

INVESTING IN OUR FUTURE

An evaluation of the national rollout
of the Home Interaction Program for Parents
and Youngsters (HIPPY)

Final report to the Department of Education,
Employment and Workplace Relations, August 2011



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Abbreviations

AEDI	Australian Early Development Index
ANOVA	Analysis of variance
BSL	Brotherhood of St Laurence
DEEWR	Australian Government Department of Education, Employment and Workplace Relations
ECEC	Early childhood education and care
FaHCSIA	Australian Government Department of Families, Housing, Community Services and Indigenous Affairs
HIPPY	Home Interaction Program for Parents and Youngsters
LOTE	Language other than English
LSAC	Longitudinal Study of Australian Children
OECD	Organisation for Economic Co-operation and Development
RCT	Randomised controlled trial
SDQ	Strengths and Difficulties Questionnaire
SEIFA	Socio-Economic Indexes for Areas (Australian Bureau of Statistics)

Summary

In 2008 the Australian Government began a five-year national rollout of the Home Interaction Program for Parents and Youngsters (HIPPY) that would see it delivered in 50 communities across Australia by 2012. The promised funding was part of the Government's Social Inclusion Agenda and commitment to support early childhood education. The Australian Government recognised the potential of HIPPY, which had been introduced to Australia in 1998 in a single-site trial by the Brotherhood of St Laurence (BSL). Over the next ten years the BSL had gradually expanded the program to nine disadvantaged communities and accumulated a considerable body of practice knowledge and evaluative evidence that demonstrated strong positive impacts of an empowering community-based home visiting program. It was this accumulated body of knowledge, the strong indications of positive impacts and the design of HIPPY that led to the Labor Government's decision to expand the program nationally.

This evaluation of the national rollout of HIPPY has found strong evidence about the distinctive place that HIPPY fills within the landscape of early childhood development programs in Australia, as well as scientific evidence of HIPPY's effectiveness and cost-effectiveness when compared with other programs both here in Australia and overseas.

HIPPY is a combined home and centre-based early childhood enrichment program that supports parents in their role as their child's first teacher. The program targets communities that experience various forms of social disadvantage. Home tutors who have been recruited from the local community work with parents as peers over two years during the critical period of the child's transition to full-time school. HIPPY aims to ensure children start school on an equal footing with their more advantaged peers, as well as to strengthen communities and the social inclusion of parents and children.

This evaluation has been undertaken by Associate Professor Max Liddell of the Department of Social Work, Monash University, as Chief Investigator, with practical assistance provided by the Early Years research team in the Research and Policy Centre at the BSL.

The design features of HIPPY, together with the evidence base gained from this evaluation, set HIPPY apart from most other programs in Australia. Moreover, HIPPY aligns with three important Australian Government policy agendas: the COAG National Early Childhood Development Strategy – Investing in the Early Years, the related National Quality Framework for Early Childhood Education and Care Services, the Social Inclusion Agenda and Closing the Gap.

The evaluation framework included a review of five areas which shape the structure of this report:

- appropriateness—the identified need for the program, alignment with Australian Government priorities and alternative responses/programs
- effectiveness—the degree to which the intended benefits or outcomes have been achieved
- efficiency—the cost-effectiveness of the program
- HIPPY with Indigenous Australians—the appropriateness and acceptability of the program among Indigenous Australians
- governance—whether the governance arrangements have been appropriate and sufficient.

Key findings

The table below provides a summary of the findings of this evaluation, which are discussed in greater detail below.

Table: Findings from the evaluation of the national rollout of HIPPY

Evaluation criteria	Comment
Appropriateness	The evaluation found that HIPPY has a rare combination of evidence-based features that are known to be effective in early childhood parenting programs. The program meets a significant need in Australia, and aligns with and supports three important Australian Government early childhood development priorities and policy agendas.
Effectiveness	The evaluation provides a strong evidence base as to the effectiveness of HIPPY, which sets it apart from most other early childhood parenting programs in Australia. Significant positive impacts were found across a number of important developmental domains and spheres of influence, including the child, the parent, the home learning environment and parents' social connectedness and inclusion.
Efficiency	HIPPY's cost-effectiveness compares very favourably to that of international programs. It was not possible to make Australian comparisons due to the lack of data about Australian programs. The program has achieved good efficiencies and a benefit–cost analysis ¹ shows a return on investment to society of as much as \$2.53 for every dollar spent. This is a conservative estimate, as the paucity of data available in Australia limited what could be included in the modelling. Research about other similar programs indicates it is realistic to estimate a return to society of as much as \$4 for every \$1 spent (Duncan, Ludwig & Magnuson 2007).
HIPPY with Indigenous Australians	HIPPY with Indigenous Australians is promising, with strong reports of positive impacts. Successful strategies to meet the significant challenge of engaging Indigenous families are discussed.
Governance	HIPPY is well managed and governance arrangements are strong and satisfactory. However, based on stakeholder feedback there are opportunities for improvement in the areas of reporting requirements and balance between the needs of all partners within an innovative model of governance involving government and the community sector.

Appropriateness

There is now overwhelming evidence from studies both in Australia and overseas that children from poorer and more socially excluded families on average do worse cognitively and behaviourally at entry to school than those from more affluent homes.

An estimated 500,000 children (12 per cent of the total) are growing up in poverty in Australia, which is roughly in the middle of the range of all OECD countries in terms of the percentage of children living in poverty. Analysis of the Australian Early Development Index (AEDI) reveals that 23 per cent of Australian children in their first year of full-time school have been assessed as developmentally vulnerable on one or more of the five school readiness developmental measures of the AEDI and that there are higher proportions of children who are developmentally vulnerable living in the most socioeconomically disadvantaged communities (DEEWR 2009).

¹ The term benefit–cost analysis is used in this report instead of cost-benefit analysis as the results are expressed in terms of the ratio of benefit to cost.

The Australian Government has recognised the importance of the early years and the value of investment in evidence-based programs for children who may be at risk of developmental delay due to the adverse effects of poverty and social exclusion.

HIPPY aligns most explicitly with four Australian Government policy initiatives and agenda:

- the COAG National Early Childhood Development Strategy—Investing in the Early Years
- the National Quality Framework for Early Childhood Education and Care Services
- the Social Inclusion Agenda
- Closing the Gap.

Children linked with financially disadvantaged families who do not start school on an equal footing with their more affluent peers are set on a trajectory for poorer outcomes later in life that is difficult to alter (Brooks-Gunn 2003). Investment in the early years is known to be more cost-effective than investment in later life programs that aim to reduce the achievement gaps and the adverse effects of poverty and social exclusion (Karloly 2001). Thus, the economic or productivity argument for investing in the early years is now well accepted.

Investing in disadvantaged young children is a rare public policy with no equity–efficiency trade-off. It reduces the inequality associated with the accident of birth and at the same time raises the productivity of society at large (Heckman & Masterov 2007, p. 446).

The challenge for society and governments is to know in what to invest. In the early years children are sensitive to ‘inputs’ from parents, home learning environments, childcare settings, and the health care system (Duncan, Ludwig & Magnuson 2007; Field 2010). HIPPY works across these four domains and has by design many of the known ‘active ingredients’ of effective early childhood parenting programs, such as delivery in both home and childcare settings, a combination of quality education for the child with support for the parent, and intensive delivery (weekly over two years). This gives the program a distinctive position within the range of other early childhood interventions in Australia.

Effectiveness

The effectiveness of HIPPY was evaluated by means of a two-year, longitudinal, quasi-experimental research design that involved a comparison group drawn from the Longitudinal Study of Australian Children using a propensity score matching method. It means that we are able to compare the outcomes of two groups: one that received HIPPY and one that did not. If the two groups have been correctly matched, then any difference observed in the outcomes at the end of the program can be attributed to HIPPY with a relatively high level of confidence. The method was used in the national evaluation of Sure Start in the United Kingdom. The present evaluation represents the first time the research method has been used in Australia for the evaluation of a social intervention and constitutes the most robust evaluation of the effectiveness of HIPPY in Australia to date.

Program documentation shows that HIPPY aims to:

- improve interaction between parents and their children
- foster a love of learning in children from families living in disadvantaged areas, promoting cognitive and social development and enhancing school readiness
- increase parents’ confidence and skills as their child’s first teacher
- increase participation in kindergarten, school and community life by otherwise marginalised families.

The effectiveness evaluation found significant positive impacts of HIPPY that are consistent with these aims. Specifically, the impacts relate to the child, the parent, the home learning environment and the parents' and home tutors' sense of wellbeing and social inclusion. We found the following statistically significant impacts of HIPPY when we compared HIPPY parents² to their matched LSAC counterparts:

- HIPPY parents felt more confident, supported and respected in their role of raising their child. A significant increase in HIPPY parents' confidence in their role as their child's first teacher between the start and end of the program was observed. HIPPY parents were 80 per cent more likely to consider themselves a 'good' parent, and twice as likely to feel they were supported by family and friends in their role of raising their child, compared with non-HIPPY parents.
- HIPPY parents were 60 per cent more likely to say that when they needed information about local services they knew where to find it, and twice as likely to report that they were able to access services when they needed them, compared with non-HIPPY parents.
- HIPPY parents rated their sense of 'neighbourhood belonging' more highly than did their LSAC counterparts.

These outcomes make up part of the measure of the parents' social inclusion and wellbeing. In addition we found the following benefits relating to the impact of HIPPY on parenting style and the home learning environment:

- The parenting style of HIPPY parents was significantly less angry or hostile.
- HIPPY parents did significantly more in-home and out-of-home activities with their child.
- HIPPY parents reported that their child liked being read to for longer periods of time in any one sitting, compared with non-HIPPY parents.
- Teachers reported that HIPPY parents were more involved in their child's learning and development and had greater contact with the school than non-HIPPY parents.

In terms of the HIPPY child, we observed fewer statistically significant impacts. This is perhaps not surprising, as it may take time for the benefits of HIPPY to show. Later assessment of the child's school progress could be considered and would shed greater light on the impact of HIPPY on the child. The statistically significant results that we did find included:

- The gap observed in HIPPY children's early numeracy and early literacy skills at the beginning of the program, compared with the Australian norm, had closed by the end of the program.
- HIPPY children had fewer problems with their peers—which is one of the five measures of the child's socio-emotional adjustment.
- For parents who completed more of the program rather than less of the program, their child displayed higher levels of pro-social behaviour—a second measure of the child's socio-emotional adjustment.

The overall effect size or benefit of HIPPY is consistent with similarly targeted early childhood development interventions overseas.

² The HIPPY sample included all parents who had been enrolled for at least the first full year of the two-year program—both those who completed the program and those who withdrew during the second year.

The analysis of fidelity³ revealed a positive link between program fidelity and seven of the above statistically significant results. Thus, it appears that, at least on these seven measures, the more HIPPY is done with greater levels of fidelity the more positive are the effects. However, adherence to the model in terms of both the delivery and uptake of group meetings was low. While recognising the value of and need for flexibility in modes of program delivery, we suggest there is good reason to attempt to improve the fidelity of HIPPY in terms of a better combination of home visits and centre-based group meetings for both parents and children through the provision of professional child care.

Benefits reported by home tutors focused on their improved confidence, employment aspirations and involvement in the community:

HIPPY was not only good for my son, but it has really opened the door for me to have the confidence to get back into the work place.

I have lived here for 18 years. Until I became a HIPPY tutor I was not involved in the community at all. Now I am involved. It is good. You get to know a lot of people.

Taken together, these results provide strong evidence as to the effectiveness of HIPPY with respect to benefits in the important domains of the child, the parent, the home learning environment and the parents' and home tutors' sense of wellbeing and social inclusion.

Efficiency

The cost-effectiveness of delivering HIPPY compares very favourably with international programs. It was not possible to make Australian comparisons due to the lack of both cost and effectiveness data about other Australian programs.

The average cost per child for HIPPY in 2009 was \$5902 and in 2010 was \$4304. This calculation includes administration, compliance, program delivery and evaluation costs, plus the costs for those children who exited the program. The reduction in average cost per child over the period reflects considerable efficiency gains achieved during the implementation process.

For the 2009 calendar year, the total costs of HIPPY comprised 19 per cent administrative costs (including compliance costs), 70 per cent program delivery costs and 11 per cent evaluation costs. In the 2010 calendar year, administrative costs were 17 per cent, program delivery costs were 77 per cent and evaluation costs amounted to 6 per cent (see Figure 1).⁴

In the 2010 calendar year, the ratio of administrative costs to program costs decreased which indicates that there have been efficiency gains. As the program becomes established, the costs associated with setting up new sites and some of the administrative costs are bound to diminish. Nevertheless, there are substantial non-discretionary administrative costs which arise out of regulation and the requirements in the international licensing agreement and BSL's agreement with the Department of Education, Employment and Workplace Relations (DEEWR). There is, therefore, only a limited capacity to further reduce the ratio of administrative costs to the program costs.

Strategies for increasing efficiencies focus on:

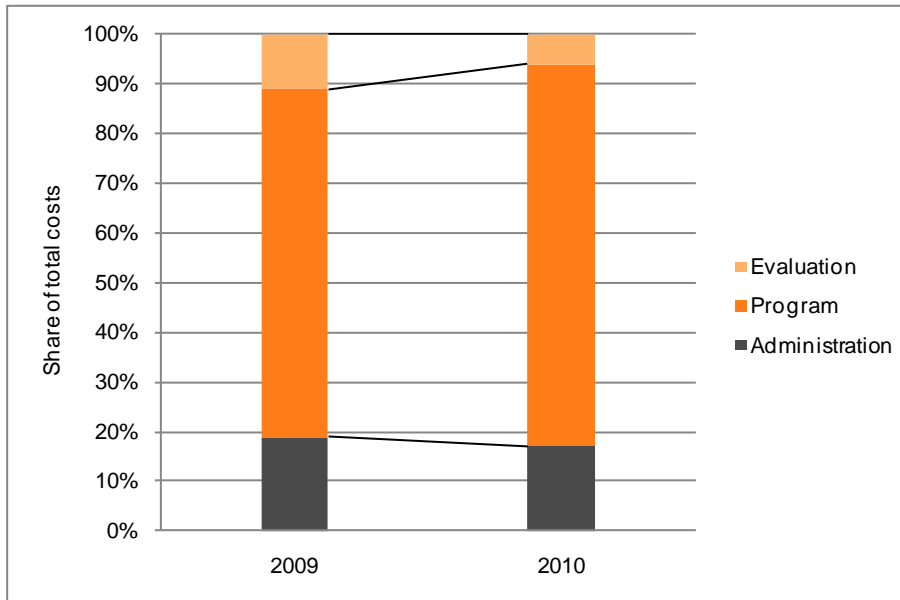
- coordinating the delivery of training programs to specific times so that travelling and administrative costs can be streamlined

³ Fidelity is essentially the degree to which a program was implemented as planned. Our analysis included both delivery and uptake of the program by participants.

⁴ Calendar year amounts have been used for consistency with data on enrolments and cost per child. The ratios are therefore different to those which would be reflected in financial year accounts.

- introducing e-learning training for coordinators and tutors where it is appropriate and consistent with compliance requirements
- reducing participant attrition from HIPPY.

Figure 1: Composition of total HIPPY Australia costs, 2009–10



A benefit–cost analysis revealed that, on the assumption that half of the *medium*-term benefits (or costs) of HIPPY are produced after seven and half years and the rest after 15 years, and half of the *long*-term benefits are produced after 15 years and the rest after 30 years, the benefit–cost ratio is 2.53:1 when a 3 per cent discount rate is applied⁵. The benefit–cost ratio is conservative, as the paucity of Australian studies and data limited what could be included in the modelling. More detailed modelling for other, similar programs indicates it is realistic to predict a return to society of as much as \$4 for every \$1 spent (Duncan, Ludwig & Magnuson 2007).

HIPPY and Indigenous Australians

The national rollout of HIPPY included the introduction of the program to five locations around Australia where the population includes a high percentage of Indigenous Australians, including two Indigenous-specific pilot locations. An evaluation was therefore undertaken to explore the appropriateness and acceptability of HIPPY with these communities. It focused on the implementation, adaptation and perceived benefits of HIPPY.

A site case study approach was used for this part of the evaluation, which provided a rich and diverse qualitative evidence base that enabled a review of success features and strategies about HIPPY’s implementation in communities with a high number of Indigenous Australians. While sites and communities were diverse in terms of their geography, people and cultures, HIPPY appeared to be most successful in places where the local Indigenous community and community leaders were closely involved (as in Alice Springs) in the ownership of and lead-up to the commencement of the program, and where strong relationships existed between the local partner agency delivering HIPPY and other child and family services for Indigenous Australians (as in Pioneer/Mt Isa). In all locations, some modifications were made: nearly all adaptations were undertaken to address the single challenge of successfully engaging with Indigenous parents and

⁵ The use of discount rates is explained in the section on benefit–cost analysis in Chapter 4.

children. Centre-based delivery, or delivery at alternative safe places, overcame some difficulties of home visits; and providing transport overcame the lack of private or public transport in some locations. Some modification of materials to suit the parents' literacy levels and cultural context may be beneficial. Attracting and retaining excellent staff (tutors and coordinators) is critical for a program built on trusting relationships.

With the lessons learnt from the location case studies, it is reasonable to say that HIPPY holds significant promise as an appropriate and acceptable program with Indigenous communities and aligns with the Australian Government's Indigenous early childhood development initiatives. Many positive reports from participants (Indigenous parents and coordinators) point to some important benefits to Indigenous parents, children, families and communities, and these include:

- increased confidence to teach their child
- increased confidence to talk to their child's teacher
- improved parenting skills: patience and responding to difficult behaviour
- better relationship between parents and child and improved quality time spent with the child
- social connectedness from meeting other parents
- the child becoming familiar and confident with schoolwork
- more insight about school's requirements and expectations
- better awareness of their child's skills, abilities and academic needs.
- pride for both the parent and the child in the child's learning and achievement.

Governance

The governance arrangements of HIPPY represent a positive partnership between the Australian Government, a prominent community sector organisation and more than thirty-five independent local providers of community services.

HIPPY, funded by the Australian Government through DEEWR, is managed nationally by HIPPY Australia which in turn licenses local community service providers to run the program. The evaluation of the governance of HIPPY focused on processes of decision making, roles and responsibilities, consistent management, support, guidance and cohesive policies.

HIPPY is well managed and the governance arrangements are satisfactory. The program's purpose and values are widely understood and well reflected in practice. Accountability structures, requirements and processes are also clear and well understood. Data is routinely collected and used for appropriate purposes. Decision-making is clear and transparent. Support policies and processes are in place, including training, and tutors have been recruited appropriately.

Potential improvements include: less complex reporting requirements, improved responsiveness to reports from coordinators and partner agencies, balancing the needs of all partners in what is a complex matrix governance and management model, and clarifying how participant disadvantage and eligibility are defined and applied at the local level.

1 Introduction

In 2008 the Australian Government began a five-year national rollout of the Home Interaction Program for Parents and Youngsters (HIPPY) that would see the program delivered in 50 communities across Australia by 2012. The promised funding was part of the Government's Social Inclusion agenda and commitment to support early childhood education. The Australian Government recognised the potential of HIPPY, which had been introduced to Australia some ten years earlier by the Brotherhood of St Laurence (BSL).

HIPPY was developed in 1969 at the Hebrew University of Jerusalem in Israel and has spread to many countries around the world. In the USA, HIPPY has been operating since 1984 and currently operates in 24 states. In 1998 the BSL began running HIPPY in Australia under licence from the Hebrew University. The program commenced in a single site, Fitzroy, an inner suburb of Melbourne with a population including some of the most vulnerable families and children in Australia. Over the next nine years, the BSL gradually expanded the program to nine disadvantaged communities and accumulated a considerable body of practice knowledge and evaluative evidence that demonstrated positive impacts of an empowering, community-based home visiting program. It was this body of knowledge, the strong indications of positive impacts and the distinctive design of HIPPY that led to the Australian Government's decision to expand the program nationally.

Since previous evaluations had not allowed rigorous testing of program effects mainly due to small sample sizes, the Department of Education, Employment and Workplace Relations (DEEWR) took the opportunity to build in to the national rollout of HIPPY a larger scale evaluation of the program including its appropriateness, effectiveness, cost-effectiveness, appropriateness and acceptability with Indigenous Australians, and governance structures. This represents the most rigorous evaluation of HIPPY to date and has produced even more robust evidence of both the program's particular place among early childhood programs in Australia (see Chapter 2) and its significant benefits with respect to the important domains of the child, the parent, the home learning environment and the parents' and home tutors' wellbeing and social inclusion.

HIPPY empowers and supports parents to become more involved in and guide their pre-school age children's early learning experiences and help their children realise success by beginning school ready to learn. The program uses structured materials and activities designed to be integrated into the daily life of the family. Home tutors schedule fortnightly visits to work through the program resources with the parent in the family's home. Parents then work through the materials with their children for around 15 minutes, 5 to 6 days each week. The materials include 8 storybooks and 30 activity packs for parents and children in the first year (age 4) of HIPPY and 7 storybooks and 15 activity packs for the second (age 5) year. Tutors, who either are or have been participants in HIPPY as parents, are paid paraprofessionals recruited from the local community, and receive training and support from an appropriately qualified professional. The HIPPY model also includes parent group meetings with tutors which are held every alternate fortnight for the purpose of familiarisation with the materials and 'enrichment activities' that focus on parenting skills, child development and links with the community (members and services)⁶.

⁶ The program logic for HIPPY is reproduced in Appendix A.

According to HIPPY Australia, the broad aims of HIPPY are to:

- foster a love of learning in children from families living in disadvantaged areas, promoting cognitive and social development and enhancing school readiness
- increase parental confidence and skills as their child's first teacher
- increase participation in kindergarten, school and community life in otherwise marginalised families.

Early childhood interventions often focus on parenting practices to alleviate the impacts of poverty and income inequality. Even though increased income has been shown to be directly and strongly correlated with improved outcomes for children (Brooks-Gunn 2003; Duncan, Ludwig & Magnuson 2007; Wilkinson & Pickett 2007), interventions typically target factors at the family or proximal level. The aims of such interventions are often to develop more effective parenting practices and to improve the home environment, access to services and sense of connectedness with the local community. These factors are perhaps regarded by policy makers and program providers as more easily modifiable than the larger structural factors of inequality and income. In addition, early childhood interventions have been found to be more cost-effective than tax transfers or income alone (Duncan, Ludwig & Magnuson 2007). Further, parenting and the home environment have been shown to have a strong and direct effect on school readiness, explaining about one-half of the effect of financial disadvantage on children's learning and cognitive ability (Brooks-Gunn & Duncan 2000).

The following chapters provide the evidence from the evaluation of the national rollout of HIPPY with respect to the program's

- appropriateness—the identified need for the program, alignment with Australian Government priorities and consideration of alternative responses/programs
- effectiveness—the degree to which the intended benefits or outcomes have been achieved
- efficiency—the cost-effectiveness of the program
- HIPPY with Indigenous Australians—the appropriateness and acceptability of the program among Indigenous Australians
- governance—whether the governance arrangements have been appropriate and sufficient.

2 The appropriateness of HIPPY

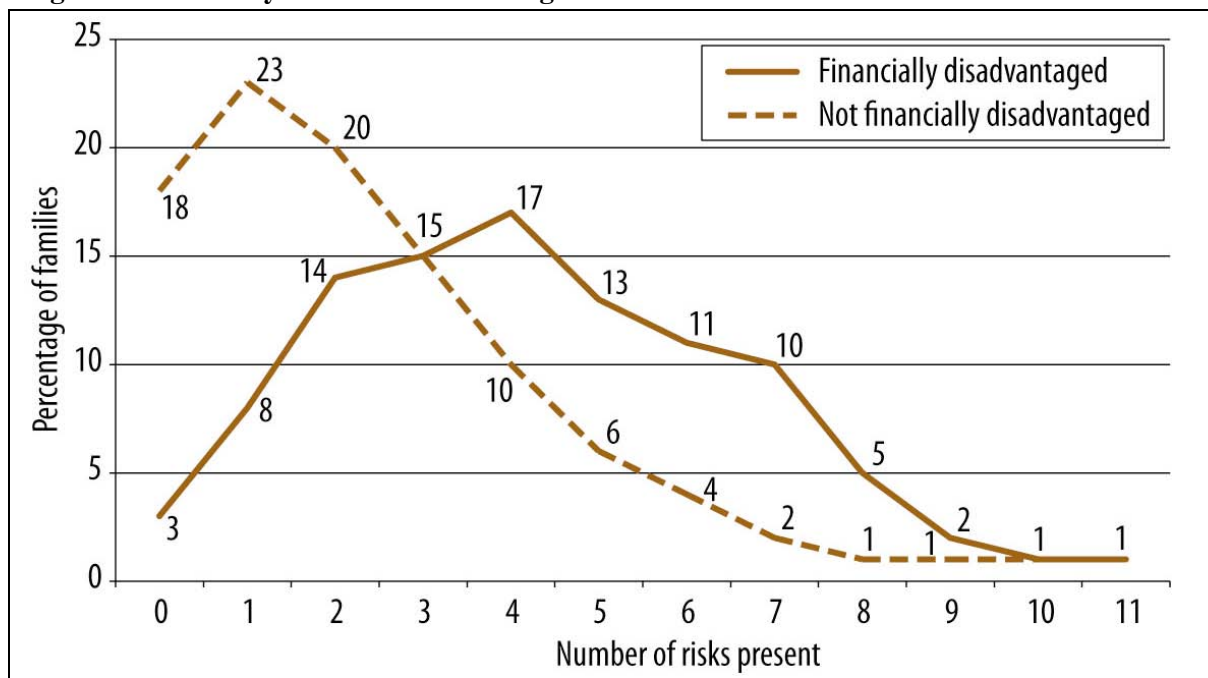
In this section we discuss the appropriateness and alignment of HIPPY with the Australian Government’s policy priorities, specifically with respect to the nature and extent of the problem that HIPPY aims to address, the potential for integration with other government initiatives, and whether there are alternative strategies or programs that could be used to address the problem.

Impact of area-based disadvantage on parents and children

There is now overwhelming evidence from studies both in Australia and overseas that children from poorer and more socially excluded families on average do worse cognitively and behaviourally at entry to school than those from more affluent homes (Cunha and Heckman 2010; Duncan, Ludwig & Magnuson 2007; Smart et al. 2008).

In Australia, analysis of the Longitudinal Study of Australian Children finds strong links between family financial disadvantage and children’s readiness for school (Smart et al. 2008). On all core cognitive and social-emotional measures, children from financially disadvantaged families showed lower readiness for school than their peers from non-financially disadvantaged families. Further, there was a higher number of school readiness risk factors among financially disadvantaged families (Figure 2.1).

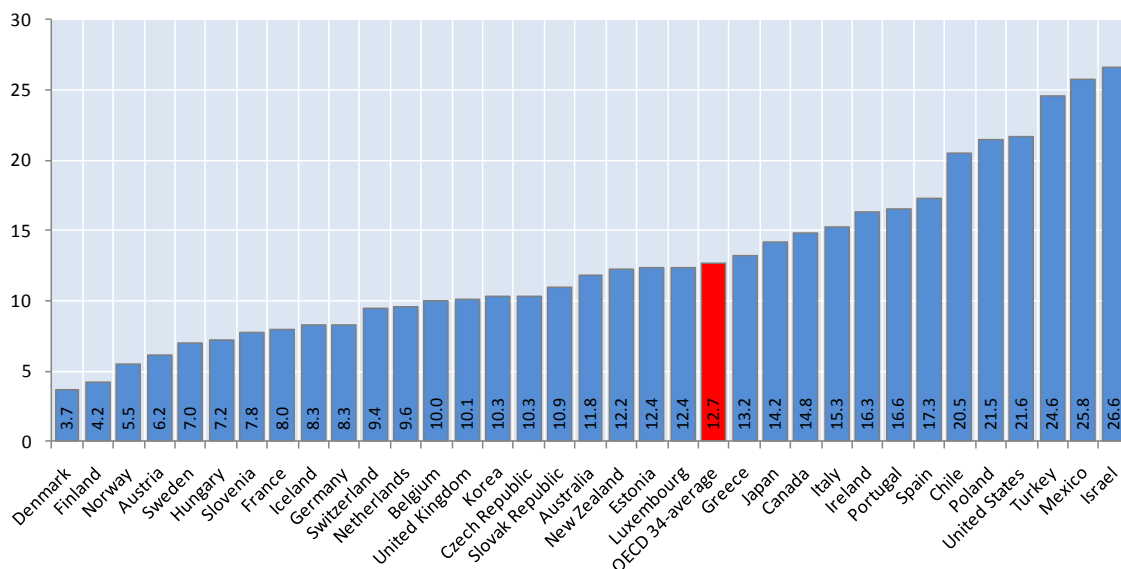
Figure 2.1 Family financial disadvantage and distribution of risks



Source: Smart et al. 2008, p. 31

An estimated 500,000 children (12 per cent of the total) are growing up in poverty in Australia. This percentage is around three times as high as the best performing Scandinavian countries of Denmark and Finland, and places Australia roughly in the middle of the range of all OECD countries in terms of the percentage of children living in poverty (Figure 2.2).

Figure 2.2 Percentage of children aged 0–17 living in households with less than 50 per cent of the median equivalised household income, mid to late 2000s



Source: OECD 2011

Recent work funded by DEEWR on the creation and analysis of the Australian Early Development Index (AEDI) reveals that 23 per cent of children in Australia have been assessed as developmentally vulnerable on one or more of the five school readiness measures of the AEDI. Almost 12 per cent of children have been assessed as developmentally vulnerable on two or more domains of the AEDI; and there are higher proportions of children who are developmentally vulnerable living in the most socioeconomically disadvantaged communities (DEEWR 2009).

Child developmental gaps have been shown to emerge early, widen between the ages of two and three, and persist throughout the life course (Carneiro & Heckman 2003). Children of financially disadvantaged families do not start school on an equal footing with their more affluent peers and are set on a trajectory for lower school achievement and poorer health and wellbeing outcomes which is difficult to alter (Brooks-Gunn 2003).

Government investment in the early years

Investment in the early years is known to be more cost-effective than investment in later life programs that aim to reduce the achievement gaps and the adverse effects of poverty and social exclusion (Karoly 2001). But it is important for society and governments to know in what to invest. Frank Field (2010) in his recent report for the British government, *The foundation years: preventing poor children becoming poor adults*, suggests that government funding should be targeted at the factors that are known to matter most in the early years: support for better parenting, support for a good home learning environment and high-quality child care. This is supported by the work of Duncan, Ludwig and Magnuson (2007) who point out that in the early years children's cognitive and socio-emotional skills develop rapidly and are sensitive to 'inputs' from parents, home learning environments, childcare settings and the health care system.

The Australian Government's investment in HIPPY, as one of a suite of initiatives, is a deliberate strategic response to deal with the challenge of lower school readiness among children from socioeconomically disadvantaged families. Investment in effective, evidence-based early childhood

interventions can reasonably be expected to reduce the chances of social exclusion and poverty in adult life for program participants by between 7 and 17 per cent (Duncan, Ludwig & Magnuson 2007, p. 152).

Further, benefit–cost analysis of other early childhood development programs that share many of the characteristics of HIPPY has revealed they can realistically be expected to generate benefits to society in the order of \$3 or \$4 for every \$1 in cost. Some of the benefits appear early, in the form of reduced use of other services including special education, while others show up later, in the form of lower crime rates and greater economic productivity (Duncan, Ludwig & Magnuson 2007). This literature is reviewed in Chapter 4 which discusses the efficiency of HIPPY and includes a benefit–cost analysis of HIPPY compared with other programs.

Thus, there is now sound evidence of the social and economic benefits of addressing and investing in the problem of disadvantage and its adverse effects on children’s early school success and future life chances. To fail to address the problem would be to forgo these benefits; and as Heckman and Masterov (2007, p. 446) have pointed out:

Investing in disadvantaged young children is a rare public policy with no equity–efficiency trade-off. It reduces the inequality associated with the accident of birth and at the same time raises the productivity of society at large.

For policy purposes, however, it has been observed that:

The goal is not to find the program that produces the biggest benefits, but rather to find programs that generate the largest benefits relative to their costs. Programs that generate large benefits but even larger costs are unwise public expenditures (Duncan, Ludwig & Magnuson 2007, p. 146).

Larger benefits from HIPPY might be achieved if it was to be made a universal program instead of one that targets disadvantaged communities. For, as Oberklaid (2005) points out, being advantaged does not make a family immune to stress and its effects on the child, and although the *proportion* of children at risk of poor outcomes is higher from disadvantaged families, the actual *number* of children at risk of poor outcomes is greater from middle-class families. Providing, or at least offering, HIPPY to all families regardless of their socioeconomic advantage would therefore reach a greater number of children at risk of poor outcomes. However, the cost of universal service provision would be considerably higher and there is strong evidence that early childhood development interventions are more effective, and therefore cost effective, when targeted to disadvantaged families (Cunha & Heckman 2010; Karoly 2001).

An alternative to investment of public funds in well-designed, targeted early childhood interventions is to increase income transfers to underemployed and financially disadvantaged households, as income alone explains a large amount of the variance in children’s developmental outcomes (Brooks-Gunn 2003; Field 2010). But recent research has found that the effects of work-conditioned income transfers are relatively small compared with effective early education programs (Duncan, Ludwig & Magnuson 2007).

Current Australian Government priorities and HIPPY

The Australian Government recognises that the early years are critically important and has made early childhood development a national priority. In 2009, the Council of Australian Governments (COAG) announced the National Early Childhood Development Strategy—Investing in the Early Years. This marked the first time that federal, state and territory governments have all agreed on a national vision:

By 2020 all children [will] have the best start in life, creating a better future for themselves and for the nation. (COAG 2009, p.13)

The strategy recognises that effective early childhood development programs are generally those that work directly with children and also with parents to improve their engagement, capacity, skills and confidence. The design of HIPPY reflects this recognition and the program's goals align well with six of the strategy's seven outcomes.⁷ In Table 2.1, the left-hand column lists the six outcome areas of the National Early Childhood Development Strategy—Investing in the Early Years, while the right-hand column lists what HIPPY sets out to do as described in the HIPPY coordinator handbook, with aims grouped to indicate how they align with the specific outcomes of the National Early Childhood Development Strategy.

Table 2.1 Alignment of HIPPY goals with National Early Childhood Development Strategy—Investing in the Early Years outcomes

National Early Childhood Development Strategy—Investing in the Early Years outcomes:	HIPPY goals
Families are confident and have the capabilities to support their children's development	Empowering parents to understand their crucial role in developing their child's readiness to learn Engaging parents and children in the joy of learning
Children's environments are nurturing, culturally appropriate and safe	Creating a learning environment in the home that encourages the development of literacy skills Enhancing interaction between parents and their children
Children are engaged in and benefiting from educational opportunities	Providing children with stimulating and varied learning opportunities
Children have the knowledge and skills for life and learning	Increasing the chances of positive early school experience among children and parents.
Children benefit from better social inclusion and reduced disadvantage, especially Indigenous children	Reducing social isolation of parents Fostering parental involvement in school and community life
Quality early childhood development services support the workforce participation choices of families.	Providing parents with the opportunity of becoming home tutors in their own community Supporting home tutors to develop the skills and work experience needed to compete successfully in the labour market.

The national ECD strategy builds on and links to other policy initiatives and early childhood reforms included in the Australian Government's Social Inclusion agenda and the National Quality

⁷ HIPPY aligns less explicitly with the strategy's outcome that 'Children are born and remain healthy'.

Framework for Early Childhood Education and Care Services. The Social Inclusion Board (the Board) has noted that a range of structural and personal factors interact across the life course to underpin cycles of disadvantage and exclusion. Key among these is the effect of patterns of disadvantage established in childhood and adolescence reverberating into adulthood (Australian Social Inclusion Board 2010).

The Board has described the inextricable link between a child's disadvantage in the early years and the environment in which he or she grows up, and states: 'It is virtually impossible ... to separate the needs of the child from the needs of the parents, or more specifically, the family as a whole' (Australian Social Inclusion Board 2010, p. 13). Consistent with this view, HIPPY works with the child through the parent, who is supported in their role as the child's first teacher. The program aims to intervene with respect to enhancing parenting style, the home learning environment and the parent's connectedness to other HIPPY parents and to services in the community.

In 2010, the Board took submissions and conducted research which highlighted high-level principles about what works for family and early childhood services (see Box 2.1). These principles are reflected well in HIPPY. Soft entry points have been viewed by HIPPY coordinators as more effective than formal referrals from other agencies or early childhood and family professionals, as parents recruited through soft entry points stay longer in HIPPY. Strong relationships form between parents and the home tutors who are supported by an early childhood professional as the local program coordinator. And there is evidence, particularly in sites where there is a high Indigenous population, that success begets success, with new enrolments in the second year of HIPPY's operation at each site being better than the previous year. Change does take time and trust, hope, aspirations and the retention of high-quality staff can all be adversely affected if successful interventions stay with communities for only short periods of time (NEC 2009).

Box 2.1 Australian Social Inclusion Board principles about what works for family and early childhood services

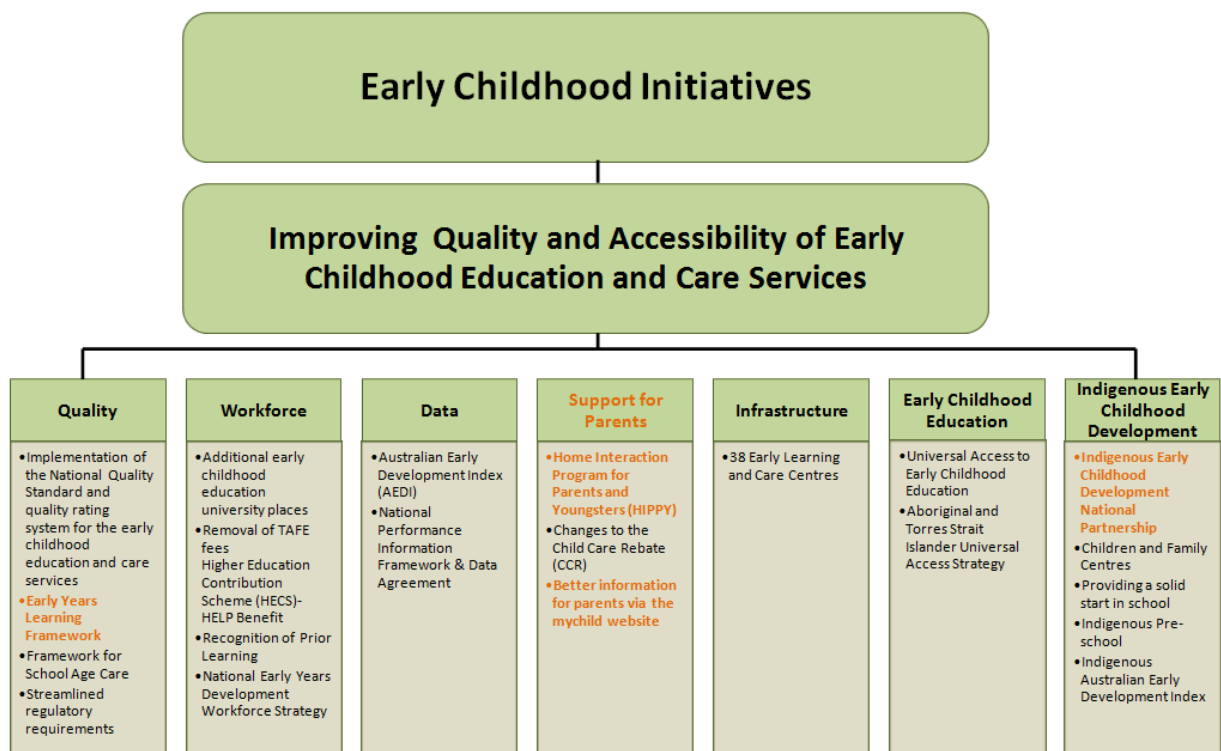
- **Soft entry points** are important in providing informal flexible activities through which families have the opportunity to access further support and assistance in a non threatening, friendly manner, where trust has been built over time.
- **Relationships, trust and cooperation** between staff and clients need to be highly valued.
- **Hope and aspirations** are important for families, but for many it takes time to build relationships with service providers to enable families to see a positive future.
- Organisations which are enabled to recruit and retain **high-quality staff**, and which have scope **to use resources creatively**, can better provide services to vulnerable children and families.
- **Interventions need to be multi-pronged** so that interventions in one context (for example, in the home) interact with, complement, and support interventions in other contexts (such as in schools); and the best outcomes will be achieved through a continuum of age-appropriate programs and resources used to enhance developmental pathways over time.
- **Services need to stay involved for as long as necessary** and ensure that families are not 'cut-off' without an ongoing contact for support should it be required.
- It needs to be recognised that **change takes time**, that there may be setbacks, and that it is important to recognise and fund interim outcomes.

Source: Australian Social Inclusion Board 2010

The third Australian Government priority area with which HIPPY aligns explicitly is the National Quality Framework. This framework involves the development of stronger standards, streamlined regulatory approaches, a rating system and an Early Years Learning Framework. HIPPY is a manual-based program with a curriculum that has been developed in Australia to align with the Early Years Learning Framework.

In Figure 2.3, HIPPY (the Home Interaction Program for Parents and Youngsters) is explicitly mentioned and positioned under Support for Parents; but the items highlighted in orange show how HIPPY is linked to many of the Australian Government’s initiatives, including early learning programs for remote Indigenous children. Thus, while HIPPY is most clearly aligned with the outcome area of Support for Parents, it has synergies with other areas of the Quality and Accessibility framework.

Figure 2.3 Australian Government early childhood initiatives



Potential for integrating HIPPY with state and territory initiatives and services

The need for intervening early to address the adverse effects of disadvantage on a child’s development has also been recognised by state and territory governments. HIPPY works best when it is integrated with other child and family support services or schools, and there is potential for HIPPY to be aligned with some of the targeted, place-based initiatives of the states and territories. Further, aligning HIPPY with other state and territory child and family support services to address disadvantage is consistent with the Social Inclusion Board’s recommendation (2010, p. 56) that ‘Commonwealth and State and Territory governments work to ensure there is a greater availability of family support services to families at risk and families no longer in crisis, outside of the child protection system’. This requires a coordinated effort and a suite of services and programs of which

HIPPY can be considered one. Specifically, HIPPY has been shown to be an effective program that supports parents with four-year-old children at risk of developmental delay, through the critical risk period of the child's transition to school.

But HIPPY is not a standalone program and, as previously said, works best when it is integrated with other child and family support services or schools. Indeed, HIPPY promotes access to other early childhood and family support services (see Chapter 3) that families may need. HIPPY makes use of home tutors who are recruited from the local community and who receive training and support from a HIPPY coordinator who is a community or child and family services professional. Home tutors work with HIPPY parents as a paraprofessional peer. Over an extended period of time, they develop trusted relationships with parents of developmentally vulnerable children who are often considered some of the hardest to reach. Where HIPPY has been integrated with other services, the home tutors are therefore well positioned to facilitate knowledge transfer (in both directions) and access to other services that the HIPPY child or parent may need.

In the Northern Territory, for example, there is an opportunity for HIPPY to be considered within the NT government's current work on a strategy for early childhood development (see Box 2.2). In particular, HIPPY as a specific program could fit within the frameworks of Families as First Teachers and Integrated Child and Family Services. These frameworks allow for the design and delivery of a number of different types of programs that meet their objectives (see, for example, the FAFT 2011 newsletter (<http://www.det.nt.gov.au/parents-community/early-childhood-services/at-home-with-child/families-as-first-teachers-program>)).

Box 2.2 Early childhood development in the Northern Territory: better service integration

Early childhood services in the NT include preschools (government, non-government and mobile preschools); childcare centres; flexible services such as outreach and satellite services (long day care, out-of-school-hours care and others); mobile childcare services; playgroups; Jobs, Education and Training (JET) crèches and Innovative Childcare Service Hubs. The recently established Families as First Teachers program (FAFT) is building workforce and community capacity to support children's early development and learning. A number of Integrated Child and Family Centres (ICFC) are also currently in development as part of a broader policy initiative to create an Integrated Child and Family Services framework. Accreditation, training and staffing levels vary considerably; enrolments and attendance are static in some preschools and declining in others. Universal access to preschool for fifteen hours per week is being introduced but ensuring children's attendance and effective participation and the quality of the teaching and learning environment will be vital to the effectiveness of this as a measure to reduce disadvantage.

There is now a range of evidence-based early childhood development programs for families and children which should be considered for implementation in the NT context. These include:

- home visiting programs that work with parents before birth, during infancy and early childhood
- integrated childhood services supporting multifunctional centres that provide non-parental care when parents are working or studying
- intensive child development programs delivered through primary health, childcare or early learning settings
- relevant training and higher education for a suitable early childhood workforce
- whole-of-government coordination of policies, funding, strategy, evaluation and accreditation
- child development and family support centres that are accessible, affordable and available to all families.

Source: Silburn et al. 2011a, 2011b

In some instances HIPPY has been integrated or has developed strong links with schools. There are opportunities for greater integration and alignment of HIPPY as a place-based, targeted transition-to-school program with the initiatives of each state and territory under the COAG National Partnership Agreement on Early Childhood Education, including the Quality Framework and the Support for Families outcome area. For example, in Victoria there are potential links between HIPPY and the Department of Education and Early Childhood Development School–Community Engagement and Extended Schools Reform Priority, including integrating with the Extended School Hub model.

For all states and territories there is also potential for HIPPY to be aligned with commitments to universal access for all children to quality early childhood education in the year before school (see for example, the Victorian commitment (DEECD 2011)). As a targeted, place-based home visiting program, HIPPY could facilitate access to early childhood education for hard-to-reach and developmentally vulnerable children.

The evaluation of the national rollout of HIPPY has included an examination of HIPPY in communities where there is a high proportion of Indigenous Australians (see Chapter 5). As more is learnt about successful strategies for the implementation of the program with Indigenous Australians, more is known also about the benefits of HIPPY in these communities. We suggest there are opportunities for the alignment of HIPPY with the Australian Government’s investment, under the National Partnership Agreement on Indigenous Early Childhood Development, in the establishment of 38 Children and Family Centres across Australia by June 2014. The Children and Family Centres deliver integrated services, including early learning, childcare and family support programs. HIPPY appears to fit well with this integrated service delivery model.

HIPPY as compared to other early childhood development programs

No other government-funded programs in Australia have the same design features as HIPPY—that is, programs that work intensively with disadvantaged families using a structured curriculum delivered in both the home and centre-based settings over two years that span the child’s transition to school.

As part of this national evaluation of HIPPY we investigated what is known about the features of effective early childhood parenting programs. A review conducted by Sutton, Utting and Farrington (2004) found more than 50 years of research about early childhood parenting programs which provides a strong evidence base about effective features. Brooks-Gunn (2003) observes that programs vary on six domains: location, target, timing and ‘extensivity’ (duration), intensity, curriculum and components. The effective features of early childhood parenting programs that relate to each of these domains are listed in Table 2.2.

Table 2.2 Features of effective early childhood parenting programs

Domain	Features which research has found to be most effective
Location	<ul style="list-style-type: none"> • The program operates in both the home and childcare settings. • New parenting skills must be actively rehearsed and parents must practise these skills at home.
Target	<ul style="list-style-type: none"> • Program includes quality education and direct teaching of child plus support for parents and teachers.
Timing and extensivity	<ul style="list-style-type: none"> • Program begins in the preschool period and extends into the early school years.
Intensity	<ul style="list-style-type: none"> • Program is intensive in nature (that is, a weekly program over a two-year period.)
Curriculum	<ul style="list-style-type: none"> • Program includes a curriculum that children can meaningfully connect with. • Parenting programs must teach principles and not just prescribe techniques. • Programs need to include sanctions for negative behaviour as well as strategies to build positive relationships through play and praise.
Comprise multiple components	<ul style="list-style-type: none"> • Programs need to include quality early childhood education and a simultaneous family support strategy. • If difficulties exist in the relationships between adults in the family, they cannot be ignored.

Based on Brooks-Gunn (2003) and Sutton, Utting & Farrington (2004)

The design of HIPPY maps extremely well onto this list of effective features of early childhood parenting programs. Other Australian programs and their design features and target populations are summarised in Table 2.3 and below. However, when they are compared to HIPPY, we observe that none shares the same mix of the above evidence-based design features or delivery methods. HIPPY therefore can be seen to have a distinctive and complementary place among the range of early childhood development programs currently available in Australia.

Table 2.3 Other Australian early childhood development programs

Program	Nature of intervention	Target population
Schools as Community Centres (NSW Government; 48 sites)	Local facilitators and partners plan collaborative initiatives to develop capacity in young children, families and local communities.	Children 0–8 years
Schools as Community Centres (ACT Government Department of Education and Training jointly with the University of Canberra)	Schools refer families to Parents as Tutors, a 12-week program based at the university for parents and their children who are having difficulties with literacy learning.	Primary school-aged children
The PaCE Program (DEEWR, Australian Government)	PaCE supports activities that help parents or caregivers to participate in educational decision making, develop partnerships with education providers and improve educational outcomes for children. Any ideas are welcomed that will form the basis of a project. Projects vary from a one-day workshop to a project that runs for two years.	Parents of Indigenous school-aged children (0–19 years)

Program	Nature of intervention	Target population
Bestchance (not-for-profit, Child and Family Care Network Inc. Victoria)	Purpose-built integrated children's services centre. Individualised program according to needs of the child. Includes playgroups and in-home support by volunteers who provide practical assistance to parents with bathing, feeding or care of children, accompany them to appointments or shopping, supervise children while parents enjoy time to rest or catch up on chores, or provide a parent with regular adult company and a listening ear.	Children 0–6 years with developmental delay or disability
Let's Read (developed by the Centre for Community Child Health in partnership with The Smith Family)	Let's Read is designed to promote literacy in children 0–5 years of age. It is intended to support and empower parents/carers to read with their child. This program also includes training community-based professionals and encouraging and supporting communities to undertake and promote activities to develop a literate community. Let's Read is designed to be delivered at four points during a child's development: from 4 months, 12 months, 18 months and 3½ years.	Children 0–5 years
Read for Life (Tasmanian Government)	A strategy that introduces books and reading to children in communities where books are scarce or nonexistent. It is a multifaceted approach to literacy and includes an early childhood program, resourcing libraries with additional books and adult literacy support using computers. The early childhood component is Let's Read.	Children 0–5 years
Book Buzz (Indigenous Literacy Foundation – Australian book industry together with the Fred Hollows Foundation)	Aims to tackle the high rates of illiteracy in remote Indigenous communities by giving bags of children's books to preschool kids.	Indigenous babies, toddlers and preschool children
Parents and Learning Program (PaL) (Rio Tinto Aboriginal Fund; six Indigenous locations around Australia.)	The program, developed between 2000 and 2002, has been modelled on HIPPI. It aims to build capacity in Indigenous communities by supporting parents to become engaged in their children's learning and to develop early literacy and numeracy skills in their preschool and young school-age children. The program comprises 56 PaL kits, each containing a high-quality storybook, a related educational activity and an instruction card outlining how to use these and their connection to school learning. The community participates in the development of the program, including selecting books for the kits, providing input on the language used and preparing materials for use in the kits. Families are visited at home by a trained Indigenous tutor who delivers the weekly resource kit. Community ownership is a key element in the program.	Indigenous-specific program for parents and children in preschool and the first year of school

Program	Nature of intervention	Target population
Families as First Teachers (NT Government)	A framework rather than a specific program. It aims to strengthen positive family relationships, promote positive child behaviour and build confidence in parenting. A variety of activities proposed and developed at the local level may include modelling behaviour management at early learning sessions, encouraging families in their interactions, group discussions, parenting workshops, home visiting and individual consultations. Home visits have been used to connect with families who do not attend playgroups or to deliver the Books in Homes program (providing each child with nine books of their choice to support their literacy development).	Indigenous children 0–5 years, in remote locations
NEWPIN (New Parent and Infant Network) (UnitingCare Burnside, six sites nationally)	Intensive centre-based training and support program for vulnerable families. Newpin is a therapeutic program aimed at breaking the cycle of intergenerational child neglect and abuse.	Families facing potential or actual child-protection issues.
Best Start – (Victorian Department of Education and Early Childhood Development. 30 sites)	Not a program but a service coordination and integration approach that aims to improve the health, development, learning and wellbeing of all Victorian children (0–8 years). It supports communities, parents and service providers to improve universal early years services so they are responsive to local needs. At three locations, Best Start includes resourcing of an Indigenous community member to deliver the Home Based Learning program to Indigenous parents with vulnerable children aged 3–5 years; activities and discussion are at the discretion of the worker together with the parent and child.	Children 0–8 years
Parents as Teachers (Macquarie University under licence from Parents as Teachers International)	Parents as Teachers offers one week of training on the Born to Learn program, a home visiting program for parents. The training week is aimed at family support, health and other professionals who work with parents and their young children, and their supervisors. Since 2007, the Macquarie University team has trained over 700 parent educators and supervisors in the government and non-government sectors in NSW and the ACT. Those professionals are bringing child development and parenting information to over 3000 families. The Parents as Teachers program is a research-based program featuring information for parents on child development and early brain development and practical, everyday activities to enjoy with their child.	Late pregnancy to 3 years.

Program	Nature of intervention	Target population
Brighter Futures (NSW Department of Community Services)	Brighter Futures is a voluntary program of up to two years designed for families encountering problems that impact on their ability to care for their children. It aims to improve family resilience, promote healthy child development, and reduce child abuse and neglect. Each family is supported by a caseworker who works with parents to plan the services that will best support their family. Parents and children can access services and support including home visiting, children's services and parenting programs. Home visiting includes providing information, practical support and advice in the care of babies and children, modelling good parenting practice, and assisting families develop supportive networks.	Families with children aged 0–8 years
Australian Nurse Family Partnership Program in Indigenous communities (Australian Government)	Provides an intensive home visiting program using registered nurses (Nurse Home Visitor) to work with families of Indigenous babies, providing education, support and assisting to succeed in parenting.	From pregnancy to 2 years

Additional information is given below about three programs in Australia that share similar objectives to HIPPY and also have a strong evidence-base of their effectiveness. These are Triple P, Pathways to Prevention and Communities for Children. As will be described, the programs differ from each other and from HIPPY in important ways. But taken together they can be considered complementary and in fact HIPPY could be a program within the Communities for Children initiative.

Triple P

The Triple P – Positive Parenting Program was developed at the University of Queensland and operates both nationally and internationally. It is not a school readiness program but instead aims to prevent severe behavioural and emotional disturbances in children 0–12 years of age. Rather than a single program, it is a multilevel system of parenting support that becomes more intensive and specific depending on parents' needs. It promotes positive, caring relationships between parents and their children and helps parents to develop effective management strategies for dealing with childhood behaviour problems and developmental issues. The five levels are: universal, selected, primary, standard and enhanced. The first level, Universal Triple P, is a media-based parenting information campaign that includes a media kit of promotional posters, brochures, radio announcements and newspaper articles. The target audience is all parents interested in information about parenting and how to manage everyday behavioural and developmental issues. The fifth level, Enhanced Triple P, is an intensive individually tailored program of up to 11 one-hour sessions for families with concurrent child behaviour problems and parent problems (for example, relationship conflict, depression or stress) (Sanders, Turner & Markie-Dadds 2002).

Clearly Triple P could not be considered an alternative to HIPPY; however, the complementarity lies in the fact that HIPPY is not a child behaviour management program but may include families needing different levels of support for the management of child behaviour problems. Further, Triple P has been subject to robust evaluations which have found positive impacts on outcomes similar to those of HIPPY. Triple P has been shown to be effective with respect to parent–child interaction, parenting style and confidence, and for the child, fewer problems with peers and less disruptive behaviour (Sanders, Turner & Markie-Dadds 2002).

Pathways to Prevention project

The Pathways to Prevention project, which has been operating in Inala in Queensland since 2001, has a similar focus to that of HIPPY, in that it targets a socioeconomically disadvantaged community and children's transition to school. It is a community-based, developmental systems approach that combines preschool-based activities for children attending participating state preschools with community-based support for their families. The project's longitudinal database, with data on more than 5000 children, is currently being used to track outcomes for the 600 children (and their parents) who were part of the preschool intervention cohort in 2002–03 and entered high school in 2010 and 2011. The limited evaluations of the Pathways to Prevention project have shown promising results and share some similarity to those of HIPPY. Benefits of participation in the Pathways to Prevention project included improved behaviour and social skills among children, as well as improved social networks for families and more confident and positive parenting practices (Homel & Freiberg 2007). This program might be a feasible alternative to HIPPY once more robust evaluation and cost data becomes available. However, the program's focus on a developmental–ecological service delivery and systems-based approach makes it quite different to HIPPY, and it is not clear exactly what constitutes the intervention which makes it difficult to replicate or scale up for implementation in other settings.

Communities for Children

The Australian Government funded Communities for Children (CfC) initiative provides prevention and early intervention programs to families with children up to 12 years who are at risk of disadvantage and who remain disconnected from childhood services. A facilitating partner in each site acts as a broker, engaging smaller local organisations to deliver a range of activities in their community. The type of activity varies from site to site according to local needs. While CfC may have some similar objectives to HIPPY, it operates on a quite different service delivery model. Furthermore, it has a broader brief in terms of the target age of children and the range of services— one of which could in fact be HIPPY. The CfC initiative does not have specific programs. Rather, it is focused on the coordination and integration of a range of early childhood education and care programs at the local level that fall within its parameters. Nevertheless, an evaluation of the program found that, on balance, CfC had the following positive impacts:

- fewer children living in a jobless household
- parents reported less hostile or harsh parenting practices
- parents felt more effective in their roles as parents (NEC 2009).

It would be incorrect to think that these three programs and HIPPY in some way duplicate each other. Rather, HIPPY adds to the suite of programs in Australia that have the strongest evidence base of effectiveness, each program having complementary, and in some cases similar, goals and outcomes. However, none shares the same combination of design features as HIPPY.

Summary and conclusion

Governments in Australia, like many others around the world, recognise the importance of the early years and the value of investment in evidence-based programs for children who may be at risk of developmental delay due to the adverse effects of poverty and social exclusion. The economic or productivity argument for investing in the early years is now well accepted. Effective early childhood education programs for parents with disadvantaged children reduce poverty by making children more productive when they grow up, with realistic benefits to society of as much as three

or four times the program costs (Duncan, Ludwig & Magnuson 2007). The challenge, therefore, is to invest in programs that are known to be both effective and cost-effective.

In the early years, children are sensitive to ‘inputs’ from parents, home learning environments, childcare settings, and the health care system. HIPPY works across these four domains. Unlike most other early learning programs in Australia, HIPPY combines many of what are believed to be the ‘active ingredients’ behind successful interventions.

Unlike most other early learning programs in Australia, HIPPY combines many of what are believed to be the ‘active ingredients’ behind successful interventions’

HIPPY has been rolled out nationally as an explicit part of the following Australian Government policy agendas and initiatives:

- the COAG National Early Childhood Development Strategy—Investing in the Early Years
- the National Quality Framework for Early Childhood Education and Care Services
- the Social Inclusion Agenda
- Closing the Gap.

Intervening early to address area-based disadvantage and its effect on the wellbeing and future life chances of parents and children is therefore a focus of all governments in Australia. Each state and territory government has initiated strategies and programs to address this need and there is potential for more explicit alignment of HIPPY with these initiatives, some of which have been described in this chapter. However, HIPPY remains quite different to other programs, both in terms of its design and the robustness of its evidence base. Many initiatives are focused on community development and capacity building through service coordination or integration. Where programs are specific, they do not share the same focus (in terms of target population or program goals) or combination of the program design features that are known to be effective. HIPPY occupies a distinctive place among early childhood development parenting programs in Australia and there is potential for the program to be further integrated or aligned with similarly focused early childhood initiatives of all governments.

3 The effectiveness of HIPPY

In this section we report on the evaluation of the effectiveness of HIPPY. Effectiveness is the degree to which the intended benefits or outcomes of a program are achieved under usual circumstances. HIPPY aims to benefit children, parents, home tutors and communities—the spheres of influence known to alleviate the effects of disadvantage on children—so as to improve children’s early school success and future life chances. In addition, we investigate the degree to which the program is delivered and taken up by participants as intended, possible explanations for any variation and the effect on intended benefits/outcomes. Thus, the research questions are:

- Is the HIPPY child’s school readiness enhanced and to what extent?
- What is the impact of HIPPY on the parenting style and the home learning environment, and are these enhanced?
- What is the impact of HIPPY on the parents’ and tutors’ sense of wellbeing and social inclusion?
- To what extent has program fidelity been maintained during rollout across Australia?
- To what extent, and in what ways, do contextual factors impact on the design, implementation and outcomes of HIPPY?
- What changes to HIPPY are recommended in order to ensure appropriate high levels of program fidelity for future rollout?

Methodology

The effectiveness evaluation of HIPPY is a two-year longitudinal quasi-experimental research design. While not a randomised controlled trial (RCT), it makes use of a matched control group derived from the Longitudinal Study of Australian Children (see Box 3.1) using a propensity score matching technique. It represents the most rigorous evaluation of the effectiveness of HIPPY in Australia to date. Ethics approval for the study was obtained from the Monash University Human Research Ethics Committee.

Box 3.1 The Longitudinal Study of Australian Children

The Longitudinal Study of Australian Children, known as *Growing Up in Australia* or LSAC, commenced in 2004. Funded by the Department of Families, Housing, Community Services and Indigenous Affairs, it is managed in partnership with the Australian Institute of Family Studies. The study aims to shed light on the development of the current generation of Australian children, and to investigate the contribution of the social, economic and cultural environments of the children to their wellbeing, including their adjustment to school. Two cohorts were recruited from urban and rural areas of all states and territories of Australia: 5107 families with infants aged 0–1 year (B cohort), and 4983 families with 4–5 year olds (K cohort). The K cohort is the group of interest to the current evaluation of HIPPY. The LSAC study gathered information from parents and teachers, and direct assessments of the children. Data was collected in Wave 1 in 2004 and in Wave 2 in 2006. The response rate was 90 per cent at Wave 2, when 68 per cent of the children were in Year 1 of school and 27 per cent were in Year 2. The data collected from the K-cohort formed the basis of a major investigation into the school readiness of children growing up in financial disadvantage, described in the report, *Home-to-school transitions for financially disadvantaged children* (Smart et al. 2008).

Study samples

The study included analysis of data from six groups: HIPPY parents and their children, a subgroup from the LSAC using propensity score matching, home tutors, HIPPY site coordinators and schoolteachers.

HIPPY sites

The evaluation included 14 sites: all 13 sites selected for the first round (2009) of the five-year national rollout of HIPPY, plus one at La Perouse.⁸ Sites for the rollout were selected by DEEWR in consultation with HIPPY Australia. To inform selection, the Australian Bureau of Statistics Socio-Economic Indexes for Areas (SEIFA) Index of Relative Socio-economic Disadvantage and the percentage of children under five years of age in each area were considered, along with geographical spread across Australia, capacity of a local service provider and links with other programs. An Expression of Interest process was then advertised inviting relevant local organisations in each of the identified areas to apply to establish and deliver HIPPY under sub-licence arrangements with BSL through the national organisation HIPPY Australia. Local organisations were selected to deliver HIPPY on the basis of the following criteria:

- understanding of the local community's needs
- demonstrated links with the local community and other service providers in the area
- ability to successfully implement the program within the local community
- ability to implement the program within the specified budget.

Table 3.1 lists the sites evaluated in each state or territory⁹.

Table 3.1 Sites evaluated

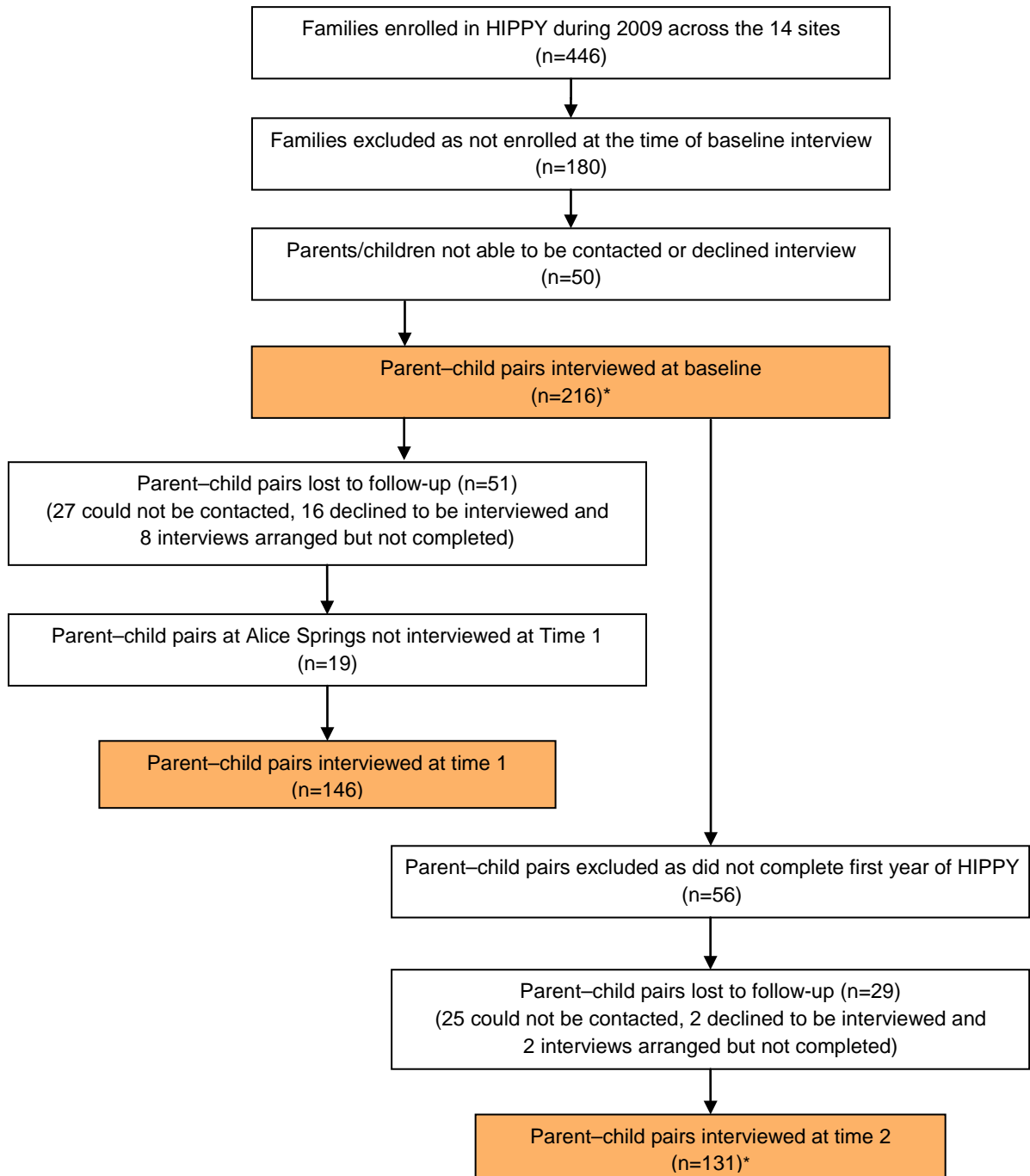
State or territory	Location
ACT	Charnwood
NSW	Claymore
	Windale
	La Perouse
NT	Alice Springs
Qld	Inala
	Riverview
SA	Elizabeth Grove
TAS	Clarendon Vale
	Launceston
	Rosebery
	Sheffield
WA	Girrawheen
	Rockingham

⁸ La Perouse is an established site where HIPPY has operated for 10 years among a mostly urban Indigenous population. It was excluded from a smaller scale evaluation in 2008–09 because baseline data could not be collected at that time. Its inclusion in the national evaluation will add to knowledge about how HIPPY works with Indigenous people and communities.

⁹ By 2011, HIPPY was rolled out to 50 sites across Australia. A full list of sites appears in Appendix B.

Parents and children were eligible for inclusion in the evaluation if they were enrolled in HIPPY at the time of the research team’s first visit to conduct interviews and if they gave their consent to be contacted. Site visits were timed, after discussion with the local program coordinator, to occur as close as practicable to the commencement of week 1 of HIPPY and were conducted in the period between May and July 2009. From a total of 266 eligible families who consented to be contacted about the study, the baseline sample included 197 parent–child pairs for whom full data was able to be obtained. Figure 3.1 shows the numbers of participants involved at each stage of the evaluation.

Figure 3.1 Participant flow diagram: parents and children



* For the quantitative analysis, parent–child pairs interviewed in Alice Springs (19 at baseline and 12 at time 2) were excluded, due to the use of a different and culturally adapted questionnaire.

LSAC

The LSAC identified eligible families with children born (for the K cohort) between March 1999 and February 2000 by accessing the Medicare enrolment database, which theoretically includes all Australian residents. The coverage for the K cohort was very good: 101.5 per cent of ABS data (some children were registered on multiple Medicare enrolments). The sampling units were some 2700 postcodes. One-third of postcodes had fewer than 20 children and 99 per cent of these were amalgamated with adjacent postcodes. Remote postcodes that were very large in area (on Indigenous land, more than 50 per cent of the children of Aboriginal or Torres Strait Islander origin, fewer than 80 children) were excluded. Eligible families were sent a letter of invitation by Medicare with an information brochure and opt-out, reply-paid slip. From the 9893 mail-out sample, 4983 parents and their four-year-old children (average age 4 years and 9 months) were interviewed between March and November 2004, and 4464 were interviewed again between April and December 2006, when children were on average 6 years and 10 months of age.

Propensity score matching

We used propensity score matching (Rosenbaum & Rubin 1983) to obtain a matched comparison group from the LSAC. Propensity score matching is a method that can be used when randomisation has not been possible. The objective of the two approaches is the same, that is, to obtain two groups that are comparable on all measured and unmeasured characteristics except for the intervention being tested. In this way, any difference observed between the two groups at follow-up can be attributed to the intervention with a relatively high level of confidence. While the objectives of the two approaches are the same, the fact is that randomisation is a superior method as the propensity score approach relies upon the number of characteristics available to be measured and how the mathematical model is specified—that is, which characteristics are included/excluded (Dehejia 2005). Nevertheless, propensity score matching is considered a useful and powerful tool in non-experimental research designs that aim to estimate the effectiveness of an intervention. The method was used in the UK National Evaluation of Sure Start in 2007; and, to our knowledge, the national evaluation of HIPPOY represents the first use of the method in Australia for evaluating a social intervention.

Table 3.2 lists the variables included in the propensity score model (see Appendix B for a full description of the approach used). The *p* values indicate how significantly different the HIPPOY and LSAC groups are before and after the propensity score model was run. A *p* value of less than .05 is generally regarded as indicating that the two groups are not matched on that specific variable/characteristic. A *p* value of 1 means that the two groups are perfectly matched.

Running the model resulted in a total of 106 HIPPOY participants and 2473 LSAC controls, giving the study sufficient power to detect a small impact of HIPPOY (that is, the study has an 80 per cent chance of detecting an effect size of $D = .35$; 68 per cent chance of detecting an effect size of $D = .30$).

Table 3.2 HIPPY and LSAC groups compared before and after propensity score matching

Included variables	Before propensity score matching	After propensity score matching
Location (metropolitan/non-metropolitan; large/small)	$p < .001$	$p = .995$
SEIFA index score of relative disadvantage	$p < .001$	$p = .030$
% of local population under 5 years of age	$p = .086$	$p = .363$
'Who Am I?' developmental age school readiness score	$p < .001$	$p = .202$
% population of Indigenous background	$p < .001$	$p = .734$
Number of people living in the household	$p = .001$	$p = .597$
Whether the parent was born in an English-speaking country	$p < .001$	$p = .470$
Employment status of parent (usually the mother)	$p < .001$	$p = .073$
Financial hardship scale	$p < .001$	$p = .296$
Parent's self-rating of overall health	$p = .001$	$p = .761$
Home activities scale	$p < .001$	$p = .378$
Parent's highest level of education	$p < .001$	$p = .307$
Child's developmental age	$p < .001$	$p = .733$

Home tutors

At the start of the program we interviewed 27 home tutors. Home tutors, employed by the local organisation that ran HIPPY at each individual site, were also participating in HIPPY as parents with their 4–5 year old child. Some home tutors exited the program. At the end of the two-year HIPPY program we were able to interview 22 tutors.

Coordinators

All 14 site coordinators were interviewed during the last four months of the two-year HIPPY program.

Schoolteachers

We sought permission from the parents and the state and territory governments to contact the HIPPY child's first-year schoolteacher. We were successful in receiving 57 teacher assessments of HIPPY children, of whom 32 were in the HIPPY matched sample with LSAC.

Data collection

The national evaluation of HIPPY included the collection of data from five groups of participants: parents, children, home tutors, site coordinators and HIPPY children's first year schoolteachers. Data was collected from parents and children at three points of time over the course of the two-year program: the first interview was undertaken as close as possible to the commencement of week one of HIPPY; the second interview was undertaken as close as possible to the completion of the first year (age 4) of the program; and the third interview was undertaken as close as possible to the end of the second year (age 5) of HIPPY.

Eligible parents were given information about the evaluation and their consent was obtained before each interview. Data was collected from parents via face-to-face interview with a trained research officer using a structured questionnaire. An interpreter was present if requested by the parent. Interviews took about 50 minutes and were conducted at a venue nominated by the participant, typically their home but sometimes the HIPPY premises. Each parent received a supermarket gift voucher for \$25 at baseline and another for \$30 for each of the second and third interviews.

Consent for children to participate was obtained from each child's parent (or guardian). Parents were provided with a statement outlining the process and if, after reading this, they were willing for their child to take part, they signed a consent form. Prior to commencing assessments of children, the

researcher explained to the child what they were going to be asked to do, asked if they were willing to take part and secured verbal consent. Children received a small gift, usually coloured pencils, stickers or a book for taking part in the assessment. Data was collected from children through the administration of the psychometrically validated ‘Who Am I?’ booklet developed by the Australian Council for Educational Research. In nearly all cases, booklets were worked through face to face with the child, guided by the same researcher who interviewed the parent, and usually at the same time and place. In the few instances when this was not practicable, researchers either returned to the home when the child was available or left a booklet with the home tutor to have the child complete within a few days and then forward to the research team. The third interview with the children included administration of the Peabody Picture Vocabulary Test language acquisition tool. Permission was received from NCS Pearson Inc. for use of the PPVT and training was provided to the research officers.

Home tutors who were participating simultaneously as both HIPPY parents and tutors were assessed not as parents but purely as tutors. For them we conducted a face-to-face, structured interview that focused on obtaining information about the tutors’ social inclusion and wellbeing. Home tutors received a gift voucher of the same value as that provided to HIPPY parents.

Coordinators were also interviewed face to face using a semi-structured questionnaire. Coordinators did not receive a gift.

Consent for researchers to obtain data from the HIPPY child’s first-year schoolteacher was obtained from each parent, respective state and territory departments of education, school principals and finally the teachers themselves. After consent was obtained, teachers were posted a structured questionnaire and an email that contained a link to copy of the questionnaire on the SurveyMonkey website, where they could choose to complete the survey online.

Analysis

The primary effectiveness analysis compared the matched HIPPY and LSAC groups. However, data was collected from HIPPY parents on many questions and topics not included in the LSAC. Thus we looked for any significant change over time within both the matched HIPPY group and the overall HIPPY group.

Table 3.3 shows the approaches used in analysing quantitative data.¹⁰ The qualitative data, which provides additional information on the perceived impact, appropriateness and acceptability of HIPPY, was analysed thematically.

Table 3.3 Quantitative data analysis models

Type of question	Outcome variable type	Modelling approach
To measure differences between the HIPPY group and the matched LSAC control group	Scale	ANCOVA
	Binary	Logistic regression
	Ordinal	Ordinal logistic regression
To measure change over time within group	Scale	Dependent T-test and ANOVA
	Ordinal	Wilcoxon Signed-Rank Test
To investigate impact of parent and household characteristics on implementation fidelity and of fidelity on outcomes (HIPPY group)	Scale	Multiple regression
	Binary	Logistic regression
	Ordinal	Ordinal logistic regression

¹⁰ See Appendix D Reading the statistics for explanation of some technical terms used in reporting the findings.

Results

Characteristics of those involved in HIPPY

HIPPY aims to target families with four-year-old children living in disadvantaged areas, as disadvantage has been shown to negatively impact on a child's early school success and set them on a trajectory to poorer outcomes later in life. As the LSAC has targeted families with four-year-old children regardless of level of disadvantage, we compared the characteristics of HIPPY families with those of LSAC to find out whether indeed HIPPY reached the targeted group. The comparison (see Table 3.4) revealed differences on the following items, suggesting that HIPPY did in fact reach a more at-risk or relatively disadvantaged group of families:

- In the HIPPY group there were 16 per cent fewer couple families and ten times as many 'other' or 'extended' families.
- HIPPY children were on average eight months younger than the LSAC children.
- In the HIPPY group, 19 per cent more families reported they spoke a language other than English as the main language at home.
- In the HIPPY group, 10 per cent fewer parents had completed Year 12 and 2.5 times as many parents had completed Year 8 or below as the highest level of schooling.
- Approximately half as many HIPPY parents as LSAC parents had a university degree or above, but almost 50 per cent more HIPPY parents than LSAC parents had completed a vocational certificate or diploma as their highest level of tertiary education.
- The LSAC group had five times as many parents in full-time employment; and although the largest percentage in both the HIPPY and LSAC groups were parents (mostly mothers) who reported that they were either not working or not looking for a job, the share of HIPPY parents in this category was 35 per cent higher.

Table 3.4 Characteristics of those involved in HIPPY at baseline, compared with LSAC

Demographic	HIPPY	LSAC
Number of parent-child pairs	197	4983
Parent's age (years)	<i>M</i> 33, <i>SD</i> 6.1 (range 20–56)	<i>M</i> 35, <i>SD</i> 5.5 (range 19–73)
Child's age (months)	<i>M</i> 49, <i>SD</i> 7.2 (range 30–75)	<i>M</i> 57, <i>SD</i> 2.7 (range 51–67)
	%	%
Child's gender		
Male	53	51
Female	47	49
Parent's gender – female	98	97
Family type:		
One-parent family	18	14
Couple family	72	86
Other/extended family	10	<1
English not main language spoken at home	19	16
Parent's level of school education		
Year 8 or below or did not attend school	8	3
Years 9–11	40	39
Year 12	52	58

Parent's post-school education		
University degree or above	15	28
Vocational certificate or diploma	50	34
School year level or equivalent	4	
None / not reported	31	38
Main source of household income		
Salary or wage earned by you or partner	58	
Government benefit, pension or allowance	41	
Other / don't know / missing	1	
Employment status of parent		
Employed full-time	4	20
Employed part-time or casual	29	36
Not working / not looking for a job	58	43
Other	9	1

Note: Income source data was not available for the LSAC group

Child school readiness

It is commonly accepted that school readiness is a multidimensional concept, encompassing several aspects of children's lives, such as their cognitive abilities, language development, socio-emotional adjustment, physical health and approach to learning (Farrar, Goldfeld & Moore 2007; Hair et al. 2006; Janus & Offord 2007). Three different methods were used to assess these key aspects of school readiness in HIPPY children: direct assessment, parents' reports and teachers' reports.

Cognitive abilities: literacy and numeracy

HIPPY children's literacy and numeracy abilities were measured through:

- direct assessment of each HIPPY child using 'Who Am I?' (de Lemos & Doig 1999), an Australian validated school readiness measure designed to assess young children's level of cognitive development
- parents' reports on both HIPPY and LSAC children's progress in reading, maths and overall school progress compared with other children
- teachers' reports on two scales: the Academic Rating Scale (ARS)—language and literacy and the ARS—mathematical thinking. The ARS—language and literacy is a nine-item scale which asks teachers to evaluate each child's proficiency in literacy and language. The items include: contribution of relevant information in classroom discussion, understanding and interpretation of a story or other text read to the child and ability to read words with regular vowel sounds. The ARS—mathematical thinking is an eight-item scale which asks teachers to evaluate each child's proficiency in numeracy and mathematical thinking. The items include: ability to use a computer for a variety of purposes, demonstration and understanding of place value, and ability to read, write and compare whole numbers. For both scales, response options were: not yet, beginning, in progress, intermediate and proficient.

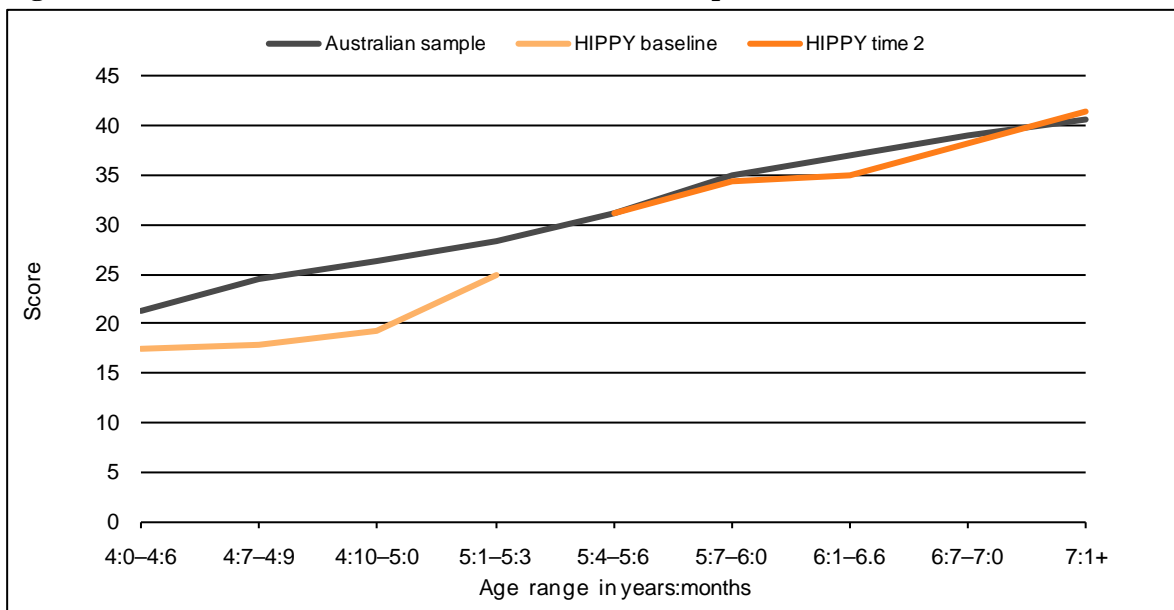
In the early years children learn at a fast rate. It is normal to see an improvement in a child's learning and acquisition of cognitive skills during this time. It was not surprising, then, to find that results from the 'Who Am I?' test showed an overall improvement in the HIPPY children's pre-numeracy and pre-literacy skills that was both large and statistically significant ($t(96) = -23.86$, $p < .001$, $D = 2.29$).

Comparison with LSAC was not possible on the 'Who Am I?' as the LSAC assessment of children at age 6 years did not include this measure. We instead made a comparison with the Australian norm data. This revealed that on average HIPPY children scored eight points below the norm on

the ‘Who Am I?’ test at the beginning of the program. After two years of HIPPY, however, the gap that had been observed at the start of the program between HIPPY children’s pre-numeracy and pre-literacy scores and the Australian norm had been closed (see Figure 3.2).

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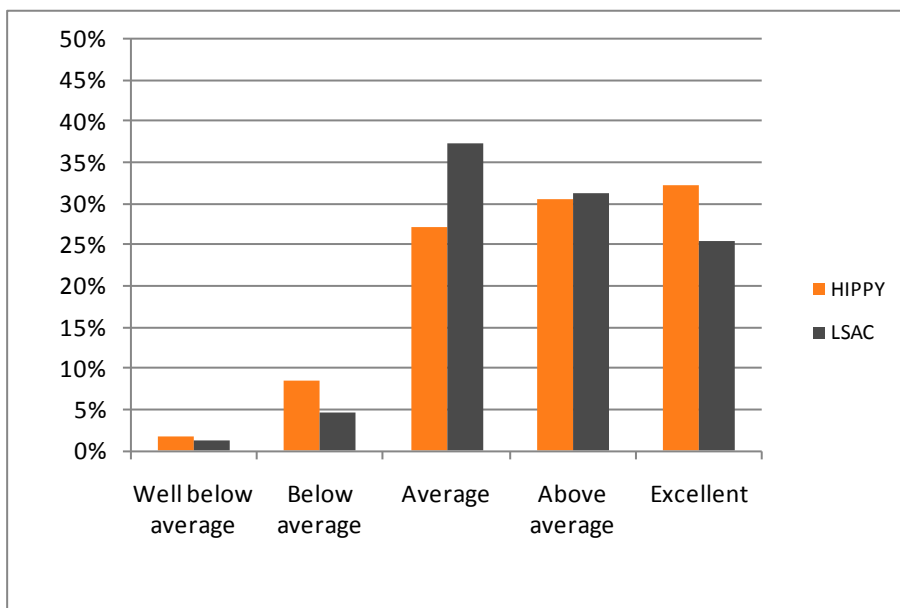
Figure 3.2 HIPPY children’s ‘Who Am I?’ scores compared with the Australian norm



Source for Australian population data: de Lemos & Doig 1999, p. 23.

While we found no significant difference between the HIPPY and the LSAC matched groups from parent ratings of their child’s reading progress, nor from teacher reports on the Academic Rating Scales, HIPPY parents were 81 per cent more likely than LSAC parents to report that they thought their child’s maths ability was better than that of the child’s classmates ($OR = 1.81, p = .04$) (Figure 3.3), suggesting that HIPPY parents may believe that HIPPY has had a positive impact on their child’s maths ability.

Figure 3.3 How well do you think your child is progressing in maths compared to other children in their class?



Language development

HIPPY children's language development was measured by direct assessment using the Peabody Picture Vocabulary Test (PPVT) (Dunn & Dunn 1997) and by parents' report on their children's speech.

After controlling for the age of the child we found no significant difference between the HIPPY and LSAC groups on the child's language and vocabulary skills as measured by the PPVT. However, we found that at the end of the program, HIPPY parents were nearly 66 per cent less likely than LSAC parents to have concerns about the way their child made speech sounds ($OR = .34, p = .34$), and 85 per cent less likely to have concerns about their child's ability to understand what they said ($OR = 0.15, p = .02$). It is reasonable to suggest from this that HIPPY may lower parents' anxiety about their child's verbal communications skills.

Socio-emotional adjustment

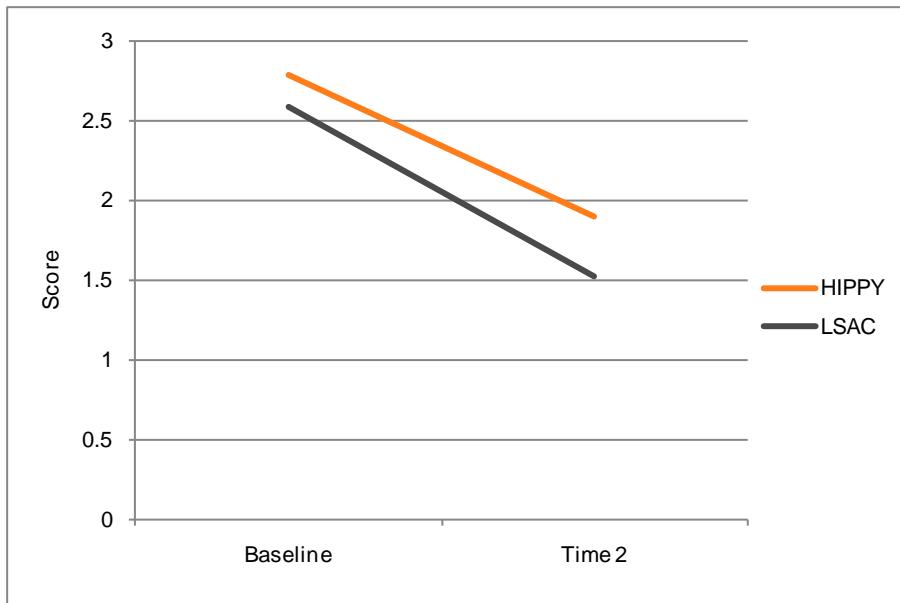
Children's social and emotional adjustment was measured using parent reports based on the Strengths and Difficulties Questionnaire (SDQ). Developed by Goodman (1997), the SDQ is a brief behavioural screening questionnaire designed for children and adolescents aged 4–16 years. It is used to assess positive and negative behaviour in children, and consists of 25 items divided into five subscales with five items each. The subscale headings are: emotional symptoms, conduct problems, hyperactivity/inattention, peer problems and pro-social behaviour.

We found a significant difference between the HIPPY and LSAC groups in the two of the five SDQ subscales: conduct problems and problems with peers.

The conduct problems scale measures the parent's report of the degree of problem behaviour displayed by their child. The scale ranges from 0 to 10. A score between 0 and 2 represents no significant conduct problems, and a score of 3 represents borderline problems. At the start of the program there was no significant difference between the HIPPY and LSAC groups, with both groups scoring on average around 2.7. By the end of the program the mean scores for the matched HIPPY and LSAC groups had declined to below 2—within the no significant conduct problem

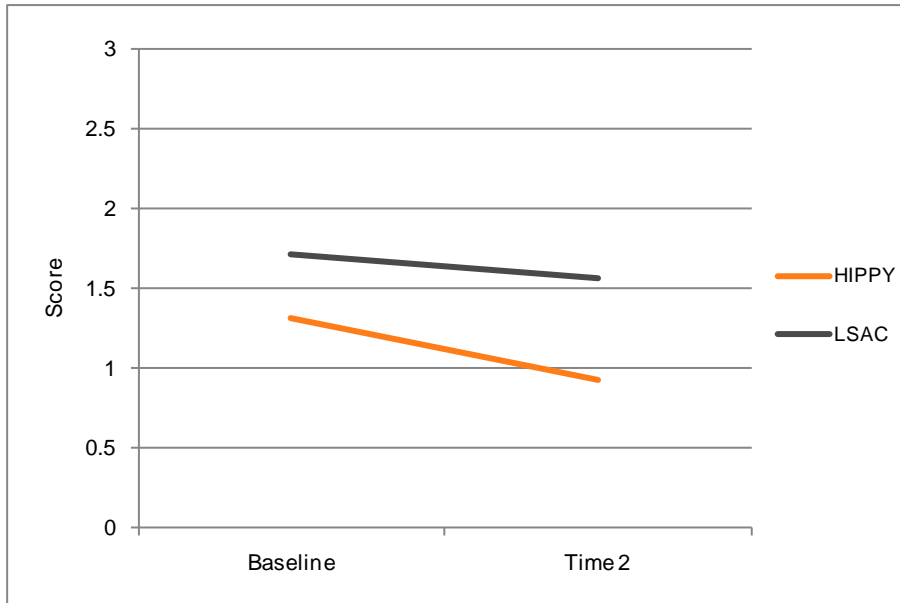
range of the scale. However, the decline was not as great for the HIPPY group as for the LSAC group and a small and statistically significant difference of 0.3 of a standard deviation emerged ($p = .05$) (see Figure 3.4).

Figure 3.4 SDQ conduct problems subscale scores at the start and end of HIPPY

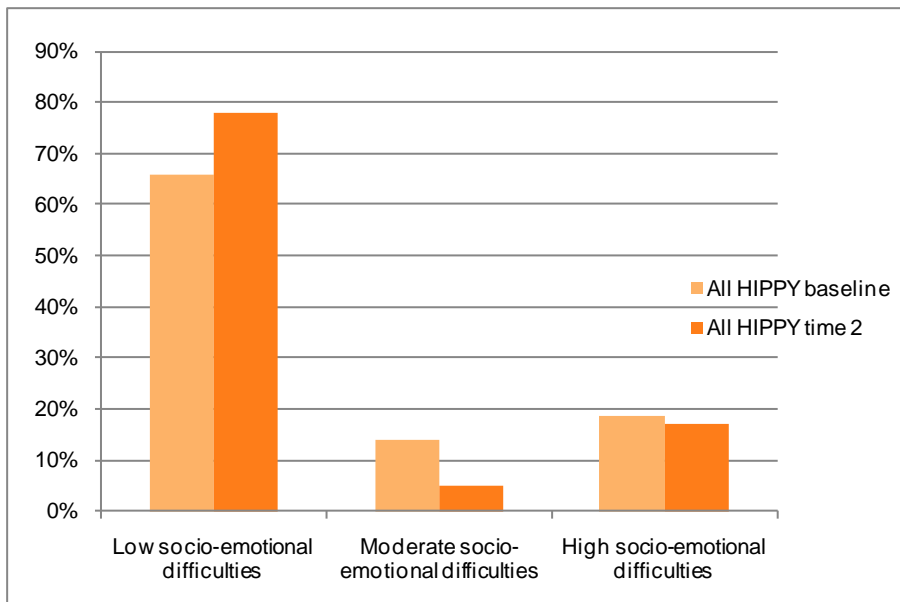


The SDQ peer problems scale measures the degree of problems children are perceived to have with their peers, as reported by the parents. Both the HIPPY and LSAC groups had mean scores below 2 at the start and end of the program, which are within the no significant problem range. The mean scores for both groups significantly declined (that is, peer relationships improved) between the start and end of the program. However, we observed a bigger improvement in the HIPPY group in terms of parents' perceptions of the problems their child has with peers. As a result, at the end of the program, having controlled for baseline differences, HIPPY parents on average scored 0.4 of a standard deviation better than their LSAC counterparts (see Figure 3.5)

HIPPY children had fewer problems with peers as reported by their parents.

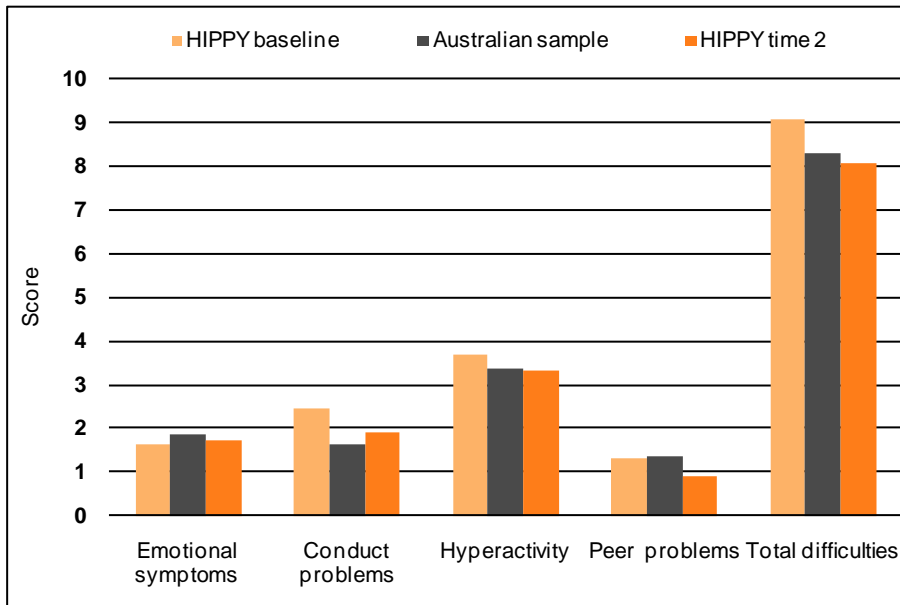
Figure 3.5 SDQ peer problems subscale scores at baseline and time 2

We observed significant improvements within the total HIPPY group between the start and end of the program on four out of the five SDQ subscales: after two years in HIPPY, children's scores on conduct, hyperactivity and peer problems had all significantly decreased. We saw an 18 per cent improvement in the number of children in the total HIPPY group having low levels of socio-emotional difficulties, as reported by their parents (Figure 3.6).

Figure 3.6 Percentage of HIPPY children with low, moderate or high levels of socio-emotional difficulties at the start and end of the program, as reported by their parents

While we found no significant difference between the HIPPY and LSAC matched samples in the SDQ total difficulties score, when we compared the matched HIPPY group's score to Australian general population (norm) data, we found that the HIPPY group's mean score fell below the norm by the end of the program, despite the children having started HIPPY with a total difficulties score that was higher (worse) than the Australian norm (see Figure 3.7).

Figure 3.7 Children’s socio-emotional difficulties



Source for Australian population data: Hawes & Dadds 2004, p. 647

Child’s health and wellbeing

While the child’s health is not the direct focus of the program, HIPPY does aim to improve parents knowledge of and access to health and other services that parents or children may require. As a measure of children’s health and wellbeing we asked parents in a single question to rate their child’s health. We found a larger proportion of HIPPY parents rated their children’s health as either excellent or very good—82 per cent of HIPPY parents compared to 65 per cent of LSAC parents.

Approach to learning

Children’s approach to learning was assessed using teacher reports on six items from the Social Skills Rating Scale (SSRS). This instrument asks teachers to rate each child’s approach to learning on a four-point scale from ‘never’ to ‘very often’. Results showed no significant difference between the HIPPY and LSAC matched groups.

However, analysis of other quantitative and qualitative data revealed some positive indications with respect to the child’s approach to learning, supported by their parent’s increased participation in their schooling and education.

Parents’ participation was measured using teacher responses to two instruments. The first instrument was an eight-item, ‘yes/no’ questionnaire asking teachers about the parent’s contact with their child’s school; the items focus on activities such as ‘spoke or wrote to the teacher’, ‘visited the child’s class’, ‘attended a meeting of the parents’ school committee’. The second instrument is a single-item, three-point scale asking for teachers’ judgment on the question, ‘In your opinion, how involved are this child’s parents in her/his learning and education?’ For this, response options were ‘very involved’, ‘somewhat involved’ and ‘not involved’.

When we compared results for the HIPPY and LSAC matched groups, we found that teachers reported that on average HIPPY parents had more contact with their child’s school (a difference of 0.4 of a standard deviation), and were three times more likely to be involved in their child’s learning and development.

When we compared results for the HIPPY and LSAC matched groups we found that teachers' reported that on average HIPPY parents had more contact with their child's school, and were three times more likely to be involved in their child's learning and development.

Certainly HIPPY parents believed the program was helpful in preparing their child for school, reflecting a mostly positive attitude toward the program, and made comments about the child's approach to learning. For example, when we asked to what extent HIPPY had helped prepare their children for school, two-thirds of HIPPY parents believed that the program had 'greatly' helped, while the remaining third felt that HIPPY had helped a 'little'. When we asked why they believed that, parents' comments included: that the child already had learned things which prepared them for school learning, that the child's confidence was increased by HIPPY and that the schoolteacher recognised that the child's skills were good:

It has helped when the child sees the same things at school that she has done with HIPPY.

He thinks he knows what school is all about. He goes to HIPPY school, but at home.

The teachers are surprised with him because he hasn't been to preschool and he does well at school. He's taken the prizes at school, a principal's award in the very first term.

The main thing is the sounds. Because she speaks Vietnamese at home, the recognition of the sounds of letters in English has been the best thing.

She got a bit more confident about lots of things; even with swimming. Her confidence has gone through the roof.

Analysis of the teachers' reports revealed that they (64 per cent) were enthusiastic about the attitude and achievements of the HIPPY children in their class. For example teachers reported.

The child had an excellent start to primary school. He has achieved particularly well in the area of literacy, technology and visual arts. He is a polite and friendly member of our class.

The child is going extremely well with school; she is an absolute delight to have in the classroom.

The child is a very well adjusted five-year-old who enjoys all we do and participates fully.

The child is coping well, seems very happy and has lovely friendships. Behaviour is excellent. He is working at appropriate level, very shy with adults but able to ask for help if required.

Summary: impact of HIPPY on child's school readiness

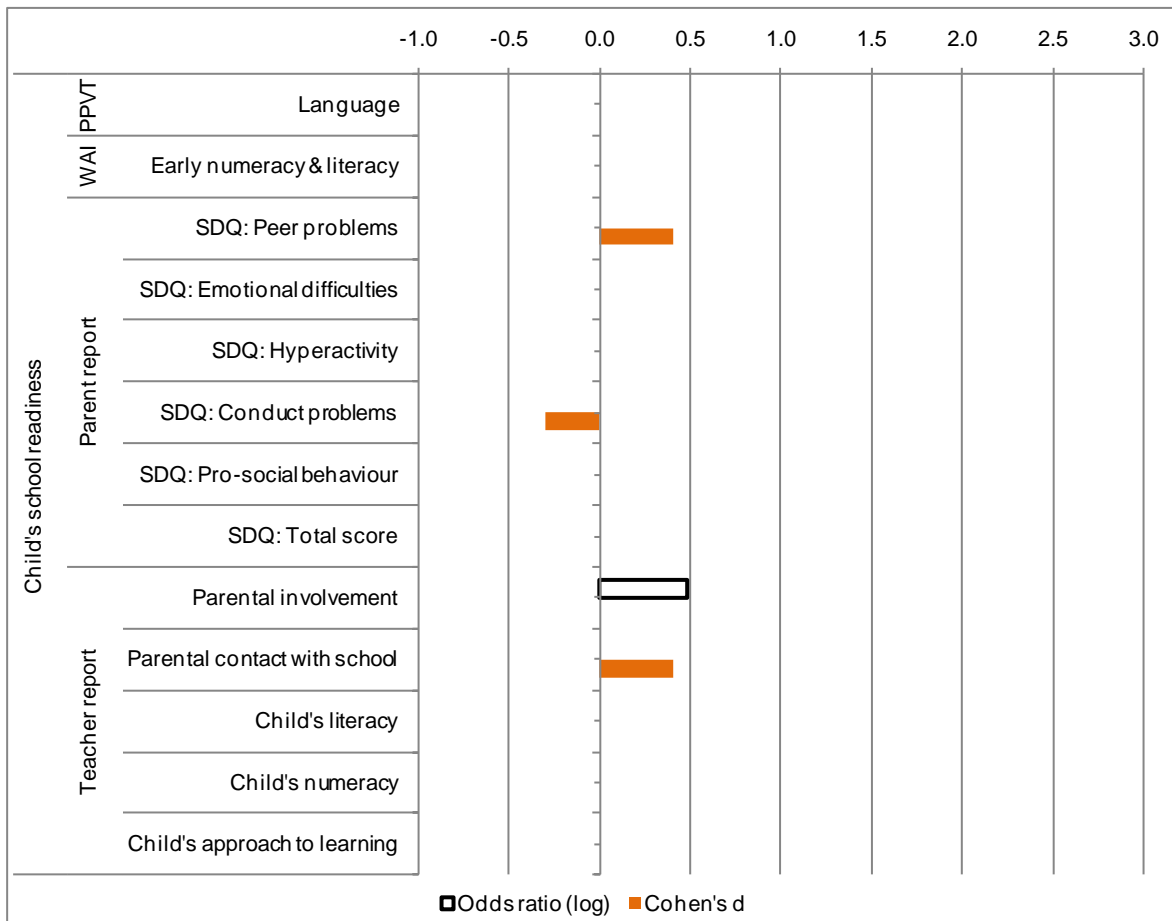
The primary analysis—comparison between the matched HIPPY and LSAC groups—revealed that HIPPY had significant positive impacts on the child's school readiness in terms of both the parent's contact with the school as reported by the child's first teacher and the child having fewer problems with peers as reported by the parent. In addition, teachers were three times more likely to report that the HIPPY child's parents were more involved in the child's learning and development than reported for the LSAC matched group.

Comparisons were made between the HIPPY children’s early numeracy and literacy assessment scores and those of the Australian population norm, as comparison with LSAC was not possible. Whereas lower scores for the HIPPY children had been observed at the start of the HIPPY program, by the end of the program the gap had been closed.

We found one statistically significant but small negative result, which related to HIPPY parents’ reports about their child’s difficult behaviour. By the end of the program the mean scores for the matched HIPPY and LSAC groups had declined to below 2 (out of 10) which was within the ‘no significant conduct problem’ range of the scale. However, the decline was not as great for the HIPPY group as for the LSAC group and a small and statistically significant difference of 0.2 of a standard deviation emerged ($p = .06$). Rather than HIPPY causing this result, we suggest that it may reflect frank reporting by HIPPY parents of the challenge they face in managing difficult behaviour of their child. In this sense it may represent an area for which parents are signalling a need for additional information and support.

The significant school readiness findings are summarised in Figure 3.8 below.

Figure 3.8 School readiness: summary of significant findings



Note: PPVT = Peabody Picture Vocabulary Test. WAI = Who AM I? test. SDQ = Strengths and Difficulties Questionnaire

Parent–child relationship

We investigated the impact of HIPPY on the parent–child relationship by breaking this down into the impact of HIPPY on parenting style and the home learning environment—the two areas that are known to matter most in the early years (Field 2010).

Impact of HIPPY on parenting style

In the child’s early years, three main dimensions of parenting have been found to have significant effects on the child’s physical and emotional health and their later life social and academic outcomes. These dimensions are parental warmth, hostile parenting and consistent parenting (Zubrick et al. 2006).

PARENTAL WARMTH

Parental warmth is described as a parent–child interaction in which parents not only display a positive, supporting, and affectionate behaviour toward their child’s needs and demands but also are responsive to the child’s mood and feelings (Baumrind 1991; Pettit & Bate 1989).

Parental warmth was measured using a six-item scale derived from the Child Rearing Questionnaire developed by Paterson and Sanson (1999). At baseline there was no significant difference between the HIPPY and LSAC matched groups on parental warmth. Parental warmth remained high and stable over the evaluation period for the matched HIPPY and LSAC groups, and also for the total HIPPY group.

HOSTILE PARENTING

Hostile parenting is described as a parent–child interaction in which parents report or display aggressive, irritable or punitive behaviour when handling their child. This type of parenting is also usually marked by a high level of negativity and emotional reactivity (Zubrick et al. 2006).

Hostile parenting was measured using four items derived from the Infectivity and Hostile Parenting Scale for Parents of Children aged 2 to 11 (Statistics Canada 1995). At baseline we observed no significant difference between the HIPPY and LSAC matched groups on the hostile parenting scale. Within the LSAC group the scores remained stable between the baseline and time 2 assessments. However, we observed an improvement in the HIPPY group’s hostile parenting scores: at the end of the program, HIPPY parents scored on average 0.2 of a standard deviation better than their LSAC counterparts ($p = .03$).

We observed an improvement in the HIPPY group’s hostile parenting scores: at the end of the program, HIPPY parents scored on average slightly better than their LSAC counterparts.

CONSISTENT PARENTING

Consistent parenting is described as a parent–child interaction in which parents are firm and consistent in their relationship with their child (Zubrick et al. 2006). Consistency was measured using five items derived from the Consistency Scale for Parents of Children aged 2 to 11 (Statistics Canada 1995). At the start of the program there was a small but significant difference between the HIPPY and LSAC groups in favour of LSAC parents. However, by the end of the program this difference had disappeared.

While we found no significant differences between the HIPPY and LSAC groups on parental warmth and consistency, the small difference observed in favour of HIPPY in terms of reduced levels of hostile parenting is encouraging and is in keeping with many positive qualitative reports from HIPPY parents about improvements in their parenting style and relationship with their child. We asked parents two other questions about the parent–child relationship: ‘Since HIPPY, what has been the biggest change in your relationship with your child?’ and ‘Is there anything you are doing differently with your child as a result of HIPPY?’.

Three themes emerged from the HIPPY parents’ responses. The first was their increased sense of patience, calm and tolerance:

I’ve learned to be more patient, less negative with feedback.

Being patient with him. I wasn’t before. I was a ‘nut-cracker’, always upset with little things.

I’m more calm, I know how to encourage the kids now and not put them down.

The second theme was the use of strategies such as negotiation, reasoning and communication:

Now we stop, talk about the behaviour, and if it continues tell her what will happen. She listens now.

I would smack her. Now we talk things out before there’s punishment.

A third theme was the parents’ increased ability to discriminate between what children were learning well and what they were learning less well:

[HIPPY] helped me see what she was capable of.

It’s really helped me to understand what she didn’t know and I have to take more time on the things she didn’t know.

I can now tell what the child has done wrong in the activities and the child can also.

Impact of HIPPY on the home learning environment

To measure the impact of HIPPY on the home learning environment, we used four different instruments, the first three of which had been used in LSAC: in-home activities scale, out-of-home activities scale, parent reading to their child and ‘generalisation’.

IN-HOME ACTIVITIES

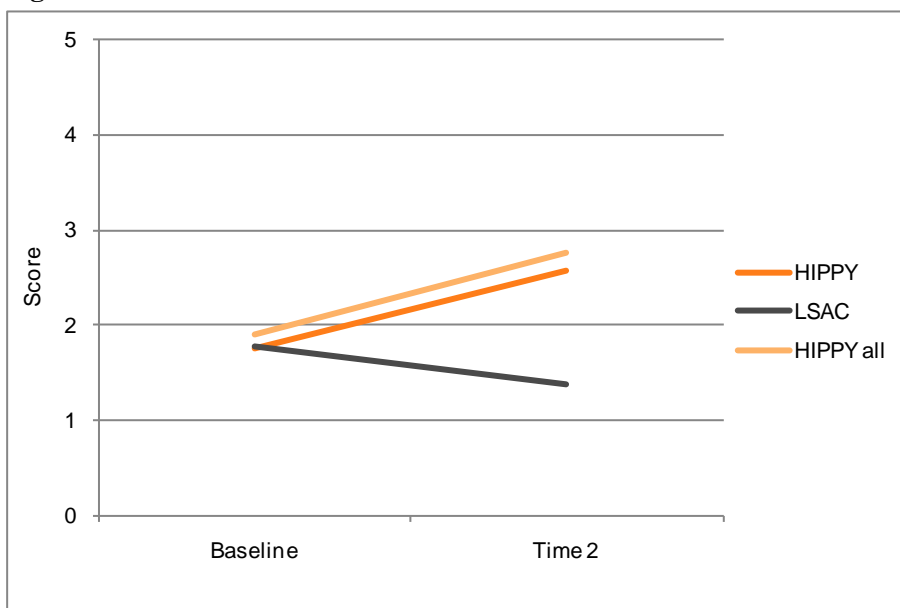
The in-home activities scale is a six-item, five-point scale (1 = no participation; 5 = everyday participation) that assesses how often, during the previous week, a family member has done activities such as telling stories to the child, doing craft and playing music with the child. An overall score was derived from these items.

Analysis showed no significant difference between the HIPPY and LSAC matched groups at baseline on the in-home activities scale. After two years in the program, we found that the HIPPY matched group scored significantly higher than their LSAC counterparts, creating a significant gap between the two groups (see Figure 3.9).

After two years in the program, we found that the HIPPY matched group scored significantly higher for in-home activities than their LSAC counterparts, creating a significant gap between the two groups in favour of the HIPPY group.

The gap of 2 standard deviations emerged as a result of a significant improvement within the HIPPY matched group and a simultaneous significant decline within the LSAC group. The significant improvement observed in the HIPPY matched sample was also reflected in the total HIPPY group.

Figure 3.9 In-home activities mean scores



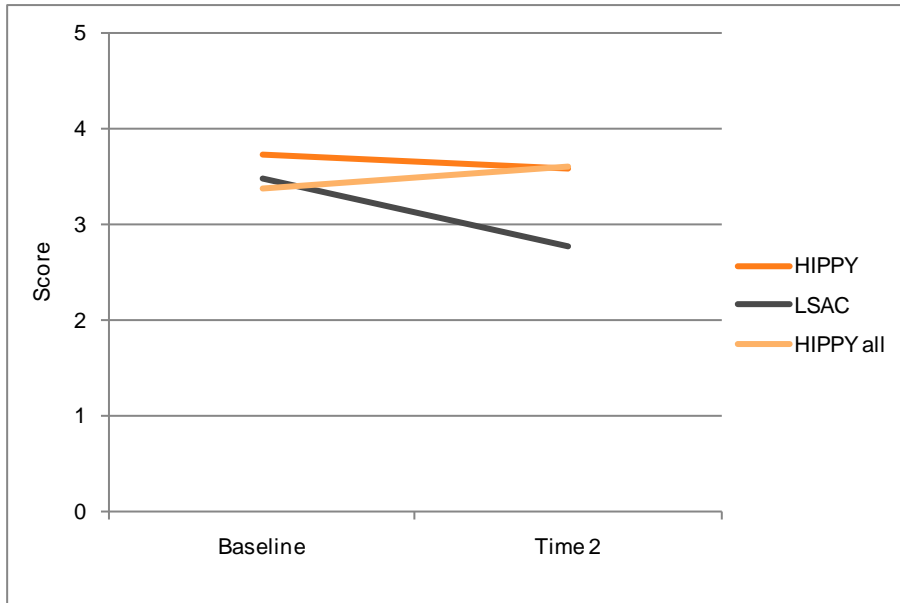
OUT-OF-HOME ACTIVITIES

The out-of-home activity scale is a seven 'yes/no' item scale which assesses whether the child is involved with family members in experiences such as going to movies, playgrounds or swimming pools, museums, cultural events or libraries during the previous months. An overall out-of-home activities score was derived from these items.

Another significant, but smaller, result was observed on the out-of-home activity scale (see Figure 3.10). At the start of HIPPY, we found no significant difference between the HIPPY and LSAC matched groups. At the end of the program, HIPPY parents scored an average of 0.7 of a standard deviation better than their LSAC counterparts on the out-of-home activity scale ($p = .02$). The result also held true for the total HIPPY group.

At the end of the program, HIPPY parents were scoring considerably better than their LSAC counterparts on the out-of-home activity scale.

Figure 3.10 Out-of-home activity mean scores

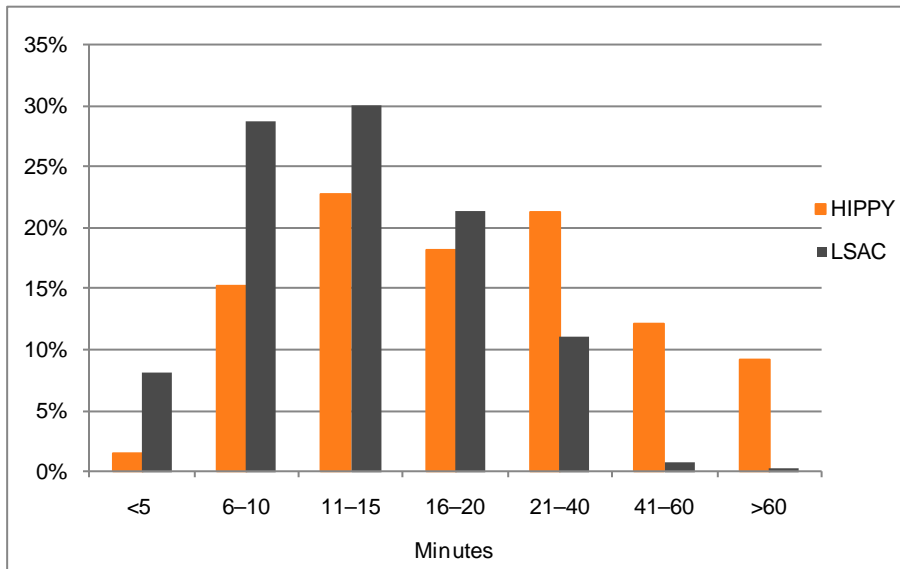


READING

Michael Marmot, Professor of Epidemiology and Public Health at University College London has said as much as half the deficit in early child development caused by disadvantage ‘can be reversed by reading to children daily—that’s not a very expensive intervention’ (Marmot 2011). The HIPPY model asks parents to do 15 minutes of HIPPY activities with their child per day, including reading¹¹. To enable comparison, we used a question that was also used in the LSAC with respect to enjoyment of reading: ‘For about how many minutes does your child enjoy being read to at a sitting?’. We found that HIPPY parents were 3.5 times more likely than their LSAC counterparts to report that their child liked being read to for longer in a single sitting. This was the largest significant between-group result we found in the evaluation. This suggests that the provision of HIPPY weekly activity packs and reading materials to parents is being translated into more enjoyable, longer engagement and positive reading experiences with the child (see Figure 3.11).

HIPPY parents were 3.5 times more likely than their LSAC counterparts to report that their child liked being read to for a longer period of time in a single sitting.

¹¹ The extent to which this happened is discussed in the section on program fidelity.

Figure 3.11 Amount of time that children enjoy being read to**GENERALISATION**

Lewis and Doorlag (2006) have outlined three main stages of learning: acquisition, maintenance and generalisation. Generalisation is also known to be one of the ‘active ingredients’ of effective early childhood/parenting programs (see Table 2.2) and has been explained thus: ‘Parenting programmes must teach principles and not just prescribed techniques’ (Sutton, Utting & Farrington 2004, p. 71). Generalisation is a key and explicit part of HIPPY. It is defined by HIPPY Australia as:

the ability of parents participating in HIPPY to use the skills they have acquired, and the insight and knowledge they have gained about their child’s learning, in new environments and situations, with other children and adults in their family. (HIPPY Australia 2010, p. 13)

Generalisation, when it happens, provides evidence that skills and knowledge the parent has acquired from doing HIPPY are turned into principles that are understood and applied in other real life settings.

To assess how frequently parents applied the knowledge they acquired through HIPPY to their everyday life and new situations, parents were asked a single question: ‘In your everyday relationship with your child, how often do you apply what you have learnt through HIPPY?’ Response options ranged from ‘always’ to ‘never’, and parents were also given the opportunity to elaborate.

More than three-quarters (78 per cent) of the HIPPY parents reported that they applied their HIPPY learning either always or usually and 22 per cent responded either sometimes or rarely.

In their comments, several parents described how this generalisation was done with their child and often involved siblings:

[I apply the learning] when at the shops we use the scales, [and when] helping with the cooking. Talking over situations in movies or DVDs as to how people may be feeling in different situations.

We notice more things outside. [For example] shapes, we look at cloud shapes. [Child] will count out fruit at the shops. At the traffic lights he tells me when to go and stop.

We go over the program together and his siblings do too, identifying colours and shapes.

Summary: impact of HIPPY on parenting style and the home learning environment

Analysis of the effects of HIPPY on parenting style and the home learning environment revealed some positive and encouraging findings, which is perhaps not surprising since HIPPY is primarily a parenting program.

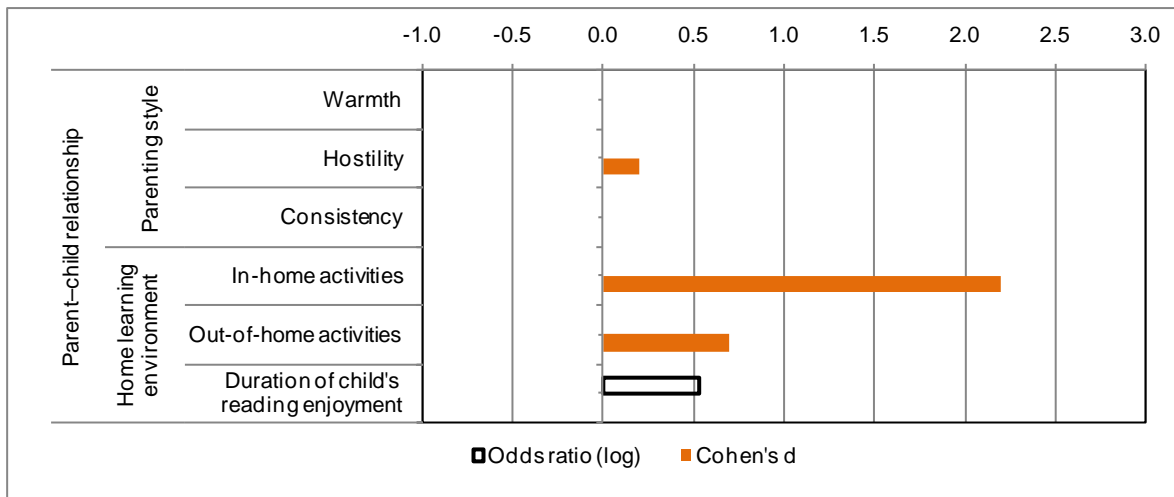
In relation to parenting style, we found that HIPPY had a significant and positive effect on levels of hostile/angry parenting. This is an important finding given that hostile parenting has been found to be a strong predictor of low social skills and antisocial behaviour in children (Patterson, Baryshe & Ramsey 1989), and the strongest predictor of later convictions for violent offences (McCord 1979). While we observed no significant difference between the HIPPY and LSAC parents on the other two subscales of ‘consistency’ and ‘warmth’, scores on both remained relatively high and stable throughout the program period. This finding is noteworthy since warm and consistent parenting has been significantly related to positive developmental outcomes for children, with good predictive power over periods of up to ten years (Zubrick et al. 2006).

In relation to the home learning environment, we found that HIPPY had a large and significant positive impact on both the in-home and out-of-home activities scores. In addition, we found that HIPPY parents were 3.5 times more likely than their LSAC counterparts, to report that their child liked being read to for a longer period of time in a single sitting. These results, together with the HIPPY parents’ increased participation in their child’s learning and development (reported earlier), were the largest significant differences between groups we found in the evaluation. These are important because a deprived home learning environment and low levels of parental involvement in their child’s early education have been shown to account for around half the effect of disadvantage on a child’s early learning and development (Brooks-Gunn & Duncan 2000; Marmot 2011) and are highly predictive of the child’s early school success and later life outcomes (Bradley et al. 2001; Foster et al. 2005; Heckman & Masterov 2007; Tudge et al. 2003).

We also found that, through generalisation, the vast majority of parents involved in HIPPY are translating the knowledge acquired from HIPPY into principles that they apply in other real world settings. Parents learning principles and not just prescribed techniques is important and Lewis and Doorlag (2006) have suggested that ‘generalisation’ is the stage where the ‘true’ learning occurs.

The major findings about parenting style and home learning environment are shown in Figure 3.12.

Figure 3.12 Parenting style and the home learning environment: summary of significant findings



Parent wellbeing and social inclusion

HIPPY aims to increase parental social inclusion.¹² In this section and the next the following definition is used for social inclusion:

A social inclusion approach involves the building of personal capacities and material resources, in order to fulfil one's potential for economic and social participation, and thereby a life of common dignity (Nicholson 2008).

Personal capacities, or as Sen has termed them, 'capabilities', indicate an individual's ability to participate economically, politically and socially (Sen 1999). The reference to dignity is a component of social inclusion that incorporates respect and recognition. We note that recognition is usually absent from current conceptualisation, definitions and measurement of social inclusion, and has been largely absent from the dominant theoretical advances that define social capital (DeFilippis 2001; Franklin 2007; Morrison 2008).

The matrix devised by Levitas et al. (2007) was used to provide a framework through which social inclusion could be examined using suitable questions from LSAC. This matrix enabled the HIPPY evaluation to use the capabilities approach, which regards social inclusion as multidimensional, dynamic, relative, recognising agency and relational (Tsakloglou & Papadopoulos 2002). The Levitas matrix has three domains: resources, participation and quality of life, which are further divided into ten themes. These ten themes form the structure of this section.¹³

Some modification of the Levitas matrix was required to capture the social inclusion of people in their role as parents. In the matrix's original form, the participation of parents would largely be defined as 'unpaid care' or, if they were working, 'unpaid care and paid employment'. Their role as parents would thus be ignored and parents would be defined by what they are not doing (paid employment), as opposed to what they are doing. This criticism can also be levelled at other frameworks in their treatment of unpaid care regardless of the carer's additional economic participation, for example the Laeken indicators and the frameworks proposed by Saunders, Naidoo and Griffiths (2007) and Scutella, Wilkins and Horn (2009). The failure of such frameworks to capture the social participation of unpaid carers comes from a lack of recognition of the social and cultural contribution that these individuals make (Franklin 2007; Morrison 2008).

Resources

The domain of resources is divided into three themes: material or economic resources, access to private or public services, and social resources. For HIPPY parents, participation in the program could not reasonably be considered to have a direct impact on their individual or their family's access to material or economic resources¹⁴. However, access to public services and social resources are potentially impacted by HIPPY and are discussed below.

¹² The term 'social inclusion' is used throughout this report, in line with Australian Government strategic policy. This applies even to sections of the report discussing literature which itself refers to social *exclusion*, for example from the United Kingdom.

¹³ Resources includes: material or economic resources; access to public and private services; and social resources. Participation includes: economic participation; social participation; culture, education, skills; political and civic participation. Quality of life includes: health and wellbeing; living environment; and crime, harm and criminalisation.

¹⁴ For home tutors who are employed by HIPPY, there is an obvious intervention effect and impact on immediate access to material and economic resources and this is discussed in the next section.

ACCESS TO PUBLIC SERVICES

HIPPY parents were asked at the start and end of the program about the degree to which they agreed with the following statement: ‘If you need information about local services you know where to find that information’. The majority of respondents agreed with this statement (see Table 3.5).

Table 3.5 Parents’ awareness of information about local services

	Strongly disagree	Disagree	Neither	Agree	Strongly Agree	Total
Baseline	%	%	%	%	%	% (n)
LSAC	0.5	5.7	14.4	56.6	22.8	100 (2093)
HIPPY matched	1.5	6.0	9.0	62.7	20.9	100 (67)
End of program						
LSAC	0.4	3.5	14.5	58.4	23.2	100 (1672)
HIPPY matched	1.5	7.5	11.9	47.8	31.3	100 (67)

While there was no significant change over time in either the LSAC or HIPPY matched groups, after controlling for baseline differences we found that HIPPY parents were 61 per cent more likely to agree that they knew where to find information about local services (with only a 12 per cent possibility of this result occurring by chance).

HIPPY parents were 61 per cent more likely to agree that they knew where to find information about local services, with only a 12 per cent possibility of this result occurring by chance.

SOCIAL RESOURCES

The HIPPY evaluation examined parents’ social networks and social support. Parents were asked how frequently they received support from specific individuals and were also asked, ‘How often do you need support or help but are unable to get it from anyone?’ We also included a question about whether HIPPY itself had helped them *access* social resources.

Parents were asked how often they saw, talked to or emailed their own parents, friends and neighbours.¹⁵ Contact was measured on a six-point scale from ‘no contact’ to ‘every day’. At baseline assessment, the most frequent contact for parents was with their own parents and friends (Table 3.6).

¹⁵ While information was collected in our study and LSAC about parents’ contact with other family members, the categories that constituted ‘other family members’ changed between baseline and time 2. As a result, direct comparison could not be made.

Table 3.6 Frequency of parents' contact with family and friends, at baseline

	No contact	Rarely	A few times a year	At least monthly	At least weekly	Every day	Total % (n)
Own parents							
LSAC	2.5	2.5	3.0	13.0	52.2	26.8	100 (2023)
HIPPY	1.6	3.2	6.5	14.5	40.3	33.9	100 (62)
Friends							
LSAC	0.5	2.5	3.1	18.2	54.3	21.5	100 (2064)
HIPPY	0	3.0	6.0	11.9	49.3	29.9	100 (67)
Neighbours							
LSAC	5.2	13.0	5.8	16.5	43.9	15.7	100 (2059)
HIPPY	10.4	17.9	3.0	9.0	35.8	23.9	100 (67)

At the end of the program, parents' contact with their own parents and friends was again the most frequently reported, followed by contact with neighbours (see Table 3.7). There were no significant differences between the HIPPY and LSAC groups in terms of the parents' contact with their own parents, friends or neighbours at either time.

Table 3.7 Frequency of parents' contact with family and friends, at time 2

	No contact	Rarely	A few times a year	At least monthly	At least weekly	Every day	Total % (n)
Own parents							
LSAC	2.2	1.7	3.6	13.8	52.7	25.9	100 (1612)
HIPPY	0	3.1	9.4	17.2	43.8	26.6	100 (64)
Friends							
LSAC	0.6	1.5	5.0	16.6	54.1	22.2	100 (1675)
HIPPY	1.5	3.0	3.0	12.1	59.1	21.2	100 (66)
Neighbours							
LSAC	4.6	11.5	7.2	22.6	42.4	11.8	100 (1658)
HIPPY	6.0	14.9	7.5	13.4	47.8	10.4	100 (67)

While the LSAC parents' frequency of contact showed a small but significant decline between baseline and time 2, no significant decline was observed in the HIPPY matched group.

The quality of parents' relationship with family and friends was also examined, using a composite measure of three variables. On the resultant scale (from 1 to 5), a high score indicates a parent's self-report of a strong attachment to family or friends, a belief that their own opinion is valued and a feeling of being included in the group. Since this data was not collected by LSAC at ages 6–7, comparison was not possible. However, within all of HIPPY a small but significant decline was found in the quality of relationship with friends: the mean on this scale decreased by a small amount from 4.09 to 3.99 ($p < 0.001$, $D = 0.14$). While significant, the impact of this change on the quality of the relationship was very small. The decline may reflect having less time for these relationships due to participation in HIPPY or may reflect the timing of the interviews. The end of program interviews were conducted near the end of the school year in the lead-up to Christmas—a more stressful time than between May and July when the baseline interviews were conducted.

When specifically asked whether HIPPY had helped them in meeting other parents, 27 per cent (32) reported that HIPPY had helped a great deal and 29 per cent (34) said that it had helped a little.

Parents were asked about their social support. They were asked how often the following groups supported them in raising their child: partner/spouse, own parents, spouse/partner's parents, other family members, friends and neighbours. There were five different levels of support from 'never'

to ‘always’. As Table 3.8 shows, parents received support most from their partner and least from their neighbours.

Table 3.8 Frequency of support in raising child, at time 2

	Never	Rarely	Sometimes	Often	Always	Total % (n)
Partner/spouse						
HIPPY	1.8	4.5	8.0	17.9	67.9	100 (112)
LSAC	1.9	2.6	6.8	19.2	69.4	100 (1683)
Own parents						
HIPPY	12.4	15.9	20.4	22.1	29.2	100 (113)
LSAC	12.6	18.6	27.1	24.2	17.6	100 (1569)
Partner’s parents						
HIPPY	20.6	19.6	19.6	19.6	20.6	100 (102)
LSAC	22.4	25.6	25.8	17.2	9.0	100 (1465)
Neighbours						
HIPPY	55.7	15.7	14.8	5.2	8.7	100 (115)
LSAC	54.7	21.7	16.3	5.2	2.1	100 (1620)

We observed no significant difference between the LSAC and HIPPY matched groups in terms of the amount of support parents reported from their partner/spouse, own parents, partner’s parents and neighbours at the final assessment. At the end of the program, however, HIPPY parents were two and three times more likely to report higher levels of support from ‘other family’ members and ‘friends’, respectively, than their LSAC counterparts (see Figure 3.13 and Figure 3.14)

At the end of the program, HIPPY parents were two and three times more likely to report higher levels of support from ‘other family’ members and ‘friends’, respectively, than their LSAC counterparts.

Figure 3.13 Support from other family members in raising children, at time 2

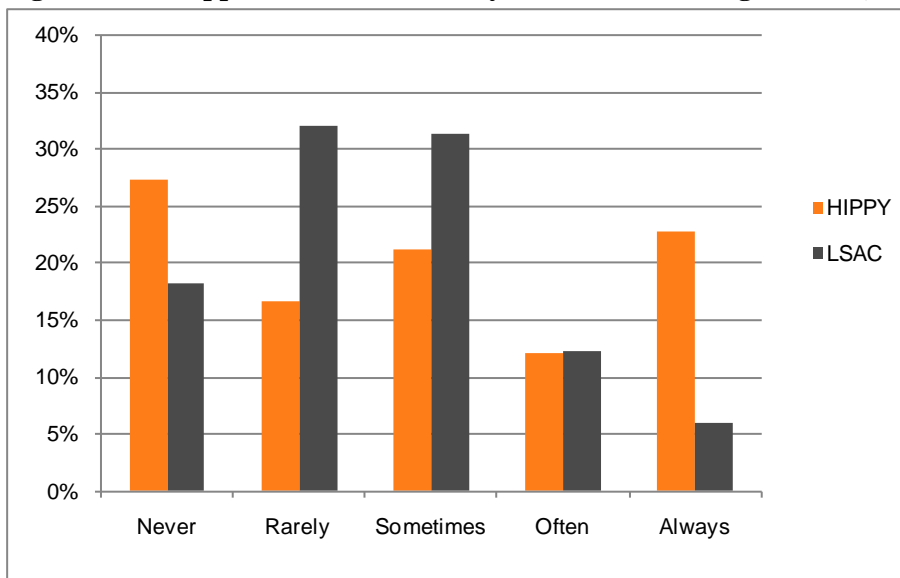
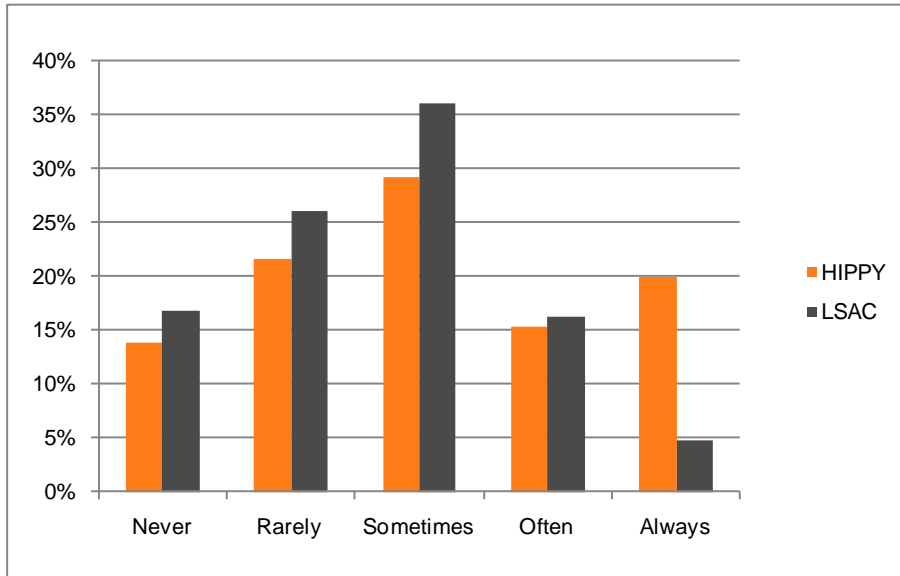
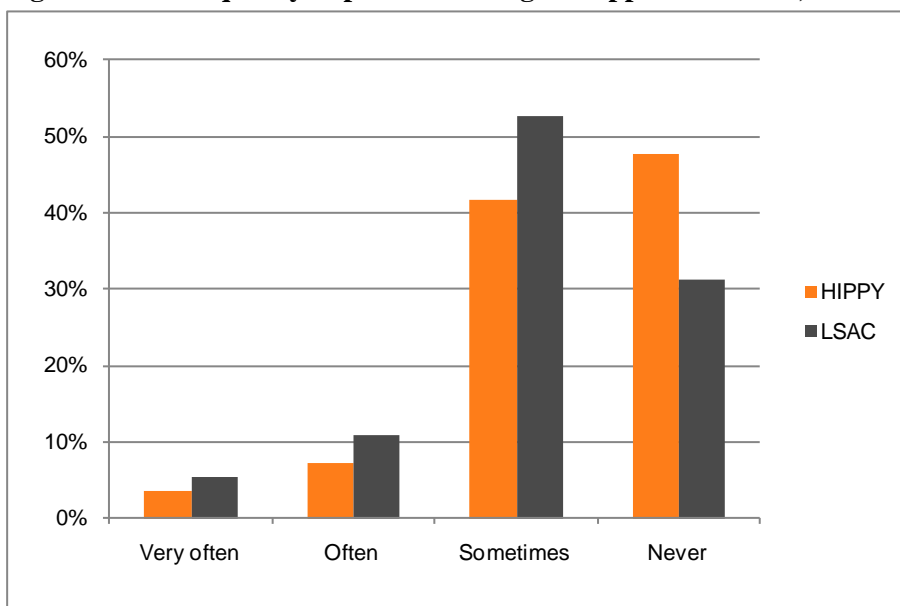


Figure 3.14 Support from friends in raising your children, at time 2

We also asked parents how often they felt they needed support or help but could not get it. This was rated on a four-item Likert scale, from 'very often' to 'never'. We observed significant differences between the HIPPY and LSAC groups in favour of the HIPPY parents at both the start and end of the program. The LSAC group showed a small significant decline between the first and last assessments ($z = -10.20, p < 0.001, D = 0.24$). After controlling for baseline differences, we found that by the end of the program, HIPPY parents were 2.2 times less likely than the LSAC parents to report that they could not access support when they needed it ($p = .02$) (see Figure 3.15).

After controlling for baseline differences, we found that by the end of the program, HIPPY parents were 2.2 times less likely than the LSAC parents to report that they could not access support when they needed it

Figure 3.15 Frequency of parents finding no support available, at time 2

Participation

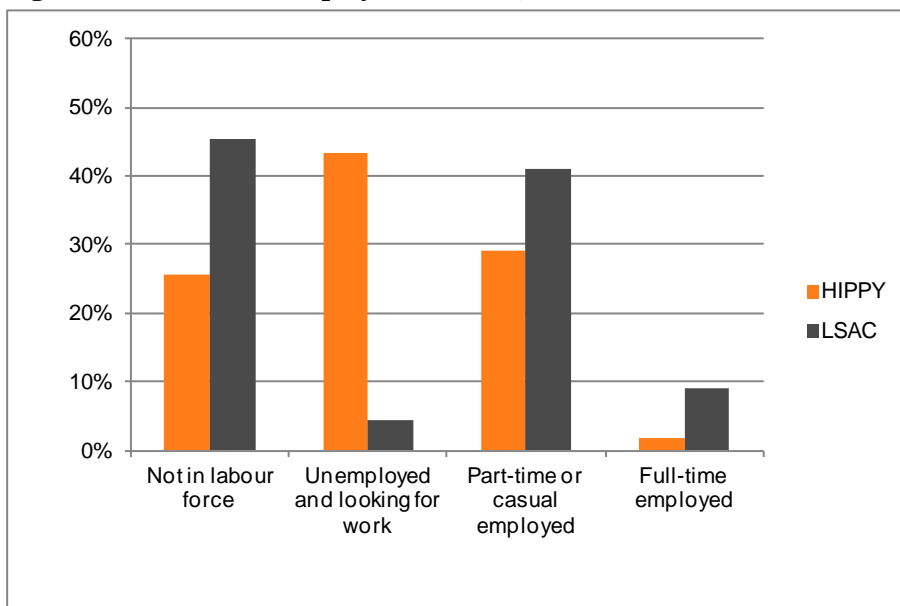
Within the Levitas matrix, there are four themes of participation: economic; social; culture, skills and education; and political and civic. Whereas participation in ‘common social activities’ would elsewhere be captured by measures such as ‘meal out each month’, ‘attend church’ and ‘family meals’ (Levitas et al. 2007), we included parenting as a social role, within the social participation domain, along with the construct of parental self-efficacy and the parents’ role as their child’s first teacher. This enabled us to examine more broadly how HIPPY increased the social inclusion of parents through supporting them in their role as parents. Only those components of social inclusion which could reasonably be considered modifiable by HIPPY are discussed.

ECONOMIC PARTICIPATION

There was no significant difference between HIPPY and LSAC parents’ level of participation in paid employment¹⁶ either at the start or end of HIPPY. However, both groups showed significant within-group change in the intervening period. At the start of the program 33 per cent of HIPPY parents were in paid employment; this increased to 48 per cent by the end of the program. A similar increase was observed among the LSAC parents, suggesting that many parents return to paid employment when their child commences school. However, the size of the shift into paid employment during this period was greater in the HIPPY group¹⁷ and there was a much larger proportion of HIPPY parents whose status had changed from ‘not in the labour force’ to ‘unemployed and looking for work’ than of LSAC parents (see Figure 3.16 and Figure 3.17).

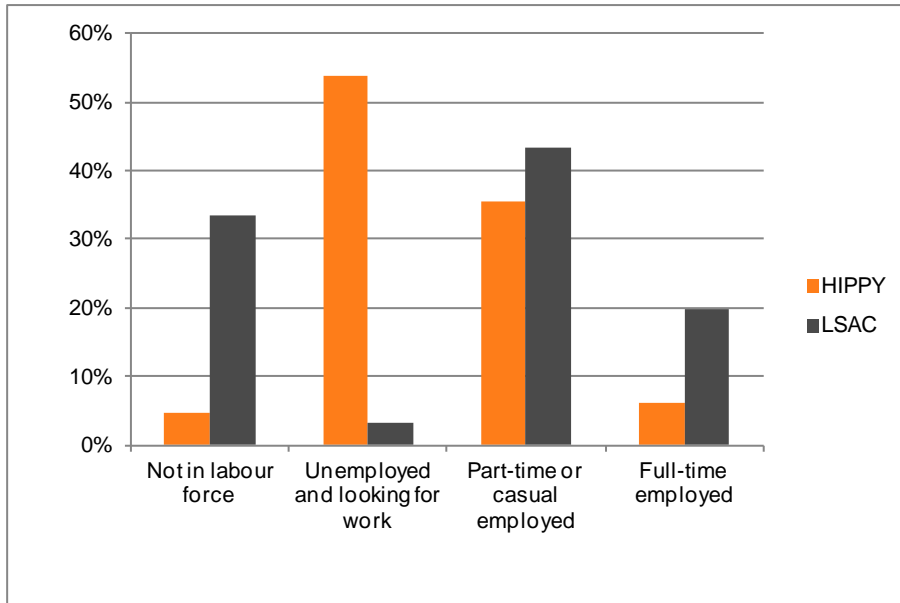
The size of the shift into paid employment during this period was greater in the HIPPY group; and there was a much larger proportion of HIPPY parents whose status had changed from ‘not in the labour force’ to ‘unemployed and looking for work’ than of LSAC parents.

Figure 3.16 Parents’ employment status, at baseline



¹⁶ Due to small cell sizes it was not possible to further disaggregate paid employment.

¹⁷ Six of the parents who started work between the start and the end of the program became HIPPY tutors, and another two were considering becoming tutors.

Figure 3.17 Parents' employment status, at time 2**SOCIAL PARTICIPATION**

HIPPY participants undertake an important social role as parents of their children. When we asked participants if HIPPY had helped them feel more confident as parents, 38 per cent said it had helped a great deal and 42 per cent said it had helped a little.

We asked participants if HIPPY had helped improve their parenting skills; 40 per cent felt it had helped a great deal and 44 per cent felt it had helped a little.

When HIPPY parents were asked more generally about what they were doing differently as a result of HIPPY, two dominant changes in behaviour were described: increased patience and spending more time with the child:

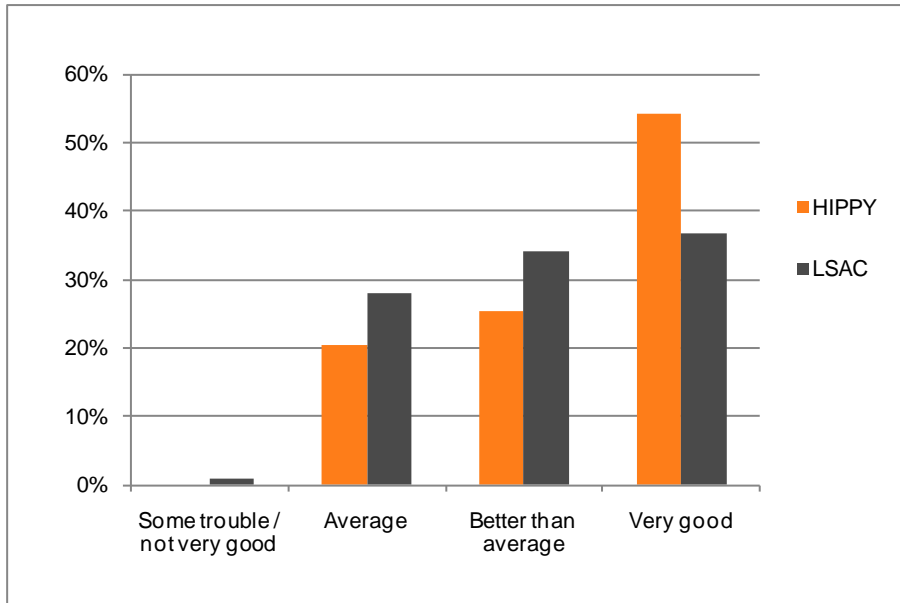
I have a lot more patience when trying to show [child] things and I can find new ways of showing [him] things in another way.

HIPPY has made me take the time to do things with him.

HIPPY and LSAC parents were asked to rate themselves as parents on a five-point scale from 'not a very good parent' to 'very good parent'. HIPPY parents were 82 per cent more likely to give themselves a better rating as a parent than LSAC parents ($OR = 1.82, p = .04$) (see Figure 3.18).

HIPPY parents were 82 per cent more likely to give themselves a better rating as a parent than LSAC parents.

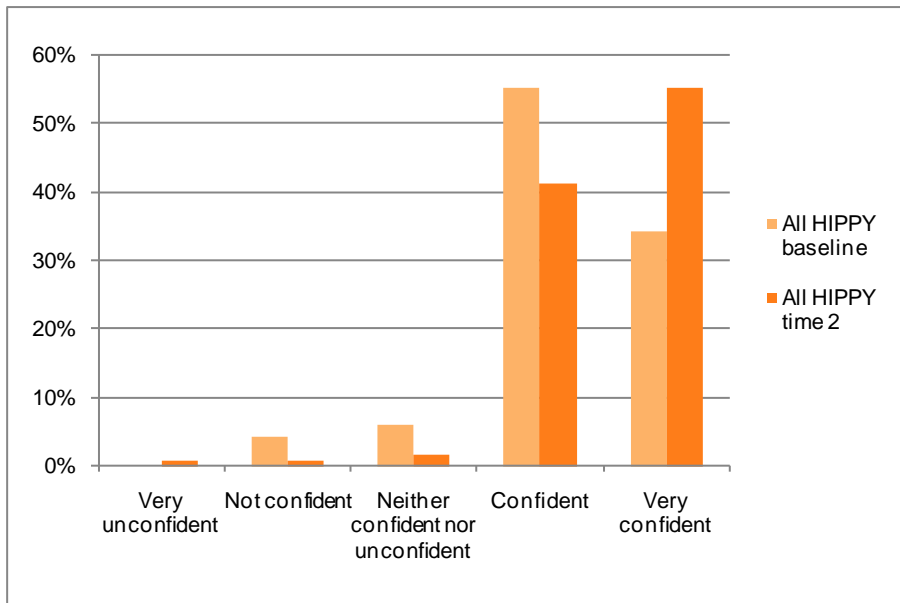
Figure 3.18 Rating of self as a parent, at time 2



We also asked HIPPY parents about their role as their child’s first teacher. At both the start and end of the program nearly all HIPPY parents saw themselves as having an important role in their child’s education. At both times only one HIPPY parent did not agree that they played an important role in their child’s education and only one parent strongly agreed. Thus, there was no significant change.

Similarly, at both times of assessment more than 90 per cent of parents either strongly agreed or agreed that other people recognised them as having a positive influence on their child’s education and no change over time was detected. However, we observed a significant increase in HIPPY parents’ confidence in their role as their child’s first teacher between the start and the end of the program ($z = -3.37, p < .001, D = 0.49$) (see Figure 3.19).

We observed a significant increase in HIPPY parents’ confidence in their role as their child’s first teacher between the start and the end of the program.

Figure 3.19 All HIPPY parents' confidence as child's first teacher

CULTURE, EDUCATION AND SKILLS

We examined HIPPY parents' participation in formal education, their educational aspirations and their ability to speak English.

While HIPPY parents were more likely to be studying at baseline compared with LSAC parents, there was no significant difference at the end of the program, and neither the HIPPY nor LSAC groups showed significant within-group change over time. However, 28 per cent of HIPPY parents said that their experience of HIPPY had made them interested in continuing their own education, and five had enrolled in a course. The effect of HIPPY on parents' educational aspirations was diverse: some wanted to finish Year 12, others to work with children or with immigrants:

I would like to do HIPPY tutoring at some stage. Am just worried about my pronunciation.
I can speak four or five languages and could maybe help immigrants.

Yes, because I want my English to be improved. I want to speak more to my daughter.
Also, by teaching my daughter I got more confident in teaching, so I would like to be a kinder teacher.

Overall, we observed no significant change in HIPPY parents' self-report of their English skills, with around 75 per cent of parents reporting they could speak English 'very well' and around 15 per cent reporting they could speak English 'well' at both the start and end of the program.

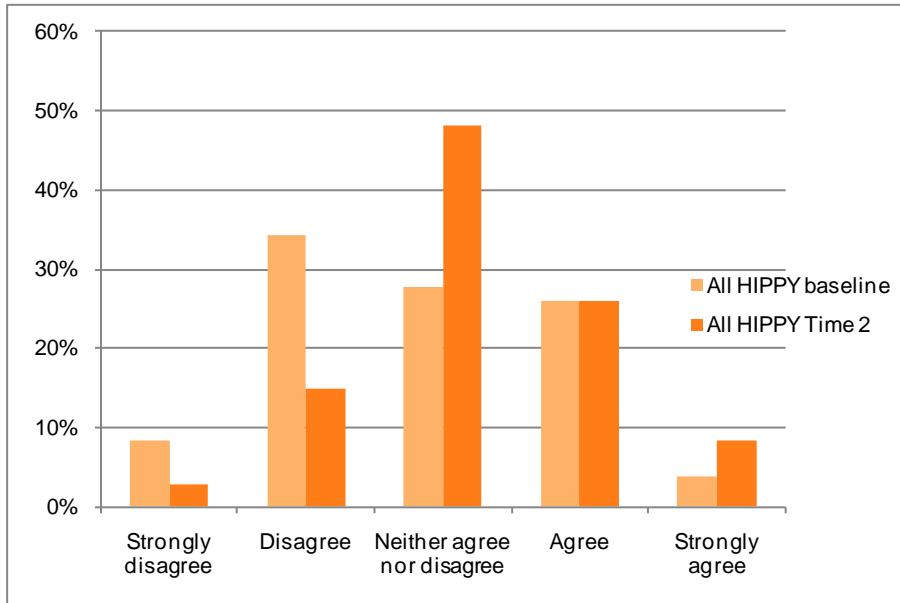
POLITICAL AND CIVIC PARTICIPATION

Two aspects of civic participation were examined: parents' involvement in community activities and their belief that they could influence local decisions. While there was no significant difference in participation in community activities between the HIPPY and LSAC groups, we observed an increase of 6 percentage points in HIPPY parents' participation in community activities and a decrease of the same size in the LSAC group. The change reached statistical significance within the LSAC sample but not in the HIPPY sample due to the latter's smaller size.

HIPPY parents were asked about the extent to which they felt they could influence decisions affecting their local area, but this question was not asked in the LSAC. By the end of the program

HIPPY parents were more likely than at the start to report higher levels of agreement with the statement that they could influence decisions affecting their local area ($z = -3.38, p < .01, D = 0.36$) (see Figure 3.20). The shift reflects a change within the HIPPY group from feeling disengaged from local processes to being more engaged.

Figure 3.20 Parents' belief that they can affect decisions in local area



Quality of life

Two themes within the quality of life domain of the social inclusion framework could be influenced by parents' involvement in HIPPY: health and wellbeing, and perceptions about their neighbourhood as a place to live.

HEALTH AND WELLBEING

Respondents in LSAC and HIPPY were asked to rate their own health on a five-point Likert scale. In LSAC the ratings were excellent, very good, good, fair and poor, and for the HIPPY evaluation were excellent, very good, good, poor and very poor. In spite of this difference the data was compared. There was no significant difference between the health status of the HIPPY and LSAC groups at either the start or the end of the program. However, we observed statistically significant small increases in the health status for both the LSAC group and the total HIPPY sample over this period, with the larger increase observed for the HIPPY group, LSAC ($z = -4.145, p < 0.001, D = 0.03$) and the whole HIPPY cohort ($z = -2.880, p < 0.001, d = 0.27$).¹⁸

Explaining the impact of HIPPY on people's self-reported health status is not a straightforward matter. It is possible, however, that the larger increase observed in the HIPPY group could be linked to the previously mentioned significant improvements in parents' sense of confidence and self-efficacy.

Parents' mental health was assessed using the Kessler 6 (K6) scale of psychological distress, and a range of other individual measures including: self-esteem, coping, satisfaction with life, difficulty of life and happiness in the relationship with their partner. We report here on those measures where a significant difference was found either between the HIPPY and LSAC groups or within the groups over time.

¹⁸ No increase was observed for the matched HIPPY group.

We observed similar small and statistically significant improvements for both the HIPPY and LSAC groups on the K6 measure of psychological distress over time: HIPPY ($t(117) = -2.806, p = 0.01, D = 0.27$); LSAC ($t(1908) = -10.77, p < 0.001, D = 0.23$). There was a very small but significant difference between the matched groups at baseline ($F = 3.53, p = 0.06, D = 0.08$), but no significant difference at the end of the program.

HIPPY parents were 46 per cent more likely than the LSAC parents to report that they were less happy in their relationship with their partner at the start of the program ($OR = 1.54, p = .03$), but there was no difference between the groups at the end of the program. In the total HIPPY group we observed a small and statistically significant increase in parents' happiness with their relationship over the period ($z = -2.16, p = 0.03, D = 0.23$).

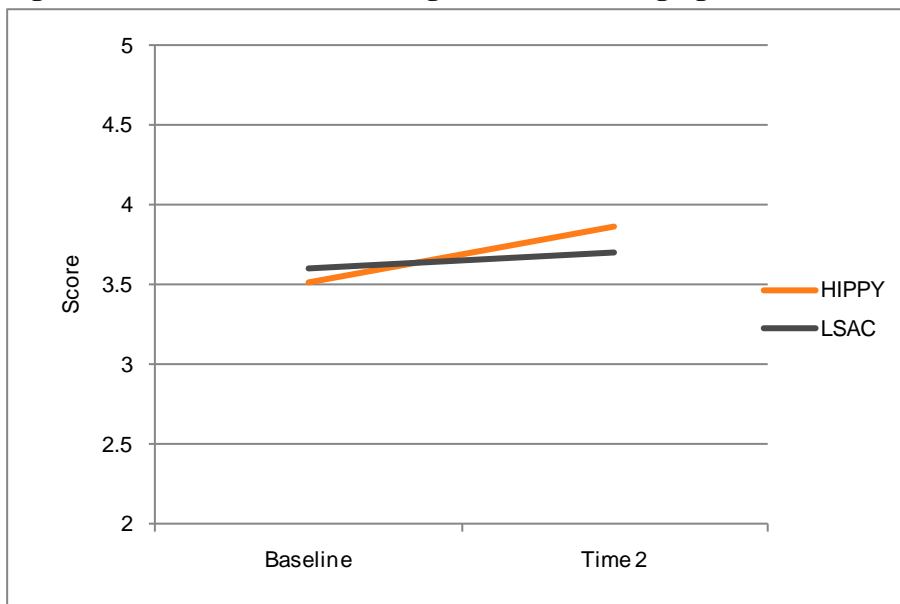
Data about HIPPY parents' satisfaction with life was collected at the start and end of HIPPY. It was not collected in LSAC. HIPPY parents reported greater satisfaction with life at the end of the program than at the beginning. The difference was statistically significant but small ($z = -2.59, p = 0.01, D = 0.29$).

PERCEPTIONS OF THE NEIGHBOURHOOD

Two variables were used to examine the impact of HIPPY on parents' perceptions about their neighbourhood as a place to live. The first was a composite measure of belonging, which comprises knowledge of local services, being informed about local affairs, sense of identifying with the neighbourhood and view of whether most people in the neighbourhood can be trusted. There was no significant difference between LSAC and HIPPY at the start of the program. However, by the end of the program the HIPPY group's mean score on the neighbourhood belonging scale was .3 of a standard deviation higher than that of the LSAC group ($p = .05$) (see Figure 3.21).

By the end of the program the HIPPY group's mean score on the neighbourhood belonging scale was significantly higher than that of the LSAC group.

Figure 3.21 Parents' sense of neighbourhood belonging



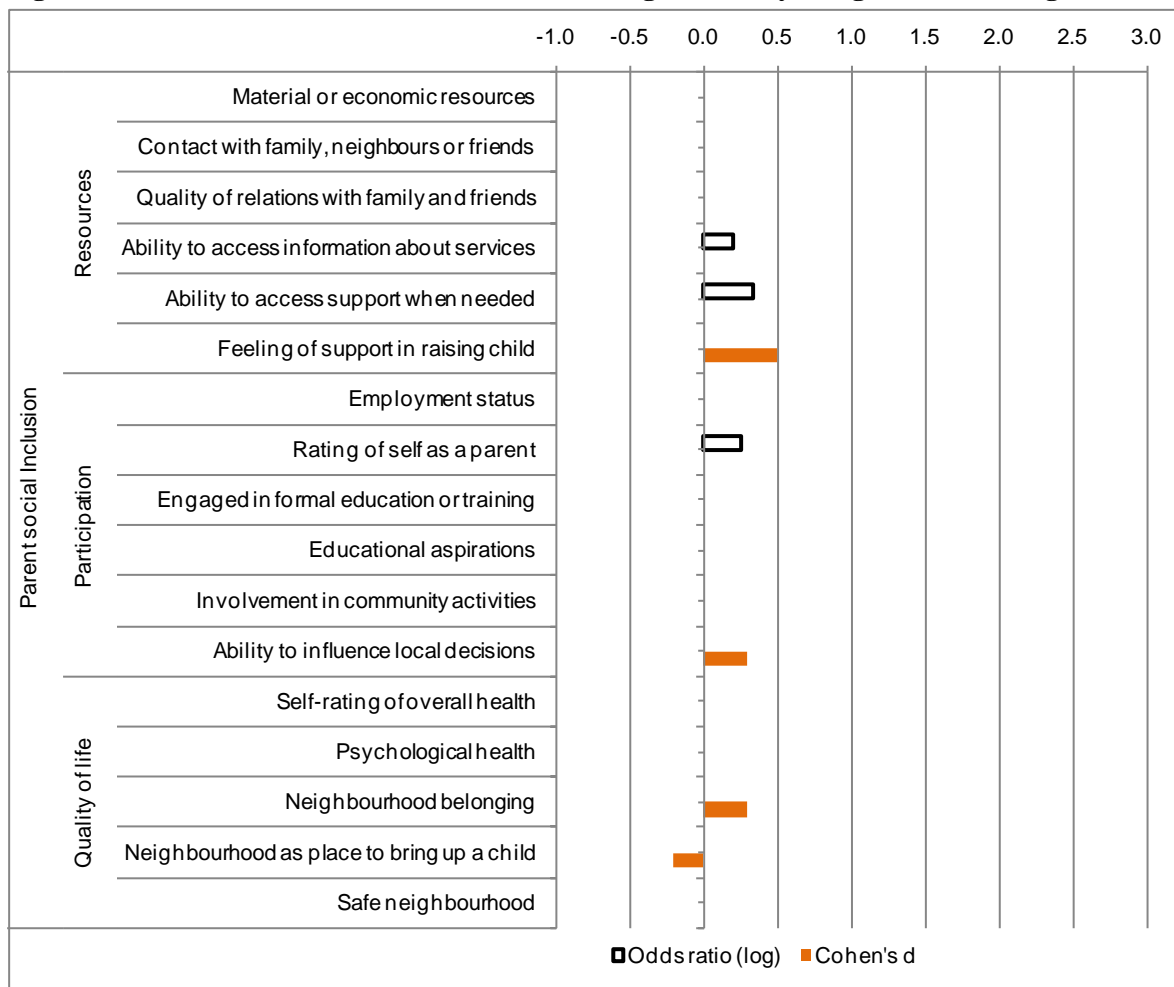
The second variable was the parents' rating of the neighbourhood as a place to bring up children. There was no significant difference in the ratings of the neighbourhood at baseline, but at the end of the program HIPPY parents were 48 per cent more likely to rate their neighbourhood less well as a place to bring up their child, compared with LSAC. The difference was due to a significant improvement in the LSAC group's rating over time which was not observed in the HIPPY group.

Summary: impact of HIPPY on parent wellbeing and social inclusion

After two years of the program, HIPPY parents reported higher levels of support, rated themselves better as a parent, knew where to go to find out information about services and access services and had a higher level of neighbourhood belonging than their LSAC counterparts (see Figure 3.22). Further, where HIPPY parents were worse off at baseline than LSAC parents—in psychological wellbeing and happiness in their relationship with their partner—by the end of HIPPY this difference was not significant.

Statistically significant, small within-group improvements were detected in employment, confidence as their child's first teacher, ability to influence local decisions, health, psychological wellbeing, happiness and satisfaction with life in the HIPPY group. Similar changes were only detected in employment and psychological wellbeing in the LSAC group.

Figure 3.22 Parents' social inclusion and wellbeing: summary of significant findings



Home tutor wellbeing and social inclusion

A critical finding from the analysis of the data from home tutors was the mismatch between the quantitative and qualitative reports of tutor wellbeing and social inclusion. The qualitative narratives clearly describe the confidence and skills that the HIPPY tutors have gained through their involvement in the program:

HIPPY was not only good for my son but it has really opened the door for me to have the confidence to get back into the workplace.

This confidence was evident in tutors' optimism about future employment and their desire to undertake further education to achieve their career aspirations:

Filling in for the coordinator has shown me the need to get relevant qualifications.

I am thinking of becoming a teacher's aide due to the confirmation HIPPY has given me of my love of teaching and the importance of children's education.

Yet the quantitative results, for employment skills, measures of mental health and social contacts showed significant decline over time. After a description of the tutors, this section examines both types of evidence.

Profile of tutors interviewed

Of the 26 home tutors interviewed at baseline, 19 were simultaneously undertaking HIPPY with their children.¹⁹ All of the 26 were female and aged between 24 and 42 years, with a median age of 32. The majority of the tutors were born in Australia (21); the other five were born in England, Malaysia, India, Burundi and New Zealand. Only three had a language other than English as their first language and seven had Indigenous Australian background.

While 9 tutors had completed below Year 12 (or equivalent), 24 had a post-school qualification (18 had a vocational certificate or diploma, five had university degrees, and one a graduate diploma). Most tutors (17) lived in households where wages were the main source of income; however, for nine tutors government benefits were the main source of income. Among the 26 tutors, 11 qualified for a Health Care Card. Half (13) of the tutors were working part-time and the other half were employed on casual basis. All but two had previous work experience.

At time 2, 22 of these tutors were reinterviewed.

Prior to starting work as a tutor, 13 of the 26 respondents reported being unemployed or unable to access employment due to caring or household commitments and unsuitable hours. This shows the difficulty of finding employment that fits in with caring responsibilities.

Qualitative results

CONFIDENCE

Increased confidence was mentioned by many home tutors as a benefit they had gained from HIPPY. Six of the 15 tutors who said they had gained skills from HIPPY listed confidence as that skill. All 15 also stated that these skills would be useful if they wanted to look for other jobs.

¹⁹ In order to avoid bias these tutors were excluded from both the parent and child sections of the effectiveness chapter.

When specifically asked if HIPPY had affected their self-confidence in a work situation, 17 of the 21 respondents said that it had. Only one of the 15 who specified *how* HIPPY had affected their confidence reported a negative effect:

Initially confidence increased but recently have felt less confident.

Ten reported that their confidence had improved:

Yes, I believe in myself.

I feel more confident that it is OK to be myself and that it is appreciated and valued.

Three tutors mentioned how their confidence had improved, through better communication skills and enabling them to not take issues personally.

COMMUNICATION

Of the 15 tutors who stated they had gained skills through HIPPY, 7 mentioned communication.

Because of the interaction with people, interaction skills. I have learnt to be more empathetic, non-judgmental, understanding.

I am much better at communicating with people who have English as a second language.

TEAMWORK

One tutor specified teamwork as a skill gained from HIPPY, explaining:

I have built a strong rapport with colleagues, parents.

PLANNING AND ORGANISATION AND SELF-MANAGEMENT

Four of the tutors who said they had gained skills through HIPPY described planning and organisational skills:

I am a lot more task-orientated.

I have improved self-management.

Finally, based on the skills HIPPY had given them, 17 out of 21 stated that they felt they would be successful or very successful in getting a job:

If not for HIPPY I would only have a résumé—now I have a greater portfolio—increasing my potential for greater employment.

Three of the themes mentioned by tutors—communications, teamwork, planning and organisation and self-management—align with three of the eight domains of employability identified by DEST (2002). In addition, confidence is a personal attribute that was included by DEST as a component of employability. Tutors made no references in their open-ended responses about skills to the other DEST employability domains: problem-solving, initiative and enterprise, learning/education involvement and technology.

COMMUNITY INVOLVEMENT

There was no significant change between baseline and time 2 in tutors' involvement in community activities. The questionnaire included the example of volunteering at school. When asked whether HIPPY had had any effect on their community involvement, 15 out of 22 tutors said yes. Those

who gave an explanation described two types of involvement. One type referred to the individual's involvement (7 out of 12).

I have lived here for 18 years. Until I became a HIPPY tutor I was not involved in the community at all. Now I am involved. It is good. You get to know a lot of people.

The other tutors referred to involvement linked directly to HIPPY:

Developed stronger links with family and community groups.

When I go to functions the Indigenous community they say hello ... The work is really a hub for the community ... They know you work there and they can relate to you.

Of the 18 tutors who explained how the local community perceives them, six believed the community see them as resources:

I think people see me as someone who helps them with education.

Seven tutors described the respect they get from the community:

I got a lot of gratitude and appreciation and feel valued.

Parents who look up to me—one in particular is inspired by the work I do.

Quantitative results

*SOCIAL RESOURCES*²⁰

There was no significant change over time in contact between tutors and their parents, their partner's parents, friends and neighbours. However, there was a significant decline in the quality of the tutors' relationship with their family ($z = -1.583, p = 0.11$) between baseline and time 2. This may reflect a reduction in time available for these relationships.

Tutors continued to feel well supported by family and friends: at time 2 all 15 respondents felt they got enough help, compared to 14 at baseline²¹. Twenty of the 22 tutors reported always or often getting help from at least one of the following: partner/spouse, own parents, partner's parents, other family members, friends or neighbours. Partner or friends were the most frequent source of support in raising children, mentioned by 16 tutors.

QUALITY OF LIFE

The following aspects of tutors' quality of life were investigated but no significant change over time was found: happiness in relationship, assessment of own health, level of stress and perceptions of unmet need for support.

SELF-EFFICACY

There was a significant decline in the tutors' perceived self-efficacy between baseline and time 2 ($t(20) = 1.987, p = 0.06, D = -0.29$). Self-efficacy was measured as the mean of ten different variables, with four options for each response: 'not at all true', 'barely true', 'moderately true' and 'exactly true'. Typical statements presented were 'I can resolve more problems if I invest the necessary effort' and 'When I am confronted with a problems, I can find several solutions'. The tutors' mean score declined from 3.5 at baseline to 3.34 at time 2 (the maximum possible score was 4).

²⁰ For details of the questions and response options see the section about parents' social resources, page 39.

²¹ Tutors who stated they do not need any help were excluded.

Concerning tutors' self-esteem, there was a significant decline between baseline and time 2 ($t(16) = 2.45, p = 0.03, D = 0.472$). Self-esteem is a composite measure of tutors' agreement with 10 different statements about self-esteem, for example, 'All in all, I am inclined to feel that I am a failure' and 'I take a positive attitude to myself'. The mean declined from 24.7 to 22.2, the maximum possible score being 30.

There was a significant increase in tutors' psychological distress ($t(21) = 1.754, p = 0.10, D = 0.59$). However the mean values (at baseline, 27.6 and at time 2, 25.4) would both be categorised as a low level of psychological distress.

EMPLOYABILITY SKILLS

In the evaluation we examined the eight domains of employability skills identified by DEST (2002): communications skills, teamwork skills, problem-solving skills, initiative and enterprise skills, planning and organisational skills, technology, self-management and learning skills. Fifteen different components of these eight domains were evaluated by respondents on a five-point of scale (excellent, good, fair, poor and very poor).

Overall 8 of the 15 components showed a decline between baseline and time 2. Only the statement 'I am able to have an innovative new idea and put it into action' showed a positive result over time. Six components showed no significant change over time. All statistically significant results are presented in Table 3.9.

Table 3.9 Tutors' employability skills, statistically significant changes

	Z	p	Direction of change from baseline
I am a good listener and understand what people need	-2.31	.02	↓
I read and understand information presented in a variety of forms	-2.24	.03	↓
I can work effectively with others to solve problems	-1.90	.07	↓
I am able to have an innovative new idea and put it into action	-2.11	.04	↑
I am punctual and get to appointments on time	-1.63	.10	↓
I am able to organise my time so I can fit in all the things I need to do	-1.73	.08	↓
I am able to have a goal, make a plan and follow it through	-1.73	.08	↓
I know my own strengths and weaknesses and what I need to improve	-1.63	.10	↓
I am willing to continuously learn and grow	1.63	.10	↓

The declines are at odds with what one would in the first instance expect. One of the goals of HIPPY is to improve the employability of some local people by providing them with the employment opportunity of becoming home tutors. We suggest the declines, however, can be explained by the fact that those people who were successful in being recruited to a position of home tutor felt confident at the time of the baseline assessment that they could do the job, so they rated their employability skills as high. This is borne out by an examination of the baseline responses. At baseline more than 50 per cent of tutors rated themselves as 'excellent' and only 4 percent of all possible responses were in the 'fair' category. It is reasonable that over time tutors might be confronted with how difficult the task really is and rate themselves less highly as a result. If this was the case, then one might expect that ratings taken as tutors gain even more experience, competency and confidence, will improve. In this instance, the qualitative evidence already presented in this section is perhaps more revealing and indicates positive tutor opinions about their employment experience, aspirations and employability skills. Further, longer term research would

give a more complete picture of how HIPPY did or did not impact on tutors' future educational and employment plans and actions.

Summary

Data collected from tutors indicated that all 26 were female aged between 24 and 42 years, and 19 of them were simultaneously undertaking the program with their children. Their comments suggest that being a HIPPY tutor increased their level of confidence, with most tutors mentioning gains in this area. Other gains mentioned by some tutors include improved communication, teamwork and organisational skills. There were no significant changes in matters such as tutors' social resources or quality of life, although one might suggest that improvements in self-confidence constitute an improvement in quality of life. Interestingly, the quantitative analysis found that tutors' employability skills declined after baseline. This is not entirely unexpected since tutors began with a high level of confidence in their own abilities, and the realities of being a tutor and understanding of its inherent difficulties would become clearer over time. Longer term research would be helpful in showing whether increases in employment skills or other gains developed over time.

Fidelity of HIPPY implementation

Fidelity is essentially the degree to which a program was implemented as planned. Measuring fidelity is not an exact science but endeavouring to do it in experimental research designs is important for two reasons. Firstly, if a program is not found to have an effect, we want to be in a position to make a judgment about whether this result is due to a failure of the program itself, or a failure to implement and take up the program as intended. Secondly, the degree of fidelity may give us an insight into the acceptability and appropriateness of the program for the target population.

Developing the fidelity index for HIPPY

There is no single or established method of measuring fidelity (McLeod, Southam-Gerow & Weisz 2009). However, Dane and Schneider (1998), and more recently McLeod, Southam-Gerow and Weisz (2009), propose approaches to measuring fidelity that share many characteristics. We adopted the approach developed by Dane and Schneider (1998) and collected data from parents on four aspects of fidelity: adherence, exposure, responsiveness and quality of delivery. Dane and Schneider also use a fifth aspect—program differentiation—to consider the extent to which the program being tested is different from other programs that could be accessed by people in either the intervention or control groups. The rationale is, firstly, that if parents in the control group (in this case the matched LSAC group of parents) were accessing a similar program to HIPPY then it would not be surprising to find no impacts of HIPPY in the evaluation of the program's effectiveness. Secondly, if the HIPPY group were also accessing another program similar to HIPPY then it would not be possible to know whether any impacts were attributable to HIPPY or to the other program. HIPPY's differentiation was discussed in Chapter 2; our analysis suggests that HIPPY has a combination of design features that set it apart from other programs in Australia. Accordingly program differentiation was not included in our approach to measuring fidelity. Table 3.10 shows the fidelity framework we developed and lists the measures that were included in the development of four subscales and an overall fidelity index.

Table 3.10 Fidelity framework and measures for HIPPY

Fidelity aspects		Definition	Measures
Delivery	Adherence	The extent to which specified program components were delivered as prescribed	<ol style="list-style-type: none"> 1. Number of home visits offered 2. Number of group meetings offered 3. Number of HIPPY weekly activity packs parent reported they did with child 4. Number of days per week parent reported they usually did HIPPY with the child 5. How often the parent reported they did: role-play, learning through play, HIPPY principles, generalisation, behaviour management, other issues not directly linked to HIPPY
	Quality of delivery	A measure of the qualitative aspects of program delivery that are not directly related to implementation of the prescribed content, such as implementer enthusiasm, leader preparedness, session effectiveness, and leader attitudes	<ol style="list-style-type: none"> 1. How prepared the tutor was as reported by the parent 2. Parent satisfaction with home tutor 3. How much parent enjoyed doing HIPPY 4. How useful parent thought HIPPY was for the child 5. How much child enjoyed doing HIPPY
Uptake	Exposure	The level of take-up of the program by the parent	<ol style="list-style-type: none"> 1. Number of home visits completed 2. Number of group meetings attended 3. Number of days per week parent reported they usually did HIPPY with the child 4. How much time parent usually spent doing HIPPY with child in each session 5. Average length of home visits
	Participant responsiveness	A measure not only of participation but also of enthusiasm	<ol style="list-style-type: none"> 1. Parent report of usefulness of HIPPY 2. How much HIPPY helped the parent with, for example, their confidence as their child's first teacher, parenting skills, understanding of child's development, meeting and finding support from other parents 3. How often parent reported applying what they had learnt from HIPPY in everyday life

Figure 3.23 shows the distribution and frequencies of the total program fidelity index scores, with higher scores representing higher levels of fidelity.

Figure 3.23 Fidelity index: distribution of scores

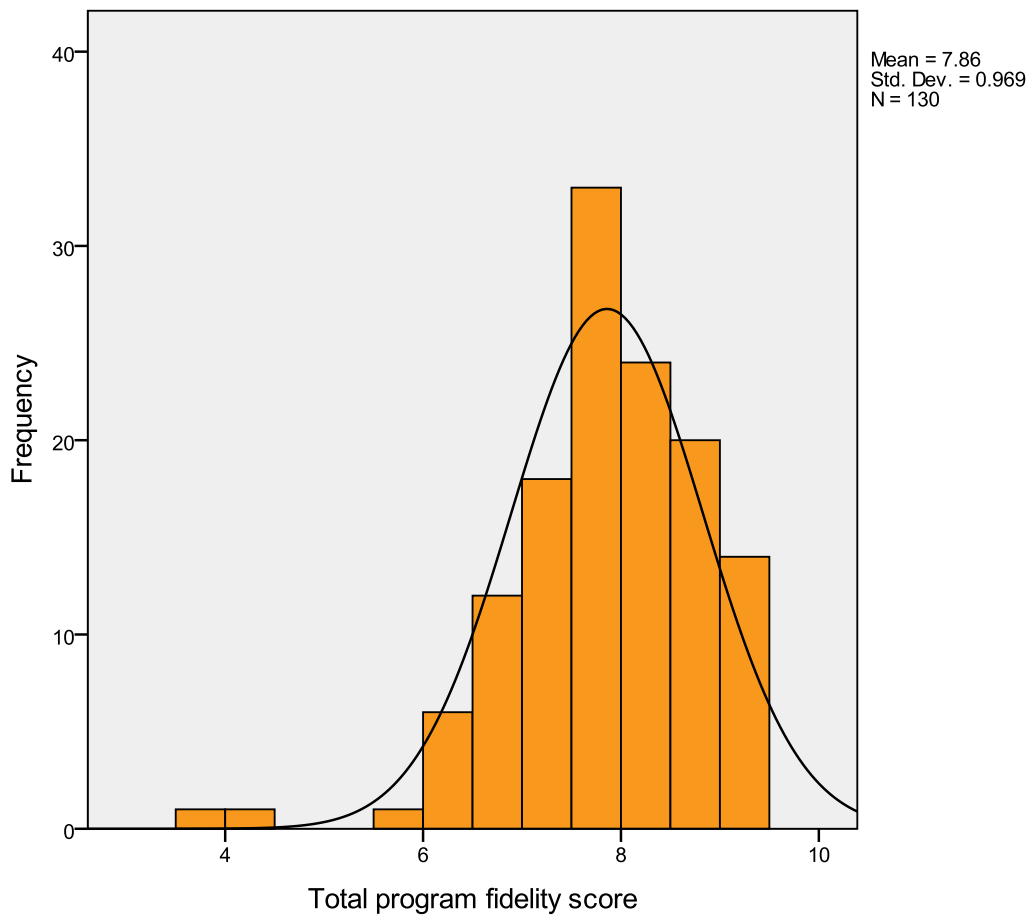
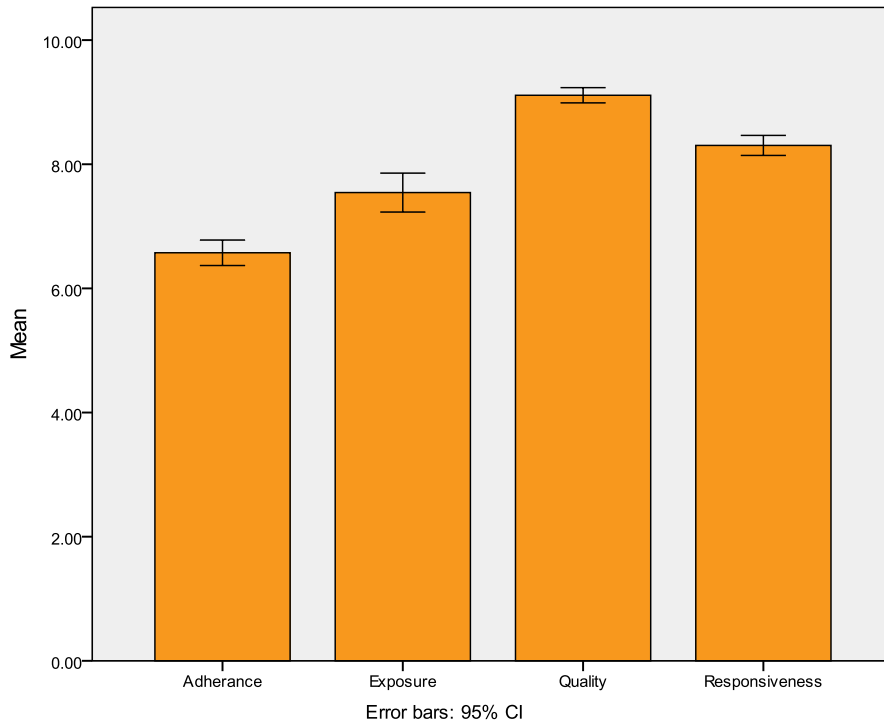


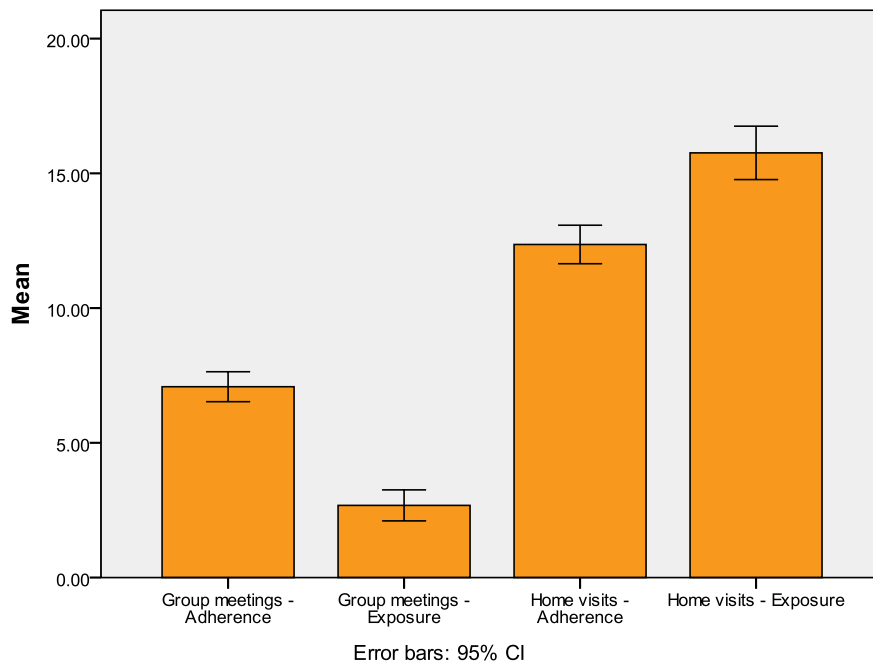
Figure 3.24 shows the mean scores and confidence intervals for each of the four subscales. Quality of service delivery was most consistently rated highly. Adherence to the 'intended' HIPYPY model scored lowest. Exposure (take-up of the program) showed greatest variability (as indicated by the error bar) which to a certain extent reflects the fact that the sample included some parents who had completed the first year of HIPYPY (age 4) but had withdrawn from the program at any time in the second year (age 5).

Figure 3.24 Fidelity subscale scores: means and confidence intervals



We compared adherence to the model (delivery) and exposure (take-up) of group meetings and home visits. Figure 3.25 clearly shows that for most parents HIPPY was a home visitation program. On average, exposure to group meetings was low.

Figure 3.25 Fidelity scores for adherence and exposure to group meetings and home visits



Most reasons people gave for not attending group meetings related to barriers. Such reasons included: working at the time of the meeting, being too busy, lack of transport or lack of child care for other children (and in some instances both these issues) and simply not knowing about the meetings.

But it also seems that sites are not delivering home visits and group meetings with the same level of adherence to the intended HIPPY model. Most sites are overperforming on home visits (conducting more frequent or longer visits) and underperforming on group meetings. Thus it appears that in some cases home visits are being used as a substitute for either low levels of delivery or exposure to group meetings.

We also found an association between the number of days per week a parent reported doing HIPPY with their child and the length of time of the HIPPY sessions with their child ($r = -.25, p < .05$). Thus, it seems that if parents are not doing HIPPY for 15 minutes each day with the child, as recommended, they will do catch-up or longer sessions on fewer days per week.

Home visits are expected to be between half and one hour in duration. Our data shows this was usually the case and that parents were satisfied with the length of the visits. When parents were asked about the home visits, 81 per cent reported that the length was just right, 12 per cent reported that the visits were too long and only 4 per cent said they were too short.

Contextual factors that impact on fidelity

We investigated whether any of the household level socio-demographic characteristics of those involved in HIPPY (see Table 3.4) had an impact on the delivery and uptake of the program. We included in the multiple regression model two additional variables: difficulty of life and parent self-rating of how well they speak English (see Table 3.11). The model explained 30 per cent of the variance in the fidelity index, with four characteristics having a significant impact ($p < .05$, as shaded in the table). Having a partner in the household was positively associated with fidelity (a positive value of Beta), whereas employment status and difficulty of life were both negatively associated with fidelity (a negative value of Beta). The age of the child at the start of the program was also negatively associated with fidelity, suggesting that parents whose HIPPY children were older did the program with less fidelity.

Table 3.11 Household level socio-demographic characteristics that impact on the delivery and uptake of HIPPY

Model ^b	Coefficients ^a				
	Unstandardised coefficients		Standardised coefficients		
	Beta	Std error	Beta	<i>t</i>	<i>p</i>
(Constant)	9.378	2.814		3.333	.001
How difficult do you feel your life is at present?	-.266	.114	-.291	-2.331	.023
Partner in household (Y/N)	1.046	.482	.412	2.171	.034
Child's age at baseline	-.031	.015	-.254	-2.124	.038
Employment status at baseline	-.339	.161	-.259	-2.108	.039
How well do you speak English?	-.339	.247	-.206	-1.373	.175
Parent age at baseline	.031	.023	.166	1.355	.180
Family type	.612	.486	.248	1.259	.213
Highest level of post-school education	-.221	.212	-.130	-1.043	.301
Highest level of school education	.094	.094	.134	1.004	.319
Are you Aboriginal or Torres Strait Islander?	-.392	.422	-.123	-.928	.357
Child gender	-.160	.213	-.093	-.752	.455
How many people live in your household?	-.039	.079	-.064	-.493	.624
Parent gender	-.124	.455	-.032	-.271	.787
Main language spoken at home—English or other	.071	.316	.032	.224	.824

a. Dependent variable: Total fidelity scale.

b. $R^2 = .30$, $p = .05$.

Examination of the LSAC data shows that it is common for parents to move into higher levels of employment as their child gets older. This may explain why age of the child and employment status of the parent are both negatively associated with fidelity. It is also possible that some of the older children and their parents found the HIPPY materials too easy, but this is not backed up by the qualitative data. Of the 36 parents who began HIPPY but did it with low levels of fidelity (including those who dropped out at any time during the two-year program), only four reported that the materials were too easy and one parent reported that it was too hard. In the total HIPPY sample it was far more common for parents to report that the materials were hard than easy, and most thought the materials were at the right level.

It appears that having a partner in the household may help with the delivery of HIPPY to the child. But regardless of whether a partner is in the household or not, the main explanations of why HIPPY was done with lower fidelity appeared to be the parent finding life difficult and, perhaps at the same time, having more hours of employment. The qualitative data supports this and provides additional information. When we asked parents at the end of the program, ‘What was the main reason that prevented you from completing the weekly activities?’, we received 87 responses. Although asked for the *main* reason for not completing activities, many respondents indicated a combination of reasons which for them converged. Typically these involved lack of time, illness, work or other pressures, other children needing attention, and children having other activities including kinder or school or losing interest. Sixty-one parents indicated time, frequently in conjunction with other issues, was an important factor. Comments included:

Just ran out of time.

Always no time and I was the only one who did HIPPY with her.

Time and distraction from other people

Busy with other duties, work and family.

At present with my new four-month-old baby I don't have time.

My time constraints. And sometimes child did not want to.

Child would have other schoolwork to do. And less time with me working.

She wasn't interested in it. Time was a big thing. Maybe school was fulfilling a few needs for her.

Child being tired or hungry. Time issues.

Fidelity and its impact on HIPPY outcomes

We investigated whether there was an association between fidelity and any of the outcomes for which a significant difference had been found. We wanted to know, 'If a parent does more rather than less of HIPPY, does this produce better results in terms of the measured outcomes?'

We used the fidelity scale median score to divide the HIPPY group into two equal subgroups of low fidelity and high fidelity and re-ran the analysis of comparisons with LSAC on variables for which an overall significant difference had been found.

Three of the four subscales of the Strengths and Difficulties Questionnaire were found to have a positive association with the fidelity index. Parents who did HIPPY with greater fidelity on average had a 17 per cent lower score on the child's 'problems with peers' scale than parents who had low fidelity scores. On the child's 'pro-social behaviour' subscale we found that the overall result of no significant difference between the HIPPY and LSAC groups only held true for the HIPPY low-fidelity group. Parents who did HIPPY with higher levels of fidelity produced a significantly better pro-social behaviour score than the LSAC group. Similarly we found the *worse* score for the HIPPY group on the child's 'conduct problems' subscale only held true for the HIPPY low-fidelity group. There was no significant difference on this subscale between the scores of the LSAC group and those parents who did HIPPY with higher fidelity.

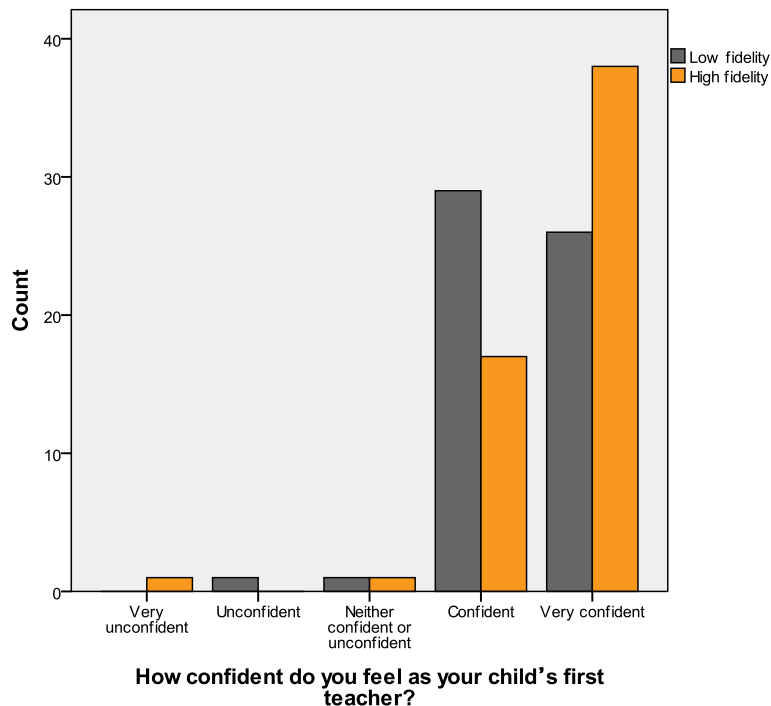
As reported earlier, many HIPPY parents stated that they felt more supported as a result of enrolling in HIPPY and this was backed up by the quantitative analysis. The index of total support from a range of sources (partner, parents, other family members and neighbours) showed a small positive correlation ($r = .19, p = .04$) with the fidelity index, suggesting that the more a parent does of HIPPY, the more supported they feel overall.

The index of total support from a range of sources (partner, parents, other family members and neighbours) suggests that the more a parent does of HIPPY the more supported, overall, they feel.

Four parent social inclusion measures also showed a positive association with fidelity: self-efficacy, confidence and views about the neighbourhood as a safe place for children to play outside and about neighbours being generally willing to help each other (neighbourhood social capital index). We found that the significantly better result on self-esteem for the HIPPY matched group overall as compared to the LSAC group only held true for those parents who did HIPPY with higher fidelity. As reported earlier, there was a medium-size significant improvement in parents' confidence as their child's first teacher between assessments at the start and end of the program. But parents who did HIPPY with higher fidelity were 2.4 times more likely to report higher levels of confidence as their child's first teacher than those who did HIPPY with lower fidelity (Figure 3.26).

Parents who did HIPPY with higher fidelity were 2.4 times more likely to report higher levels of confidence as their child's first teacher than those who did HIPPY with lower fidelity.

Figure 3.26 Parents' level of confidence as their child's first teacher, by fidelity score



On the neighbourhood social capital index, the HIPPY low-fidelity subgroup, like the HIPPY matched group overall, showed no significant difference from LSAC, but the HIPPY high-fidelity subgroup, who scored 15 per cent higher than the HIPPY low-fidelity subgroup, scored significantly better than the LSAC group overall.

Discussion

Our analysis revealed a positive association between fidelity and seven of the program outcome measures, lending weight to the efficacy of HIPPY. In other words, at least on these seven measures, it appears that the more HIPPY is done with greater fidelity the more positive are the effects.

On the other hand it also revealed that adherence to the program model was low, which means that it is possible that effects of the program may either be understated or remain undetected. One possible explanation for the low level of adherence is the fact that sites were evaluated in their first two years of the program. Implementation science suggests that it takes some years for a new program to be successfully implemented in a community and the level of adherence that we observed in the first two years (and therefore its effectiveness) may not necessarily be indicative of future years. The low level of adherence to the model may also reflect the need for sites to be flexible in the delivery of the program, particularly in its establishment phase, in order for the program to be as appropriate, acceptable and therefore effective as it could be.

GROUP MEETINGS

We observed lowest levels of adherence and exposure in relation to group meetings. This is supported by information from the coordinator surveys. When we asked coordinators 'How

successful were group meetings?', from a total of 14 responses, 9 coordinators reported they were not successful. Some coordinators were ambivalent about group meetings *per se*, and some gave reasons/suggestions:

Families can do HIPPY without coming to group meetings and many of them did not come. People see it as an option even though we kept on trying new ideas and promoted them. It is a great way for the parents to consolidate what they do with their child. Great for social interaction. But there was low attendance—an average of seven or eight people each time. Those people that stick with it have found it beneficial and they comment they wish more people would come. Those who attend the group meetings maybe seen as 'cliquey' by others and this could be a turn-off.

Group meetings are great for the people that get there—really useful when the group jells. But two-thirds of families never come. Reasons ... [they] aren't available on the day, transport ... But, most important, if the relationship is good with the tutor and the tutor encourages them to go along, then parents are much more likely to go. And once they come, they'll come back.

We also observed from the fidelity analysis that in many cases home visits were being used as a substitute for low levels of either delivery or uptake of group meetings. Nonetheless, just over half the coordinators (7) said that group meetings were very important and a further three said they were important:

[Group meetings] provide a support network for the parents. Offers opportunity for enrichment topics. It was a social time—getting out of the house and reducing isolation. If parents were struggling with a particular aspect of HIPPY they found out that other parents were also—they got to hear about that.

Because it is that time when HIPPY families get together and find a commonality and in an open, non-threatening way discuss what is happening at home. They form friendships. Social interaction among families that are relatively isolated. The child care gave the parents some welcome respite.

But one coordinator believed they were superfluous:

I'd like to scrap them. It's just an extra thing for them to do when they already have made time for a home visit. Time for group meetings also competes with other commitments to playgroups which they have been doing for a long time. And these happen for different parents at different times. Playgroups also have enrichment for the parents. Which means HIPPY group meetings are a bit of a double-up. And a lot of effort goes into doing enrichment activities for just a handful of people, which is not good. If they are not turning up to the topics chosen by them from a survey at the beginning, then it is a sign of them not valuing group meetings. They are not that interested in the whole concept of it.

While recognising the value of flexibility in modes of program delivery, we suggest there is good reason to attempt to improve the fidelity of HIPPY in terms of adherence and exposure to a better combination of home visits and centre-based group meetings for both parents and children. Research suggests the combination of home and centre-based education and care for the child to be an important feature of effective early childhood education/parenting programs (Brooks-Gunn 2003). Yet at the end of the first year of HIPPY, only 10 per cent of parents reported attending playgroups and 26 per cent of parents reported that their child was not attending any form of preschool, kindergarten, child care or playgroup. Providing high-quality, professional child care at the same time as HIPPY parent group meetings would thus serve two purposes: it would remove one of the

reported barriers to parents' attendance at group meetings and it would provide a quality, centre-based experience for both the parent and the HIPPY child.

Given that it is probably not possible to find a single time for a group meeting that suits all parents, consideration could also be given to increasing the frequency of group meetings, at different times and possibly at different locations.

TEACHING BEHAVIOUR MANAGEMENT STRATEGIES

A further key feature of effective early childhood/parenting programs is that they not only provide opportunities for the child to learn through play and praise, but also teach strategies for the parent's management of a child's negative or difficult behaviour. Our analysis has revealed that on average HIPPY parents, compared with LSAC parents, report higher levels of problem behaviour of their child. When asked, the majority of HIPPY coordinators (60 per cent) felt that including in HIPPY the teaching of parent strategies to deal with a child's negative behaviour, was either important or very important. One offered the following explanation.

Importance ... just the reaction of the parents asking for it. HIPPY's approach is if the child's not interested, skip it and just go on. Which is not good because when you go to school you just can't skip that lesson and come back to it.

Two coordinators highlighted how optional and limited the teaching of behaviour management strategies was in HIPPY:

HIPPY doesn't explicitly teach behaviour management techniques. It is more about child development. Families would benefit from it—we generally do it as an enrichment activity. It would be a good section to have in HIPPY but HIPPY does it [indirectly] via communication, talking, using the 'three Cs' and keeping a positive approach to communication.

HIPPY gives parents information on how to converse with their child, which is good, but it isn't a behaviour management program.

On the other hand, two coordinators thought that teaching such strategies was neither important nor appropriate for HIPPY:

... because we are not there to witness the interaction of the parent and the child. [The] interaction is between the tutor and the parent. If you start to blur boundaries and become an expert on everything—behaviour management—then you'll lose your way.

It doesn't give parents strategies on how to manage negative behaviour. And nor should it. How are you going to deliver those strategies if you are using home tutors? They don't have the expertise to teach the strategies needed.

Thus, in spite of research evidence highlighting its importance, and indications from the analysis of the SDQ subscale of child conduct problems, clearly there is no consensus among HIPPY coordinators about either the importance or appropriateness of incorporating information for parents on managing negative or problem behaviour—including how to respond when their child said they did not want to do HIPPY, which was the most common reason parents gave for not doing HIPPY with their child.

When we asked coordinators how successful HIPPY was at including strategies for parents on how to deal with a child's negative or problem behaviour, the majority gave a low rating of 2 (on a scale 1 to 5); and they indicated that it was left to the individual coordinator to source this information

from elsewhere and then include it in group meetings—often because parents requested it. Four coordinators reported:

I did it myself in group meetings—the topic was chosen by the parents though.

HIPPY is not very supportive with this. It is up to us / the tutors to develop strategies. Also it is up to the coordinator to build this into the program.

The HIPPY program doesn't really include this. But I did it. I did Triple P²². In fact the parents asked for it. Triple P is about positive parenting and managing bad behaviour. HIPPY is about doing the books and the learning and getting the child to do the activities. For example, if the child doesn't want to do HIPPY activities—if they are all over the place, HIPPY doesn't teach them how to get them to sit down. You have to use Triple P things / behaviour management techniques.

As part of my professional development with the partner agency I went off and did 123 Magic training on dealing with challenging behaviours and I then included this in some of our group meetings.

Hence, there appears to be both a need and an opportunity for HIPPY Australia to develop or provide more structured material and training for coordinators on how to incorporate into HIPPY behaviour management strategies for parents. This does not represent a failure of HIPPY, because in its current form the program does not purport to be a behaviour management program. Nonetheless, this evaluation has found that providing information to parents on the importance of 'learning through play and praise', should be accompanied by information on how to best respond to their child's challenging or negative behaviour when it may arise, as these are two important features of effective parenting programs (as discussed in Chapter 2). We suggest looking at other evidence-based positive parenting or child behaviour management programs such as the Triple P or Incredible Years programs.

Limitations of the fidelity analysis

Finally, a word of caution and a limitation with respect to this analysis of fidelity. There was a high rate of attrition within the program, which had the effect of diminishing the degree to which the program was delivered with high fidelity. If this could be addressed in future, the fidelity and in all likelihood the effectiveness of the program would be improved. We also cannot rule out the possibility that the analysis may be affected by self-selection bias. The reason is that the HIPPY high and low-fidelity groups were ascertained not at the start of the program but after parents had been participating in the program for between one and two years and the mean scores of these subgroups were then compared with the mean score of the total/overall LSAC group. Thus, groups are not technically directly comparable. The significant results in this analysis should therefore be read as suggesting a possible direction or effect of fidelity on the outcomes. In order to more robustly test the impacts of more or less HIPPY (i.e. the 'dose'), or even whether one year of HIPPY is just as effective, or nearly as effective, as two years of HIPPY, eligible parent-child pairs would need to be randomly assigned to either a high or low 'dosage' group before the start of the program. This may be an appropriate area for future research.

²² See Triple P in Chapter 2.

Summary and conclusion

The purpose of evaluating the effectiveness of HIPPY is to find out whether or not the intended benefits of the program are achieved. This evaluation of the effectiveness of HIPPY involved a matched comparison group drawn from within the Longitudinal Study of Australian Children sample using a propensity score matching technique. This method enables us to compare the outcomes for two groups: one that received HIPPY and one that did not. If the two groups are correctly matched, then any difference observed in the outcomes at the end of the program can then be attributed to HIPPY with a relatively high level of confidence. The method was used in the national evaluation of Sure Start in the United Kingdom, and its use here makes this study the most robust evaluation of the effectiveness of HIPPY in Australia to date.

HIPPY is a targeted, place-based program that aims to reach parents with four-year-old children who are developmentally vulnerable due to disadvantage or social exclusion. This evaluation found that the program did reach a vulnerable and at-risk group.

HIPPY has many of the known ‘active ingredients’ of effective early childhood parenting programs (as discussed in Chapter 2). Thus, in theory, it appears that the program is well designed. This effectiveness evaluation, however, tested the outcomes or expected benefits.

Specifically, we examined the program’s expected benefits to the child’s school readiness in terms of their early cognitive and socio-emotional development, parenting skills/style, the home learning environment, and the parents’ sense of wellbeing and social inclusion.

Figure 3.27 presents the statistically significant results obtained from the comparison group analysis. The size of any difference between the two groups on a particular outcome is expressed in terms of either a standard deviations or an odds ratios, depending on the kind of measure used. Bars to the right of zero represent probable positive impacts of HIPPY on the particular outcome area, while bars to the left of zero represent probable negative impacts.

Clearly the evaluation has found more positive impacts of HIPPY than negative impacts, and, as is normal with this type of evaluation (see Wise et al. 2005, p. 18), on most outcomes we found no significant impact. Where, however, the impacts have been observed is revealing.

The summary results graph shows a clustering of the largest benefits accruing to the parent and the home learning environment. Since HIPPY is a primarily a parenting program that aims to empower parents to work as their child’s first teacher, this is perhaps not surprising. In turn, it is these areas that are known to be highly influential on the child’s early learning and development and predictive of their future life outcomes.

These quantitative analysis results tend to support what has been reported from qualitative data about the biggest impacts of HIPPY, both in this and previous evaluations of the program. This is most true with respect to HIPPY parents’ reports of an increased level of confidence as their child’s first teacher, being more involved with their child’s early learning, and feeling more supported and connected to other services that they may need.

The statistically significant differences between HIPPY parents and the LSAC matched comparison group include:

- HIPPY parents felt more confident, supported and respected in their role of raising their child. HIPPY parents were 80 per cent more likely to consider themselves a ‘good’ parent, and twice as likely to feel they were supported by family and friends in their role of raising their child.
- HIPPY parents were 60 per cent more likely to say that when they needed information about local services they knew where to find it, and twice as likely to report that they were able to access services when they needed them.
- HIPPY parents rated their sense of ‘neighbourhood belonging’ more highly than did their LSAC counterparts.

These outcomes make up part of the measure of the parents’ social inclusion and wellbeing. In addition we found the following benefits relating to the impact of HIPPY on parenting style and the home learning environment:

- The parenting style of HIPPY parents was significantly less angry or hostile.
- HIPPY parents did significantly more in-home and out-of-home activities with their child.
- HIPPY parents reported that their child liked being read to for longer periods of time in any one sitting, compared with LSAC parents.
- Teachers reported that HIPPY parents were more involved in their child’s learning and development and had greater contact with the school than LSAC parents.

In terms of the HIPPY child, we observed fewer statistically significant impacts. This is perhaps not surprising, as it may take time for the benefits of HIPPY to show. Later assessment of the child’s school progress could be considered and would shed greater light on the impact of HIPPY on the child. The statistically significant results that we did find included:

- The gap observed in HIPPY children’s early numeracy and early literacy skills at the beginning of the program, compared with the Australian norm, had closed by the end of the program.
- HIPPY children had fewer problems with their peers—which is one of the five measures of the child’s socio-emotional adjustment.
- For parents who completed more of the program rather than less of the program, their child displayed higher levels of pro-social behaviour—a second measure of the child’s socio-emotional adjustment.

Figure 3.27 Effectiveness of HIPPY: summary of key results



Notes: PPVT = Peabody Picture Vocabulary Test. WAI = Who Am I? test. SDQ = Strengths and Difficulties Questionnaire

There were two statistically significant negative outcomes. Compared to parents in the matched LSAC group, HIPPY parents rated their neighbourhood worse as a place to raise children, and as a group scored worse on the scale of perceived problem behaviour as displayed by their child. We suggest these two findings relate to aspirations. It is not surprising that, in spite of having higher levels of neighbourhood belonging, HIPPY parents are aware that HIPPY is in their community *because* it has been identified as relatively disadvantaged, and thus not as good as other areas in terms of raising a child.

The second negative result, relating to perceived problem behaviour, we suggest is best interpreted as a frank expression from HIPPY parents about the challenge they face in dealing with their child's difficult behaviour when it arises. But we found evidence that coordinators were not clear about either the importance or appropriateness of including in the program strategies for responding to their child's negative or problematic behaviour. Parents would clearly benefit from being presented with options for how to respond when their child said they did not want to do HIPPY, which was the most common reason parents gave for not doing HIPPY with their child. We suggest there is an opportunity for HIPPY Australia to incorporate more structured material and training for coordinators about including such topics in their group meetings. We suggest looking at other evidence-based positive parenting or child behaviour management programs such as the Triple P or Incredible Years programs.

With respect to our analysis of the impact of HIPPY on home tutors, the fact that most of the quantitative variables showed a decline over time (for example, tutor self-efficacy and employability skills) and started from close to optimum scores, supports the theory that the baseline data was collected during what could be described as a 'honeymoon' period of tutors' employment as they had only recently been successfully recruited and naturally felt confident they had the skills to do the job. Further, the real challenges of the job of tutor may well only be fully understood after a period on the job. The qualitative results clearly indicate the confidence that being a HIPPY tutor gives. Prior to commencing as a tutor, 13 of the 26 tutors reported being unable to work due to caring or household responsibilities. The three tutors who did not complete two years as a HIPPY tutor did so because they needed more hours of work or could not live on the HIPPY salary.

The analysis of fidelity revealed a positive link between fidelity and seven program outcome measures. Thus, it appears that at least on these seven measures, the more HIPPY is done with greater levels of fidelity the more positive are the effects. However, of the four measures of fidelity (adherence, exposure, quality and participant responsiveness) adherence to the program model was lowest, particularly with respect to the provision and uptake of group meetings. One possible explanation for the low level of adherence is that sites were evaluated in their first two years of the program. Implementation science suggests that it takes some years for a new program to be successfully implemented in a community. Thus the level of adherence to the HIPPY model that we observed in the first two years (and therefore its effectiveness) may not necessarily be indicative of future years. The low level of adherence to the model may also reflect the need for sites to be flexible in their program delivery, particularly at the start, in order for the program to be as appropriate, acceptable and therefore effective as indeed it has been. Nevertheless, we suggest there is good reason to attempt to improve the fidelity of HIPPY in terms of a better balance between home visits and centre-based group meetings for both parents and children.

Taken together, these results are encouraging and provide a relatively strong evidence base as to the effect of HIPPY across the domains of benefits to the child, parent, the home learning environment and the parents' and home tutors' sense of wellbeing and social inclusion.

However, there are some limitations. While propensity score matching to obtain a comparison group is a useful and powerful tool, it was never meant to be a silver bullet that replaces the value of, and need for, a randomised controlled trial to test effectiveness. In the absence of an RCT, this evaluation would benefit from further testing or different specification of the propensity score model and estimates of the program's effects.

Secondly, because of the size of the HIPPY sample and reduced power of the study, the evaluation may have missed some small impacts of the program and or have underestimated the effects that were observed. On the other hand, non-experimental research designs have been shown to overestimate program effects (Bowling & Ebrahim 2007). But the average effect size observed in this evaluation of HIPPY of a positive change of .4 of a standard deviation across a number of important school readiness and parenting domains is comparable with that of other early childhood parenting programs (Duncan, Ludwig & Magnuson 2007).

4 The efficiency of HIPPY

The evaluation of the effectiveness of HIPPY reported in the previous chapter found that some early positive outcomes are evident in terms of the child's social-emotional adjustment, parenting style and the home learning environment, and parental social inclusion and involvement in the child's early education. In this chapter we consider how efficient HIPPY is at achieving its outcomes and express this in terms of a benefit to cost ratio²³, for ultimately the test of whether public investment in an early childhood development program is efficient is the extent to which the benefits of the investment outweigh the costs. However, as the following sections will show, benefits for disadvantaged children are likely to be more evident later in life than they are during or immediately after a program's delivery, although the early years are an important stepping stone. Thus, an evaluation of the efficiency of HIPPY which relied only upon a one or two-year follow-up might fail to capture most of the potential lifetime rewards.

Kilburn and Karoly suggest in respect of monetary pay-offs for public investments in early childhood:

Perhaps the most widely recognized intersection between economics and early childhood policy is the analysis of the costs and benefits of early childhood programs and related analyses that describe the rate of return on investments in early childhood programs (Kilburn & Karoly 2008, p. 2).

This chapter commences with a review of the literature about the medium and long-term outcomes of early childhood development programs and their related monetary benefits or costs to program participants, government and society as a whole. The next section considers the cost-effectiveness of HIPPY in Australia, including the cost per child, the ratio of administrative costs to program costs, and how the costs are managed by the Brotherhood of St Laurence. Comparisons with other programs follow, with subsections on international and Australian programs which have similar objectives to HIPPY. The section concludes with a summary of cost data that indicates that HIPPY's cost-effectiveness compares very favourably with international programs, whereas the data available on Australian programs is insufficient to make concrete comparisons. The final section in this chapter includes a benefit–cost analysis, beginning with an outline of the methodology and an overview of the benefits and costs from studies of other programs. The rationale for including certain medium to long-term outcomes in the analysis is based on the evidence from overseas studies in the absence of Australian longitudinal studies with benefit–cost analyses. The benefits and costs of HIPPY are then estimated and compared to those of the other similar international programs.

Literature review on the benefits and costs of early childhood interventions

Based on a study of nine early childhood programs, various child outcomes that may be affected by early childhood programs and the associated monetary savings (or costs) are shown in Table 4.1. Kilburn and Karoly also note that in addition to the effects on government spending or revenue the program may also generate private benefits to program participants or other members of society. For example, increased labour force participation and earnings in adulthood benefit the government

²³ The term benefit–cost analysis used in this report instead of cost-benefit analysis as the results are expressed in terms of the ratio of benefit to cost.

by yielding increased tax revenue, but the increased earnings (net of taxes) are also a benefit to the program participant (Kilburn & Karoly 2008).

Table 4.1 Monetary savings (or costs) from affected child outcomes

Effect on child outcomes	Monetary benefits (or cost) to government
Reduced child maltreatment	Lower costs to child protection system
Reduced child accidents and injuries	Lower costs for emergency room visits and other public health care costs
Reduced incidence of teen child-bearing	Lower costs for public health care system and social welfare programs
Improved pregnancy outcome	Lower medical costs from fewer low-birthweight babies
Reduced grade repetition	Reduced costs of compulsory school education
Reduced special education	Lower costs for special education
Increased high school graduation	(Increased costs of secondary education)
Increased college attendance	(More years spend in post-secondary education)
Increased labour force participation and earnings in adulthood	Increased tax revenue
Reduced use of welfare and other means-tested programs	Reduced administrative costs for social welfare programs, reduced welfare-program transfer payments
Reduced crime and contact with criminal justice system	Lower costs for criminal justice system
Reduced incidence of smoking and substance abuse	Lower costs for public health care system and from premature death

Source: Adapted from Karoly, Kilburn & Cannon (2005a)

Karoly, Kilburn and Cannon (2005b) synthesised knowledge from scientifically sound research literature about the short and long-term benefits from early intervention programs, the features that are associated with more effective programs, and the economic gains that accrue from investing in early childhood.

Eight early childhood intervention programs in the USA, including HIPPY, were evaluated in the study. The key findings were:

- Early childhood intervention programs have been shown to yield benefits in academic achievement, behaviour, educational progression and attainment, delinquency and crime, and labour market success, among other domains.
- Interventions with better-trained care-givers and smaller child-to-staff ratios appear to offer more favourable results.
- Well-designed early childhood interventions have been found to generate a return to society ranging from US\$1.80 to US\$17.07 for each dollar spent on the program (Karoly, Kilburn & Cannon 2005b).

A comparison of three Canadian parent-focused initiatives found that at the end of the kindergarten year, the HIPPY children had outperformed the children in comparison groups on:

- standard measures of knowledge concepts
- overall cognitive development
- degree of comfort with the school situation
- school adjustment and peer relationship skills (Karoly, Kilburn & Cannon 2005a).

A study commissioned by the Australian Government Department of Family and Community Services reviewed 32 programs chosen on the basis that they were well researched or a benefit–cost analysis had been conducted. The report, *The efficacy of early childhood interventions*, provides a systematic analysis of a range of interventions and evaluations (Wise et al. 2005).

The researchers noted that there had been very few sound benefit–cost and cost-savings analyses of early childhood intervention programs with long-term follow-ups. They concluded, however, that:

... early childhood interventions can produce potential returns in public investment. Although it is not possible to generalize these findings, among the early childhood interventions with a cost-benefit analysis reviewed here, programs that involved children as program participants, or that focused on improving parenting skills or levels of parenting support, produced a greater return on investment than interventions that focused on family economic circumstances (Wise et al. 2005, p. 50).

From a broader perspective, a study commissioned by the Department of Families, Housing, Community Services and Indigenous Affairs has found that:

The net present value (NPV) of benefits from intervening in childhood and adolescence to prevent poor outcomes later in life are substantial, despite the fact that such intervention incurs costs today but discounted benefits are realised a long time into the future (Access Economics 2010, p. i).

The report found that in total, the potential NPV of benefits of early childhood prevention programs is in the order of \$5.4 billion per annum in 2010 dollars. Thus, there is now sound evidence, from this admittedly brief review, of the benefits of addressing and investing in the problem of disadvantage and its adverse effects on children’s early school success and future life chances.

Cost information on HIPPY in Australia

HIPPY program cost per child

The basis for funding HIPPY sites in 2009 was \$3300 per child aged 4 and \$2900 per child aged 5²⁴. The difference in costs reflects the inclusion of start-up costs. Overall 777 children completed the first year of HIPPY, compared with 828 children who were enrolled for some or all of the year.

The total program costs for the 22 sites in 2009 were \$4,586,176 inclusive of administration, compliance, program delivery and evaluation costs. The average cost per child for the program in 2009 was \$5902 (this calculation includes the children who exited the program).

The basis for funding HIPPY sites in 2010 was \$3343 per child aged 4 and \$2938 per child aged 5. Some 1544 children completed the year’s program, compared with 2141 children who were enrolled for any part of the year. There were a little over twice as many four-year-old children enrolled as five-year-olds, due to the start-up of 13 new sites.

The total program costs for 2010 were \$6,644,771 inclusive of administration, compliance, program delivery and evaluation costs. The average cost per child for the program in 2010 was \$4304 (this calculation includes the children who exited the program).

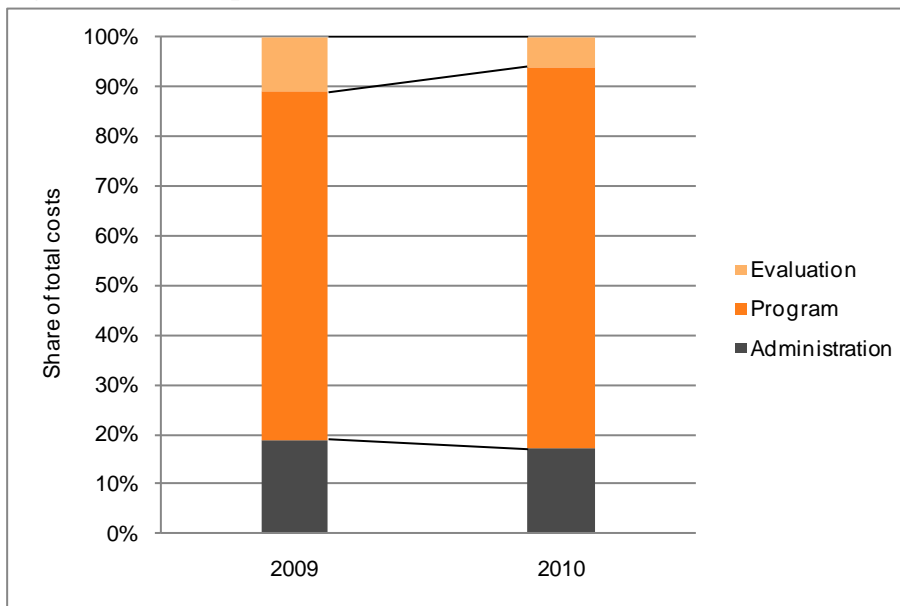
²⁴ In addition to the 13 new sites in the first wave of the national rollout of HIPPY, funding covered the costs of HIPPY in nine pre-rollout established sites which included children aged 5 in the second year of the program.

The reduction in average cost per child over the period reflects efficiency gains achieved in the implementation process, and is more marked when the higher cost of four-year-olds is taken into account.

Ratio of administrative costs to program costs

For the calendar year 2009, the total costs of HIPPY comprised 19 per cent administrative costs (including compliance costs), 70 per cent program delivery costs and 11 per cent evaluation costs. In the calendar year 2010, administrative costs were 17 per cent, program delivery costs were 77 per cent and evaluation costs amounted to 6 per cent (Figure 4.1).²⁵

Figure 4.1 Composition of costs for HIPPY Australia



As Figure 4.1 shows, in the 2010 calendar year the ratio between administrative costs and program costs has decreased, which indicates that there have been efficiency gains. As the program becomes established, the costs associated with setting up new sites, and some of the administrative costs, are bound to diminish. Nevertheless, there are substantial non-discretionary administrative costs which arise out of regulation and the requirements in the international licensing agreement and BSL's agreement with DEEWR. There is, therefore, only a limited capacity to further reduce the ratio of administrative and compliance costs to the program costs.

Underspends

Over the 2009–10 period, there was an underspend of \$1.72 million. In accordance with the governance arrangements with DEEWR, a proposal was forwarded to the Minister seeking agreement for the funds to be allocated to defined project proposals over 2012 and 2013. The Minister approved the proposal and the funds have been allocated accordingly. The main reasons for the underspend were:

- Some existing sites were able to utilise funding from other sources during the first year.
- In the second year, Robinvale was a targeted site but no expression of interest was received and commencement of the program in that area was postponed for one year.

²⁵ Calendar year amounts have been used for consistency with data on enrolments and cost per child per program. The ratios are therefore different from those which would be reflected in financial year accounts.

- The Consumer Price Index increase, anticipated at 3.25 per cent per annum, was in fact 1.3 per cent in the second year of the program and is likely to be 2.8 per cent in the third year.
- During the second half of 2010, sites that did not achieve the enrolment targets were requested to accept a proportional reduction in their funding provided that this did not cause financial difficulty. Most sites in this situation accepted reduced funding.
- Sites were also offered additional funding if they were able to increase their enrolments and could provide a business case. A small number of sites took up this offer.
- Sites were also able to request an ‘adaptation’ to allow them to accept enrolments from outside their approved area.
- The initial budget included a ‘travel and special circumstances fund’. This provision has not been specifically used, although separate travel allowances have been paid where required to bring line coordinators and tutors together for training and networking. Funding remains available for sites with particular travel needs.

Funding for individual HIPPY sites was based on predicted enrolment levels of 35 participants aged 4 (year 1) and 30 participants aged 5 (year 2). HIPPY Australia reviewed the DEEWR funding provided through the Brotherhood of St Laurence based on the actual number of enrolments achieved by each HIPPY provider. It reviewed the enrolments achieved in 2009 along with the number of children who had completed the first year of the program and were able to move into the second (graduation) year. From these details, a proposed funding adjustment for each HIPPY site was prepared. Proposed adjustments were referred to the HIPPY National Rollout Committee for approval. Funding adjustment notes were then sent to each HIPPY provider to either accept or to request a variation of funding or supplementary funding according to the circumstances of the individual site.

The purpose of these funding adjustments is, firstly, to ensure that the funds are distributed in accordance with the sub-licence and funding agreements with sites and with the funding agreement with DEEWR and, secondly, to redistribute the available funds to maximise the number of families and children participating in the program.

Strategies for increasing efficiency at individual sites

Funding sites to deliver training for HIPPY staff is presently provided on an ‘as needed’ basis. The international licence requires HIPPY management to make three visits to each new site, which involves significant travel costs, particularly for the more remote sites. Efficiencies may be achieved in the future by, wherever possible, coordinating the timing of training programs to reduce travelling and administrative costs. Also under consideration to increase efficiency and reduce costs is the introduction of e-learning for staff where it is appropriate and consistent with compliance requirements.

Strategies under consideration to increase efficiency by maximising participation in HIPPY are:

- Allowing partner agencies to seek enrolments from neighbouring communities where enrolments within the designated area have been thoroughly canvassed.
- Accepting a mid-year intake of four-year-old participants to lift enrolments to the number set out in the Sub-Licence and Funding Agreement. Guidelines for a mid-year intake have been prepared.
- Allowing enrolments above the number set out in the Sub-Licence and Funding Agreement.

The cost-effectiveness of HIPPY

In order to determine whether investment in HIPPY is cost-effective, comparisons with similar programs is required; and there must be both cost and effectiveness data available.

Of the three programs in Australia that could be considered complementary to HIPPY (as mentioned in Chapter 2), only the Pathways to Prevention program could be considered for possible comparison to HIPPY in cost-effectiveness terms; however, at this stage there is insufficient cost and effectiveness data available on the program for it to be included in the cost-effectiveness evaluation. Triple P and Communities for Children are so different in either their ambit or their delivery model that they are not feasible options to compare with HIPPY on a cost-effectiveness basis.

Accordingly, the following section reviews international programs that are considered most comparable to HIPPY. A cost-effectiveness comparison is then made with other programs, prior to considering what could be a reasonable benefit–cost ratio for a return on investment in HIPPY.

The following programs have been selected for comparison on the basis of their robust evaluation and/or benefit–cost analyses and their similarities to HIPPY in terms of objectives—in particular, their focus (like HIPPY) on preschool, disadvantaged children, and providing support for parents including home visits. Of particular interest for the purposes of this analysis are those interventions which have been subject to medium to long-term follow-up, as they provide guidance on the projected outcomes from early childhood interventions.

The study commissioned by the Australian Government referred to earlier—*The efficacy of early childhood interventions*—initially looked at 108 large-scale, public early childhood interventions from around the world (Wise et al.2005). Most of these revealed relatively little empirical data on program effectiveness, and were thus excluded from detailed examination. The study concentrated on the 32 programs which had a strong evaluation component.

International programs

The Carolina Abecedarian project

The Abecedarian project was an intensive experimental suite of teaching and learning strategies that operated in a number of US states between 1972 and 1985. The children receiving the intervention began the program at between six weeks and three months old and predominantly came from African American, low-income families with high risk factors.

The intervention consisted of an individualised, early infancy, preschool education program in a childcare setting and a school-aged intervention from kindergarten through the first three years of school. Parent group sessions were run on topics related to parenting and family development (Wise et. al. 2005). Follow-ups were undertaken at ages 12, 15 and 21.

The program delivered a range of positive outcomes for both the children and parents who took part (see Box 4.1). Many of the components of the program are comparable to HIPPY, although Abecedarian is a more intensive program over five years and is predominantly centre-based.

Box 4.1 Measured outcomes for the Abecedarian Project

- 94 per cent reading achievement at age 14/15 compared to 84 per cent in control group
- 95 per cent math achievement at age 14/15 compared to 88 per cent
- 34 per cent grade repeat compared to 65 per cent
- 31 per cent in special education compared to 49 per cent
- 67 per cent graduated from high school by age 19 compared to 51 per cent
- 36 per cent attendance at college compared to 13 per cent
- 30 per cent youth smoking compared to 55 per cent
- 65 per cent in employment at age 21 compared to 50 per cent
- at age 21, on average two years older (19 years compared to 17 years) at time first child born.

Sources: Barnett & Masse 2007, p. 121; Wise et al. 2005, p. 94.

A program based on the Abecedarian research, the Early Education and Care Program, is run in Victoria, Australia, by the Children's Protection Society. It has been in operation for one year and is to be evaluated over the next three years.

Head Start

This program has run in multiple US states since 1965. The Head Start target population is children aged 3 to 5 years from families at or below the poverty line or receiving public assistance. Programs are required to reserve 10 per cent of places for children with disabilities.

The intervention involves a part or full-day preschool program and home visits. The evaluation is based on data collected in four waves, with follow-up halfway through kindergarten.

The Head Start program reduces the gap in vocabulary and writing skills between disadvantaged and non-disadvantaged children and children show improved readiness to learn. Children with low cognitive development demonstrate the greatest improvements. Head Start children still enter preschool substantially below national averages on measures of school readiness. They do, however, demonstrate growth in social skills, with a reduction in hyperactive behaviour (Wise et al. 2005, p. 70) (Box 4.2).

Box 4.2 Measured outcomes for Head Start

- Children's cognitive (vocabulary, writing, maths) improved during Head Start year. Greatest improvement for children with lower initial skills.
- Teachers reported growth in social skills and reduction in hyperactive behaviour.
- Parents reported improvement in all aspects of behaviour.

Source: Wise et al. 2005, p. 71.

Perry Preschool Project

This United States program ran in Michigan from 1962 to 1965. The target population was children aged 3 to 4 years and their families of low socioeconomic status and with low IQs. The evaluation sample was drawn from a predominantly African-American area.

The intervention involved a daily two-hour preschool program, weekly home visits and group meetings of parents. The evaluation involved annual follow-ups from 3 to 11 years, then at 14 years, 15 years, 19 years and up to 33 years.

Over the long term, more than half of the intervention sample had better life outcomes—higher employment and earnings and less crime as adults—than the control group (Wise et al. 2005, pp.68–9) (Box 4.3).

Box 4.3 Measured outcomes for PERRY Preschool Project

- Initial higher IQ score than control group; however, decline in difference on school entry and no difference by age 8.
- Higher, but not significant, academic achievement scores at earlier ages; literacy higher for intervention group until age 19.
- 71 per cent completed high school, compared to 54 per cent control group.
- Criminal activity—7 per cent arrested at least 5 times compared to 35 per cent of control group.
- Drug dealing—7 per cent arrested by age 27, compared to 25 per cent.
- 29 per cent of intervention group earned \$2000 or more per month, compared to 7 per cent of control group. 36 per cent owned their own house compared to 13 per cent. 30 per cent owned a second car at age 27 compared to 13 per cent.
- 59 per cent of intervention group received welfare assistance during adulthood compared to 80 per cent of the control group.
- Teenage pregnancy (occurrence of pregnancy to the age of 19)—68 per 100 for the intervention group compared to 117 per 100 for the control group.

Source: Wise et al. 2005, p. 69.

Chicago Child-Parent Centre

This United States program has run in Chicago since 1967. The target population is economically disadvantaged 3–4 year old children and their parents.

The intervention involves a half-day, five-days-a-week preschool program; at least one half-day per week parental involvement; a range of parenting activities; and home visits if required. The evaluations involved follow-ups at third grade, fifth grade, eighth grade (14 years) and 20 years.

The program group had higher reading and maths scores at grade 8, and a four-month gain in reading and maths at age 15. Parents of program children participated more frequently in school and had higher expectations for their children’s education. It is noted, however, that despite positive program effects, the children still performed at below the national average (Wise et al. 2005, p. 76) (Box 4.4).

Box 4.4 Measured outcomes for Chicago Child Parent Centre

- At entry into kindergarten, the intervention group scored higher on tests of cognitive school readiness than the control group.
- At end of grade 8, the intervention group was less likely to have repeated a grade (24 per cent compared to 31.8 per cent), and had spent less time in special education (0.51 years compared to 0.87 years).
- The intervention group had higher level of high school completion (49.7 per cent compared to 38.5 per cent), and were less likely to have received special education by age 18 (14.4 per cent compared to 24.6 per cent).
- The intervention group had a lower rate of overall arrests by age 20 (16.9 per cent compared to 25.1 per cent) and a lower rate of violence-related arrests (9 per cent compared to 15.3 per cent).
- At age 20, the intervention group were 52 per cent less likely to have been subject to child maltreatment.

Source: Wise et al. 2005, p. 71.

Elmira Pre-natal and Early Infancy Project (EPEIP)

This program ran in a number of US states from 1978 to 1982. The target population was low-income mothers and their children.

The intervention involved home visits by nurses from prenatal stage until the child was two years old. The evaluation involved follow-ups at ages 2, 4, and 15.

In the short term, the program resulted in decreased cigarette smoking, improved diet, decrease in pre-term deliveries for smokers, increased baby birthweight for mothers under 17 years of age, increase in use of community services, decreased rate of childhood injuries, reduced rate of subsequent pregnancies and improved maternal employment rate (Wise et al. 2005, pp.76–7).

In the long term, mothers in the program group were less likely to abuse or neglect children, became more economically sufficient and were able to avoid maternal drug use and criminal behaviour. Long-term outcomes for the children were decreased criminal activity and substance abuse and fewer sexual partners (see Box 4.5)

Box 4.5 Measured outcomes for EPEIP at age 15 years follow-up

- 79 per cent reduction in child abuse/neglect (this difference grew between ages of 4 and 15)
- 44 per cent reduction in maternal problems due to substance abuse
- 69 per cent fewer maternal arrests
- 54 per cent fewer arrests and 69 per cent fewer convictions for adolescents

Source: Wise at al. 2005, p. 77.

Early Enrichment Program (EEP)

This program was run at five low-income, shantytown areas in Istanbul, Turkey, from 1982 to 1986. The target population was socioeconomically disadvantaged mothers and children aged 3 to 5 years.

The intervention lasted for two years, with fortnightly home visits and group meetings on alternate weeks. The evaluation involved follow-ups at one year and seven years post intervention.

The project resulted in positive effects for child cognitive development, academic achievement, social and personality development, parenting and other maternal outcomes. Many of the positive effects were maintained at a long-term follow-up (Wise et al. 2005, p. 82) (Box 4.6).

Box 4.6 Measured outcomes for the Early Enrichment Program

- At follow-up, 86 per cent of intervention children were still at school compared to 67 per cent of the control group.
- Children were less dependent and aggressive and showed better school adjustment.
- Children had more positive memories of their mother during childhood and demonstrated better social integration and autonomy.
- Mothers were more verbal, less punitive and more responsive. At follow-up, mothers had better relationships with their children (and families) and there was less physical punishment.
- Mothers had higher educational expectations for their children.
- Mothers read more and were more knowledgeable about family planning, more prepared to use available services and better able to evaluate their economic situation.

Source: Wise et al. 2005, p. 83.

Incredible Years Program

This program has operated in the United States since 1982 and is now also operating in the United Kingdom. The target population is families at high risk with children aged 1 month to 12 years.

There are several versions of the program. The intervention involves a basic behavioural parent training program and a child training program which aims to address social skills of children with conduct problems. Follow-up evaluations are undertaken up to two years after completion.

The Incredible Years program has been effective in reducing behaviour problems in children and improving parental interaction (Wise et al. 2005, p. 104) (Box 4.7).

Box 4.7 Measured outcomes for the Incredible Years Program

- At one year follow-up, there were significant reductions in parental harsh discipline.
- At one year follow-up, 70.5 per cent of children showed clinically significant improvements in social skills and problem solving.
- 80 per cent of children classed as ADHD at baseline were classed as non-ADHD at follow-up.
- There was significant improvement in child conduct.
- At two-year follow-up, 75 per cent of children were functioning in normal range with moderate to large effects on changed behaviours for both parents and children.

Source: Wise et al. 2005, p. 105.

The above descriptions of a small selection of early childhood intervention programs summarise the measured outcomes, and should not be interpreted as representing the entirety of outcomes in any given program. Further, the various evaluations did not have a consistent approach to methodology or what outcomes would be measured, although all included a control group. That said, small though the selection is, these examples serve to demonstrate the potential impacts.

School readiness, academic achievement, school retention, grade repeat, special education and child behaviour show favourable outcomes. When we add to these the reduction in child abuse and neglect and improvement in family relationships, it can be deduced that a disadvantaged or troubled child's school experience and quality of life in the early years will improve with an early childhood intervention.

Where longer term follow-ups were conducted, the results are just as illuminating. For the children, high school graduation and post-secondary outcomes were improved, as was their economic situation later in life. They were also less likely to have been arrested, engaged in substance abuse or have experienced teenage pregnancy.

Some studies also demonstrated positive effects for parents in the longer term, for example in the areas of mental health, smoking, subsequent early pregnancy and employment.

Australian programs

Among the 32 programs identified by Wise et al. (2005) as having a strong evaluation component, only three were interventions developed and operating in Australia: the Positive Parenting Program (Triple P), Support at Home for Early Language and Literacy (SHELLS) and the Baby Happiness Understanding, Giving and Sharing program (HUGS). While SHELLS has similar objectives to HIPPY, it has a different delivery method and target population. The HUGS program has no similarities to HIPPY. Both are considered inappropriate for comparison to HIPPY.

HIPPY was also included in the study by Wise et al. (2005). Cost data for the United States is included along with disparate outcomes data, but there is no benefit–cost analysis or analysis of the program's cost-effectiveness.

Comparing cost-effectiveness of HIPPY and other programs

As noted earlier, there are no Australian programs that can be used at this time to compare with HIPPY on cost-effectiveness terms. The cost-effectiveness of delivering HIPPY compares very favourably with the international programs. In Table 4.2 below, the costs per child of delivering several US programs are converted into 2010 US dollars and 2010 Australian dollars (using two methods—standard exchange rate and purchasing power parity) for comparison with the cost of HIPPY Australia in 2010. Depending on the Australian exchange rate used, the cost of HIPPY per child was 35 or 25 per cent of the cost of delivering the Perry Preschool program; 41 or 30 per cent of the cost of delivering Head Start; 62 or 45 per cent of the cost of delivering the Chicago Child Parent Centre; and 23 or 16 per cent of delivering the Abecedarian project. By these calculations, HIPPY can be considered as cost-effective and delivers value for money.

Table 4.2 Cost per child of selected international programs and HIPPY

Program	Cost per child (2010 US dollars) ^a	Cost per child (2010 Australian dollars) ^b	Cost per child (2010 Australian dollars) ^c
Abecedarian	16,848	18,367	25,485
Perry Preschool Project	11,271	12,287	17,049
Head Start	9,465	10,318	14,317
Chicago Child-Parent Centre	6,318	6,887	9,556
HIPPY (in Australia)	4,315	4,304	4,304

a = study results were expressed in a range between 1992 and 2007 in US dollars. These have been converted to 2010 values using the US consumer price index.

b = US dollars converted to Australian dollars based on standard exchange rate.

c = US dollars converted to Australian dollars based on the Purchasing Power Parity (PPP) exchange rate, which takes into account differences in prices across countries.

Benefit–cost analysis

The framework for assessing the benefits and costs of HIPPY is predicated on the belief that positive outcomes resulting from HIPPY as an early childhood intervention have the potential to extend beyond the immediate school experience. As Karoly (2001) has noted:

Although program costs are fairly well known, one issue for any cost-benefit analysis of early intervention programs ... is that many of the benefits that can be readily expressed in dollar terms are not observed until years after the intervention ends and the participating children reach adolescence and young adulthood (Karoly 2001, p. 326).

The first part of this section explains the methodological approach to the benefit–cost analysis. The second part sets out the results from various benefit–cost studies of other programs similar to HIPPY, while the third part provides the benefit–cost analysis of HIPPY Australia.

Methodology

As discussed in the previous sections, if the real (as opposed to immediate) benefits of HIPPY are to be ascertained, the estimated medium to longer term benefits would need to have been measured. In the absence of this, data on a selected set of outcomes from benefit–cost analyses of similar programs will be compiled, with average results extrapolated to the HIPPY program. It is assumed, in effect, that if the early HIPPY effects are equivalent to the early effects of similar programs, then the long-term effects of HIPPY will also be equivalent. Costs and benefits of HIPPY will be calculated using the program cost per child for 2009–10 with cost data adjusted into 2010 dollars.

While it is acknowledged that simple comparisons of outcomes from different benefit–cost studies may be misleading, this approach will enable policymakers to examine the HIPPY program’s potential impacts from a broader perspective than would otherwise be possible. Although all of the data used are sourced from studies conducted in the United States, the culture, socioeconomic disadvantage, education systems and aspirations are sufficiently similar to the Australian context to justify extrapolation. Some qualitative data will also be included.

Finally, the benefit–cost analysis needs to be examined alongside the evaluation of HIPPY’s short-term effectiveness presented in Chapter 3.

Benefit–cost analysis studies

The following section outlines some results from various benefit–cost analyses. These results are not comparable either between or within studies because the dollar values are for different years and have not been adjusted. Comparisons therefore are only valid where ratios are indicated.

A policy brief prepared by the Family Strengthening Policy Centre (FSPC) in the United States compares the evaluations of six different types of home visiting programs, including HIPPIY USA (FSPC 2007). The target populations of the six programs were predominantly, but not necessarily, low-income families, although HIPPIY USA specifically targeted low-income families. The cost per family of HIPPIY USA, at US\$1837, was considerably lower than another program in the group—the Nurse–Family Partnership program—because HIPPIY employs paraprofessionals who work on a lower pay scale than professionals. The benefit–cost analysis for HIPPIY USA demonstrated a net benefit of \$1476 per family served. The benefits of HIPPIY derive from increased earnings among children once they reach working age and increased tax revenue from those earnings.

Other observations made in the policy brief pertaining to home visiting programs are that:

- home visiting seems to carry more benefits for high-risk families than for low-risk families (see also Aos et al. 2004; Karoly, Kilburn & Cannon 2005)
- high-risk groups include families who are low-income, young first-time mothers, and families with non–English speaking parents/caregivers
- low-risk families (mostly higher income groups) avoided welfare dependence, substance abuse, and criminal behaviour without receiving home visiting services at greater rates than high-risk families.

As a result, low-risk groups demonstrated fewer benefits and less savings to society from home visiting services. The cost analysis was based on a meta-analysis of 13 home visiting programs for at risk mothers and children. The age of children at last follow-up varied, with a maximum of 15 years (Karoly, Kilburn, & Cannon 2005).

The above finding is at odds with a Swedish study undertaken by Sundelin et al. (cited in Oberklaid 2005) which concluded that programs for parental support through preventive child healthcare should not be limited to areas and families characterised by low socioeconomic status. As Oberklaid (2005) explains, while the research literature in general points clearly to the association between low socioeconomic status and unfavourable child outcomes, there are two salient reasons why it should not be inferred that high socioeconomic families should not also be targeted:

- Although the *proportion* of children from disadvantaged families at risk of poor outcomes is higher, the actual *number* of children with poor outcomes is greater from middle-class families.
- High socioeconomic status does not make a family immune to stress and its effects on the child (Oberklaid F 2005).

Robert Lynch’s study of the benefits of early childhood programs concludes that investments in high-quality early childhood development programs consistently generate benefit–cost ratios exceeding 3 to 1. Lynch demonstrates that providing 80 per cent of the United States’ three and four-year-old children who live in poverty with a high-quality early childhood program would have a substantial pay-off for governments and taxpayers in the future. He predicts economic benefits in raising gross domestic product, reducing poverty and criminality, and strengthening the nation’s global competitiveness (Lynch 2004).

Lynch studied four early childhood development programs with long-term follow-up. Analyses of the four programs showed benefit-cost ratios ranging from 3.78:1 to 8.74:1. Lynch notes that while costs may have been fully described for these programs, the benefits were understated (Lynch 2004).

Table 4.3 is a compilation of the study results in the Karoly, Kilburn & Cannon (2005a) study showing how the benefits were distributed across participants, government and the rest of society. HIPPY USA was one of the programs examined. The ratio for HIPPY USA was 1.8:1 (that is, \$1.80 benefit for \$1 cost). While two of the programs in the study did not generate benefits, the other six programs generated benefit-cost ratios ranging from 2.24:1 to 17.07:1 (Karoly, Kilburn & Cannon 2005a).

Table 4.3 Benefit–cost results of early childhood programs at most recent follow-up

Program	Age at last follow-up	Distribution of benefits (%)			Benefit–cost ratio
		Participants	Government net expenditure/revenue effects	Rest of society	
Comprehensive Child Development Program: Case managers provide coordinated services to low-income families with children aged under 5	5	90	-10	0	-
HIPPY USA: Paraprofessionals provide home visits to disadvantaged families with children aged 3 to 5	6	64	6	20	1.80
Infant Health and Development Program: Home visiting and centre-based child development program for low-birthweight babies from birth to age 3	8	0	0	0	-
NFP (full sample): Public health nurses provide home visits to low-income first-time mothers from prenatal to age 2	15	11	36	53	2.88
NFP (higher-risk sample): Public health nurses provide home visits to low-income first-time mothers from prenatal to age 2	15	3	78	22	5.70
NFP (lower-risk sample): Public health nurses provide home visits to low-income first-time mothers from prenatal to age 2	15	22	56	22	1.26
Home visiting for at-risk mothers and children (meta-analysis): Average effect across 13 home visiting programs	Varies	56	17	27	2.24
Abecedarian program: Comprehensive, centre-based child development program for at-risk children from infancy to age 5	21	n.a.	n.a.	n.a.	3.23
Chicago CPC: Centre-based, one- or two-year, part-day academic year preschool program with parent participation	21	46	41	13	7.14
Perry Preschool Project: Centre-based, one or two-year, part-day academic year preschool program with home visiting	40	24	76		17.07
Early childhood education for low-income 3 and 4-year-olds (meta-analysis): Average effect across 48 preschool programs	Varies	38	28	34	2.36

Note: n.a. = not available

Source: Adapted from Karoly, Kilburn & Cannon (2005a), Table 4.4. Program costs and dollar benefits have been removed from the table as they reflect 2003 US dollars.

The estimated benefit–cost ratio of HIPPY in Australia

Previous sections have discussed the various challenges of undertaking a benefit–cost analysis of HIPPY Australia in the absence of any studies which reveal medium to longer term outcomes. Consequently, the approach taken here is to combine quantitative and qualitative elements into a framework which presents the outcomes from the implementation stage through to the projected long-term outcomes. In the first part of this section we discuss the specific early, medium and long-term outcomes used in our calculation of the benefits and costs of HIPPY in Australia. This is followed by the actual benefit–cost ratio calculation and compared with those of other similar programs overseas.

For estimating quantitative benefits, this analysis relied on robust benefit–cost analyses undertaken for early childhood interventions, and particularly those which have involved long-term follow-ups. Only measures that are directly comparable to Australian conditions, and for which published cost data are available, were utilised. The average benefit or cost across the designated programs was calculated with reference to Australian cost data in 2010 dollars.

The dearth of Australian studies of early childhood interventions has required both the quantitative and qualitative analysis to rely heavily on overseas studies. Those Australian evaluations which do exist have also relied on studies from overseas. They all seem to focus on the same few studies—the Perry Preschool Project, the Chicago Child Parent Centre, the Carolina Abecedarian project and the Elmira Pre-natal and Early Infancy Project (EPEIP)—no doubt due to their recognised robustness and methodological integrity. The first three of these provide the quantitative data for the present analysis due to their similarities to HIPPY.

Although the studies mentioned above provide data on numerous outcomes, this benefit–cost analysis focuses on a small number of outcomes which relate directly to the monetary costs and benefits to society, and can be assessed quantitatively. Qualitative outcomes are included where there is insufficient data to confidently calculate monetary costs and benefits, or where the outcomes do not lend themselves to financial analysis. The outcomes are summarised below.

Short-term childhood outcomes

This part of the analysis includes early childhood outcomes as qualitative benefits due to the difficulty of quantifying the monetary benefits. While identifying actual savings in the early years is problematic, it is likely that positive outcomes at this time would result in a lower demand for some welfare services. By way of example, it is anticipated that some benefits to society could be attributed to savings from reduction of substantiations and out-of-home care in the child protection area. There are, however, insufficient data to calculate the potential savings.

IMPROVED PARENT–CHILD RELATIONSHIPS

The evaluation of the effectiveness of HIPPY (see chapter 3) found that the relationships between parents and children who had been involved in HIPPY were significantly better than those in the control group. These results emulate the findings in international studies of HIPPY (see, for example, Black & Powell 2005, O’Brien 2007, Nievar 2008, Tombari 2008). These studies make clear linkages between improved parent–child relationships and child behaviour, school readiness and academic achievement in comparison to the control groups.

The outcomes found in HIPPY also are similar to those identified in the EPEIP and EEP. Both of these programs were, like HIPPY, parent-focused, home-based parenting programs and had similar

objectives to HIPPY. Similar outcomes are reported in the studies on the Perry Preschool Project, Head Start, Incredible Years and Triple P.

REDUCED CHILD MALTREATMENT

While it could be argued that this outcome is a subset of improved parent–child relationships, the importance of reducing child maltreatment, and its implications for longer term wellbeing, warrants its inclusion as a separate outcome. The effectiveness evaluation found that HIPPY parents' parenting style was significantly less angry/hostile. This result is similar to the findings of the EPEIP, EEP and Incredible Years studies.

ACADEMIC ACHIEVEMENT

The international studies on HIPPY provide reasonably strong evidence that in general the program has a significant impact on academic achievement in the early years of school in comparison to non-HIPPY children (see, for example, Garcia 2006; O'Brien, Garnett & Proctor 2003; Tombari 2008). Similar findings were reported for the Chicago Child Parent Centres program and the Abecedarian Project. Although it has not been possible to quantify the potential savings, improved academic achievement is likely to reduce the cost to society of providing special education.²⁶

Medium-term outcomes

Due to the lack of longitudinal data on HIPPY participants, this part of the analysis will draw upon a range of early intervention programs that have similar objectives and program design features to HIPPY. The assumption is that, irrespective of some program differences, early childhood interventions, particularly where there has been parental involvement and ownership, will contribute towards outcomes later in life. It should be noted here that some studies have cautioned against attributing all positive later life outcomes to early childhood interventions alone. In essence they argue that early childhood interventions provide the 'building-blocks' for future success, and these may need to be reinforced by later interventions. Brooks-Gunn, for example, argues that:

Programs that are continued into elementary school and that offer high 'doses' of early intervention have the most sustained long-term effects. It is unrealistic, given our knowledge of development, to expect short-term early interventions to last indefinitely, especially if children end up attending poor quality schools. It is magical thinking to expect that if we intervene in the early years, no further help will be needed by children in the elementary school years and beyond (Brooks-Gunn 2003).

REDUCED GRADE REPETITION

Benefit–cost analyses using data from three independent studies that have followed children from preschool years into adulthood all found positive benefits from increased long-term academic achievement and high school graduation rates, as well as lower percentages of children placed in special education or repeating a year. These analyses of Perry Preschool, Carolina Abecedarian and the Chicago Child-Parent Centres all found, to varying degrees, that the benefits exceeded the costs of the program and that the analyses may actually underestimate the returns (Barnett & Ackerman 2006).

RETENTION TO YEAR 12

The value of staying at school until Year 12 is non-contentious. In a report for the Dusseldorp Skills Forum, Applied Economics noted early leavers are less likely to participate in the labour force and more likely to be unemployed than are Year 12 leavers. In the longer run, early school

²⁶ Financial data on a cost per child basis for special education does not appear to be publicly available.

leavers experience lower labour force participation, higher unemployment rates and lower incomes than students who have completed Year 12 (Applied Economics 2002).

The Early Enrichment Program (EEP) study revealed that mothers had higher educational expectations for their children, an important prerequisite for Year 12 retention. High school completion was higher for children who had participated in Perry Preschool, Chicago Child-Parent Centres and the Carolina Abecedarian project .

Long-term outcomes

INCREASED LABOUR FORCE PARTICIPATION

Education is positively related to labour force participation and the impacts are far-reaching. Across age cohorts ranging from 15–24 years to 55–64 years, the Australian Productivity Commission found that labour force participation rates fall as people reach the minimum superannuation age and then pension age. The level of educational attainment is a significant factor in the rate of decline, although this varies depending on gender (Laplagne, Glover & Shomus 2007).

In the absence of longitudinal data on Australian early childhood interventions, this analysis must again rely on comparable international studies. The Perry PreSchool study demonstrated a range of positive economic and social outcomes for the intervention group. Updated analysis of outcomes for the Perry Preschool participants through to age 40 found that 29 per cent of participants had never been on welfare, compared to 14 per cent in the control group (Barnett, cited by Cunha & Heckman 2006). Positive employment outcomes were also found for the Carolina Abecedarian Project.

CRIMINAL JUSTICE

There is an international trend that recognises the importance of early childhood programs as an effective means of crime prevention. In a paper for the Australian Institute of Criminology, Chisholm (2000) has considered this proposition in the light of benefit–cost analyses undertaken for the Perry Preschool Project and the EPEIP. He notes that both these rigorous benefit–cost analyses show positive results. The EPEIP was only cost-beneficial for high-risk families, where the mother was younger than 19 years of age and/or of low socioeconomic status. Chisholm concludes that the results from these studies show that society can obtain positive social and financial gains from well-implemented early intervention programs. Positive reductions in criminal activity were also evident in the Chicago Child Parent Centres study.

In the next section we calculate monetary values for these outcomes where cost data has been available, prior to calculating the HIPPY benefit–cost ratio.

The HIPPY benefit–cost ratio calculation

The outcomes described above are presented in Table 4.4 in three categories: benefit or cost to program participants, to the rest of society including government, and then combined as benefits or costs to society as a whole. In the first section—short-term childhood outcomes—benefits cannot be given a value, while the program costs amount to \$4,586,176. As such, it is not possible to determine a specific benefit–cost ratio. In the second section—medium-term outcomes—the benefits are quantifiable, even though at this stage they are still outweighed by the costs. In the final stage—long-term outcomes, the potential becomes clearer, with only benefits being discernible. Overall the benefits that can be assigned a monetary value amount to \$53,493,905 and outweigh the costs of \$11,117,350, which results in a benefit–cost ratio of 4.90:1.

Table 4.4 Costs and benefits of HIPPY in Australia

	Qualitative benefits or net present value (benefits minus costs) in 2010 Australian dollars		
	Program participants	Rest of society	Society
Short-term childhood outcomes			
HIPPY program costs 2010		-\$6,644,771	-\$6,644,771
Improved parent-child relationships	√		
Reduced child maltreatment	√	√	
Academic achievement	√	√	√
Medium-term outcomes			
Reduced grade repetition		\$2,855,736	\$2,855,736
Retention to Year 12		-\$6,531,174	-\$6,531,174
Long-term outcomes			
Increased labour force participation			
Earnings	27,674,868		
Tax revenue		13,057,161	40,732,029
Criminal justice		9,906,140	9,906,140
Total	27,674,868	12,643,092	40,317,960

Note: The ticks (√) indicate qualitative gains which cannot be assigned a monetary value.

Data sources: ABS 2010, *Average weekly earnings Australia*, Cat. no. 6302.0; ABS 2010, *CPI Australia*, March, Cat. no. 6401; Aos et al. 2004; ATO taxation schedules 2009–10; Barnett & Ackerman 2006; Centrelink 2010; Cunha & Heckman 2006; SCRGSP 2010.

When discount rates²⁷ of 3 per cent and 7 per cent are applied with the assumption that medium-term benefits are produced within 15 years and long-term benefits over 30 years, the benefit-cost ratios are 2.09:1 and 0.85:1 respectively. Alternatively, when the same discount rates of 3 per cent and 7 per cent are applied with the assumption that half of the medium-term benefits (or costs) are produced after seven and half years and the rest after 15 years, and half of the long-term benefits are produced after 15 years and the rest after 30 years, the benefit-cost ratios are 2.53:1 and 1.42:1 respectively.

These benefit-cost ratios are conservative, as the paucity of Australian studies and data has limited what could be included in this benefit-cost analysis. More detailed modelling for other, similar programs indicates it is realistic to predict a return to society of as much as \$4 for every \$1 spent (Duncan, Ludwig & Magnuson 2007).

As the numerous international studies demonstrate, there are potential costs and benefits that have not been assigned a monetary value in our analysis above which would substantially increase the level of benefits of HIPPY. Such potential benefits include:

- in the education sector, benefits from savings on special education; and the costs to society of post-secondary education and training
- in the health and welfare sector, the savings to society from reductions in substance abuse, smoking (for both children and parents), child abuse and demand for other welfare programs
- increased labour force participation for parent participants (particularly mothers)

²⁷ With benefits and costs which occur over long periods of time, it is necessary for comparison to bring them to a common current day base. For this, the stream of future values is discounted by an annual discount rate. The sensitivity of the results to the choice of discount rate is indicated by the use of more than one rate here.

- economic benefits to child participants in the form of future household income and home ownership
- social and economic benefits to parents and child participants from fewer teenage pregnancies.

Consideration needs to be given to the likelihood (and indeed, as noted earlier, the desirability) of other interventions occurring subsequent to HIPPY, which would contribute to the medium to long-term outcomes. There may also be factors in the life course of a HIPPY participant which could result in poor outcomes later in life irrespective of whether they had been able to access an early childhood intervention.

What is indisputable is that when children fail to achieve in their early years of schooling, they are likely to be set on a pathway to limited economic and social wellbeing. As the studies in this benefit–cost analysis have demonstrated, parenting and functional family relationships play an important role in the achievement of those early learning milestones.

Given the potential long-term benefits, there is a clear case for the establishment of a comprehensive database and system for collecting longitudinal evidence on HIPPY and other early childhood interventions in Australia. This would not only improve the development and implementation of policy, but would also provide clarity on where programs in general, and HIPPY in particular, should be targeted.

Summary and conclusion

The wealth of research undertaken on early childhood education, particularly for families and children from low socioeconomic groups, is resonant in its advocacy of special interventions. This was confirmed in the Wise et al. (2005) report to the Australia Government’s (then) Department of Family and Community Services. This report originally canvassed 108 early childhood interventions and finally reported on 32 which were selected on the basis that their evaluations provided robust information on both benefits and costs. Only three Australian evaluations were able to be included and therefore this extensive Australian-based study relied almost entirely on international evaluations. Although a number of programs are now in the process of being evaluated, there has been no improvement in the availability of relevant Australian data since 2005. Consequently, the benefit–cost analysis of HIPPY also relies on evaluations and benefit–cost analyses from international programs.

From the evaluations included in the Wise et al. (2005) study, a small number of programs were selected for summary in this chapter. While all of these programs had similar objectives to HIPPY, there were variations in their target populations, design features and modes of delivery. Those which had been subjected to benefit–cost analysis were included in the cost-effectiveness analysis, and where there were long-term follow ups, in the benefit–cost analysis. The remaining programs provided additional insights on the potential outcomes that arise from early childhood interventions, particularly in the medium to long-term.

When compared to similar international programs, HIPPY Australia was cost-effective. In 2010, the cost per child for the HIPPY Australia program was \$4304, including administration, compliance, program delivery and evaluation costs. This compared very favourably with the Perry Preschool Project, Head Start, the Chicago Child-Parent Centre and the Abecedarian Project. Unfortunately, it was not possible to compare HIPPY’s cost-effectiveness with other Australian programs because other programs were not considered to be comparable in design.

The ratio of administrative costs to program costs over the 2009 and 2010 calendar years shows an increase in efficiency, with a higher proportion of costs attributed to program delivery in 2010. A significant proportion of the administration and compliance costs arise from mandatory requirements under the international licence, the BSL/DEEWR agreement or government regulation.

For the benefit–cost analysis, the program has likewise been compared to international programs. A limitation of this analysis is the lack of cost data on a range of potential benefits suggested from other studies. The benefit–cost ratios were calculated on two scenarios allowing different time spans for the medium to long-term benefits. Under the first scenario, the benefit–cost ratio using discount rates of 3 and 7 per cent were 2.09:1 and 0.85:1 respectively, and under the second scenario, 2.53:1 and 1.42:1 respectively. These ratios should be considered as conservative, as lack of available data in Australia on both costs and benefits limited what could be put into the model. Nevertheless, based on these calculations, while the ratios for HIPPY are less favourable than the international comparisons on the basis of benefit–cost analysis, HIPPY was considerably more cost-effective than the international programs.²⁸ Further, if the HIPPY analysis had been able to include benefits such as special education and post-secondary education, the benefit–cost ratio gaps would have narrowed or even closed completely.

²⁸ Cost-effectiveness and benefit–cost are explained on p. 32.

5 HIPPY and Indigenous Australians

Previous research on HIPPY in Australia has focused on the appropriateness, acceptability and perceived benefits of the program in mainly non-Indigenous urban communities. While evaluations have shown mostly positive results, these may not be generalisable to other communities with different characteristics. Apart from some previous evaluation of HIPPY in La Perouse (NSW), there is a lack of knowledge as to the appropriateness and acceptability of HIPPY with Indigenous communities, particularly in regional or relatively remote parts of Australia.

In the first year of the national rollout of HIPPY, there were two sites that had a high proportion of Aboriginal parents and children engaged in the program: Alice Springs (NT) and Inala (Qld). The second year saw HIPPY commence in Pioneer, a suburb of Mt Isa (Qld), and in Katherine (NT), also with sizeable populations of Indigenous Australians. The established site of La Perouse (NSW) was also included in the evaluation of the national rollout of HIPPY. Additional funding was allocated for pilot site evaluations of HIPPY in Pioneer and Katherine as these sites had not been part of the first-year evaluation. Thus, there was a good opportunity to increase our knowledge about how HIPPY works with Indigenous Australians across a number of different social and geographic settings.

This chapter brings together the findings from evaluating HIPPY at these five sites. Individual site reports are followed by a discussion about the strategies and adaptations used in implementing HIPPY in these communities and the lessons about the acceptability and appropriateness of HIPPY with Indigenous Australians.

Site report for Pioneer, Mt Isa, Queensland

Authors of this summary site report are: Karen Thorpe and Rachel Bell-Booth, Queensland University of Technology, Brisbane. A copy of their full report has been submitted separately to DEEWR.

Context

In Mt Isa, a regional centre in north-western Queensland located some 1650 kilometres from the state capital, Brisbane, there is an urgent need for support of parenting directed towards improving the developmental outcomes and school preparedness of children and building the confidence of parents as educators. The Australian Early Development Index (AEDI) results indicate this is the case across the district of Mt Isa but particularly so in the AEDI area 'Townview and surrounds' where HIPPY is centred and where there is a high proportion of Indigenous parents, who have a history of poor engagement with education and early exit from schooling. About a third of children are identified by the AEDI (2011) as developmentally at risk and less than half of parents engage with their children's school or read to their children (AEDI 2011)

HIPPY in Pioneer (Mt Isa)

In Mt Isa, HIPPY is a trial program with a specific remit to engage with Indigenous families. The program is embedded within the Communities for Children program (funded by FaHCSIA), which brings to HIPPY extensive local knowledge and strong and trusting relationships with the Indigenous communities.

The Queensland University of Technology team, which had an existing relationship with Indigenous communities in Mt Isa, was specifically commissioned to examine the acceptability and

appropriateness of HIPPY for Indigenous families and to track the program's progress in its first two years of operation, the processes of implementation and any modifications that were made to accommodate community needs. The approach to evaluation was a participatory process. In Pioneer this manifested as a qualitative, longitudinal study in which a range of stakeholders, including parents and staff, were consulted or interviewed to obtain perspectives on the ongoing progress of the program. The evaluation also included Indigenous parents who declined or dropped out of HIPPY.

Features of program delivery in Pioneer

HIPPY in Pioneer forms part of a broader service to Indigenous parents who have complex life circumstances and multiple challenges. As the program has progressed through its first two years the service model has been modified and developed to better suit the client group. Key among the modifications to the delivery model for Indigenous families are the embedding of HIPPY within a broader range of social supports, centre-based delivery of the program with provision of transport instead of home visits, employment of additional tutors and support staff, and involvement of extended family to foster social inclusion and build relationships of trust. Additionally there has been flexibility with the content of the program to accommodate varying levels of literacy and confidence. An important feature was the effort to recruit tutors who identified as Aboriginal or had strong relationships with Aboriginal communities.

Management and staffing

In Mt Isa, HIPPY is embedded within the Communities for Children program run under the auspices of the Catholic Social Services Australia agency, Centacare. Eight staff are engaged in running HIPPY in Pioneer: a program manager, five tutors, a community development worker and a playgroup worker who assists with group activities. The community development and playgroup workers (from Playgroups Queensland) are financially supported by Centacare through Communities for Children. HIPPY staff participate in the Communities for Children reference group to facilitate information sharing and planning across agencies. Additional staff members have been employed to deal with high workloads. This is a marker of the program's success but also a source of concern, as the level of staffing which has been required to ensure parents remain engaged is outside the design of HIPPY and not funded. The additional staff have been funded by Centacare, the agency administering both Communities for Children and HIPPY.

Recruitment and participation

From the outset HIPPY enrolment numbers were good; however, over time, there has been a growing 'fit' of families to the program. Young Indigenous mothers based in Pioneer who are not utilising other ECEC services are the group for whom HIPPY has filled a need. Families are enrolled through word of mouth or recommendation from agencies; and about a third of the current enrolment are mandated to attend by the Department of Child Safety.

In its first wave of trial in Pioneer, the HIPPY program had 45 enrolments and, from these, there will be 17 mothers graduating from the two-year program at the end of 2011. Some mothers from the initial recruitment dropped out of the program while others continue in the program from the first wave but attend less regularly. There are 33 new enrolments from the second year of recruitment.

As part of the evaluation, some of the families who had been approached but declined to participate and some who had dropped out of the program were interviewed. Some were already utilising other services and typically had existing parenting skills. In interviewing these families, it was apparent that HIPPY did not meet their needs. Some other parents had so many challenges in their lives, including mental health difficulties, that continuing to attend HIPPY became too difficult for them.

Modifications to the content and materials

Reports from parents and tutors on the weekly contacts indicate that they have had to make adjustments to the materials or rates of completion of papers to suit the families and build confidence. Low levels of literacy can be a challenge and the use of role-play²⁹ is less well accepted. Nevertheless the activities and materials serve as a vehicle for learning.

Participants' responses and learnings

There are large numbers of families participating in HIPPY in Pioneer and completion rates are encouraging. Typically those who have remained in the program fit better with the profile for which HIPPY is designed. They are younger mothers and many are single and have complex and materially disadvantaged lives. Key themes to emerge in the parent evaluations were the valuing of social support, social connectedness and empowerment in their parenting skills. Parents aspired for their children to be prepared for school and were concerned that children acquired not only basic academic skill but also the social skills and routines that would assist them in school. From this perspective the group gatherings and learning to get on with other children were valued. Mothers had a sense that their children were making good developmental progress, and a sense of personal achievement.

The tutors employed by HIPPY are parents of young children, have completed HIPPY and are Indigenous or have Indigenous partners. They are members of the community in which they work and have strong local knowledge and trust. Key themes that emerge from their accounts of the progress of HIPPY are about the development of relationships and improved trust with the parents and about parents' behaviour changing from initial reluctance to enthusiasm about the program. While home visits have always been accepted by non-Indigenous mothers participating in HIPPY in Pioneer, the number of home visits conducted to Indigenous homes was low. Some Indigenous parents are now allowing home visits. Tutors also express a sense of achievement in the contribution they are making to the progress of the mothers and children.

Site report for Katherine, Northern Territory

Authors of this summary site report are: Georgie Nutton and Bonnie Moss, Menzies School of Health Research, Darwin. A copy of their full report has been submitted separately to DEEWR.

Context

Katherine was chosen by HIPPY Australia as one of two sites targeting Indigenous families in the Northern Territory (NT). Katherine is a modern, self-contained community which is located 312 kilometres south-east of Darwin on the Katherine River. At the 2006 Census, around 10,000 people, or 5 per cent of the Territory's population of 211,000, lived in Katherine. Indigenous Australians constitute around 20 per cent of the township population and around 60 per cent of the wider Katherine regional population. Katherine township has a high workforce turnover and a relatively young population with a median age of 34 years. Around 32 per cent of the Indigenous population is below 15 years of age, compared to 16 per cent of the non-Indigenous population. Future projections anticipate a growing Indigenous population and a declining non-Indigenous population.

HIPPY has been implemented in Katherine at a time when a range of promising evidence-based interventions in the areas of child health and family wellbeing, intensive family support and early childhood education, care and development are being introduced or considered by government.

²⁹ In the HIPPY model, role-play describes the method when the parent and tutor take on the roles of the child and parent in order to practise the activities and prepare the parent to do them with their child. The parent and tutor may swap roles from time to time, for variety.

A growing number of early years interventions targeting Aboriginal families are being implemented in other Territory towns. Additionally, during 2011 the Northern Territory Government is developing an Early Childhood Development Plan through the Early Childhood Steering Committee. The plan will inform developmental health policy and an investment framework of service development for Territory children aged 0–8 years.

HIPPY in Katherine

The auspicing agency for HIPPY in Katherine, Anglicare NT, is one of the largest providers of government-funded welfare, social justice and community development programs in the Northern Territory. Funding for HIPPY has increased the focus and capacity in Katherine township around the provision of transition to school / preschool support. The program has been accepted in the Katherine community; however, a longer period of participation by Aboriginal families is required before the appropriateness of the program content can be established.

Features of program delivery in Katherine

HIPPY has a small staff in Katherine: a coordinator (0.8 FTE) and a part-time tutor. Key personnel and the level of staffing are significant enabling factors and essential to program sustainability. There has been turnover in both positions since the program commenced. In the second year of operation, the staff are still establishing their team, and their approach for working together. An extended length of time will consolidate the program and the addition of another part-time tutor will enhance the team's capacity. Staff have worked conscientiously to develop a range of local recruitment methods and to implement the home visiting component of the HIPPY model with only slight modifications and practical supports like transport. The HIPPY program logic links three core program components of the HIPPY model—home visits, groups meetings and tutor training—to long-term program outcomes. As Katherine is a very small community, referrals to and enrolments in the program have been slow and the program has not reached sufficient enrolments to schedule a group intake; consequently group meetings have not yet been conducted.

The location of Katherine presents a number of special challenges for HIPPY as a new program. These are linked to regional isolation, lack of infrastructure, some stressful environmental factors (the heat and the wet season), the high proportion of Indigenous people and the need for culturally and linguistically inclusive approaches to program delivery.

Participants' responses and learnings

Due to very small enrolments and limited information on families who had already exited or declined enrolment, all 14 families who were known to the program coordinator at the time of commencing interviews (November 2010) and had agreed to participate in the research were invited to be interviewed for the evaluation. This list was supplemented with new HIPPY enrolment contacts in February 2011.³⁰ In all, six mothers were interviewed about their participation.

There is strong indication that the semi-structured materials and the support of the home tutor are beneficial to the increased quality of parent–child interaction time, parents' understanding of developmental needs and improved parental confidence in supporting their children for transition to school.

³⁰ In February 2011 nine Indigenous families were expected to enrol in HIPPY over the next couple of months.

Challenges

From staff and stakeholder interviews and a roundtable, emerging themes included:

- Increased awareness raising about HIPPY is required.
- Creation of referral pathways between services in Katherine is needed.
- The extended length of time to build HIPPY, especially with the Indigenous community, needs to be recognised. This will enable a greater focus on the appropriateness of the model with Aboriginal families.
- There is a challenge to secure commitment for long-term engagement with both Indigenous and non-Indigenous families given lack of familiarity with programs based on a manual, as well as high mobility and population turnover issues in Katherine.
- Developing relationships with Indigenous families takes longer and increased trust is required before clients are confident to participate.
- Staff have changed the model to enable continuous client intake to ensure that smaller numbers do not stall program delivery.
- Enrolment at age 3.5 years in NT preschools impacts on potential HIPPY enrolments, so it is imperative that the program works closely with these services for co-referral.
- Defence force families and others affected by transience generally (especially mothers) can benefit from the program to overcome isolation.
- Materials for the four-year-olds program need adapting to better accommodate the literacy competencies of many families.

In Katherine the HIPPY model is viewed as acceptable, as there is limited support in the NT for children's transition to preschool. The program has experienced increasing Aboriginal enrolments and was poised for expansion in 2011. It is well placed to work with Aboriginal families, with a trained and experienced Aboriginal home tutor and an increasing number of referrals. However it may be challenging for staff to implement in its pure form and the appropriateness of the model with Aboriginal families has to date had little testing.

The evaluation of HIPPY in Katherine illustrates the complexity of early childhood intervention in regional and Indigenous contexts and the need for extended timeframes and specific planning to strengthen partnerships to ensure Indigenous inclusion in program development and delivery. Specifically there has been a low level of Indigenous involvement in program planning and this constitutes a broad risk to program sustainability and impact. Detailed strategic planning to increase awareness of the goals and target group for the program, and a greater focus on networking and collaborative referrals mechanisms within Katherine Early Years providers and networks, will increase the program's promise. In addition, the proposed recruitment of a second home tutor will enable increased flexibility by offering choice of tutor to respond to any particular language or cultural preferences.

In order to maximise the acceptability of HIPPY in Katherine, staff have made modifications without compromising the intent. To accommodate small and slow uptake, the program initially ran on continuous enrolment; it is moving to group enrolment in 2011 as the uptake has increased. This will also aid the implementation of the group sessions, which have not been run according to HIPPY design. Katherine HIPPY staff have also responded to the needs of families who are not comfortable having the program delivered in their own home by using alternative safe places.

In terms of establishing the appropriateness of HIPPY in Katherine, there is a need for modification of materials to better accommodate the literacy competencies of many of the targeted families. The Katherine HIPPY staff have made a significant investment of time and networks to establish trust and relationships within the targeted groups. Time for further engagement and participation of Aboriginal families is required before the appropriateness of the program content can be established with any certainty.

Site report for Alice Springs, Northern Territory

Context

The Alice Springs region is the southern part of the Northern Territory (NT) extending from the Western Australia border to the Queensland border. Alice Springs itself, also referred to as Mparntwe by its original inhabitants the Arrernte Aboriginal people, is the third largest town in the Northern Territory. The town is multi-ethnic, with an estimated population of 39,971 in 2006, accounting for 19 per cent of the total population of the Territory and 40 per cent of its Indigenous population. One of the main characteristics of the Alice Springs region is the predominance of non-Indigenous people living in the town, with Indigenous people spread across smaller desert communities.

HIPPY in Alice Springs

Alice Springs is one of the first Indigenous HIPPY sites established in the national HIPPY rollout. HIPPY Alice Springs is run in partnership with the Yipirinya School Council. Founded by Indigenous elders, the Yipirinya School, in addition to complying with the Northern Territory curriculum framework, teaches Indigenous languages and culture. The school caters for Indigenous students from the town camps and outstations of Alice Springs, some of the most disadvantaged students in Australia. According to the 2009 Australian Early Development Index (AEDI), 30 per cent of the children in the Alice Springs region were developmentally vulnerable on two or more domains; and nearly half (49 per cent) of those children were Indigenous (AEDI 2009). The Yipirinya School Council believed that the introduction of HIPPY would lead not only to improved student attendance and academic results but also improved parental participation.

Data collection

Although HIPPY in Alice Springs was to be included in evaluating the effectiveness of HIPPY, it was not clear that the research methods planned for the effectiveness evaluation would be valid given the distinctive HIPPY Alice Springs population (large Indigenous groups living in traditional communities). As a result, two preliminary trips were made to Alice Springs to meet with local Indigenous staff and stakeholders, including the Yipirinya School principal, the school's Cultural and Language Centre elders and the HIPPY coordinator and home tutor, in order to discuss the research approach and trial the proposed data collection instruments. The trips resulted in significant adjustments to the questionnaires and the decision to collaborate with the HIPPY home tutor in the data collection process. The consultations, combined with the difficulty in engaging with the Indigenous parents, delayed the baseline interviews. As a result, it was decided to collect data at only two points in time in Alice Springs: as close as possible to the start of the program and again at the end of the second year.

As for the evaluation of the twelve other sites, three data collection methods were used in Alice Springs: semi-structured interviews with parents, home tutors and the HIPPY coordinator; direct assessment of the HIPPY children using the Who Am I? test; and a survey collected from the teachers of the children.

Features of program delivery in Alice Springs

HIPPY in Alice Springs runs in the premises of the Yipirinya school and is the extension of the school service. At the start of the evaluation (2009), 26 participants were enrolled in the program. Most of these children were attending Yipirinya Preschool and living in town camps (government housing around Alice Springs) or outstations (up to 100 kilometres away). Families involved in HIPPY in Alice Springs shared some characteristics with groups usually classified as hard to reach and difficult to involve, in the sense that most of the families had low levels of literacy and limited economic resources, were transient or living in remote areas, and were often distrustful of services.

In 2009, the program was delivered by one full-time Indigenous coordinator who was a primary schoolteacher with a bachelor's degree in education. On top of her coordination role, she was also sometimes working as a home tutor. She was assisted by a full-time Indigenous home tutor who was completing a Certificate in Indigenous Education and Training, and was considering hiring a second full-time home tutor.

There was some delay in commencing the program delivery because of the time spent connecting with the parents and getting them on board. While all the program components were considered to be important, building trusting relationships with parents was considered essential by the program coordinator:

The most important things are communication with families and building their confidence and self-esteem in the program. If you didn't have a good relationship with them, they wouldn't want to do HIPPY, they wouldn't become engaged in HIPPY.

HIPPY in Alice Springs uses a mixture of home visits and centre-based delivery to accommodate parents' needs. There are two different types of home visits: one to just 'catch up' with participant families to check how they are doing and the other to deliver the program. The staff offer the parents the choice of having the program delivered in their home or at the HIPPY centre. The rationale is that while some parents, mostly those living in the town, are comfortable with home visits, the others, in the town camps, generally prefer to come to the centre. Another reason is that participants sometimes feel embarrassed about their home environment being overcrowded, at times violent, with alcohol and drug issues.

They accepted us to visit them—but they still preferred to come into the 'demountable' [HIPPY centre]. Parents didn't want us to do it in their homes. They said, 'We'll come there'. They felt really embarrassed about their living conditions—there's like overcrowding and many family members that are intoxicated. (Coordinator)

Most of the parents involved in HIPPY face challenging issues such as chronic unemployment, poverty and overcrowding. Centre-based delivery was also preferred by some parents because of the opportunity to have something to eat. According to the HIPPY coordinator, in some homes there is no food, and if there is food, it lasts only a couple of days in big families. To accommodate some of these needs, HIPPY provides a small kitchen where parents can help themselves to tea, biscuits and sometimes fruit.

Delivering the program in a centre to highly disadvantaged families also involved providing them with transportation. HIPPY provides transport to and from the centre using the Yipirinya School minibuses. This increased parents' access to other services which they could not otherwise reach because of the lack of private and public transport.

The HIPPY model is premised on the parent delivering HIPPY activities to the child. However, when the program in Alice Springs was at an early stage, HIPPY staff were sometimes only delivering the program directly to children, while trying to build trust and engage their parents. Having the program in the school premises made it easier for the HIPPY staff to reach the enrolled children.

Delivery of HIPPY in Alice Springs requires some flexibility, not only because most of the parents in the program are transient or live in remote areas, but also because Indigenous families' life is largely organised around cultural or social events such as 'sorry business', 'shame business', footy festivals and pay days. During these events or periods, the HIPPY staff have to demonstrate a lot of patience in tracking some of the parents down.

To suit the low level of literacy of some parents, some adjustments have been made to the content of the HIPPY materials and activities. In order to make the materials accessible and relevant to some parents, the staff had to 'break it down' into manageable chunks:

We broke it [what was in the books] down lots to suit the family. In doing role-play we had to break it up to make it understandable. We role-played with the child with the parent present. The parent was very much involved in interpreting what we did with the child, to the child in language and English.

We broke things down. We had to explain it in a way that they would understand it: concept development, visual discrimination. This is where skilled tutors come in.

Participants' responses and learnings

Of the 26 parents enrolled in HIPPY in Alice in 2009, 20 agreed to take part in the evaluation and were interviewed at baseline. Of these 20 parents, we were only able to reach 11 for the time 2 interviews. The remaining nine exited the program and either could not be contacted or declined to be interviewed.

Families involved in HIPPY typically experience multiple disadvantages. At baseline, about three-quarters of the parents interviewed had government benefits as their main source of income and about 60 per cent had the equivalent of Year 10 schooling or below. All but one had no post-school education. In addition, more than two-thirds of the parents interviewed were unemployed.

Most parents heard about HIPPY through Yipirinya School, HIPPY staff, or other parents and relatives. Parents' most common reasons for joining HIPPY were to help their child get ready for school and to give their child a head start at school.

Among the parents who completed the two years of HIPPY, more than half (6) were single parents, all but one were of an Indigenous background, and more than two-thirds had less than the equivalent of Year 12 schooling. More than half had government benefits as their main source of income and 60 per cent were unemployed.

The majority of the parents reported that HIPPY has been either useful or very useful to them and their children. The usefulness of HIPPY was recognised in three main domains. The first domain identified by parents was the positive impact of HIPPY on the way they were communicating and bonding with their children. Six parents' comments illustrate this:

[Since HIPPY] I read and talk more to my child.

We can talk to each other about all sorts of things.

With HIPPY we talk more.

We talk more and have more of an understanding.

I feel close to him [son].

We play a lot of games.

The second domain identified by parents was the positive impact of HIPPY on the amount of time spent with their children or engaging in educational activities with their children. For example, four parents said:

Spending more time with him, getting him to sit down and do things.

Spending quality time for learning and reading.

Yes, being able to sit and write, read to her.

Spending more time with my son and his learning.

Another domain identified by parents was HIPPY's positive impact on their ability to remain patient while interacting with their children. For example, two parents said:

I become more patient to teach her.

I became more patient in reading to him; I got more understanding of the words.

The last domain identified was the children's increased eagerness to learn and interest in additional information from their parents:

He is more challenging, he wants to do more activities like drawing and we do more educational activities.

She is more questioning, wants to know how things work.

After two years of involvement in HIPPY in Alice Springs there seems to be a strong consensus among parents that HIPPY has helped to improve their understanding of both their child's needs and skills (nearly 95 per cent of parents interviewed (10) reported some kind of improvement). In addition, more than three-quarters of the parents reported HIPPY to have brought about some improvement in the amount of time they spent playing with their child. Similarly, nearly three-quarters of the parents reported some improvement in the way they dealt with their child's bad behaviour, and all 11 parents experienced some improvement in their communication with their child.

Overall, parents in Alice Springs had positive feelings about HIPPY. This showed in their responses to the question: 'How do you feel about graduating from [that is, completing] HIPPY?' Almost all HIPPY parents expressed excitement, happiness and pride in completing the program and in their child's achievements. For example, four parents made the following comments:

I am very happy and proud. For the first time someone graduates from my own family.

Very happy and excited. It is sense of achievement.

Very happy, I feel like achieving a lot. I am very proud of him. It was great to have him in HIPPY, it helped him for school.

Very satisfied, my child has learnt a lot.

Site report for La Perouse, New South Wales

Context

The small suburb of La Perouse is located on a peninsula at the southern end of the City of Randwick in Sydney, on the shore of Botany Bay. La Perouse has a large Aboriginal community, some of them living on an Aboriginal-owned and run mission; and many Aboriginal families live in the surrounding suburbs. In the 2006 Census, La Perouse had 391 residents, of which 123 were Aboriginal.

HIPPY in La Perouse

Established since 2003, La Perouse was the first Indigenous HIPPY site in Australia. The program in La Perouse is run by the Gajaga Multifunctional Aboriginal Children's Services (MACS), which also provides long day care for those in the Phillip Bay area. HIPPY in La Perouse serves mostly Aboriginal and Torres Strait Islander families, followed by families from various other cultural backgrounds, some of them recent migrants.

Features of program delivery in La Perouse

HIPPY in La Perouse is run in the premises of the La Perouse Public school. In 2009, 45 participants were enrolled in the program. Most of the enrolled families were living in suburbs outside of the Aboriginal-run mission. The program was delivered by a full-time Indigenous coordinator who had a Diploma in Aboriginal Education and had worked as a HIPPY tutor for almost 10 years. The coordinator was assisted by five part-time Indigenous home tutors.

The majority of the parents enrolled in HIPPY in La Perouse are from low socioeconomic backgrounds and have multiple disadvantages. To accommodate such complex needs, the HIPPY model has been modified. The first alteration to the original model related to home visits. HIPPY La Perouse uses some creative delivery strategies: while some parents are happy to have the program delivered in their homes, others prefer having it delivered at the HIPPY centre, during their children's sports training, or at a café.

Some parents are uncomfortable with a home visit, because of their home situations, it may be the mess, violence or overcrowding—they just don't want you to come into their home.

This is a big sporting community so we offer that visits can be made at sports training or in a café, visits can be in the HIPPY room or somewhere that is good for them.

(Program coordinator)

The second alteration relates to group meetings, which are one of the core components of the original HIPPY model and were set up to increase the opportunity for learning in a group setting and social interaction. The lack of parents' participation in group meetings led to the decision to discontinue them in La Perouse. The coordinator explained the consequences and reasons:

Parents are missing out on meeting other parents and sharing their HIPPY experience.

Some of the parents meet as a group when they go to playgroup so they don't need HIPPY group meetings. So they don't see the point of it. Some parents don't come because they work, don't have vehicles and have large families with young children. A lot of younger parents are shy and [feel] shame going to group meetings with other parents.

Because most the parents are not confident about role-play, the staff in La Perouse had to make some changes to the way they use role-play to practise the activities:

They still feel silly doing it [role-play]. They do it but they are still not used to it. So we do case scenarios where we all throw in, suggest things that could happen and we then look at how we could deal with that.

While the HIPPY original model focuses on the parent's delivery of the program to their child, the approach is sometimes modified in La Perouse to enable a home tutor to work directly with a child whose parents are not able or willing to deliver HIPPY themselves. However, these arrangements are only made after exhausting all other possibilities in the immediate family.

Participants' responses and learnings

Of the 45 parents enrolled in HIPPY la Perouse in 2009, 24 agreed to take part in the evaluation and were interviewed at baseline. Of these 24 parents, we were only able to retain 17 in the evaluation. The remaining seven exited the program and either could not be contacted or declined to be interviewed.

Parents' most common reasons for joining HIPPY were to help their child get ready for school and give their child a head start at school. Some parents saw the program to be of some benefit to their other older children. And some saw in HIPPY the opportunity to spend some quality time with their children.

Among the parents who completed two years of HIPPY, more than two-thirds (11) were in a couple relationship, one-third (5) were of Indigenous background, and one-third had a Year 10 or equivalent level of schooling. Only 13 per cent (2) had government benefits as their main source of income; 27 per cent (4) were unemployed.

All parents reported that HIPPY had been either useful or very useful to them and their children. From their responses to the question 'What is the most valuable thing you have gained or learnt from HIPPY?', key themes included parent and child learning, time spent together, preparation for school and self-confidence:

Having special time with him to seat down and learn.

I wish I had known about it for my other two children. There are certain things you take for granted, that HIPPY's taught me to teach.

I have learnt the importance of self-esteem and independence for children. I have also gained much more self-esteem through HIPPY because I can teach my daughter now.

Having more time with her, you get to know where she is at. I know her better.

I have more confidence in teaching my son.

One parent could not think of anything that had been useful because she was already a preschool teacher. Another parent indicated no gains from the second year onwards.

When asked more generally about what changed in their relationship with their children as a result of HIPPY, dominant responses were about improved communication with child; better understanding of child's needs, skills and behaviour; and improved parenting skills, as the following examples show.

We talk a lot about what is going on in her life. Now I know what my daughter needs to do in order to improve. I think she has grown up a lot with HIPPY.

We communicate more. We talk about everything more. And I notice more her abilities and skills.

I've noticed that she's very good at numbers, good at reading, but she needs more reading.

Understand her more, understand more her way and behaviour, the way she operates, she is smarter than she makes up.

I've learnt to be more patient, and less negative with feedback.

Before I just brushed off her concerns, but now I take more actions to deal with them and try to cheer her up.

In addition, half of the parents reported that doing HIPPY gave them both the ability to monitor their child's learning at school and the confidence to talk to their child's teacher or principal if they thought that the child's educational needs were not being met:

Yes, I know a bit where she is and up to and how she should be improving.

I know where she's at. So if it's not happening at school and she's doing that work at home, I can see where she should be at with school[work].

As I know what my child is capable of after doing HIPPY, I would ensure his needs are met.

I suppose so because I just think a lot of HIPPY is easy for her and if she'd struggled with any of it, I'd have been at the school asking why.

Yes, because I was so shy before, but now I feel confident because with HIPPY I got higher self-esteem.

Among the parents who reported that HIPPY had no impact on their ability to speak to their children's teachers, one was the preschool teacher who was used to talking about these issues, and the other said she had always been confident.

Site report for Inala, Queensland

Context

Located 14 kilometres south-west of the Brisbane CBD, Inala is a gateway to the nearby Wacol and Heathwood industrial estates. Inala has been identified as the poorest urban area of Queensland, with a median weekly income of \$702, a higher than average percentage of single-parent families (28 per cent, compared with the 16 per cent Australian average) and the second highest unemployment rate in Australia (9 per cent). Inala is home to the largest Aboriginal and Torres Strait Islander population in Brisbane and has a rich cultural mix, with many Vietnamese, Pacific Islander and African families. According to the 2006 Census, 7.3 per cent of people living in Inala are Aboriginal, and 33 per cent speak a language other than English (ABS 2008).

HIPPY in Inala

HIPPY in Inala is run in partnership with Brisbane South Division of General Practice, an organisation supporting a diverse range of general practice, community health and wellbeing initiatives. In addition to HIPPY, Brisbane South Division of General Practice manages the Connecting Communities Program, which seeks to raise awareness about mental health issues

through mental health first aid training, the media and community education. It also delivers the Triple P and Friends for Life programs.

Features of program delivery in Inala

HIPPY in Inala is based at the Inala Indigenous Health Service. This location is accessible for Aboriginal and Torres Strait Islander families and enables the staff to maintain regular and informal contact with families as they attend the clinic for primary health care, including health checks, immunisations, etc. In 2009, 37 families were enrolled in HIPPY in Inala. The program was delivered by one full-time coordinator who has a Diploma in Teaching and had worked as a teacher for twenty years. The coordinator was assisted by one Aboriginal, one Pacific Islander and one Vietnamese home tutor.

Aboriginal and Torres Strait Islander families are the main group who take part in HIPPY in Inala, followed by Samoan, Vietnamese and Tongan families. Other families are non-Indigenous Australians or have resettled from diverse countries of Africa and Asia.

Like the other Indigenous sites, HIPPY in Inala faces challenges to successful implementation and delivery of the program.

The first challenge is to attract and maintain the targeted population. In Inala, families are mainly recruited through referral and word of mouth. Despite efforts to maintain a strong Indigenous focus by employing three local Aboriginal women (one of them a respected community elder) and the strong relationship existing between the Communities for Children program and the HIPPY centre location, HIPPY finds it difficult to meet its target for Indigenous participants.

Like the other sites, HIPPY in Inala made some adaptations to the HIPPY original model to better fit parents' complex needs. The program in Inala has monthly rather than fortnightly group meetings. This is firstly because of parents' busy schedules and commitments; secondly because most of the parents are already involved in playgroups or other community groups; and thirdly because some of the parents do not see the point of attending group meetings, as for them HIPPY is about their relationship with their home tutor rather than with other parents.

Another challenge encountered in implementing and delivering HIPPY was parents' perception of what learning should be. For some of the parents, play is not part of the learning equation and therefore tutors have worked with parents to overcome this issue. HIPPY staff in Inala have also changed the way they do role-play in order to suit each parent's needs.

Another barrier highlighted by the HIPPY staff as preventing the full delivery of the HIPPY material is the weight and length of the content, which might indirectly discourage some families from taking part. The Inala staff have worked hard with the families to meet their needs and enable lasting engagement with HIPPY. This has required flexibility and the ability to recognise and work with the inherent strengths of each family.

Participants' responses and learnings

Of the 37 parents enrolled in HIPPY Inala in 2009, 17 agreed to take part in the evaluation and were interviewed at baseline. Of these parents, we were able to retain only 10 for the whole evaluation. The remaining seven exited the program and declined to be interviewed. Among the parents who completed the two years of HIPPY, all but one were in a couple relationship, two were from Indigenous background; and six had a Year 12 or equivalent level of schooling, two Year 11

and two Year 10 or less). Nine parents reported that employment was their main source of household income; however four were unemployed and relied on income from other household members. One parent was unemployed and reported that a government benefit or pension was their main source of household income.

Some parents found HIPPY valuable for their children because it helped them acquire skills necessary for a smooth transition to school.

It helped my son transition into Prep. Because he was familiar with a lot of the concepts, e.g. letters, numbers, shapes, etc., which were introduced and reinforced over the two-year program.

In addition to empowering their children, HIPPY empowered parents by improving their parenting skills, encouraging them to spend time with their children, equipping them with tools to teach, as well as understanding their children's educational needs.

We enjoy the fact that HIPPY makes us spend time with her. It gives lots of tools to utilise to prepare us for prep. Now my husband knows what to do in case I'm working.

I learnt how to be a better parent, e.g. patience, and to value quality time with my son. It was a buzz seeing him enjoying learning, especially activities that he loved doing, like a lot of the drawing ones.

There are skills that I thought it should be easy for her, like 'in front/behind', but doing it in HIPPY showed me that she found it hard. Like 'matrix', she looked at it and just did it! And yet 'in front/behind' is so hard. It's really helped me to understand where she didn't know and I have to take more time on the things she didn't know.

HIPPY and Indigenous Australians: key learnings

In this section we consider the lessons learnt from the evaluations of HIPPY with Indigenous people in urban and regional/remote settings. In spite of the differences in geographical settings, the challenges faced by the providers of HIPPY and adaptations made to the program were surprisingly similar.

Overwhelmingly, the strategies and adaptations put in place by HIPPY providers related to the single issue and challenge of successfully engaging Indigenous parents, families and communities. The program was adapted so as to increase the acceptability and appropriateness of the program judged by people's willingness and enthusiasm to participate along with their perceptions of relevance and benefit. Key lessons are outlined below.

Successfully engaging *communities* with a high number of Indigenous Australians takes time

HIPPY has been successful in Indigenous communities where there has been a strong expression at the local level of the desire for the program. This seems to enhance not only the community's 'ownership' of HIPPY but also its sustainability. For example, in Alice Springs the Yipirinya School elders and principal had expressed for some time a strong desire to implement HIPPY in their community, and demonstrate a strong commitment to support the program. For them, HIPPY is one of the potential means that can improve students' attendance and academic results, as well as parental participation.

Successfully engaging Indigenous participants depends to a large extent on the level of trust and connection between the partner agency and the local Indigenous community. In turn, this trust is strongest in communities where the partner agency is well integrated with other Indigenous children and family services and/or schools. Having sufficient trust and connection makes access to and contact with targeted families easier. For example, in Mt Isa, being embedded within the Communities for Children program (funded by FaHCSIA), HIPPY can benefit from the Communities for Children staff's extensive local knowledge and established strong relationship with the Indigenous community. This undoubtedly gives credibility to HIPPY within the community and has facilitated the connection between HIPPY and the parents. Similarly, in Alice Springs, HIPPY benefits from being an extension of the Yipirinya preschool and childcare program. Yipirinya School has strong connections with targeted families through its teaching and active after-school care program. In addition, the school has strong relationships with the local National Congress of Australia's First Peoples, the Tangentyere Council (the major service delivery agency for the 18 housing associations known as 'town camps' in Alice Springs) and other children's services.

Recruiting and enrolling Indigenous *parents* takes time

For HIPPY staff, recruiting and enrolling parents in these communities takes time and energy as many Indigenous Australians are generally sceptical about programs. Successful recruitment of parents depends on the relationship built between the HIPPY staff and the local community. A focus on relationship building rather than merely achieving a target quota of participants is more likely to produce results. Giving less priority to quotas and allocating staff with extra time will not only allow the staff to provide more information on how the program works or the time and level of commitment it requires, but also help to better assess families' readiness and suitability for the program.

Soft recruitment methods such as word of mouth appear to work better than referrals. Parents who join HIPPY through word of mouth appear to engage better with the program than parents who join the program through referral.

Another lesson is that success begets success. All five HIPPY Indigenous sites that were involved in this evaluation recorded substantial increases in enrolments during the second year of the program (for example, 62 per cent increase in Alice Springs; 30 per cent in Inala). This indicates not only an increased awareness about the program within the community, but also a progressively higher success rate of engaging Indigenous people over time. HIPPY should therefore not be implemented with a short-term view in these communities.

Many of the Indigenous parents targeted by HIPPY are dealing with complex issues and needs. To engage with these people means that the early work of HIPPY staff may involve not the delivery of the program's activities, but rather linking parents with other services they need in order to become 'ready' for HIPPY.

Some people live in poor-quality, overcrowded housing where food is not always available. In Inala, Alice Springs and Mt Isa, providing food to parents during their visits to the centre helped to engage them and to maintain their participation.

Maintaining engagement with Indigenous parents and children requires *flexible modes of delivery*

In delivering a program such as HIPPY it is important to recognise the transient lifestyle of many families. Some families live in stressful environments that include harsh weather conditions (heat, heavy rain) which not only necessitate mobility but also can make a non-airconditioned home uncomfortable. Some also may be embarrassed about their home environment being overcrowded, or at times violent, with alcohol and drug issues. Such conditions make some homes an inappropriate and/or unsafe place for the delivery of HIPPY. Having an alternative 'safe place' (outside of the home) in which to deliver the program therefore seems to be vital for engaging these parents. For example, in Alice Springs and Katherine the program is mainly delivered at the HIPPY centre, while in La Perouse, staff offer the options of delivery at the HIPPY centre, during children's footy training sessions or at a café.

Even when HIPPY is delivered in a 'safe place', tutors sometimes make home visits to parents in order simply to touch base and see how things are going. Such visits develop stronger relationships between the tutor and the families and help to maintain engagement.

In addition to the flexibility required in delivery location, there needs to be sufficient flexibility in who delivers the program to the enrolled children. For many Indigenous parents, English is a second language and they may lack confidence using the HIPPY materials. In such cases, home tutors delivered the program to the children, sometimes in the presence of the parents. The aim is to progressively build the parents' confidence so that they eventually directly work with their child.

While the HIPPY materials have been found to be useful in that they provide the parents with something concrete to do with their child, they have also been described as being too 'word dense' and lacking in Indigenous cultural representations. In such instances, tutors would describe the activities, sometimes in the relevant Aboriginal language, and the parent would learn the activity rather than read it. The materials could also be adapted to incorporate other familiar Indigenous literacy and numeracy contexts such as stories, songs and other cultural activities.

HIPPY group meetings work best when they are differentiated from other meetings that parents attend. The most common reason for parents not attending group meetings was that they duplicated other gatherings such as playgroups.

Flexibility around the use of role-play was necessary, as HIPPY staff met some resistance to this approach. For some Indigenous parents and children, admitting ignorance is acceptable but ‘having a go’ and making a mistake may not be, and may result in ‘shame’ (Simpson & Clancy 2001). To respect this cultural preference, sites such as Inala, La Perouse and Alice Springs would either discuss the activities or different ‘scenarios’, or go through the activities with the parents instead of role-playing them.

Attracting and retaining engagement with Indigenous parents, home tutors and coordinators requires *extra resources and support*

Providing transport can help to remove one of the largest barriers to participation in HIPPY by Indigenous parents and children. Since centre-based delivery seems to be the most successful method, and most parents and tutors at some HIPPY sites have no access to either a private car or public transport, the implementation of HIPPY largely depends on making transport available. Provision of transport has not been part of the funding to sites for the delivery of HIPPY and it has therefore largely been cross-subsidised by the local agency delivering the program, with funds from alternative sources.

HIPPY would also benefit from a lower home tutor to parent ratio in Indigenous communities. In addition to being transient, some of the Indigenous families involved in HIPPY organised their lives around cultural or social events such as ‘sorry businesses’, ‘shame businesses’, footy festivals and pay days. Tutors have to spend extra time and energy to maintain contact with these families and need to be flexible about when and how often they can work with families.

Staff turnover has been identified as an issue in the community services sector more generally across Australia, and is especially significant in the Northern Territory. With such a small population base in the Territory and other locations, it must be recognised that there is a limited number of potential workers. Further, the cost of living in remote regional Australia means that it is difficult both to attract and retain staff. It is therefore important that sufficient time is given for the careful recruitment of tutors and coordinators for HIPPY and that they are remunerated appropriately as they are crucial to the success of the program. The time of greatest risk of the parent’s and the child’s disengagement from the program is when staff leave. It is important, therefore, to investigate effective ways to attract and retain qualified staff.

Indigenous HIPPY parents gave several positive reports of the perceived relevance and benefit of HIPPY

HIPPY’s appropriateness and acceptability is in part measurable by participants’ perception of the relevance and benefit of the program. There were many positive reports from parents who were involved in the program. For example, parents noted the following changes:

- increased confidence to teach their child
- increased confidence to talk to their child’s teacher
- improved parenting skills: patience and responding to difficult behaviour
- better relationship between parents and child and improved quality time spent with the child

- increased social connectedness from meeting other parents
- the child becoming familiar and confident with schoolwork
- more insight about the school's requirements and expectations
- better awareness of their child's skills, abilities and academic needs
- pride for both the parent and the child in the child's learning and achievement

Summary

HIPPY is clearly working well in some locations and has struggled in others. HIPPY appeared to be most successful in places where the local Indigenous community and community leaders were closely involved (as in Alice Springs) in the ownership and lead-up to the commencement of the program, and where strong relationships existed between the local partner agency delivering HIPPY and other child and family services for Indigenous Australians (as in Pioneer/Mt Isa). In all locations, some modifications were made: nearly all adaptations were undertaken to address the single challenge of successfully engaging with Indigenous parents and children. Centre-based delivery, or delivery at alternative safe places, overcame some difficulties of home visits and providing transport overcame the lack of private or public transport in some locations. Some modification of materials to suit the parents' literacy levels and cultural context may be beneficial. Attracting and retaining excellent staff (tutors and coordinators) is critical for a program built on trusting relationships.

With the lessons learnt from this comparative study it is reasonable to say that HIPPY holds significant promise as an appropriate and acceptable program with Indigenous Australians. Many positive reports from participants (parents and coordinators) point to some important benefits to parents, children, families and communities.

6 The governance of HIPPY

This chapter examines the views of key stakeholders on the governance of HIPPY. A program such as HIPPY relies upon appropriate structures and processes to make it function effectively. For this purpose governance can be understood as being about decision-making and accountability. Also involved in governance are conformity to legal and regulatory requirements and the meeting of community and stakeholder expectations of probity and openness.

The research questions explored were as follows:

- What changes are recommended to improve HIPPY governance structures and good practice?
- How were the tutors and coordinators selected?
- How were parents selected to participate in the program, and did the program reach all eligible families?
- To what extent has program implementation been a transparent process?

Methodology

Data about governance was collected by way of online surveys from a total of 21 individuals. These came from the HIPPY Australia Advisory Committee made up of people from the BSL and DEEWR (three respondents), HIPPY Australia staff (three), line managers from partner organisations in HIPPY program sites (six), and HIPPY coordinators (nine). The surveys were designed to elicit views on each of the research questions. An earlier semi-structured survey delivered via face-to-face interviews with coordinators elicited a few additional points which have been included.

While there were a few minor differences in the questions asked of each group, in summary the questions sought responses on:

- **tutors**—how they were selected
- **parents**—how they were selected and reached, and whether all eligible families were reached
- **transparency**—whether program implementation was transparent, including how decisions were made, what were the processes for communication and feedback
- **governance**—understanding of the purpose and philosophy of HIPPY and how (if appropriate) these informed the interviewee's work; understanding of the interviewee's HIPPY role, accountabilities and decision-making, including risk management; mechanisms to elicit views of parents, children and tutors; collection and use of data; availability of training and support.

Results

Advisory Committee

There were few contentious responses from the Advisory Committee but since there were only three respondents the results have been aggregated carefully in order to preserve anonymity. In general the Advisory Committee respondents were clear and comprehensive on the purpose of HIPPY, and clear on their own role and level of decision-making and where and how this was documented. Members surveyed were satisfied with the information they received, the composition of the committee, the functioning of the committee and its transparency. With regard to their own accountabilities they

were able to describe these clearly. However, with regard to good governance of HIPPY, they referred to the use of good governance benchmarks and the strong partnership model. No changes to governance arrangements during the national rollout of HIPPY were reported.

Two issues were raised by Advisory Committee members. One member thought there should be more regular meetings with defined agenda items rather than an agenda described as 'ad hoc'. The second concern, with regard to whether accountability relationships work, was that sometimes partners took different views of things, and an associated matter was that stakeholders (the groups interviewed and described above) have, unsurprisingly, quite different lines of accountability within their own organisations.

These comments are individual responses and it is not clear whether and to what extent they reflect the views of the whole Advisory Committee. They are, however, comments worth reflecting on, and perhaps they raise issues for further consideration by the Advisory Committee. The question of the meeting agenda involves striking a delicate balance between a prescribed agenda and an agenda which provides maximum and unconstrained input from members. It may be helpful to discuss and clarify this point with both the key partners and the other Advisory Committee members.

The issue of the different views of key stakeholders is not surprising, given the nature of the partnership between DEEWR and the BSL, together with the desirable diversity in Advisory Committee membership. We have no detail on whether the diversity of views may be seen by some as problematic, with the exception of reporting requirements discussed below. What is clear is that partnerships usually place participants in a matrix model of management. That is, members are accountable in more than one direction: for the effective functioning of the Advisory Committee, the evaluation, and to their own organisations. These multiple accountabilities naturally have most impact on DEEWR and HIPPY Australia.

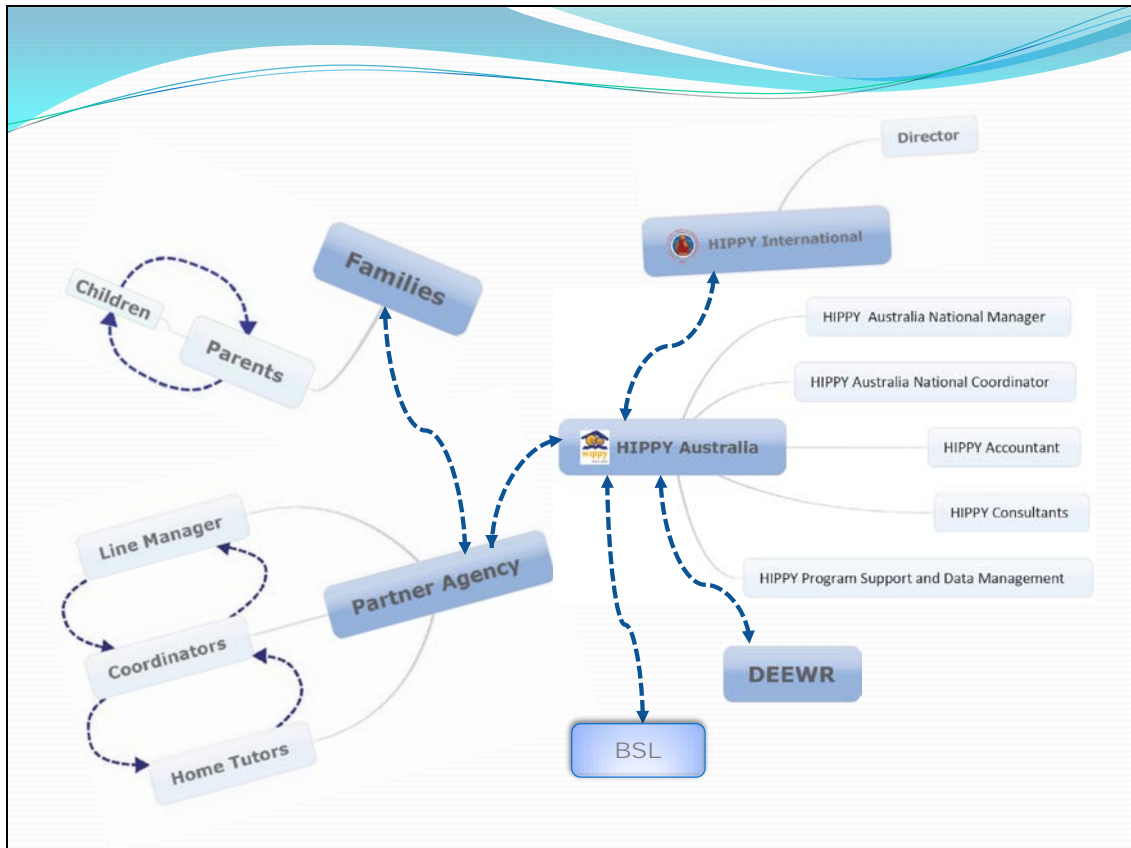
While it is not appropriate to canvass the literature on matrix organisational structures in detail, it is fair to say that these work most effectively when the needs of all parties are kept in balance and there is an overarching coordination function which plays a negotiating role. Such coordination desirably involves a degree of structural distance from the stakeholders, since its function is to accommodate the diverse needs of the key partners while maintaining the required balance between them. This matter could well be debated further by the Advisory Committee.

HIPPY Australia staff

Surveys were completed by three staff at the HIPPY Australia national office who are responsible for managing and coordinating the national rollout of HIPPY. Again, responses were aggregated where possible. Respondents were able to clearly articulate HIPPY's goals and philosophies. They were clear about their roles and interviewees were all clear on their capacity to make decisions or where to get required decisions. Mechanisms for understanding views of parents, tutors and children were said to be clear, as was the availability of useful, timely and reliable data. Decision-making was believed to be transparent. The recruitment and appointment of tutors was stated to be standardised and transparent. Recruitment of families to HIPPY was described likewise, with the emphasis on providing the service to the disadvantaged community (the process of selecting the communities is described in Chapter 3). According to HIPPY Australia staff, families within each selected community are given access to HIPPY if their child is of an eligible age and it is felt they will benefit from HIPPY. No other participant eligibility requirements are used.

These responses made clear HIPPY's highly complex governance environment. HIPPY Australia operates under licence from HIPPY International and has accountabilities to it. Staff are employed by the Brotherhood of St Laurence so are accountable to its management and ultimately to the Brotherhood of St Laurence Board. There are accountability requirements to the funding body, DEEWR. There are sub-licensing arrangements with the HIPPY partner agencies. Figure 6.1 illustrates this complexity:

Figure 6.1 Governance structures: stakeholder relationships



Comments on these arrangements raised some predictable issues. HIPPY Australia is ultimately responsible for programs operated by others in many sites, and has accountabilities to three other major stakeholders: HIPPY International, the Brotherhood of St Laurence and DEEWR. The complexity would be even greater if other stakeholders and/or funders, such as state governments, were included. The interests of stakeholders, either current or future, are not necessarily similar. A specific instance raised was the limitations of the original contract which left important funding gaps. Subsequent negotiations to address this have also resulted in heightened reporting requirements which are felt to be onerous for HIPPY's modest staffing infrastructure.

One might observe that similar comments are made by many organisations in receipt of government or other external funding, and that they often feel that the reported data seems to be little used by the funding body. At the same time governments may well both need and use the data in ways that funded agencies are not aware of. A friendly discussion of this matter between BSL, HIPPY Australia and DEEWR might lead to an arrangement that better meets the needs of all parties.

By itself this would not resolve a further issue which has been raised by some, which is whether governance arrangements would be improved if HIPPY Australia was an independent, stand-alone agency, presumably continuing to deliver programs under sub-licence with local service providers. It can be argued that there are both pros and cons of a move towards independence. It can also be noted that, whichever stakeholders are involved in future governance, there is potential for the development of innovative models of joined-up governance for HIPPY which could bring to the fore the strengths of all partner stakeholders. That said, these are issues which fall outside the scope of the current evaluation but are worthy of further discussion.

Line managers in partner organisations

Partner organisations are supported by the HIPPY Australia team who provide coordinator training, consultation advice and regular support and supervision. Funding covers the employment and training of a local program coordinator, home tutors, operating costs and the program materials.

Six managers in partner organisations were surveyed. Given the newness of the HIPPY rollout, those interviewed were relatively experienced, four having been with the program since the beginning and two for more than a year.

Responding line managers were clearly aware of the purpose of HIPPY and their own role. Five of the six said they were clear about decisions they were required to make, and all knew who to go to for decisions outside their direct responsibilities. All felt that appropriate policies to support HIPPY were in place and knew that their roles were documented. Five felt decision making was transparent; these people felt that decisions were consultative and/or explained. One felt that decisions were sometimes made and the reasons were not communicated. Accountability relationships raised no issues, although three managers suggested that reports they made to those they were accountable to were not useful.

Four suggestions were made on how governance arrangements could be improved. One person said more information on how other sites were going would be useful; a second suggested more notice of site visits by HIPPY Australia would be desirable; and a third suggested more timely receipt of reports on site visits. A fourth would prefer to receive funds for the number of children registered as of a certain date each year instead of receiving funds for a full group and then having to return any overpayment in the following year.

All respondents were clear on how tutors were recruited—that is, from families currently or previously enrolled in the program. There were three respondents who suggested that HIPPY did not reach all eligible families. They noted the mobility of families; small communities which made it hard to recruit the expected numbers; difficulties in reaching Indigenous families; and the protectiveness of some families who would not let outsiders in.

There were interesting variations in the different managers' descriptions of the families eligible for HIPPY. Eligible families were variously described as:

- Indigenous and non-English speaking families
- [families with] children aged 4
- children aged 4 to 5, especially from families with long-term unemployment
- disadvantaged families, isolated families, culturally and linguistically diverse families and refugees

- [families with] children aged 4 to 5, including those with complex learning needs but with learning capacity
- children having problems with development or learning, and families who need assistance in preparing their children for school readiness.

These characteristics are appropriate in themselves. Appropriate age aside, what is not clear from the responses is whether these characteristics are simply a reflection of local needs, or whether they are views on eligibility which influence selection of parents and children to the exclusion of others who might be eligible. This may not be the case, but warrants investigation to ensure it is not.

HIPPY coordinators

The HIPPY coordinators who completed the online survey were fairly experienced with HIPPY, three having been with the program since the beginning, five for over a year, and only one for less than a year. All had tertiary qualifications ranging from diplomas to masters degrees. All expressed a comprehensive understanding of the purpose of HIPPY and provided examples of how this informed their work. Roles and limits to decision-making were clear, as was who to consult to get a decision outside the coordinator's area of responsibility. Coordinators felt their roles and responsibilities were clearly documented and consistently referred to the coordinator's manual, together with other sources. They felt that the views of parents, tutors and children were taken into account, through such strategies as reports, surveys, group meetings and individual communication.

Eight of the nine respondents thought timely and reliable data was collected for decision-making. All nine said they used the data, for such purposes as to inform their practice, keep up with trends, inform parents, promote the program, and recruit participants. All were able to articulate HIPPY values, mentioning values such as trust, respect, valuing parents and parent strengths, diversity, self-esteem and social justice.

Eight of the nine respondents thought decision-making was transparent, referring to communication processes, consultation and clear explanations for decisions. The dissenter mentioned lack of consultation on the initial selection of sites, funding issues, insufficient training and lack of consultation generally. All respondents felt appropriate support policies were in place, specifying occupational health and safety policies and procedures, training, protection of privacy and performance appraisal. Eight of the nine indicated they had satisfactory support and training and that they could request training that they needed. All were clear on who they were accountable to and reported to, and for what. Four of the nine indicated they did not get feedback on their reports, but eight of the nine felt their reports were useful. In the earlier face-to-face interview, several respondents had mentioned that the content of communications with HIPPY Australia was not always clear.

Three coordinator respondents felt there could be changes to HIPPY governance arrangements. One mentioned more timely feedback on reports. Another suggested quarterly site reflection visits by HIPPY Australia. The other respondents indicated satisfaction with current arrangements. Interestingly, in the earlier face-to-face survey one respondent mentioned isolation and distance from the partner agency as a limitation in available support. This may well be a factor to consider when selecting partner agencies. One coordinator indicated that due to the particular characteristics of HIPPY such as home visits, additional attention could be given to the development of policies, procedures, and advice on how to operate in this environment.

Only two of the nine coordinator respondents said HIPPY reached all eligible families, citing the difficulty in reaching and attracting isolated families; local services which might not be well connected to children and families; difficulty recruiting Indigenous tutors; and rigidity in the geographic boundaries of the program sites.

Summary and conclusion

In general HIPPY's governance arrangements appear to be in a satisfactory state. Understanding of HIPPY and its purposes and values is widespread and reflected in practice; accountability structures and requirements and processes are clear, as are roles and responsibilities; data is collected and routinely used for appropriate purposes; decision-making is clear and transparent; communication about decisions is open; support policies and processes are in place, including training; tutors are recruited appropriately.

There are a few exceptions to these general conclusions and these have been noted above. It is not possible from the available data to conclude whether the issues are specific to individuals or sites, or what the reasons for them might be. In a highly complex management environment such as that in which HIPPY operates, perfection in such matters is difficult to achieve. Nevertheless, the exceptions warrant consideration to see how communication, support and transparency can be improved. The most frequently reported perceived gap related to responsiveness to reports from coordinators and partner agencies. Noted earlier too was the comment raised by HIPPY Australia staff about its complex reporting requirements. Doubtless there is room for consideration of what HIPPY Australia requires in this regard as well as what is required of it.

Regarding the comment that quarterly site visits be made by key stakeholders to each site, it is easy to dismiss such a suggestion as impractical due to time and cost, and it was raised by only one interviewee. Nevertheless it is a comment on the isolation which may be also felt in other sites, as suggested by the comment of one coordinator about the distance between the site and the partner organisation. Given the greater availability of modern communication tools (for example Skype), it may be possible to partly fill the need expressed by relatively cost-efficient means.

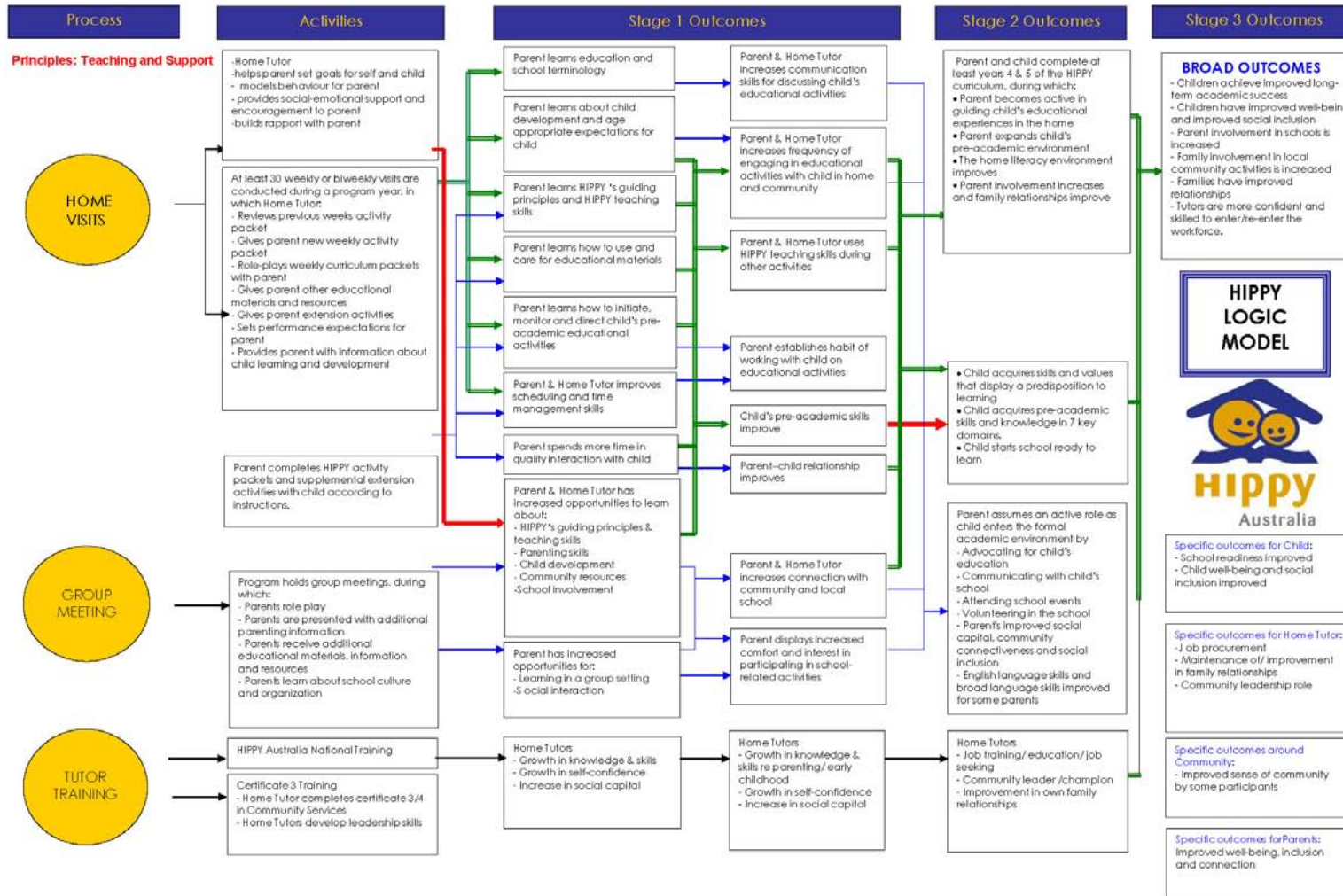
An issue to emerge from the feedback from respondents was how disadvantage was defined and interpreted in different sites. If this is indeed the case then it may not be a problem; disadvantage may well assume different dimensions in different communities and it may well be appropriate for the characteristics of the HIPPY cohort to vary between sites. However, responses might indicate that sites actually select on the basis of apparently varied and arbitrarily determined characteristics of family disadvantage, which is not the policy intention. This matter should be investigated further. If there is divergence which can be justified this is an important piece of learning. However, diversity, if it exists, needs a rationale. If there is no clear rationale then the achievement of the program's aim to reach families with children at risk of developmental delay is in danger of being compromised.

A further issue raised is whether the functioning of the Advisory Committee could be improved by a tighter and more defined agenda. This is a matter for consideration and resolution by the committee.

Another matter was the question of HIPPY Australia's highly complex accountability requirements and whether HIPPY Australia requires an independent status. This evaluation has revealed that current governance arrangements are working well, but consideration of alternative innovative models of governance is worthy of further exploration.

However we did note earlier the complexity of the matrix under which the Advisory Committee, HIPPY Australia and the evaluation itself operate. Such structures are creative and positive but they do require management strategies which ensure the needs of all partners are kept in balance. Identifying the advantages and limitations of matrix models may assist stakeholders to address and resolve issues they may encounter.

Appendix A: Program logic for HIPPY



Appendix B: HIPPY sites funded as part of the national rollout of HIPPY

State	Location	Partner agency
ACT	HIPPY Charnwood	Kippax UnitingCare
NSW	HIPPY Ashmont	Anglicare
NSW	HIPPY Bidwill	UnitingCare Burnside
NSW	HIPPY Bowenfels (Lithgow)	Centacare Bathurst
NSW	HIPPY Cabramatta	Learning Links
NSW	HIPPY Claymore (Campbelltown)	Macarthur Diversity Services
NSW	HIPPY Fairfield	Uniting Care Burnside
NSW	HIPPY La Perouse	Eastern Zone Gujaga Aboriginal Corp
NSW	HIPPY North Dubbo	Centacare Wilcannia-Forbes
NSW	HIPPY Nowra	Nowra Family Support Services
NSW	HIPPY Riverwood	Learning Links
NSW	HIPPY Warrawong (Port Kembla)	Barnardos Australia
NSW	HIPPY West Tamworth	Tamworth Family Support Services
NSW	HIPPY Windale (Newcastle)	JobQuest
NT	HIPPY Alice Springs	Yipirinya
NT	HIPPY Katherine	Anglicare NT
QLD	HIPPY Caboolture	Australian Red Cross Society
QLD	HIPPY Inala	South Brisbane Division of General Practice
QLD	HIPPY Logan Central	Kingston East Neighbourhood Group
QLD	HIPPY Manooora	Playgroup Queensland
QLD	HIPPY Mount Morgan	Australian Red Cross Society
QLD	HIPPY Pioneer (Mt Isa)	Centacare Townsville
QLD	HIPPY Riverview	Playgroup Queensland
QLD	HIPPY West Ipswich	Australian Red Cross Society
SA	HIPPY Davoren Park	Novita Children's Services
SA	HIPPY Elizabeth Grove	Anglicare South Australia
SA	HIPPY Mansfield Park	Novita Children's Services
SA	HIPPY Salisbury North	Novita Children's Services
SA	HIPPY Whyalla Stuart	UnitingCare Wesley Port Pirie
TAS	HIPPY Burnie	Rural Health Tasmania Inc
TAS	HIPPY Clarendon Vale (Hobart)	Colony 47
TAS	HIPPY Launceston	Anglicare
TAS	HIPPY Sheffield	Kentish Regional Clinic
TAS	HIPPY Smithton	Rural Health Tasmania Inc
TAS	HIPPY West Coast /Rosebery	Rural Health Tasmania Inc
VIC	HIPPY Braybrook	Western Region Health
VIC	HIPPY Colac	Glastonbury Child & Family Services
VIC	HIPPY Dallas/Broadmeadows	Brotherhood of St Laurence
VIC	HIPPY Dandenong	South Eastern Region MRC
VIC	HIPPY Fitzroy	Brotherhood of St Laurence
VIC	HIPPY Frankston North	Brotherhood of St Laurence
VIC	HIPPY Geelong	Glastonbury Child & Family Services
VIC	HIPPY Long Gully / California Gully	St Luke's Anglicare Ltd
VIC	HIPPY Moonee Valley	Brotherhood of St Laurence
VIC	HIPPY Moreland	Merri Community Health Services
VIC	HIPPY Robinvale	Robinvale District Health Services
VIC	HIPPY Winchelsea	Glastonbury Child & Family Services
WA	HIPPY East Geraldton	Child Australia
WA	HIPPY Girrawheen	Ngala Community Services
WA	HIPPY Rockingham	Ngala Community Services

Appendix C: Propensity score matching method

In brief, our approach to propensity score matching (see Chapter 3) included the following steps to obtain matched groups from the HIPPY sample and LSAC. We firstly filtered out LSAC cases if they did not match the HIPPY sites' location characteristics, such as size of community (small, medium or large), description of the suburb as either metropolitan or non-metropolitan and state or territory. Since there were no Victorian sites in the first wave of the national rollout of HIPPY, we filtered out any LSAC cases if they lived in Victoria.

We also eliminated cases from the HIPPY sample if the child's age did not fall within the age range of LSAC. This reduced the HIPPY sample size (for the sake of matching only) from 195 families to 110. We then chose 26 variables (see Table B.1) based on the site selection criteria used by DEEWR and HIPPY Australia, as well as personal and household socioeconomic and demographic characteristics known to impact on child school readiness (ARACY 2008).

We eliminated six variables (Round 1) either because they measured a similar characteristic to another variable or because the data was not reliable (for example, those with a high number of no responses). We then tested whether there was a significant difference between the HIPPY and LSAC groups on each of the remaining 20 variables. We found that the HIPPY and LSAC groups were not significantly different on the following six variables: percentage of children in the area under five years of age, gender of the parent, marital status, whether a language other than English (LOTE) was the main language spoken at home, sense of belonging to the community and gender of the child. As such, five of the variables were eliminated (Round 2) for use in the logistic regression model to obtain propensity scores for both HIPPY and LSAC cases. The percentage of children in the area under five years of age was retained as this was an actual sample selection criterion used for HIPPY.

After running the logistic regression with the 15 remaining variables, we found seven variables in the model were not having a significant impact³¹. We eliminated three of these variables (Round 3) but kept four in the final logistic regression model. The percentage of children in the area under five years of age was again retained for the reason already given. The hardship scale was retained because there was no other indicator of parent-reported household stress. Whether the parent was born in an English speaking country and the number of people living in the household were retained on the basis that they were instrumental in maintaining a slightly larger HIPPY group sample size.

Table C.1 lists the variables included and excluded from the final logistic regression model, which resulted in a total of 106 HIPPY participants and 2473 LSAC controls. This meant the study had sufficient power to detect a small impact of HIPPY (that is, the study had an 80 per cent chance of detecting an effect size of $D = .35$; and a 68 per cent chance of detecting an effect size of $D = .30$).

³¹ Were not significant at changing the regression coefficient.

Table C.1 Propensity score matching—included and excluded variables

Included variables	Before PS	After PS
Location (metropolitan/non-metropolitan; large/small)	$p < .001$	$p = .995$
SEIFA index score of relative disadvantage	$p < .001$	$p = .030$
% of people in the area <5 years of age	$p = .086$	$p = .363$
‘Who Am I?’ readiness for school score/classification, grouped according to developmental age	$p < .001$	$p = .202$
Aboriginal Australian/non-Aboriginal Australian	$p < .001$	$p = .734$
Number of people living in the household	$p = .001$	$p = .597$
Whether parent was born in an English-speaking country	$p < .001$	$p = .470$
Employment status of parent (usually the mother)	$p < .001$	$p = .073$
Financial hardship (scale)	$p < .001$	$p = .296$
Parent self-rating of overall health	$p = .001$	$p = .761$
Home activities scale	$p < .001$	$p = .378$
Parent’s highest level of education	$p < .001$	$p = .307$
Child’s developmental age	$p < .001$	$p = .733$

Excluded variables	Round no.	Before PS	After PS
Partner’s employment status	1		
Main source of income	1		
How well getting along, all things considered	1		
Psychological stress	1		
Parental warmth (scale)	1		
Whether child attending child care	1		
Parent gender	2	$p = .327$	$p = .245$
Parent marital status	2	$p = .100$	$p = .396$
Whether a language other than English (LOTE) was the main language spoken at home	2	$p = .128$	$p = .970$
Child gender	2	$p = .440$	$p = .223$
Sense of belonging to the community	2	$p = .927$	$p = .524$
Parent age	3	$p = .017$	$p = .548$
Difficulty of life (scale)	3	$p = .026$	$p = .825$

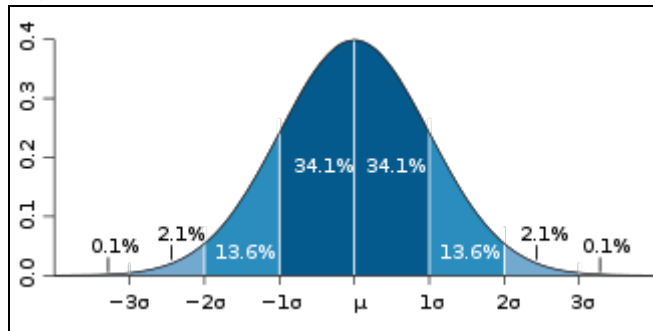
However, it should be noted that while the use of propensity score matching to obtain a comparison group is a useful and powerful tool, it does not provide, and was never meant to be, a silver bullet that replaces the value of, and need for, a randomised controlled trial. As Dehejia (2005, p. 358) states, with regard to propensity score matching ‘essentially one searches for a specification that balances the pre-program covariates between the treatment and comparison groups conditional on the propensity score’. In this study, we were not able to balance all covariates, and it is likely also that the unobserved covariates were unbalanced. It is reasonable that a differently specified model would yield different matched comparison groups, and a different balance/imbalance of covariates and estimates of program effects. The study would therefore benefit from further testing of the propensity score model or, as Dehejia (2005, p. 355) would suggest, an examination of ‘the sensitivity of the estimated treatment effect to small changes in the propensity score specification; which can be a useful diagnostic on the quality of the comparison group’.

Appendix D: Reading the statistics

Readers who are familiar with statistics will most likely understand the statistics shown in this report. For those who are less familiar with statistics we provide this information which will aid interpretation of the reported statistics and some of the graphs.

In this report we describe the size of the effect or impact of HIPPY in terms of either a *standard deviation* difference between the means of two groups or an *odds ratio*. The first measure, known as a Cohen's *d*, is a standardised way of expressing the size of an effect when answers from research participants in two or more groups are distributed differently across a scale, and also when different scales have been used for different questions. In all cases, one standard deviation (denoted by the Greek letter σ) either side of the mean (μ) encompasses 68.2 per cent of participants' responses (see Figure D.1). Two standard deviations either side of the mean includes 95.4 per cent of all responses. Cohen's *d* is the difference between the means of two groups expressed in terms of a standard deviation. The rule of thumb is that a difference of 0.2 of a standard deviation is considered as small, 0.5 as a medium difference, and 0.8 as a large difference.

Figure D.1 Standard deviations either side of a mean



An odds ratio is also a standardised way of expressing results, but is used for different types of questions: ones that are either binary (yes/no) or ordinal (e.g. strongly agree, agree, somewhat agree, disagree, strongly disagree). It expresses the likelihood of a group being different from another (e.g. either better or worse). An odds ratio of 1 means the groups are equal and not likely to be different in either direction. Odds ratios larger than 1 mean that the group being tested is more likely to score differently (let's say in this case better) than the other/reference group, while odds ratios less than 1 mean that the group being tested is less likely to better. For example, an odds ratio of 1.6 means that the group being tested is 60 per cent *more* likely to score differently (in this case better) than the other/reference group.

Remembering that the reference point for odds ratios is 1 (no difference), values can range from 0 through 1 to infinity. An odds ratio of 0.4 means that the group being tested is 60 per cent *less* likely to (in this case) score better. An odds ratio of 0.25 means that the group being tested is 75 per cent less likely to score better in this case.

Because there is a big difference in the range of possible values of the odds ratio either side of 1 (0 to 1, compared to 1 to infinity) when we graphically represent odds ratios we calculate and show the natural log of the odds ratio so as to visually adjust for the difference in the size of the ranges either side of one. This is why the scale and values in the graphs of odds ratios are different from those reported in the text.

When we have reported significant findings in the text we have often also reported p values. The p value indicates how confident we can be that the result was not due to chance. By convention results are considered statistically significant if p is at or below .05, and more significant the further below .05 the p value is. A value of $p < .05$ means that there is less than a 5 per cent probability that the difference occurred by chance or natural variance. Similarly, a $p < .01$ tells us there is less than a 1 per cent probability that the difference occurred by chance or natural variance which means we can be more confident in the result and it is more statistically significant.

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