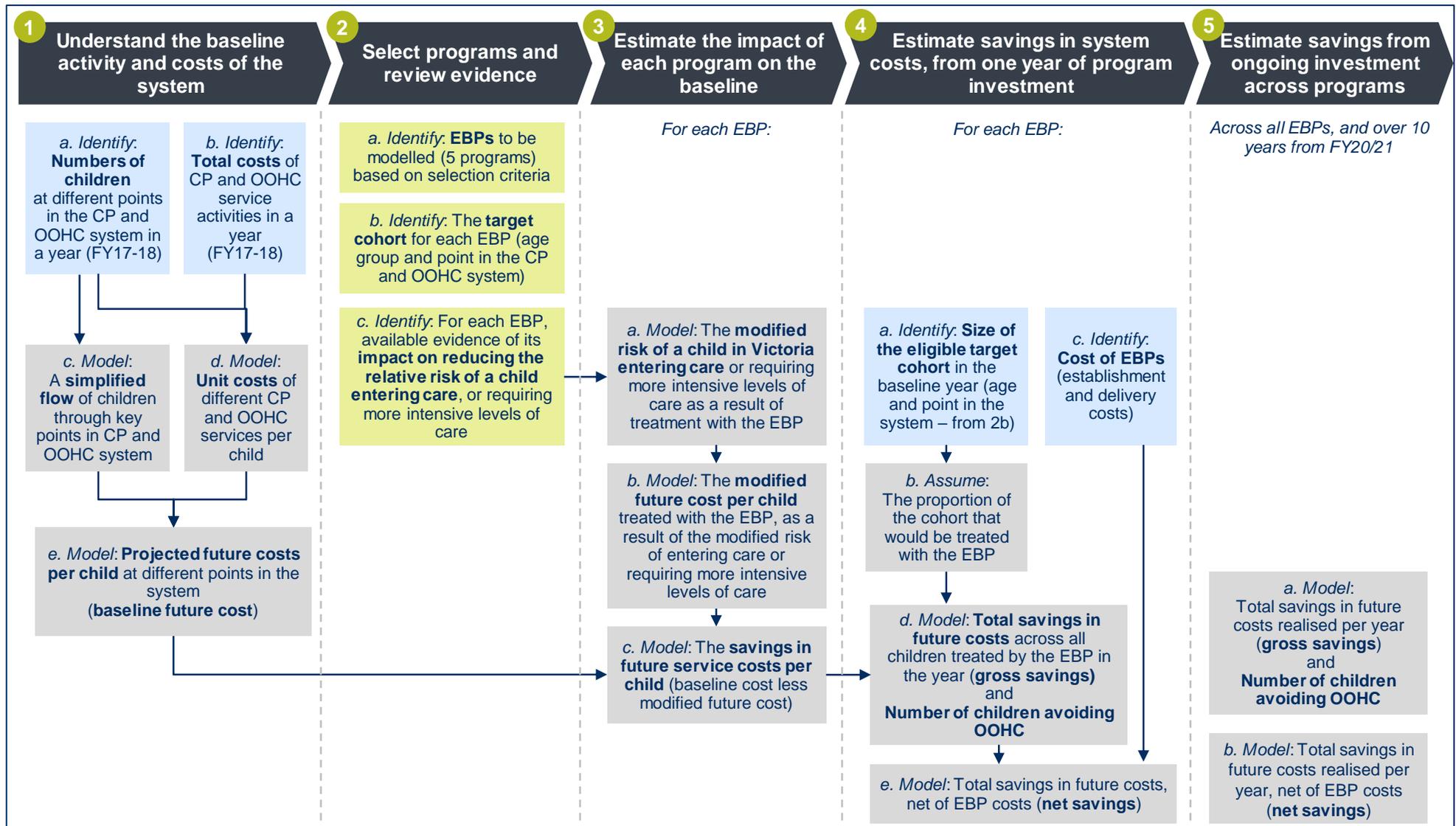


Figure 12: Detailed methodology for cost benefit analysis

Stage 1: Understanding the baseline system costs and estimating the future cost per child in the system

A baseline view was developed of the current numbers of children at different points in the CP and OOHC system and the associated costs of delivering protective intervention and OOHC services. The baseline is for a one-year period using publicly available data from FY17/18, the latest year that figures were publicly available at the time of the analysis³³.

Using the baseline data of the numbers of children at different points in the system and the total cost of services at each point, the following are estimated:

- A simplified view of the flow of children through key points in the CP and OOHC system, showing the proportion of children at each point who flow to the next point in the system
- The unit cost per child for services at different points in the CP and OOHC system
- The projected future cost of protective intervention and OOHC services for each child at different points in the system

Stage 2: Select EBPs to be modelled and review evidence of effectiveness

Five evidence-based and evidence-informed programs were selected to model as examples of the potential cost benefit that could be achieved through investment in these types of programs. They were selected based on:

- The strength of available evidence on their effectiveness, specifically that each program has demonstrated an impact on the relative risk of a child entering care or requiring more intensive levels of care
- The applicability of programs to families at different points in the system, including supporting children and families at low-risk and at high-risk of entering OOHC, and programs that support children in care.
- Support for different cohorts across the five programs (including programs that target children aged 0-5 and programs that target adolescents).
- Prior implementation of each program in Australia.

International research evidence was reviewed for each of the EBPs to identify studies that demonstrated the impact of the program on reducing the relative risk of a child entering care or requiring more intensive levels of care. International evidence has been used in the modelling given that this level of research evidence is not yet available in the Australian setting.

Stage 3: Estimate the impact of each EBP on the baseline cost per child

The analysis then models the impact of each EBP on a child, based on available research evidence demonstrating the reduction in the relative risk of the child entering OOHC.

As a result of the reduced risk of entering OOHC, the model recalculates the future cost of protective services and potential OOHC per child. Where there is a difference between the 'baseline' future cost per child and this 'modified' future cost per child as result of the EBP, a gross saving in the system costs is presented. This is a gross saving because it does not take account of the cost of investment in the EBP for that child.

Stage 4: Estimate the savings in system costs from one year of EBP investment

For each EBP, an assumption is made about the percentage of the current cohort of children at the point of intervention for that EBP, who could reasonably be expected to be supported through the introduction of the EBP. These percentages are based on assumptions about how widely the EBP could be applied.

The model calculates the total savings in future costs for the children who are treated by the EBP and the resultant number of children who would avoid OOHC or a step up in the level of care required

³³ Public data used to develop baseline: AIHW, 2017-18; Productivity Commission, 2019, 2017-18 costs; DHHS policy and funding guidelines 2018, prices effective 1 December 2018.

during that year. The net savings are then calculated by deducting the estimated costs of the EBP from the total savings in future costs.

EBP costs include establishment costs (upfront costs for model licensing, training and support, and ongoing costs to account for estimated turnover and retraining required, plus any ongoing licensing fees), as well as annual program delivery costs (the cost of teams to deliver the interventions).

Stage 5: Estimate savings across EBPs over a 10-year period

The final stage of analysis then estimates the total savings from ongoing investment across all selected EBPs for a period of ten years. This is calculated by estimating the savings which would be accrued by offering an appropriate EBP to an agreed percentage of the number of children at the appropriate point in the system, for each year, over a 10-year period.

It is important to note that this analysis does not factor in projected growth in the baseline number of children in the CP and OOHC system in calculating net savings from investment in EBPs. As a result, system level savings are likely to be underestimated as they are based on the 2017-2018 baseline system costs with annual indexation of 1.9%³⁴.

Exclusions and limitations

There are several key exclusions and limitations to the modelling in this report.

Exclusions in the cost benefit analysis

- The costs of family services. These services are considered to be foundational services for the CP and OOHC system and are not considered to be an avoidable cost should additional investment be made in EBPs.
- The costs and potential savings for government departments outside of DHHS, for example any Children's Court costs which are not funded through DHHS.
- The costs and potential savings related to any other service systems, for example justice, housing, and health. See section 2.5 for further commentary on potential downstream costs savings.

Limitations in the methodology

- The simplification of pathways through the CP and OOHC system. The actual pathways through the system for children and families are much more complex than can be modelled based on the data available for the purposes of this report. This approach does not capture the churn of children moving back and forth between key points in the CP and OOHC system. It also makes an assumption about the average timeframe of CP and OOHC involvement per child (see Appendix 1).
- Reliance on assumptions about the effectiveness of selected EBPs drawn from randomised control trials conducted overseas. The modelling assumes the same effectiveness in reducing the likelihood of entering OOHC for a treatment group vs control group would apply in Victoria.
- The estimate of potential savings is based on a unit cost per child of avoided CP and OOHC services. The modelling does not factor in that the realisation of these savings would be affected by the need to service unmet demand in the system, nor the fixed vs variable nature of these costs.

³⁴ Assumed annual indexation is 1.9%, which is the average annual CPI over the past three financial years FY16-17 to FY18-19 (RBA, Measures of Consumer Price Inflation)

4.2 Baseline system costs and estimating the future cost per child in the system

Stage 1 of the cost benefit analysis methodology

As outlined above, this analysis estimates the cost benefit of the EBPs relative to a baseline view of the CP and OOHC system, drawing on FY17-18 data. The numbers of children at different points in the system in FY17-18, and the total costs of services in FY17-18, are presented in Section 2.

Drawing on this baseline data, Figure 13 below depicts a simplified flow of children through different points in the CP and OOHC system and indicates the annual unit cost per child for the provision of the relevant service activity. It shows, from the point of notification, the estimated proportion of children progressing through to OOHC at each key point in the CP and OOHC system. For example, the model assumes that for any child who is the subject of a notification, they have a 39% likelihood of being investigated and a corresponding 61% likelihood of the notification being resolved without investigation. These likelihoods are based on the FY2017-18 proportions of children progressing through to OOHC at each key point in the system.

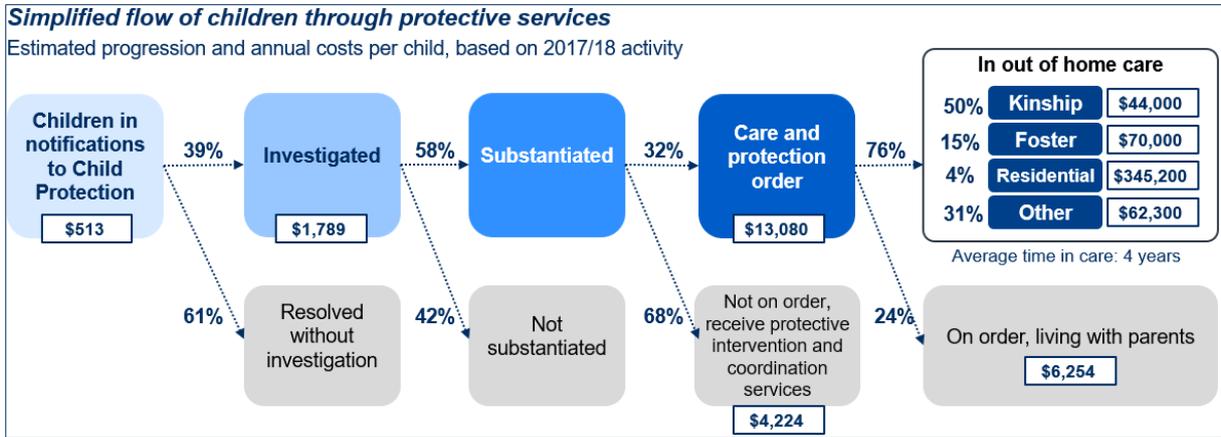


Figure 13: Simplified flow through the CP and OOHC system³⁵. Costs are in FY17-18 dollars.

Appendix 1 details the data sources and other assumptions in the simplified flow and unit cost.

Based on the simplified flow, the future service costs and likelihood of entering care can be estimated for children at different points in the system:

- For every child who is the subject of a notification, there is a **6%** likelihood of entering OOHC³⁶, and the weighted average future cost of protective services and potential OOHC for the child is **\$17,700**
- For every child who is the subject of an investigation, there is a **14%** likelihood of entering OOHC, and the weighted average future cost of protective services and potential OOHC for the child is **\$43,300**
- For every child who is substantiated, there is a **24%** likelihood of entering OOHC, and the weighted average future cost of protective services and potential OOHC for the child is **\$72,300**
- For every child who is placed on a care and protection order, there is a **76%** likelihood of entering OOHC, and the weighted average future cost of protective services and potential OOHC for the child is **\$204,600**

³⁵ See Appendix 1 for data sources and assumptions

³⁶ The methodology used is as follows - using the data outlined in Figure 13, this is calculated as 39% x 58% x 32% x 76% = 6% (rounded) likelihood of entering OOHC.

For the purposes of this cost benefit analysis, it is assumed that the estimated future costs per child would be incurred over approximately five years. This assumes that a child may be in the CP system (and not in OOHC) for up to one year – for example undergoing investigation, case planning, seeking and issuing care and protection orders, and participating in family services.

It is then estimated that the average total time a child stays in OOHC is four years, drawing on data from the FY17-18 baseline (as described in Section 2), that for all children in OOHC at 30 June 2018, the median time that they had been continuously in care was two years. Assuming that children in care at 30 June 2018 were, on average, at the mid-point of their time in OOHC, it is then extrapolated that the average total time a child stays in OOHC is four years (see Appendix 1 for this assumption).

4.3 Cost benefit analysis for each EBP

Stages 2-5 of the cost benefit analysis methodology

The analysis models the cost benefit of investing in five selected EBPs, as examples of early intervention, based on the selection criteria outlined in the methodology (see Section 4.1). The five selected programs are:

1. SafeCare®.
2. Functional Family Therapy – Child Welfare (FFT-CW).
3. Multi-Systemic Therapy (MST).
4. Multi-Systemic Therapy – Child Abuse and Neglect (MST-CAN).
5. Treatment Foster Care Oregon - Adolescents (TFCO-A).

Table 2 describes each selected EBP including the target cohort, point of intervention in the system, and the demonstrated outcomes of each program based on research evidence. It specifically looks at evidence that indicates the impact of the program on reducing a child's risk of entering OOHC, or in the case of TFCO-A, reducing the risk that a child moves home-based foster care into residential care. It then presents the results of the cost benefit analysis following the methodology as outlined in Section 4.1.

While the reduced risk of entering care is the primary point of evidence used in the cost benefit analysis, these programs work with families and seek to achieve a range of outcomes for the family unit which can drive broader benefits. For example, the evidence may show that children receiving the program have a reduced likelihood of having contact with the justice system. These outcomes have not been modelled as part of this analysis.

All investment and savings are presented in nominal values, assuming 1.9%³⁷ annual inflation from FY17-18 baseline system costs and from EBP costs which have been obtained in FY19-20 dollars.

³⁷ Costs and savings are estimated in nominal dollars. Assumes annual indexation is 1.9%, which is the average annual CPI over the past three financial years FY16-17 to FY18-19 (RBA, Measures of Consumer Price Inflation)

Table 2: Overview of Stages 2-5 in the methodology by selected EBPs

Program	Safecare®	Functional Family Therapy – Child Welfare (FFT-CW)	Multi-Systemic Therapy (MST)	MST-Child Abuse and Neglect (MST-CAN)	Treatment Foster Care Oregon – Adolescents (TFCO–A)
Stage 2: Programs, target cohort and evidence of effectiveness					
<i>a. Program description</i>	Safecare is a structured parenting program to address behaviour that can lead to child neglect and abuse.	FFT-CW is a short-term family therapy that aims to address problems within a family that may result in a child or young person entering OOHC.	MST is an intensive family and community-based treatment that addresses the multiple causes of serious antisocial behaviour in juvenile offenders.	MST-CAN is an adaptation of MST and was developed to treat families with children that have come to the attention of Child Protection due to high risk and safety issues.	TFCO-A is a foster care model for children and young people at risk of entering residential care because of serious emotional and behavioural concerns. It can also support young people to 'step down' from residential care to a foster care placement.
<i>b. Target cohort and point in system</i>	Parents with children up to 5 years of age who are at risk or have been reported for child abuse and neglect. <u>Assumed target point in system:</u> children who are the subject of investigations.	Families with children from 0-18 years who are referred to child welfare services for indicated or suspected child abuse or neglect. <u>Assumed target point in system:</u> children who have had neglect or abuse substantiated.	Young people aged 12 to 17 years old , with possible substance abuse issues, who are at risk of OOHC due to antisocial or delinquent behaviours and/or involvement with the juvenile justice system. <u>Assumed target point in system:</u> young people who have had neglect or abuse substantiated.	MST-CAN is reserved only for very high-risk cases, with children aged 6 to 17 years old . <u>Assumed target point in system:</u> children who have had neglect or abuse substantiated.	TFCO-A is aimed at young people aged 12 to 17 years old in foster care at high risk of entering residential care, or young people in residential care. <u>Assumed target point in system:</u> children in foster care or residential care.
<i>c. Associated outcomes include:</i>	<ul style="list-style-type: none"> • Increased positive parenting • Improved health and safety of children • Reduced abuse / neglect of children 	<ul style="list-style-type: none"> • Reduced family violence, child abuse, harsh or punitive discipline practices, and family conflict • Improved parenting practices 	<ul style="list-style-type: none"> • Reduced behaviour problems • Improved family functioning • Decreased recidivism 	<ul style="list-style-type: none"> • Reduced parenting behaviours associated with maltreatment • Reduced youth mental health problems • Reduced youth OOHC placements 	<ul style="list-style-type: none"> • Placement stability • Reduced violent or antisocial behaviours • Improved attachment behaviours • Reduced carer stress
<i>c. Impact on interaction with CP and OOHC</i>	A matched comparison study found that at 36 months post-intervention, 85% of families in the SafeCare group had no further reports for child	A randomised control trial found that young people at risk of OOHC placement treated with FFT-CW had lower foster care placement referrals (11%)	A randomised control trial for juvenile offenders found that those receiving MST had a 7% likelihood of being placed in care following treatment,	A randomised control trial found that youth who received the intervention were significantly less likely to experience an out-of-home placement over	A study found that approximately 70% of young people treated by TFCO-A either returned to their families or moved to a long-

Program	Safecare®	Functional Family Therapy – Child Welfare (FFT-CW)	Multi-Systemic Therapy (MST)	MST-Child Abuse and Neglect (MST-CAN)	Treatment Foster Care Oregon – Adolescents (TFCO-A)
	abuse, compared to 54% in the control (Gershater-Molko, Lutzker & Wesch, 2002).	than young people treated by case workers with no or limited training in FFT (49%) (Robbins & Rowlands, 2012).	while those in the control group had a 17% probability of being placed in care (Letourneau, 2009).	16 months compared to youth in the treatment as usual condition – 14% compared with 30% (Swenson et al, 2010).	term home-based care placement and did not enter residential care in the following 2 years. For those not treated by TFCO-A, it was assumed that 25% would have moved to a home-based placement and 75% would remain in residential care (KPMG 2016).
Stage 3. Estimating the impact of each EBP on the baseline					
a. Modified risk of entering care or requiring more intensive levels of care	<p><u>Baseline risk:</u> A child who is in an investigation has a 14% likelihood of entering OOHC.</p> <p><u>Modified risk:</u> Research evidence suggests SafeCare can reduce the likelihood of child being re-reported by a factor of 3 (from 46% to 15%), by comparing Safecare families with a control group.</p> <p>Applying this to the baseline, a child's risk of entering care would reduce from 14% to 4.6%.</p>	<p><u>Baseline risk:</u> A child who is in a substantiated case has a 24% likelihood of entering OOHC.</p> <p><u>Modified risk:</u> Research evidence suggests FFT-CW can reduce the likelihood of entering care by a factor of 4.5 for the target cohort, by comparing families treated with FFT-CW with a control group.</p> <p>Applying this to the baseline, a child's risk of entering care would reduce from 24% to 5.5%.</p>	<p><u>Baseline risk:</u> A child who is in a substantiated case has a 24% likelihood of entering care, and if they do enter care a further 4% chance of entering residential care. As MST is targeted at young people aged 12 to 17 years old with a higher likelihood of entering residential care, it is assumed that it targets a cohort with an 8% chance of entering residential care.</p> <p><u>Modified risk:</u> Research evidence suggests MST can reduce the likelihood of entering care by a factor of 2.4 for the target cohort, by comparing families treated with MST with families in a control group.</p>	<p><u>Baseline risk:</u> MST-CAN is reserved for very high-risk families – rather than all families at risk of entering care. Across all substantiated cases, they have a 24% likelihood of entering care. Therefore, is assumed for the analysis that MST-CAN would be used with young person with an 80% likelihood entering care.</p> <p><u>Modified risk:</u> Research evidence suggests that MST-CAN can reduce the likelihood of entering care by a factor of 2.1, by comparing young people treated with FFT-CW with a control group.</p> <p>Applying this to the baseline, a child's risk of entering care would reduce from 80% to 37%.</p>	<p><u>Baseline risk:</u> It is assumed that TFCO-A can be targeted at young people in foster care with a 75% likelihood of transitioning to residential care, or young people in residential care.</p> <p><u>Modified risk:</u> Research evidence suggests that for young people treated by TFCO-A, approximately 70% would move to long-term home-based care or return to living with their families, and only 30% would transition to or remain in residential care.</p>

Program	Safecare®	Functional Family Therapy – Child Welfare (FFT-CW)	Multi-Systemic Therapy (MST)	MST-Child Abuse and Neglect (MST-CAN)	Treatment Foster Care Oregon – Adolescents (TFCO-A)
			Applying this to the baseline, a child's risk of entering care would reduce from 24% to 10%.		
<i>b. Modified future cost per child</i>	<p><u>Baseline future cost:</u> The average future cost of protective services and potential OOHC for a child with 14% likelihood of entering OOHC is \$43,300.</p> <p><u>Modified future cost:</u> \$16,500, based on the risk of entering OOHC being reduced to 4.6%</p>	<p><u>Baseline future cost:</u> The average future cost of protective services and potential OOHC for a child with 24% likelihood of entering OOHC is \$72,300.</p> <p><u>Modified future cost:</u> \$19,500, based on the risk of entering OOHC being reduced to 5.5%.</p>	<p><u>Baseline future cost:</u> The average future cost of protective services and potential OOHC for each child in this cohort is \$82,900.</p> <p><u>Modified future cost:</u> \$32,300, based on the risk of entering OOHC being reduced to 10%.</p>	<p><u>Baseline future cost:</u> The average future cost of protective services and ongoing OOHC for a child in this cohort is \$226,500.</p> <p><u>Modified future cost:</u> \$108,700, based on the risk of entering OOHC being reduced to 37%.</p>	<p><u>Baseline future cost:</u> The average future cost of protective services and ongoing OOHC for a child with 75% likelihood of entering or remaining in residential care is \$1.1 million.</p> <p><u>Modified future cost:</u> \$590,000, based on the risk of transitioning to or remaining in residential care being 30%.</p>
<i>c. Gross savings per child</i>	This represents a gross saving of \$26,800 per child in future CP and OOHC costs over approximately 5 years.	This represents a gross saving of \$52,800 per child in future CP and OOHC costs over approximately 5 years.	This represents a gross saving of \$50,700 per child in future CP and OOHC costs over approximately 5 years.	This represents a gross saving of \$118,000 per child in future CP and OOHC costs over approximately 5 years.	This represents a gross saving of \$517,000 per child in future CP and OOHC costs over approximately 5 years.
Stage 4: Estimating savings across the system for one year of investment					
<i>a. Size of target cohort</i>	In FY17/18 there were 30,336 children in investigations, of which an estimated 12,800 were aged 0-5.	In FY17/18 there were 17,245 children in substantiations aged 0-17.	In FY17/18 there were 17,245 children in substantiations, of which an estimated 4,200 were aged 12-17.	In FY17/18 there were 17,245 children in substantiations, of which an estimated 10,000 were aged 6-17.	In FY17/18 there were 2,039 children in foster or residential care, of which an estimated 720 were aged 12-17.
<i>b. Proportion treated</i>	It is assumed that SafeCare is implemented with 20% of the eligible cohort, which is approx. 2,600 children per year.	It is assumed that FFT-CW is implemented with 20% of the eligible cohort, which is approx. 3,400 children per year.	It is assumed that MST is implemented with 10% of the eligible cohort, which is approx. 420 children per year.	It is assumed that MST-CAN is implemented with 5% of the eligible cohort, which is approx. 500 children per year (the highest risk cases).	It is assumed that TFCO-A is implemented among only 37 young people annually across Victoria. This is based on having 1 TFCO-A team in each DHHS division and each team completing 9.3 interventions per year.

Program	Safecare®	Functional Family Therapy – Child Welfare (FFT-CW)	Multi-Systemic Therapy (MST)	MST-Child Abuse and Neglect (MST-CAN)	Treatment Foster Care Oregon – Adolescents (TFCO-A)
<i>c. Cost of EBPs (FY20-21 dollars³⁸)</i>	As one Safecare team can work with 62 families per year, 41 teams would be needed across Victoria. This would cost \$46 million (\$42 million in annual delivery cost and \$4 million establishment cost in Year 1).	As one FFT-CW team can work with 70 families per year, 50 teams would be needed across Victoria. This would cost \$55 million (\$49 million in annual delivery cost and \$6 million establishment cost in Year 1).	As one MST team can work with 40 families per year, 10.5 teams would be needed across Victoria. This would cost \$12 million (\$11 million in annual delivery cost and \$1 million establishment cost in Year 1).	As one MST-CAN team can work with 16 families per year, 31 teams would be needed across Victoria. This would cost \$40 million (\$33.6 million in annual delivery cost and \$6.8 million establishment cost in Year 1).	The cost of 4 TFCO-A teams would be \$7 million (\$6 million in annual delivery cost and \$1 million establishment cost in Year 1).
<i>d. Children avoiding care and gross savings across system</i>	As a result, <ul style="list-style-type: none"> • About 245 fewer children would enter OOHC • Gross savings would be \$77 million in future CP and OOHC costs over 5 years. 	As a result, <ul style="list-style-type: none"> • About 650 fewer children would enter OOHC • Gross savings would be \$204 million in future CP and OOHC over 5 years. 	As a result, <ul style="list-style-type: none"> • About 60 fewer children would enter OOHC • Gross savings would be \$24 million in future CP and OOHC costs over 5 years. 	As a result, <ul style="list-style-type: none"> • About 210 fewer children would enter OOHC • Gross savings would be \$66 million in future CP and OOHC costs over 5 years. 	As a result, <ul style="list-style-type: none"> • About 17 more young people would be in home-based care or reunited with family rather than in residential care • Gross savings would be \$22 million in future CP and OOHC costs over 5 years.
<i>e. Net savings across system</i>	Net savings after EBP costs would be \$33 million .	Net savings after EBP costs would be \$149 million .	Net savings after EBP costs would be \$12 million .	Net savings after EBP costs would be \$26 million .	Net savings after EBP costs would be \$16 million .
Stage 5: Estimating savings across the system from ongoing investment					
<i>a. Children avoiding care and gross savings across system</i>	Assuming Safecare was implemented with 2,600 children each year for 10 years from FY20-21, factoring in ramp-up time in Year 1 ³⁹ : <ul style="list-style-type: none"> • Up to 2,325 fewer children would enter OOHC • Gross savings would be \$655 million in CP and OOHC costs over 10 years. 	Assuming FFT-CW was implemented with 3,400 children each year for 10 years from FY20-21, factoring in ramp-up time in Year 1: <ul style="list-style-type: none"> • Up to 6,180 fewer children would enter OOHC • Gross savings would be \$1.74 billion in CP and OOHC costs over 10 years. 	Assuming MST was implemented with 420 young people each year for 10 years from FY20-21, factoring in ramp-up time in Year 1: <ul style="list-style-type: none"> • Up to 565 fewer children would enter OOHC • Gross savings would be \$202 million in CP and OOHC costs over 10 years. 	Assuming MST-CAN was implemented with 500 children each year for 10 years from FY20-21, factoring in ramp-up time in Year 1: <ul style="list-style-type: none"> • Up to 2,020 fewer children would enter OOHC • Gross savings would be \$561 million in CP and OOHC costs over 10 years. 	Assuming TFCO was implemented with 37 young people each year for 10 years from FY20-21, factoring in ramp-up time in Year 1: <ul style="list-style-type: none"> • Up to 160 more young people would be in home-based care or reunited with family rather than in residential care

³⁸ EBP costs were obtained in FY19-20 at current prices and indexed to FY20-21 costs at 1.9% per year, assuming FY20-21 would be the first year of investment into the programs.

³⁹ It is assumed that approximately 6 months lead time is required for EBP establishment, prior to services commencing. Therefore, only half the annual cohort is treated by the EBP in Year 1

<i>Program</i>	Safecare®	Functional Family Therapy – Child Welfare (FFT-CW)	Multi-Systemic Therapy (MST)	MST-Child Abuse and Neglect (MST-CAN)	Treatment Foster Care Oregon – Adolescents (TFCO–A)
					<ul style="list-style-type: none"> Gross savings would be \$184 million in CP and OOHC costs over 10 years.
<i>b. Net savings across system</i>	<p>A total investment of \$502 million would be required, including program establishment costs and delivery costs.</p> <p>Therefore, net savings would be \$153 million over 10 years.</p>	<p>A total investment of \$585 million would be required, including program establishment costs and delivery costs.</p> <p>Therefore, net savings would be \$1.15 billion over 10 years.</p>	<p>A total investment of \$130 million would be required, including program establishment costs and delivery costs.</p> <p>Therefore, net savings would be \$72 million over 10 years.</p>	<p>A total investment of \$437 million would be required, including program establishment costs and delivery costs.</p> <p>Therefore, net savings would be \$125 million over 10 years.</p>	<p>A total investment of \$74 million would be required, including program establishment costs and delivery costs.</p> <p>Therefore, net savings would be \$110 million over 10 years.</p>

4.4 Cost benefit analysis across EBPs

Annual

If the five EBPs were implemented, in the first full year of operation (FY21-22):

- About **6,960 children** in total would be supported across the five EBPs
- **Total investment required in FY 21-22 would be \$154 million**, (\$144 million in delivery cost and \$10m establishment cost) (with investment in FY20-21 of \$90 million, being \$71 million in delivery cost and \$19 million in establishment cost representing the ramp up period).

As a result:

- **About 1,185 children** would avoid entering OOHC (from those who are subject to investigations and substantiations), or be placed in home-based care or reunited with their families instead of being in residential care
- Gross savings from a one-year investment would be **\$399 million** in future CP and OOHC costs (realised over the five years from FY22-23 to FY26-27)
- Net savings from a one-year investment would be **\$245 million** in future CP and OOHC costs (realised over the five years from FY22-23 to FY26-27), after deducting the one-year investment in the EBPs.

Over FY20-21 to FY30-31

If ongoing investment were made into the five EBPs, over FY20-21 to FY30-31:

- Up to **73,000 children** would be supported across the five EBPs over 10.5 years of investment
- **Total investment required would be \$1.73 billion**, (\$1.64 billion in delivery cost and \$85 million establishment costs).

As a result:

- Up to **11,260 children** could avoid entering OOHC (from those who are subject to investigations and substantiations), or be placed in home-based care or reunited with their families instead of being in residential care⁴⁰
- Gross savings would be **\$3.3 billion** in future CP and OOHC costs
- Net savings would be **\$1.6 billion** in future CP and OOHC costs, after deducting the investment in the EBPs
- The investment would break even (where the cumulative net savings exceed the incurred EBP costs) in FY24-25, the fifth year of implementation.

The number of children who would avoid care as a result of the interventions each year may not be unique from children in prior years, due to the degree of churn in the system.

Figure 14 below sets out the annual and total system savings from an annual investment over a 10-year period from FY20-21 to FY30-31 in the selected EBPs, taking into account establishment and delivery costs and allowing for cost indexation. It assumes that in Year 1 (FY20-21), approximately 6 months is required for EBP establishment prior to services commencing. Therefore, only half the annual cohort is treated by the EBP in Year 1.

The cost benefit analysis does not factor in projected growth in the baseline number of children in the CP and OOHC system, nor the projected growth in the costs of the system as result.

⁴⁰ This is calculated as 1,185 children x 9.5 years. Analysis assumes that child receives services for 1 year prior to being diverted from OOHC.

	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
\$Millions											
EBM investment - Establishment	\$ 19	\$ 10	\$ 8	\$ 5.6	\$ 5.7	\$ 5.8	\$ 6.0	\$ 6.1	\$ 6.2	\$ 6.3	\$ 6.4
EBM investment - Delivery	\$ 71	\$ 144	\$ 147	\$ 150	\$ 153	\$ 156	\$ 159	\$ 162	\$ 165	\$ 168	\$ 171
EBM investment - Total per year	\$ 90	\$ 154	\$ 155	\$ 155	\$ 158	\$ 161	\$ 164	\$ 168	\$ 171	\$ 174	\$ 177
EBM investment - Cumulative	\$ 90	\$ 244	\$ 399	\$ 554	\$ 713	\$ 874	\$ 1,039	\$ 1,206	\$ 1,377	\$ 1,551	\$ 1,728
Gross savings from 2020/21 EBM investment		\$ 75	\$ 77	\$ 78	\$ 80	\$ 81					
Gross savings from 2021/22 EBM investment			\$ 77	\$ 78	\$ 80	\$ 81	\$ 83				
Gross savings from 2022/23 EBM investment				\$ 78	\$ 80	\$ 81	\$ 83	\$ 84			
Gross savings from 2023/24 EBM investment					\$ 80	\$ 81	\$ 83	\$ 84	\$ 86		
Gross savings from 2024/25 EBM investment						\$ 81	\$ 83	\$ 84	\$ 86	\$ 88	
Gross savings from 2025/26 EBM investment							\$ 83	\$ 84	\$ 86	\$ 88	\$ 89
Gross savings from 2026/27 EBM investment								\$ 84	\$ 86	\$ 88	\$ 89
Gross savings from 2027/28 EBM investment									\$ 86	\$ 88	\$ 89
Gross savings from 2028/29 EBM investment										\$ 88	\$ 89
Gross savings from 2029/30 EBM investment											\$ 89
Gross savings realised per year	\$ -	\$ 75	\$ 154	\$ 235	\$ 319	\$ 407	\$ 414	\$ 422	\$ 430	\$ 438	\$ 447
Gross savings - Cumulative	\$ -	\$ 75	\$ 229	\$ 464	\$ 783	\$ 1,190	\$ 1,604	\$ 2,027	\$ 2,457	\$ 2,895	\$ 3,342
Net savings per year (New vs baseline system cost)	-\$ 90	-\$ 79	-\$ 1	\$ 80	\$ 161	\$ 245	\$ 250	\$ 255	\$ 259	\$ 264	\$ 269
Net savings - Cumulative	-\$ 90	-\$ 169	-\$ 170	-\$ 90	\$ 71	\$ 316	\$ 566	\$ 820	\$ 1,080	\$ 1,344	\$ 1,614

Figure 14: Cost benefit analysis of the five modelled EBPs, from ongoing investment over FY20-21 to FY 30-31⁴¹

⁴¹ Assumes investment commences in FY20-21, with service delivery at 50% in the first year due to an assumed establishment period of 6 months. Costs and savings are based on FY17-18 system costs and indexed at 1.9% annually, and do not factor in any projected growth in the baseline number of children or costs in the CP and OOHC system over time.

4.5 The importance of implementation

A shift towards early intervention, and particularly additional investment in EBPs and evidence-based practices (such as the Common Elements project), needs to be purposeful and planned by both government and the child and family services sector for it to be set up for success. Enough time will be needed to plan the approach, support the ramp-up of service delivery, and put in place robust monitoring and evaluation mechanisms. Importantly, this investment would sit alongside ongoing reforms to strengthen the foundational elements of the CP and OOHC system such as family services and supports.

Victoria can learn from the successful implementation of similar reforms in other jurisdictions, in particular the recent experience in NSW. As mentioned in this report, early indications are that new investments in early intervention have complemented cultural change in child protection to deliver a significant reduction in the number of children entering OOHC in NSW. Some of the structures to support implementation of these early intervention reforms include the creation of a separate governing board and agency to co-ordinate and oversee accountability for the delivery of program fidelity in the Australian setting and the achievement of targeted outcomes. Further, centralised implementation support was provided to service delivery agencies, including program licensing and training, which enabled economies of scale, sharing of best practices and learnings.

It is our understanding that the Victorian child and family services sector has the capability and appetite for such a change and is ready to build on the existing investments by service providers in EBPs and evidence-informed practices. Learnings from the experience of these providers indicate implementation is also likely to require complementary strategies to ensure there is an appropriately skilled workforce and to build the appropriate monitoring and evaluation systems. Further, there may be a need to support cultural change across the CP and OOHC workforce to this new way of working with children and families experiencing vulnerability. Existing structures and actions, such as the Centre's Outcomes Practice Evidence Network and the Child and Family Services Industry Plan 2018-2021, could provide a basis for implementation efforts in these areas.

It is beyond the scope of this report to comprehensively document all the critical implementation activities. More work is required to fully understand what will be needed for successful implementation of EBPs and evidence-informed practices in the Victorian context. However, this should not be a barrier to capturing the opportunity presented by this cost benefit analysis to better support children and families experiencing vulnerability.

5. Conclusion

The analysis set out in this report makes the economic case for long-term investment in targeted early intervention and intensive family preservation, using five EBPs as examples, to improve outcomes and prevent children at risk from entering OOHC. An investment of approximately \$150 million per year (indexed) over a 10-year period delivers cumulative net savings (after deducting program establishment and delivery costs) of \$1.6 billion with breakeven occurring during the fifth year of implementation. This investment is in addition to the investment needed to maintain and meet immediate demand in the current system.

Most importantly, this investment represents approximately 1,200 children per year who could avoid entering OOHC or be placed in home-based care or reunited with their families instead of being in residential care. New investment in EBPs and evidence-based practices as a form of early intervention presents a significant opportunity to shift the life trajectory for thousands of children in Victoria. This opportunity is central to the vision of the Victorian Government's Roadmap to Reform and in the context of the rising numbers of children in OOHC, the significant costs of the current system, and the recent experience of other jurisdictions who have begun to make this shift, the case for early intervention through investment in EBPs is strong.

Early intervention for Aboriginal families and children must be approached with the additional lens of self-determination. Given the over-representation of Aboriginal children in OOHC, there is a need for investment in effective early interventions that keep Aboriginal families safely together. Decisions on what early intervention looks like for Aboriginal families and children must be owned and directed by Aboriginal organisations and communities. This includes recognising Aboriginal Community Controlled Organisations' strong desire to build an evidence base for cultural healing approaches.

A shift towards early intervention, and particularly additional investment in EBPs and evidence-based practices, needs to be purposeful and planned by both government and the child and family services sector for it to be set up for success. It is our understanding that the sector has the capability and appetite for such a change and is ready to build on the existing investments by service providers in EBPs and evidence-based practices. More work is required to fully understand what will be needed for successful implementation of EBP's in the Victorian context, but it should not be a barrier to capturing the opportunity presented by this analysis.

About Social Ventures Australia

Social Ventures Australia (SVA) is a social purpose organisation that works with partners to improve the lives of people in need. SVA's services are designed to scale social impact, helping business, government and philanthropists to be more effective funders and social purpose organisations to be more effective at delivering services. For more information about SVA, please see: www.socialventures.com.au

Professional disclosure statement

Social Ventures Australia (SVA) has prepared this document in good faith on the basis of our research and information available to us at the date of publication ("Information") without any independent verification. SVA does not guarantee the accuracy, completeness or currency of the Information.

This document was prepared by SVA for the use and benefit of our client only and solely for the purpose for which it was provided. SVA does not accept any liability if this report is used for an alternate purpose from which it was intended, nor to any third party in respect of this report.

This work is copyright. Apart from any use permitted under the Copyright Act 1968, no part may be reproduced by any process or in any form by any third party without obtaining prior written consent from SVA and our client. Requests and inquiries concerning reproduction and rights should be addressed to: Social Ventures Australia: attention Director, Legal, Level 7, 1 Chifley Square, Sydney NSW, Australia, 2000.

Appendices

References

- ABS, 3222.0 Population Projections, Australia, 2017– 2066
- Australian Institute of Health and Welfare, Child Protection Australia 2017-18
- Berry Street, Strategic Plan 2019-2022
- Deloitte Access Economics, [Raising our children: Guiding young Victorians in care into adulthood](#), commissioned by Anglicare Victoria, 1 April 2016
- Department of Health and Human Services, DHHS Policy and funding guidelines 2018, Volume 3: Human services policy and funding plan 2015–19, update 2018–19, Chapter 2: Human services output budget information and unit prices
- Department of Health and Human Services, [Child Protection Manual](#), accessed 21 October 2019.
- Department of Health and Human Services, data obtained through a data request: Numbers of children in general, complex, and intensive levels of foster care in FY17-18
- Forbes, C. and Inder, B. [Measuring the cost of leaving care in Victoria](#), Working Paper 18/06, August 2006
- KPMG, An evidence-based continuum of care and support for child and family services, Final Report, Commissioned by OzChild, September 2016
- NSW Government Family & Community Services, Empowering people to live fulfilling lives and achieve their potential, FACS stakeholder 2016-17 Budget briefing, 21 June 2016
- Productivity Commission, Report on Government Services, 2019
- SVA, [SVA Perspectives: Education. Children in out-of-home care](#), September 2019
- Taylor, P., Moore, P., Pezzullo, L., Tucci, J., Goddard, C. and De Bortoli, L., [The Cost of Child Abuse in Australia](#), Australian Childhood Foundation and Child Abuse Prevention Research Australia, 2008

Evidence-based programs:

- Blueprints, <https://www.blueprintsprograms.org/>
- California Evidence-Based Clearinghouse for Child Welfare (CEBC), <https://www.cebc4cw.org/>
- Gershater-Molko, R. M., Lutzker, J. R., & Wesch, D, Using recidivism data to evaluate Project Safecare: Teaching bonding, safety and healthcare skills to parents. *Child Maltreatment*, 7(3), 277-285, 2002 (Safecare)
- KPMG, 2016 (as above). Information on a US study is of TFCO-A is on p19 and p40 of the report.
- Letourneau, E. J., Henggeler, S. W., Borduin, C. M., Schewe, P. A., McCart, M. R., Chapman, J. E., & Saldana, L., Multisystemic therapy for juvenile sexual offenders: 1-year results from a randomized effectiveness trial. *Journal of Family Psychology*, 23(1), 89-102, 2009 (MST)
- MCRI Centre for Community Child Health, Supporting the Roadmap for Reform: Evidence-informed practice, prepared for DHHS, March 2016
- Robbins, M.S. & Rowlands, S., Using data to improve implementation outcomes and sustainability. Presented at the Annual Blueprints for Violence Prevention Conference. San Antonio, Texas, 2012 (FFT-CW)
- Swenson, C. C., Schaeffer, C. M., Henggeler, S. W., Faldowski, R., & Mayhew, A., Multisystemic Therapy for Child Abuse and Neglect: A randomized effectiveness trial, *Journal of Family Psychology*, 24, 497-507, 2010 (MST-CAN)
- Turner, C. W., Robbins, M. S., Rowlands, S. & Weaver, L. R., Summary of comparison between FFT - CW® and usual care from Administration for Children's Services. *Child Abuse and Neglect*, 69, 85-95, 2017 (FFT-CW)

Appendix 1 – Detailed assumptions for baseline system costs

Sources and assumptions for data on numbers of children in the system

Variable	Assumption	Source and notes
No. of children subject to a notification	77,526	Report on Government Services (ROGS) 2019 (2017-2018 data).
No. of children subject to an investigation	30,336	AIHW (2017-18).
No. of children not an order receiving protective intervention and coordination services	11,990	SVA analysis. Assumes this is the number of children subject to a substantiation less the number of children admitted to a care and protection order (derived from AIHW 2017-2018).
No. of children admitted to a care and protection order	5,225	AIHW (2017-18).
No. of children on an order and receiving protective intervention and coordination services	13,303	AIHW (2017-18) number of children on a care and protection order as at 30 June 2018.
No. of children in OOHC	10,896	AIHW (2017-18) and SVA analysis. Includes children in permanent care.
No. of children on an order living with parents	3,156	AIHW, as at 30 June 2018.
No. of children in kinship care	5,493	AIHW, as at 30 June 2018.
No. of children in third party parental care/permanent care	3,103	AIHW, children on an order in third party parental care, as at 30 June 2018.
No. of children in foster care	1,618	AIHW, as at 30 June 2018.
No. of children in residential care	421	AIHW, as at 30 June 2018.
No. of children in other care	261	AIHW, children in other home-based care, independent living and "other" (as categorised by AIHW), as at 30 June 2018.

Sources and assumptions for data on costs

Variable	Assumption	Source and notes
Average cost per child subject to a notification	\$513	SVA analysis. Derived from ROGS 2019 report (2017-18 data) unit cost per notification.
Average cost per child investigated	\$1,789	SVA analysis. Derived from ROGS 2019 report (2017-18 data) unit cost per notification investigated.
Average cost per child receiving protective intervention and coordination services who is not on an order	\$4,224	SVA analysis. Derived from ROGS 2019 (2017-18 data) proportion of expenditure on this activity.
Average cost per child admitted to a care and protection order	\$13,080	SVA analysis. Derived from ROGS 2019 (2017-18 data) proportion of expenditure on this activity.
Average cost per child receiving protective intervention and coordination services who is on an order	\$6,254	SVA analysis. Derived from ROGS 2019 (2017-18 data) proportion of expenditure on this activity.

Variable	Assumption	Source and notes
Weighted average annual cost per child on an order and in OOHC	\$59,292	SVA analysis. Weighted average annual cost per child in OOHC. Based on estimates of average cost per child in different types of OOHC as set out below and number of children in OOHC as at 30 June 2018 (see assumption above). Assumes children stay in OOHC for the full year.
Average annual cost per child in kinship care	\$44,000	SVA analysis, derived from ROGS 2019 (2017-18 data), AIHW 2017-18 and DHHS Funding Guidelines 2018. Assumes a mix of 90% short response and 10% long response for agency funding. Assumes mid-point of Level 1 for carers payment. Also Assumes internal DHHS government costs in addition to agency and carer payment (and the same internal DHHS costs is assumed to apply across all types of OOHC).
Average annual cost per child in foster care	\$70,000	SVA analysis, derived from ROGS 2019 (2017-18 data), AIHW 2017-18, DHHS Funding Guidelines 2018, DHHS data request. Assumes median point of Home base care - care allowance (fortnight) for 26 periods. Assumes internal DHHS government costs in addition to agency and carer payment (and the same internal DHHS costs is assumed to apply across all types of OOHC).
Average annual cost per child in residential care	\$345,200	SVA analysis, derived from ROGS 2019 (2017-18 data), AIHW 2017-18 and DHHS Funding Guidelines 2018. Assumes for agency funding 100% complex cases. Assumes internal DHHS government costs in addition to agency delivery costs (and the same internal DHHS costs is assumed to apply across all types of OOHC).
Average annual cost per child in third party parental care	\$62,400	SVA analysis, derived from ROGS 2019 (2017-18 data), AIHW 2017-18 and DHHS Funding Guidelines 2018. Assumes agency funding as for "other home-based care" and carer allowance as per foster care. Assumes internal DHHS government costs in addition to agency and carer payment (and the same internal DHHS costs is assumed to apply across all types of OOHC).
Average annual cost per child in other care	\$60,400	SVA analysis, derived from ROGS 2019 (2017-18 data), AIHW 2017-18 and DHHS Funding Guidelines 2018. "Other" care includes home based care other than foster care and third party parental care including permanent care. Assumes agency funding and carer allows is the same as foster care – general. Assumes internal DHHS government costs in addition to agency and carer payment (and the same internal DHHS costs is assumed to apply across all types of OOHC).

Other assumptions

Variable	Assumption	Source and notes
Average no. of years child is in OOHC	4 years	<p>SVA analysis. Assumes average total time in care is 4 years – based on the average length of time in care being approximately 2 years for the OOHC cohort as at 30 June 2018 (AIHW), and assuming that children are at the midpoint of their duration in care at the time of the reporting.</p> <p>Other reference points include the Create Foundation's Report cards of OOHC in Australia, conducted in 2013 and 2018. These studies surveyed a national sample of children who were in care. In 2013, the mean time in care for respondents from Victoria was 5.5 years (162 Victorian children and young people in sample). In 2018, 70% had been in care for more than 5 years (182 Victorian children and young people in sample).</p>

Appendix 2 – Evidence-based programs

Programs are categorised broadly into three levels, based on the level of research evidence available⁴²:

- Level 1 – Evidence-based: at least two rigorous randomised control trials replicating the effect for the same outcome.
- Level 2 – Evidence-informed: at least one rigorous randomised control trial, or two randomised control trials that have different outcomes measured
- Level 3 – Promising practice: at least one study using some form of control group, and reported in published, peer-reviewed literature.

There are several organisations focussed on examining the strength of available research evidence and providing classifications for programs. Internationally, these organisations include the California Evidence-Based Clearinghouse for Child Welfare (CEBC), Blueprints in the US, and the What Works for Children’s Social Care Evidence Store in the UK. Reviews of EBPs have also been conducted in Australia, including by the MCRI Centre for Community Child Health⁴³.

The CEBC offers the most comprehensive list of programs relevant to the child welfare system, with 213 programs listed as evidence-based, evidence-informed, or promising practice. All the listed programs were designed, or are commonly used, to meet the needs of children and families receiving child welfare services, or those at risk of entering the child welfare system. These programs target outcomes in the areas of child and family wellbeing, safety, and permanency, and cover a range of topic areas for children and young people aged 0-21.

The EBPs modelled in this report have the following levels of evidence according to CEBC:

- Safecare: Level 2 (Supported by Research Evidence)
- FFT-CW is an adaptation of FFT which is rated at Level 2 (Supported by Research Evidence). FFT is an emerging model that has not been rated.
- MST: Level 1 (Well-Supported by Research Evidence)
- MST-CAN: Level 2 (Supported by Research Evidence)
- TFCO-A: Level 1 (Well-Supported by Research Evidence)

⁴² These categories are based on the California Evidence-Based Clearinghouse for Child Welfare classifications: see [Overview of the CEBC Scientific Rating scale](#), www.cebc4cw.org, accessed 16 October 2019.

⁴³ MCRI Centre for Community Child Health (2016), *Research paper on evidence-informed practice, to support the Roadmap for Reform*. The paper recommends a menu of 33 programs, based on examination of 50+ research papers and a long list of 190 programs.

Appendix 3 – Additional assumptions and findings in cost benefit analysis

EBM cost assumptions⁴⁴

	Establishment costs	Program team and interventions per year	Delivery cost
Safecare	\$102,108 per team in Year 1 and \$20,500 in Year 2+ for ongoing training and support	Each team can deliver 62 interventions per year	\$16,135 per intervention
FFT-CW	\$80,000 per team in Year 1, \$40,000 in Year 2, \$25,000 in Year 3 and \$10,769 in Year 4+	Each team can deliver 70 interventions per year	\$14,000 per intervention
MST	\$71,500 per team in Year 1 and \$52,500 in Year 2+ for ongoing license, training and support	Each team can deliver 40 interventions per year	\$25,000 per intervention
MST-CAN	\$215,000 per team in Year 1, \$200,000 in Year 2, \$145,000 in Year 3 and \$100,000 in Year 4+	Each team can deliver 16 interventions per year	\$66,076 per intervention
TFCO	\$215,385 per team in Year 1 and \$43,000 in Year 2+ for ongoing training and support	Each team can deliver 9.3 interventions per year	\$161,864 per intervention

Cost benefit analysis over 10 years per EBM (indexed):

Safecare

	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
Millions											
Baseline system cost	\$ 997	\$ 1,016	\$ 1,036	\$ 1,055	\$ 1,075	\$ 1,096	\$ 1,117	\$ 1,138	\$ 1,160	\$ 1,182	\$ 1,204
EBM investment - Establishment	\$ 4.3	\$ 0.9	\$ 0.9	\$ 0.9	\$ 0.9	\$ 0.9	\$ 1.0	\$ 1.0	\$ 1.0	\$ 1.0	\$ 1.0
EBM investment - Delivery	\$ 21.0	\$ 42.8	\$ 43.6	\$ 44.5	\$ 45.3	\$ 46.2	\$ 47.1	\$ 48.0	\$ 48.9	\$ 49.8	\$ 50.7
EBM investment - Total per year	\$ 25	\$ 44	\$ 45	\$ 45	\$ 46	\$ 47	\$ 48	\$ 49	\$ 50	\$ 51	\$ 52
EBM investment - Cumulative	\$ 25	\$ 69	\$ 114	\$ 159	\$ 205	\$ 252	\$ 300	\$ 349	\$ 399	\$ 450	\$ 502
Gross savings from 2020/21 EBM investment		\$ 15	\$ 15	\$ 15	\$ 16	\$ 16					
Gross savings from 2021/22 EBM investment			\$ 15	\$ 15	\$ 16	\$ 16	\$ 16				
Gross savings from 2022/23 EBM investment				\$ 15	\$ 16	\$ 16	\$ 16	\$ 17			
Gross savings from 2023/24 EBM investment					\$ 16	\$ 16	\$ 16	\$ 17	\$ 17		
Gross savings from 2024/25 EBM investment						\$ 16	\$ 16	\$ 17	\$ 17	\$ 17	
Gross savings from 2025/26 EBM investment							\$ 16	\$ 17	\$ 17	\$ 17	\$ 18
Gross savings from 2026/27 EBM investment								\$ 17	\$ 17	\$ 17	\$ 18
Gross savings from 2027/28 EBM investment									\$ 17	\$ 17	\$ 18
Gross savings from 2028/29 EBM investment										\$ 17	\$ 18
Gross savings from 2029/30 EBM investment											\$ 18
Gross savings realised per year	\$ -	\$ 15	\$ 30	\$ 46	\$ 63	\$ 80	\$ 81	\$ 83	\$ 84	\$ 86	\$ 88
Gross savings - Cumulative	\$ -	\$ 15	\$ 45	\$ 91	\$ 153	\$ 233	\$ 314	\$ 397	\$ 481	\$ 567	\$ 655
New system cost (Net of EBM investment and savings)	\$ 1,023	\$ 1,045	\$ 1,050	\$ 1,055	\$ 1,059	\$ 1,063	\$ 1,084	\$ 1,104	\$ 1,125	\$ 1,146	\$ 1,168
Net savings per year (New vs baseline system cost)	-\$ 25	-\$ 29	-\$ 14	\$ 1	\$ 16	\$ 33	\$ 33	\$ 34	\$ 34	\$ 35	\$ 36
Net savings - cumulative	-\$ 25	-\$ 54	-\$ 69	-\$ 68	-\$ 52	-\$ 19	\$ 14	\$ 48	\$ 82	\$ 117	\$ 153

⁴⁴ Based on cost estimates provided by Berry Street and OzChild. Includes licence costs and prices quoted by model developers in USD and converted to AUD using exchange range of 0.65 AUD: 1 USD.

FFT-CW

	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
Millions											
Baseline system cost	\$ 997	\$ 1,016	\$ 1,036	\$ 1,055	\$ 1,075	\$ 1,096	\$ 1,117	\$ 1,138	\$ 1,160	\$ 1,182	\$ 1,204
EBM investment - Establishment	\$ 6.1	\$ 2.0	\$ 1.3	\$ 0.6	\$ 0.6	\$ 0.6	\$ 0.6	\$ 0.6	\$ 0.6	\$ 0.6	\$ 0.7
EBM investment - Delivery	\$ 25	\$ 50	\$ 51	\$ 52	\$ 53	\$ 54	\$ 55	\$ 56	\$ 57	\$ 58	\$ 59
EBM investment - Total per year	\$ 31	\$ 52	\$ 52	\$ 53	\$ 54	\$ 55	\$ 56	\$ 57	\$ 58	\$ 59	\$ 60
EBM investment - Cumulative	\$ 31	\$ 83	\$ 135	\$ 188	\$ 242	\$ 296	\$ 352	\$ 409	\$ 466	\$ 525	\$ 585
Gross savings from 2020/21 EBM investment		\$ 39	\$ 40	\$ 41	\$ 42	\$ 42					
Gross savings from 2021/22 EBM investment			\$ 40	\$ 41	\$ 42	\$ 42	\$ 43				
Gross savings from 2022/23 EBM investment				\$ 41	\$ 42	\$ 42	\$ 43	\$ 44			
Gross savings from 2023/24 EBM investment					\$ 42	\$ 42	\$ 43	\$ 44	\$ 45		
Gross savings from 2024/25 EBM investment						\$ 42	\$ 43	\$ 44	\$ 45	\$ 46	
Gross savings from 2025/26 EBM investment							\$ 43	\$ 44	\$ 45	\$ 46	\$ 47
Gross savings from 2026/27 EBM investment								\$ 44	\$ 45	\$ 46	\$ 47
Gross savings from 2027/28 EBM investment									\$ 45	\$ 46	\$ 47
Gross savings from 2028/29 EBM investment										\$ 46	\$ 47
Gross savings from 2029/30 EBM investment											\$ 47
Gross savings realised per year	\$ -	\$ 39	\$ 80	\$ 122	\$ 166	\$ 212	\$ 216	\$ 220	\$ 224	\$ 228	\$ 233
Gross savings - Cumulative	\$ -	\$ 39	\$ 119	\$ 242	\$ 408	\$ 620	\$ 835	\$ 1,055	\$ 1,279	\$ 1,508	\$ 1,740
New system cost (Net of EBM investment and savings)	\$ 1,028	\$ 1,029	\$ 1,008	\$ 986	\$ 963	\$ 939	\$ 957	\$ 975	\$ 993	\$ 1,012	\$ 1,031
Net savings per year (New vs baseline system cost)	-\$ 31	-\$ 13	\$ 28	\$ 70	\$ 113	\$ 157	\$ 160	\$ 163	\$ 166	\$ 169	\$ 173
Net savings - cumulative	-\$ 31	-\$ 44	-\$ 16	\$ 54	\$ 166	\$ 323	\$ 484	\$ 647	\$ 813	\$ 982	\$ 1,155

MST

	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
Millions											
Baseline system cost	\$ 997	\$ 1,016	\$ 1,036	\$ 1,055	\$ 1,075	\$ 1,096	\$ 1,117	\$ 1,138	\$ 1,160	\$ 1,182	\$ 1,204
EBM investment - Establishment	\$ 0.8	\$ 0.6	\$ 0.6	\$ 0.6	\$ 0.6	\$ 0.6	\$ 0.6	\$ 0.6	\$ 0.6	\$ 0.7	\$ 0.7
EBM investment - Delivery	\$ 5	\$ 11	\$ 11	\$ 11	\$ 11	\$ 12	\$ 12	\$ 12	\$ 12	\$ 13	\$ 13
EBM investment - Total per year	\$ 6	\$ 11	\$ 12	\$ 12	\$ 12	\$ 12	\$ 13	\$ 13	\$ 13	\$ 13	\$ 14
EBM investment - Cumulative	\$ 6	\$ 17	\$ 29	\$ 41	\$ 53	\$ 65	\$ 78	\$ 91	\$ 104	\$ 117	\$ 130
Gross savings from 2020/21 EBM investment		\$ 4.6	\$ 4.6	\$ 4.7	\$ 4.8	\$ 4.9					
Gross savings from 2021/22 EBM investment			\$ 4.6	\$ 4.7	\$ 4.8	\$ 4.9	\$ 5.0				
Gross savings from 2022/23 EBM investment				\$ 4.7	\$ 4.8	\$ 4.9	\$ 5.0	\$ 5.1			
Gross savings from 2023/24 EBM investment					\$ 4.8	\$ 4.9	\$ 5.0	\$ 5.1	\$ 5.2		
Gross savings from 2024/25 EBM investment						\$ 4.9	\$ 5.0	\$ 5.1	\$ 5.2	\$ 5.3	
Gross savings from 2025/26 EBM investment							\$ 5.0	\$ 5.1	\$ 5.2	\$ 5.3	\$ 5.4
Gross savings from 2026/27 EBM investment								\$ 5.1	\$ 5.2	\$ 5.3	\$ 5.4
Gross savings from 2027/28 EBM investment									\$ 5.2	\$ 5.3	\$ 5.4
Gross savings from 2028/29 EBM investment										\$ 5.3	\$ 5.4
Gross savings from 2029/30 EBM investment											\$ 5.4
Gross savings realised per year	\$ -	\$ 5	\$ 9	\$ 14	\$ 19	\$ 25	\$ 25	\$ 26	\$ 26	\$ 27	\$ 27
Gross savings - Cumulative	\$ -	\$ 5	\$ 14	\$ 28	\$ 47	\$ 72	\$ 97	\$ 123	\$ 149	\$ 175	\$ 202
New system cost (Net of EBM investment and savings)	\$ 1,004	\$ 1,023	\$ 1,038	\$ 1,053	\$ 1,068	\$ 1,084	\$ 1,104	\$ 1,125	\$ 1,147	\$ 1,168	\$ 1,191
Net savings per year (New vs baseline system cost)	-\$ 6	-\$ 7	-\$ 2	\$ 2	\$ 7	\$ 12	\$ 13				
Net savings - cumulative	-\$ 6	-\$ 13	-\$ 15	-\$ 13	-\$ 6	\$ 7	\$ 19	\$ 32	\$ 45	\$ 58	\$ 72

MST-CAN

	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
Millions											
Baseline system cost	\$ 997	\$ 1,016	\$ 1,036	\$ 1,055	\$ 1,075	\$ 1,096	\$ 1,117	\$ 1,138	\$ 1,160	\$ 1,182	\$ 1,204
EBM investment - Establishment	\$ 6.8	\$ 6.5	\$ 4.8	\$ 3.4	\$ 3.4	\$ 3.5	\$ 3.6	\$ 3.6	\$ 3.7	\$ 3.8	\$ 3.8
EBM investment - Delivery	\$ 16.8	\$ 34	\$ 35	\$ 36	\$ 36	\$ 37	\$ 38	\$ 38	\$ 39	\$ 40	\$ 41
EBM investment - Total per year	\$ 24	\$ 41	\$ 40	\$ 39	\$ 40	\$ 40	\$ 41	\$ 42	\$ 43	\$ 44	\$ 44
EBM investment - Cumulative	\$ 24	\$ 64	\$ 104	\$ 143	\$ 183	\$ 223	\$ 264	\$ 306	\$ 349	\$ 392	\$ 437
Gross savings from 2020/21 EBM investment		\$ 13	\$ 13	\$ 13	\$ 13	\$ 14					
Gross savings from 2021/22 EBM investment			\$ 13	\$ 13	\$ 13	\$ 14	\$ 14				
Gross savings from 2022/23 EBM investment				\$ 13	\$ 13	\$ 14	\$ 14	\$ 14			
Gross savings from 2023/24 EBM investment					\$ 13	\$ 14	\$ 14	\$ 14	\$ 14		
Gross savings from 2024/25 EBM investment						\$ 14	\$ 14	\$ 14	\$ 14	\$ 15	
Gross savings from 2025/26 EBM investment							\$ 14	\$ 14	\$ 14	\$ 15	\$ 15
Gross savings from 2026/27 EBM investment								\$ 14	\$ 14	\$ 15	\$ 15
Gross savings from 2027/28 EBM investment									\$ 14	\$ 15	\$ 15
Gross savings from 2028/29 EBM investment										\$ 15	\$ 15
Gross savings from 2029/30 EBM investment											\$ 15
Gross savings realised per year	\$ -	\$ 13	\$ 26	\$ 39	\$ 54	\$ 68	\$ 70	\$ 71	\$ 72	\$ 74	\$ 75
Gross savings - Cumulative	\$ -	\$ 13	\$ 38	\$ 78	\$ 132	\$ 200	\$ 269	\$ 340	\$ 413	\$ 486	\$ 561
New system cost (Net of EBM investment and savings)	\$ 1,021	\$ 1,044	\$ 1,050	\$ 1,055	\$ 1,061	\$ 1,068	\$ 1,088	\$ 1,109	\$ 1,130	\$ 1,151	\$ 1,173
Net savings per year (New vs baseline system cost)	-\$ 24	-\$ 28	-\$ 14	\$ 1	\$ 14	\$ 28	\$ 28	\$ 29	\$ 30	\$ 30	\$ 31
Net savings - cumulative	-\$ 24	-\$ 52	-\$ 66	-\$ 65	-\$ 51	-\$ 23	\$ 5	\$ 34	\$ 64	\$ 94	\$ 125

TFCO-A

	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
Millions											
Baseline system cost	\$ 997	\$ 1,016	\$ 1,036	\$ 1,055	\$ 1,075	\$ 1,096	\$ 1,117	\$ 1,138	\$ 1,160	\$ 1,182	\$ 1,204
EBM investment - establishment	\$ 0.9	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2
EBM investment - delivery	\$ 3	\$ 6	\$ 6	\$ 6	\$ 7	\$ 7	\$ 7	\$ 7	\$ 7	\$ 7	\$ 7
EBM investment - Total per year	\$ 4	\$ 6	\$ 7	\$ 8							
EBM investment - Cumulative	\$ 4	\$ 10	\$ 17	\$ 24	\$ 30	\$ 37	\$ 44	\$ 52	\$ 59	\$ 66	\$ 74
Gross savings from 2020/21 EBM investment		\$ 4	\$ 4	\$ 4	\$ 4	\$ 4					
Gross savings from 2021/22 EBM investment			\$ 4	\$ 4	\$ 4	\$ 4	\$ 5				
Gross savings from 2022/23 EBM investment				\$ 4	\$ 4	\$ 4	\$ 5	\$ 5			
Gross savings from 2023/24 EBM investment					\$ 4	\$ 4	\$ 5	\$ 5	\$ 5		
Gross savings from 2024/25 EBM investment						\$ 4	\$ 5	\$ 5	\$ 5	\$ 5	
Gross savings from 2025/26 EBM investment							\$ 5	\$ 5	\$ 5	\$ 5	\$ 5
Gross savings from 2026/27 EBM investment								\$ 5	\$ 5	\$ 5	\$ 5
Gross savings from 2027/28 EBM investment									\$ 5	\$ 5	\$ 5
Gross savings from 2028/29 EBM investment										\$ 5	\$ 5
Gross savings from 2029/30 EBM investment											\$ 5
Gross savings realised per year	\$ -	\$ 4	\$ 8	\$ 13	\$ 18	\$ 22	\$ 23	\$ 23	\$ 24	\$ 24	\$ 25
Gross savings - Cumulative	\$ -	\$ 4	\$ 13	\$ 26	\$ 43	\$ 65	\$ 88	\$ 111	\$ 135	\$ 159	\$ 184
New system cost (Net of EBM investment and savings)	\$ 1,001	\$ 1,019	\$ 1,034	\$ 1,049	\$ 1,065	\$ 1,080	\$ 1,101	\$ 1,122	\$ 1,143	\$ 1,165	\$ 1,187
Net savings per year (New vs baseline system cost)	-\$ 4	-\$ 2	\$ 2	\$ 6	\$ 11	\$ 15	\$ 16	\$ 16	\$ 16	\$ 17	\$ 17
Net savings - cumulative	-\$ 4	-\$ 6	-\$ 4	\$ 2	\$ 13	\$ 28	\$ 44	\$ 60	\$ 76	\$ 93	\$ 110

Appendix 4 – Sensitivity analysis

Our understanding from agencies which are delivering EBPs is that the assumptions used in the modelling are reasonable assumptions based on their experience to date.

These assumptions have been documented throughout the report. This includes two key sets of assumptions, which particularly drive the savings: A) assumptions made about the ‘effectiveness’ of the EBPs in reducing the risk of a child entering care, drawing from available research evidence; and B) assumptions about the cost of the EBPs.

Three alternate scenarios were also modelled to assess the impact of varying these assumptions:

1. Reducing the assumed effectiveness of the EBPs: Safecare, MST, MST-CAN, and TFCO-A are assumed to be 20% less effective than demonstrated in the research evidence. As FFT-CW is an emerging adaptation of FFT (e.g. it has not been rated by CEBC as being supported by research evidence), is it assumed in this scenario that FFT-CW is 50% less effective.
2. Increasing the delivery costs of the EBPs: All EBPs are all assumed to cost 20% more, in both establishment and delivery costs
3. Reducing the assumed effectiveness of the EBPs AND Increasing the delivery costs of the EBPs (combination of the assumptions above)

Under all scenarios, the investment would result in net savings over 10 years:

Cumulative cost benefit over 10 years (\$m indexed)	With modelled assumptions	1. Reducing the assumed effectiveness of the EBPs	2. Increasing the delivery costs of the EBPs	3. Reducing the assumed effectiveness of the EBPs AND increasing the delivery costs of the EBPs
EBM investment	1,728	1,728	2,074	2,074
Gross savings	3,342	2,549	3,342	2,549
Net savings	1,614	820	1,268	475

Scenario 1: Reduced EBP effectiveness

	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
\$Millions											
Baseline system cost	\$ 997	\$ 1,016	\$ 1,036	\$ 1,055	\$ 1,075	\$ 1,096	\$ 1,117	\$ 1,138	\$ 1,160	\$ 1,182	\$ 1,204
EBM investment - Establishment	\$ 19	\$ 10	\$ 8	\$ 5.6	\$ 5.7	\$ 5.8	\$ 6.0	\$ 6.1	\$ 6.2	\$ 6.3	\$ 6.4
EBM investment - Delivery	\$ 71	\$ 144	\$ 147	\$ 150	\$ 153	\$ 156	\$ 159	\$ 162	\$ 165	\$ 168	\$ 171
EBM investment - Total per year	\$ 90	\$ 154	\$ 155	\$ 155	\$ 158	\$ 161	\$ 164	\$ 168	\$ 171	\$ 174	\$ 177
EBM investment - Cumulative	\$ 90	\$ 244	\$ 399	\$ 554	\$ 713	\$ 874	\$ 1,039	\$ 1,206	\$ 1,377	\$ 1,551	\$ 1,728
Gross savings from 2020/21 EBM investment		\$ 58	\$ 59	\$ 60	\$ 61	\$ 62					
Gross savings from 2021/22 EBM investment			\$ 59	\$ 60	\$ 61	\$ 62	\$ 63				
Gross savings from 2022/23 EBM investment				\$ 60	\$ 61	\$ 62	\$ 63	\$ 64			
Gross savings from 2023/24 EBM investment					\$ 61	\$ 62	\$ 63	\$ 64	\$ 66		
Gross savings from 2024/25 EBM investment						\$ 62	\$ 63	\$ 64	\$ 66	\$ 67	
Gross savings from 2025/26 EBM investment							\$ 63	\$ 64	\$ 66	\$ 67	\$ 68
Gross savings from 2026/27 EBM investment								\$ 64	\$ 66	\$ 67	\$ 68
Gross savings from 2027/28 EBM investment									\$ 66	\$ 67	\$ 68
Gross savings from 2028/29 EBM investment										\$ 67	\$ 68
Gross savings from 2029/30 EBM investment											\$ 68
Gross savings realised per year	\$ -	\$ 58	\$ 117	\$ 179	\$ 243	\$ 310	\$ 316	\$ 322	\$ 328	\$ 334	\$ 341
Gross savings - Cumulative	\$ -	\$ 58	\$ 175	\$ 354	\$ 597	\$ 907	\$ 1,223	\$ 1,545	\$ 1,874	\$ 2,208	\$ 2,549
New system cost (Net of EBM investment and savings)	\$ 1,087	\$ 1,113	\$ 1,073	\$ 1,032	\$ 990	\$ 947	\$ 965	\$ 984	\$ 1,002	\$ 1,021	\$ 1,041
Net savings per year (New vs baseline system cost)	-\$ 90	-\$ 97	-\$ 38	\$ 24	\$ 85	\$ 149	\$ 152	\$ 154	\$ 157	\$ 160	\$ 163
Net savings - cumulative	-\$ 90	-\$ 187	-\$ 224	-\$ 200	-\$ 115	\$ 33	\$ 185	\$ 339	\$ 497	\$ 657	\$ 820

Scenario 2: Increased EBP delivery costs

	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
\$Millions											
Baseline system cost	\$ 997	\$ 1,016	\$ 1,036	\$ 1,055	\$ 1,075	\$ 1,096	\$ 1,117	\$ 1,138	\$ 1,160	\$ 1,182	\$ 1,204
EBM investment - Establishment	\$ 23	\$ 12	\$ 9	\$ 6.7	\$ 6.9	\$ 7.0	\$ 7.1	\$ 7.3	\$ 7.4	\$ 7.6	\$ 7.7
EBM investment - Delivery	\$ 85	\$ 173	\$ 176	\$ 180	\$ 183	\$ 187	\$ 190	\$ 194	\$ 198	\$ 201	\$ 205
EBM investment - Total per year	\$ 108	\$ 185	\$ 186	\$ 187	\$ 190	\$ 194	\$ 197	\$ 201	\$ 205	\$ 209	\$ 213
EBM investment - Cumulative	\$ 108	\$ 293	\$ 479	\$ 665	\$ 855	\$ 1,049	\$ 1,246	\$ 1,447	\$ 1,652	\$ 1,861	\$ 2,074
Gross savings from 2020/21 EBM investment		\$ 75	\$ 77	\$ 78	\$ 80	\$ 81					
Gross savings from 2021/22 EBM investment			\$ 77	\$ 78	\$ 80	\$ 81	\$ 83				
Gross savings from 2022/23 EBM investment				\$ 78	\$ 80	\$ 81	\$ 83	\$ 84			
Gross savings from 2023/24 EBM investment					\$ 80	\$ 81	\$ 83	\$ 84	\$ 86		
Gross savings from 2024/25 EBM investment						\$ 81	\$ 83	\$ 84	\$ 86	\$ 88	
Gross savings from 2025/26 EBM investment							\$ 83	\$ 84	\$ 86	\$ 88	\$ 89
Gross savings from 2026/27 EBM investment								\$ 84	\$ 86	\$ 88	\$ 89
Gross savings from 2027/28 EBM investment									\$ 86	\$ 88	\$ 89
Gross savings from 2028/29 EBM investment										\$ 88	\$ 89
Gross savings from 2029/30 EBM investment											\$ 89
Gross savings realised per year	\$ -	\$ 75	\$ 154	\$ 235	\$ 319	\$ 407	\$ 414	\$ 422	\$ 430	\$ 438	\$ 447
Gross savings - Cumulative	\$ -	\$ 75	\$ 229	\$ 464	\$ 783	\$ 1,190	\$ 1,604	\$ 2,027	\$ 2,457	\$ 2,895	\$ 3,342
New system cost (Net of EBM investment and savings)	\$ 1,105	\$ 1,126	\$ 1,068	\$ 1,007	\$ 946	\$ 883	\$ 900	\$ 917	\$ 934	\$ 952	\$ 970
Net savings per year (New vs baseline system cost)	-\$ 108	-\$ 110	-\$ 32	\$ 48	\$ 129	\$ 213	\$ 217	\$ 221	\$ 225	\$ 230	\$ 234
Net savings - cumulative	-\$ 108	-\$ 217	-\$ 250	-\$ 201	-\$ 72	\$ 141	\$ 358	\$ 579	\$ 804	\$ 1,034	\$ 1,268

Scenario 3: Reduced EBP effectiveness and increased EBP delivery costs

	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
\$Millions											
Baseline system cost	\$ 997	\$ 1,016	\$ 1,036	\$ 1,055	\$ 1,075	\$ 1,096	\$ 1,117	\$ 1,138	\$ 1,160	\$ 1,182	\$ 1,204
EBM investment - Establishment	\$ 23	\$ 12	\$ 9	\$ 6.7	\$ 6.9	\$ 7.0	\$ 7.1	\$ 7.3	\$ 7.4	\$ 7.6	\$ 7.7
EBM investment - Delivery	\$ 85	\$ 173	\$ 176	\$ 180	\$ 183	\$ 187	\$ 190	\$ 194	\$ 198	\$ 201	\$ 205
EBM investment - Total per year	\$ 108	\$ 185	\$ 186	\$ 187	\$ 190	\$ 194	\$ 197	\$ 201	\$ 205	\$ 209	\$ 213
EBM investment - Cumulative	\$ 108	\$ 293	\$ 479	\$ 665	\$ 855	\$ 1,049	\$ 1,246	\$ 1,447	\$ 1,652	\$ 1,861	\$ 2,074
Gross savings from 2020/21 EBM investment		\$ 58	\$ 59	\$ 60	\$ 61	\$ 62					
Gross savings from 2021/22 EBM investment			\$ 59	\$ 60	\$ 61	\$ 62	\$ 63				
Gross savings from 2022/23 EBM investment				\$ 60	\$ 61	\$ 62	\$ 63	\$ 64			
Gross savings from 2023/24 EBM investment					\$ 61	\$ 62	\$ 63	\$ 64	\$ 66		
Gross savings from 2024/25 EBM investment						\$ 62	\$ 63	\$ 64	\$ 66	\$ 67	
Gross savings from 2025/26 EBM investment							\$ 63	\$ 64	\$ 66	\$ 67	\$ 68
Gross savings from 2026/27 EBM investment								\$ 64	\$ 66	\$ 67	\$ 68
Gross savings from 2027/28 EBM investment									\$ 66	\$ 67	\$ 68
Gross savings from 2028/29 EBM investment										\$ 67	\$ 68
Gross savings from 2029/30 EBM investment											\$ 68
Gross savings realised per year	\$ -	\$ 58	\$ 117	\$ 179	\$ 243	\$ 310	\$ 316	\$ 322	\$ 328	\$ 334	\$ 341
Gross savings - Cumulative	\$ -	\$ 58	\$ 175	\$ 354	\$ 597	\$ 907	\$ 1,223	\$ 1,545	\$ 1,874	\$ 2,208	\$ 2,549
New system cost (Net of EBM investment and savings)	\$ 1,105	\$ 1,144	\$ 1,104	\$ 1,063	\$ 1,022	\$ 979	\$ 998	\$ 1,017	\$ 1,036	\$ 1,056	\$ 1,076
Net savings per year (New vs baseline system cost)	-\$ 108	-\$ 128	-\$ 69	-\$ 7	\$ 53	\$ 116	\$ 119	\$ 121	\$ 123	\$ 126	\$ 128
Net savings - cumulative	-\$ 108	-\$ 235	-\$ 304	-\$ 311	-\$ 258	-\$ 141	-\$ 23	\$ 98	\$ 221	\$ 347	\$ 475