

Early Home Learning Study: Overview and outcomes

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Final Report to the Victorian Government Department of Education and
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Parenting Research Centre
raising children well

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Executive summary

Introduction

This report presents findings from the Early Home Learning Study (EHLS), a cluster randomised controlled trial (RCT) conducted by the Parenting Research Centre (PRC) between 2009 and 2012. The study was commissioned by the Department of Education and Early Childhood Development (DEECD) in recognition that children from families experiencing high levels of disadvantage are vulnerable to poorer developmental outcomes in the early years of life, particularly in relation to language and communication skills.

To improve support for these children, the PRC was engaged to design, implement and evaluate a program to enhance children's early learning at home, with an emphasis on parenting and children's language and communication skills. The EHLS had three broad goals:

1. To improve the early learning and development foundations of babies (6 to 12 months) and toddlers (12 to 36 months) in vulnerable circumstances in up to 2,000 families.
2. To build the capacity of the existing Victorian service system to support parents in creating positive home learning experiences for their children.
3. In the Victorian context, to develop scientific knowledge of how best to support parents to create enriched home learning environments in the early years.

The '*smalltalk*' programs were community-based programs designed for parents experiencing vulnerable circumstances with children aged 6 months to 3 years. To ensure acceptability and accessibility, and for ease of implementation, *smalltalk* was developed for two existing service platforms:

- a six-week parenting group program delivered in the Maternal and Child Health (MCH) platform for parents of children aged 6 to 12 months, and
- a ten-week playgroup and parenting program delivered through the supported playgroup (SPG) platform for parents of children aged 12 to 36 months.

Two models of intervention intensity were trialled in each platform: the parent group or supported playgroup alone ('*smalltalk*') or the parent group/supported playgroup supplemented by an additional six home-based, individual coaching sessions ('*smalltalk plus*').

The *smalltalk* programs

Best practice program design principles were used to develop smalltalk. Program design was informed by relevant research, theory, and practice-based evidence. Content addressed five aspects of parenting and family functioning known to directly or indirectly impact on children's early language and communication skills development:

- enhancing quality everyday interactions;
- providing a stimulating environment;
- enhancing parental self-care;
- strengthening parenting confidence; and
- building parental connectedness to the community and services.

Practice skills employed by group facilitators and home coaches included providing verbal and written information, live and filmed modelling, coaching with prompting, filmed practice and feedback, and encouragement for parents to develop action plans for applying new skills.

To ensure a good 'fit' with the service platforms, staff and targeted families, several stages of development were undertaken, commencing with consultative forums with MCH and SPG practitioners, service coordinators and managers. The key parenting strategies, program resources, and mode of delivery were developed over a six month period through weekly consultations with the parents and facilitators of two existing supported playgroups in different areas of Melbourne. Further refinement was undertaken through a field trial conducted with existing supported playgroups and MCH parent groups in four local government areas. Finally, a professional public relations company was engaged to ensure the design of the *smalltalk* brand and visual identity was appealing, non-stigmatising and encapsulated the essence of the program.

Trial methodology

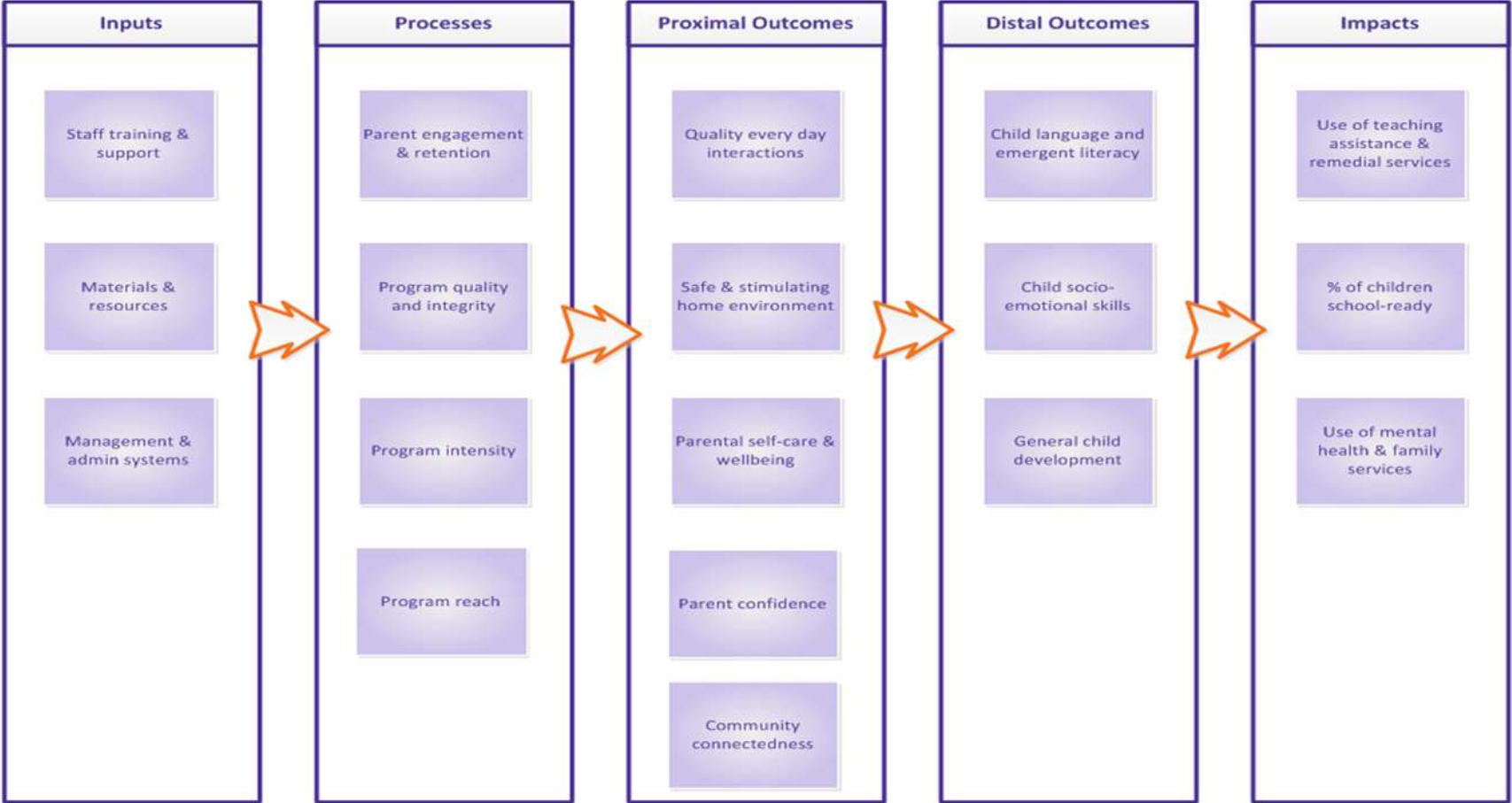
A rigorous research design was successfully implemented in a 'real world' setting. A cluster randomised controlled trial design was employed to determine the efficacy of the *smalltalk* programs in supporting parents to improve their child's early learning and development foundations. The EHLS trial compared parent and child outcomes for families receiving *smalltalk* programs, with and without home coaching, to those receiving a standard (usual practice) program.

Twenty study sites were engaged across 22 local government areas, to participate in the EHLS: 15 local government and 5 community service organisations. Sites' eligibility to participate was assessed based on the level of socioeconomic disadvantage in their community, and their demonstrated capacity to work collaboratively with other agencies and to set up and recruit families to the group programs. Ten sites ran programs within the MCH platform (for parents with babies aged 6 to 12 months) and 10 through the SPG platform (for parents with toddlers aged 12 to 36 months).

Three hundred and eighty nine programs were run for 1890 families in 101 localities (clusters), across the 20 sites with each locality randomly assigned to one of the three program types: standard, *smalltalk* or *smalltalk plus* (which included home coaching). Programs were offered free of charge to families who met at least one of the criteria for vulnerability (social risk factors such as: young parent, single parent, low income, low parenting self-efficacy, parent psychological distress). Based on pre-specified geographical boundaries for each locality, parents' residential addresses determined which version of the program they were offered (standard, *smalltalk* or *smalltalk plus*).

Evaluation was guided by the smalltalk program logic model (see Figure 1). Multiple aspects of program development, implementation and efficacy were assessed using a mixture of qualitative and quantitative methods. Program inputs (e.g., resources and supports), and processes (e.g., program quality and participant engagement) were assessed via administrative records, staff training evaluations and practitioner ratings completed at the end of each program session.

Figure 1 Program logic for the *smalltalk* program



Proximal outcomes (the parent and home factors directly targeted by the program), and distal outcomes (child early learning and development) were assessed for each participating family at three time points – baseline (pre), on program completion (post), and 4 to 5 months following completion of the program (follow-up). At each time point, parent-report measures were collected via computer assisted telephone interviews, and direct observations of parent-child interactions and child communication were filmed in the home setting. Parents received a voucher and a book for completion of each phase of data collection.

Participating parents and children

Study participants were 2,228 parents with children aged 6 to 36 months: 1,002 parents participated in the MCH platform and 1,226 parents in the SPG platform. In the MCH platform, babies were an average age of 8 months. Parents were mostly biological mothers (99%), with an average age of 31 years, and more than half were full time at home (59%). Thirteen per cent were single parents and 14% were born outside Australia.

In the SPG platform, toddlers were an average age of 22 months. Parents were also mostly biological mothers (96%), with an average age of 33 years, and nearly two-thirds were full time at home (63%). Eleven per cent were single parents and one-third (32%) were born outside Australia.

Across the two platforms, very few participating parents (around 1%) or children (about 2%) identified as Indigenous. Around 5% came from households where there was no parent in paid employment, and around 20% had a very low income or received their main income from government benefits.

Participant retention across the three study time points (pre, post, and follow-up) was exceptional: in the MCH and SPG platforms of those who expressed interest, 85% and 83% respectively were eligible and participated in data collection at pre, 82% and 85% were retained from pre to post assessment, and 77% and 79% were retained from pre to follow-up assessment. Participants who were lost to follow-up differed from those retained in the study on a number of child and parent characteristics. These characteristics were controlled for in the analyses to reduce bias arising from study attrition.

Site establishment

Sites (local government and community service organisations) were funded to run the study. Each site employed a site coordinator (funded by the study) who was responsible for parent recruitment, venues, and the appointment and management of group facilitators and home coaches. Sites received service brokerage payments for groups attended by a pre-specified minimum number of families and for each family that received home coaching. The PRC provided initial training and post-training support to coordinators, facilitators, and home coaches.

There was considerable variation between sites in their ability to quickly and efficiently set up their sites, establish parent recruitment processes, and commence groups. Many opted for a graduated start. The majority of sites commenced service delivery in Term 1, 2011 with the others following thereafter.

smalltalk is a low cost intervention. Costs per participant varied by platform. Per participant costs of running standard groups were \$966 for the 6-week MCH program and \$1,333 for the 10

week SPG program¹. In comparison, the cost of providing parent groups and playgroups with *smalltalk* content was 6% to 7% higher per participant than standard groups. *smalltalk plus* programs included up to six in-home coaching sessions for each participant, and incurred a 69% to 89% higher per-participant cost compared to standard.

Workforce and practitioner training

The PRC trained 114 staff during the study period. While there was variation in the previous experience of staff, the average length of time working in early childhood or community services was 14 years and most held qualifications in early childhood, health or education. The average age was 42 years. Only one staff member was male, two were from an Indigenous background, and 15 spoke a second language other than English. A higher proportion of MCH staff had previously delivered parenting group programs (72%) and/or playgroups (64%) than SPG staff (25% and 46% respectively). Staff employed in rural sites were more likely than metropolitan staff to have prior experience in conducting parenting group programs (59% vs. 39%).

Staff perceptions of training were positive. Staff attended training according to their roles and the platform of service delivery. Practitioners rated their satisfaction with the training highly in terms of quality and helpfulness. After training, average practitioner self-ratings for their level of confidence in communicating the strategies to parents, and preparedness to implement *smalltalk* were in the moderate to high range, and staff perceived little anticipated difficulty in implementing the program. Post-training support was provided by the PRC via email, text, and phone for any issues that arose, but this was seldom accessed.

Process evaluation

Understanding how well a program has been implemented – whether it was delivered as intended and how well it was delivered – and the experiences of the families attending the program, are important first steps in interpreting program efficacy. Aspects of the processes evaluated in the EHLS were program reach (i.e., the extent to which the program reached the families it was designed for), parent engagement in the program, program fidelity, and parent satisfaction.

***smalltalk* successfully reached the families it was intended for.** A central aim of the EHLS was to design a program for families experiencing vulnerable circumstances. Baseline demographic data indicated that the recruitment strategies were successful in reaching families displaying risk factors for poor child developmental outcomes. Eighty-four per cent of participating families displayed one or more of the targeted risk factors: young parent, single parent, language other than English spoken at home, low parental education, low family income, receipt of government benefits, low parenting self-efficacy, or parent psychological distress. Sites were also successful in attracting families experiencing multiple challenges: over half the families reported two or more risk factors and approximately 20% reported four or more risk factors.

¹ Costs include service brokerage (site coordination, group and home coach sessions), participant payments (vouchers and books), PRC program administration (marketing and promotional materials, production and distribution of staff and participant resources), and training.

Parent engagement in smalltalk was high. Of the 2,228 parents who were eligible to participate in the study and completed a pre-assessment, 1890 (85%) went on to attend groups. Across all three program types (standard, *smalltalk* and *smalltalk plus*), group attendance was high with parents attending an average of 59% to 64% of available sessions. Very high levels of attendance were also observed for home coaching – with parents from the *smalltalk plus* condition attending an average of 78% to 81% of available sessions, and 67% receiving all six home coaching sessions.

***smalltalk* was delivered to families with fidelity.** Program fidelity was assessed in terms of the delivery of intended program content and the use of the *smalltalk* strategies by parents. According to facilitator records completed at the end of each group session, each *smalltalk* strategy was discussed with 74% to 90% of parents attending *smalltalk* and *smalltalk plus* groups, with greater coverage of the strategies presented earlier in the program. Almost all families who received home coaching covered all strategies. Parents were also highly likely to use the strategies they had learnt in groups. Facilitators recorded observing 90% of *smalltalk* and *smalltalk plus* families practicing at least one of the strategies in the group sessions and 74% of parents reported using the strategies at home.

Parents were highly satisfied with smalltalk. Parent satisfaction with the programs across all conditions was extremely high, with the majority of parents either ‘satisfied’ or ‘very satisfied’ with the program (95%), their facilitator (97%) and their home coach (98% of those in *smalltalk plus*), with significantly higher satisfaction levels reported for *smalltalk plus*. Across all conditions including the standard condition, the majority of facilitators and parents reported that the program had impacted positively on parent knowledge, skills and behaviour. However, they were significantly more likely to report positive impacts for the *smalltalk* and *smalltalk plus* conditions than for the standard condition.

Learnings from implementation

Organisations’ decisions to participate in the EHLS were influenced by organisational ‘fit’ and workforce issues. The EHLS provided an important opportunity to identify systemic and operational factors that affected program uptake and implementation. Reasons that were given by organisations that chose not to participate included poor perceived fit with existing strategic directions and financial risks associated with staffing and participation-linked payments. The process of reaching a decision about study participation was often a lengthy one and tied to financial planning periods, particularly for local government organisations.

Staffing and workforce issues presented a range of challenges in relation to the availability of suitably qualified staff (a particular problem in rural areas), the fit of the funding model to workplace policies on use of permanent part-time versus casual staff, and the challenge of scheduling practitioner training and support for a part-time or casualised workforce.

Sites managed the logistic and methodological complexities of the study exceptionally well. The PRC’s ability to provide sites with intensive, flexible, and responsive support was an important factor in the effective implementation of the study.

Outcomes

The efficacy of the *smalltalk* program was examined in each platform (MCH and SPG) by comparing parent-reported and observational (direct assessment) outcomes from pre to post and from pre to follow-up for participants receiving standard, *smalltalk* and *smalltalk plus*

programs. While observational data were collected from the majority of participating families, these are costly and time consuming to code. A representative sample of 600 observations (200 families at pre, post and follow-up) were selected for coding. On average, parents in all three program conditions reported positive improvements in their own functioning, the home environment, the quality of observed parent-child interactions, and their child’s developmental outcomes.

In the MCH platform parents in smalltalk plus showed the greatest improvements in the short term. Across a broad range of outcomes *smalltalk* and *smalltalk plus* programs were more efficacious than standard programs as summarised in Table 1. Over 30% of parents reported reliable change (i.e., change that could not be attributed to measurement error or chance) from pre to post assessment, and almost 40% reported reliable change from pre to follow-up. The proportion of parents showing reliable improvements was highest in the *smalltalk plus* condition from pre to post, and while this trend continued to follow-up, the size of differences between groups was not maintained.

Table 1 Summary of parent-reported and observed outcomes for the MCH platform

| Pre to Post | | | | |
|------------------------------|--------------------|-------------------------|----|--|
| <i>smalltalk plus</i> | improved more than | MCH standard | on | <u>Parent-reported:</u> ✓ parental verbal responsiveness ✓ home activities with child ✓ home literacy environment ✓ child communication skills ✓ child fine motor skills <u>Directly observed:</u> ✓ carer descriptive language ✓ follows child’s lead ✓ child sustained engagement |
| <i>smalltalk plus</i> | improved more than | <i>smalltalk</i> | on | <u>Parent-reported:</u> ✓ parenting warmth ✓ parenting irritability ✓ home activities with child ✓ parenting confidence |
| <i>smalltalk</i> | improved more than | MCH standard | on | <u>Directly observed:</u> ✓ child sustained engagement |
| MCH standard | improved more than | <i>smalltalk</i> | on | <u>Parent-reported:</u> ✓ parenting confidence |
| Pre to Follow up | | | | |
| <i>smalltalk plus</i> | improved more than | <i>smalltalk</i> | on | <u>Parent-reported:</u> ✓ parenting warmth |

In the SPG platform parents in smalltalk and smalltalk plus programs showed greater improvements in both the short and longer terms than parents in SPG standard programs (see Table 2). Almost one quarter of parents reported reliable change from pre to post assessment. This rate dropped slightly for standard parents at follow-up but showed further improvement for families in the *smalltalk* conditions. The proportion of parents showing reliable improvements was highest in the *smalltalk plus* condition at follow-up, and this was significantly greater than for parents in the standard condition.

Table 2 Summary of parent-reported and observed outcomes for the SPG platform

| Pre to Post | | | |
|-----------------------|--------------------|-----------------------|--|
| <i>smalltalk plus</i> | improved more than | SPG standard | on <u>Parent-reported:</u> ✓ home activities with child <u>Directly observed:</u> ✓ carer descriptive language ✓ overall 'carer facilitator' behaviour |
| <i>smalltalk plus</i> | improved more than | <i>smalltalk</i> | on <u>Directly observed:</u> ✓ carer descriptive language ✓ follows child's lead ✓ maintains/extends child's interest ✓ overall 'carer facilitator' behaviour ✓ child sustained engagement |
| <i>smalltalk</i> | improved more than | SPG standard | on <u>Parent-reported:</u> ✓ child fine motor skills |
| <i>smalltalk</i> | improved more than | <i>smalltalk plus</i> | <u>Parent-reported:</u> ✓ child language |
| Pre to Follow up | | | |
| <i>smalltalk plus</i> | improved more than | SPG standard | on <u>Parent-reported:</u> ✓ child personal-social skills <u>Directly observed:</u> ✓ maintains/extends child's interest ✓ overall 'carer facilitator' behaviour |
| <i>smalltalk plus</i> | improved more than | <i>smalltalk</i> | on <u>Directly observed:</u> ✓ maintains/extends child's interest ✓ overall 'carer facilitator' behaviour |
| <i>smalltalk</i> | improved more than | SPG standard | on <u>Parent-reported</u> ✓ home activities with child |

Around 1 in 5 families required home coaching (i.e. the plus condition) to gain benefits from *smalltalk*. Across both the MCH and SPG platforms, 18% of families were more likely to achieve reliable improvements in parent-reported outcomes when receiving the more intensive *smalltalk plus* program (group plus home coaching) as opposed to the less intensive *smalltalk* program (group only). Specifically those who at entry to the program were characterised by multiple social risk factors (social risk factors such as: young parent, single parent, low education, low income, receipt of government benefits) and/or a low number of books in the home, were more likely to report reliable change from pre to post if they received *smalltalk plus*, rather than *smalltalk* alone.

Conclusions and recommendations

There are enhanced benefits to vulnerable families from *smalltalk* participation. Compared to participants in the standard programs, *smalltalk* participants showed significantly greater improvements in parent-child interactions and the home learning environment. A modest and reliable impact was achieved through the *smalltalk* and *smalltalk plus* programs over and above the benefits observed in standard MCH parent groups and standard supported playgroups. The evaluation employed a cluster RCT, the accepted gold-standard design for community-based evaluations.

Early intervention through the MCH platform (particularly the intensive plus program) was associated with the strongest short term impacts over and above those observed in MCH standard groups.

In the SPG platform *smalltalk* and *smalltalk plus* were associated with positive outcomes both in the short and longer term, over and above those observed in the standard groups. These positive changes were seen in both parent reported variables and directly observed behaviours, with some outcomes being sustained from pre to follow-up and others emerging at follow-up.

Around 20% of families are most likely to benefit from home coaching. Around 20% of families, who at entry to the program were characterised by multiple social risk factors and/or a low number of books in the home, are more likely to achieve reliable improvements in parent reported outcomes when receiving the more intensive *smalltalk plus* program as opposed to less intensive *smalltalk* group program alone.

High quality service delivery for vulnerable families and an RCT research design, while complex, can co-exist effectively. The EHLS was a complex undertaking that involved the implementation of multiple program formats (standard, *smalltalk*, *smalltalk plus*) allocated according to a complex research design in a 'real world' setting. A major achievement was the EHLS's success in engaging over 2,000 families in 101 locations over a 21 month period within the allocated time and on budget.

The EHLS provided acceptable ways to recruit and maintain the engagement of families experiencing vulnerability in a short-term intervention. Methods of identification and recruitment to the programs were largely successful, with the majority of those participating reporting one or more of the targeted risk factors for poor child developmental outcomes.

smalltalk programs were engaging and attractive to parents, with high levels of attendance and outstanding rates of retention achieved.

A variety of structural and process factors contributed to the successful implementation of the EHLS. These included provision of the *smalltalk* programs through existing, well-regarded services, alignment with key strategic priorities of the government and by extension those of the service agencies, goals that were clearly linked to practices and outcomes, strong engagement of services and end-users in the development process, and an effective and responsive support role provided by the PRC as an intermediary agency between government and the services.

The smalltalk programs provide a model for how linked-up early childhood services can achieve coherence in the continuity of care across different sectors. Across the two platforms *smalltalk* provides a parent support program that addresses the same set of outcomes in a consistent manner, whilst tailored to each platform's service context. Ongoing *smalltalk* program provision in both platforms will provide a unique model of integrated service delivery approaches that are able to provide consistency of care as families progress through different service sectors.

The smalltalk programs enhance the engagement and outcomes of vulnerable families reached via universal services. The *smalltalk* programs were designed as a relatively 'light touch' approach suitable for delivery by a non-specialist workforce making them ideal for linkage to universal services. They offer an evidence-based method for expanding the capacity of universal services to provide additional supports to vulnerable families. *smalltalk's* ability to achieve a high level of parental engagement provides an acceptable, non-stigmatising experience for vulnerable families and a non-threatening entry point for greater engagement with other services. This may in turn reduce demand on tertiary services by effective early intervention and/or providing an alternative for families who require some, but not intensive, support. Moreover, while they need to be formally tested, the study's findings have identified some indicators that may assist universal services (e.g., MCH nurses) to effectively triage families into more or less intensive forms of *smalltalk*.

The EHLS demonstrates that is possible with a relatively light touch intervention to bring about positive changes to parenting behaviours and the early home learning environment, with benefits to children's developmental outcomes. From a policy and planning perspective, the results from the EHLS provide unique, high quality evidence for the effectiveness of this type of approach delivered under real-world service delivery conditions. In a context where the Australian policy focus has largely concentrated on early childhood education and care settings, this study reinforces the important contribution that can be achieved through other early childhood sector services, and justifies further investment in strategies targeting the early home learning environment.

smalltalk is largely implementation-ready. The *smalltalk* programs were developed in partnership with stakeholders and end users with particular attention to the service delivery characteristics of the MCH and SPG platforms. The current research revealed several areas that require additional consideration going forward. These include managing the disjunctions that can occur between the planning and financial cycles of local governments and agencies, improving the efficiency of training, supervision, and support to a workforce characterised by part-time employment and relatively high turnover, and seeking opportunities to develop connections and peer-support between *smalltalk* providers. Ultimately, the quality of any future scaling-up of the

smalltalk programs will require attention to the ecological fit of programs at the level of organisations and communities, with a role for implementation specialists to guide this process.

In conclusion, the *smalltalk* programs offer local government and community services agencies an effective, evidence-based approach to working with vulnerable families to enhance the early home learning environment and developmental outcome of young children. These programs have been designed flexibly to fit within the normal rhythm of service delivery in the maternal-child health and supported playgroups platforms, and delivery costs are comparable to existing services. High stakeholder engagement (from agencies, staff and parents) combined with evidence of effectiveness from a rigorous 'real world' trial confirms the potential of these programs to improve existing methods for addressing the needs of vulnerable families and children in Victoria.