



Through their lens

An inquiry into
non-parental education and
care of infants and toddlers

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Ahakoā he iti, he pounamu
All be it small, it is a treasure

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Front cover photo of Emilia and her nanny Hana used with permission.

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FOREWORD

Every year tens of thousands of parents of infants and toddlers in New Zealand consider when and how they might return to work and how the day-to-day care of their infants and toddlers might be organised while they are at work. Many of them make decisions to return to work and to use formal non-parental child care for at least part of the time. Parents are choosing to do this earlier in their infants' lives and for longer periods. Some do so before their children turn one year of age, many before they turn two.

The Children's Commissioner has a responsibility to inquire generally and report on any matter that relates to the welfare of children. We have chosen to inquire into non-parental education and care of infants and toddlers under two years of age for four reasons:

- The use made of formal non-parental care of under 2-year-olds is growing fast, and the change merits investigation of its impact on children's wellbeing
- There is considerable debate in the child development research literature on the impact of the use of childcare on infants and toddlers
- Parents need to make informed choices in their children's interests and this inquiry might assist in that
- Ministers, policy advisors, owners, providers and parents need to make decisions based on what is in the best interests of infants and toddlers.

The report is being made in an environment in which child care is receiving a great deal of attention. Amongst the features of the environment are:

- tighter fiscal policy and government decisions to contain the increases in expenditure on early childhood education and care
- change in some government policy settings away from progress to a fully qualified workforce and free universal provision for three and four-year-olds for 20

hours a week, towards lower levels of qualified staff and the 20 hours provision being highly subsidised rather than fully paid

- more focus on targeting government support for early childhood education and care to Māori, Pasifika and low income households with the aim of increasing availability and access
- considerable political debate over support for both child care and extending paid parental leave
- a government taskforce on issues of value, effectiveness, efficiency and changes that will improve returns without increasing expenditure
- a new focus on vulnerable children and likely consideration of the role of early childhood education and care in how to reduce vulnerability in the early years of life.

This inquiry has not set out to address the broader questions raised by the changes about goals and funding. Its focus has been the growing use of formal non-parental early childhood education and care by infants and toddlers under two years of age. Its perspective has been what is in those young users' best interests. This report is a contribution to decision-making about appropriate and quality early childhood services for under 2-year-olds. Its audience is Ministers, their advisors, owners, providers, professionals in early childhood education and care and to a lesser extent, parents.

This report is based on two main sources of information: the evidence available in government reports and surveys and the most relevant and up-to-date reports in what is a vast literature; and information from interviews with a wide range of professionals, providers, staff and parents. However, it does not claim to be a piece of social science research. The sample of parents and providers talked to has not been selected in a way that allows any claim to its being representative. The views of those we interviewed are their views and cannot be taken as representative of the views of all professionals or providers or parents.

The findings of our inquiry are set out in this report. We have taken a conservative approach to our conclusions and recommendations. The debate over the benefits

and risks of early childhood services for under 2-year-olds is a passionate one, as befits how we care for infants and toddlers. The debate has not always been characterised by the caution the evidence warrants. Ideological position-taking is too common.

We have framed a set of recommendations that are driven primarily by our assumption that the use of non-parental early childhood services for under 2-year-olds is likely to continue, that good quality services are not inimical to infants' and toddlers' best interests, but that the policy, training and practice settings to support it are a little underdeveloped. This is understandable. Policies, training and practice have for a long time been focused on three and four-year-olds, their cognitive development and school readiness.

I wish to thank all of those who contributed to the inquiry and report as researchers, advisors and participants. In particular I wish to acknowledge the knowledge, skill and commitment of Dr Janis Carroll-Lind, Principal Advisor on education matters in this Office, who led this inquiry, and wrote the report with me.

I hope the recommendations receive serious consideration. The thousands of infants and toddlers who use formal early childhood services every day deserve no less.

A handwritten signature in black ink, appearing to read 'John Angus', written in a cursive style.

Dr John Angus
Children's Commissioner

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GLOSSARY OF ABBREVIATIONS

ABL	Attachment-Based Learning
CoI	Centres of Innovation
DHB	District Health Board
ECE	Early Childhood Education
ECEC	Early Childhood Education and Care
ECS	Early Childhood Services
EPPE	Effective Provision of Pre-School Education
ERO	Education Review Office
HIPPY	Home Instruction Programme for Pre-school Youngsters
IMHAANZ	Infant Mental Health Association of Aotearoa New Zealand
IRD	Inland Revenue Department
MoE	Ministry of Education
NICHD	National Institute for Child Health and Development
NZCA	NZ Childcare Association
NZQA	New Zealand Qualifications Authority
OECD	Organisation for Economic Cooperation and Development
PAFT	Parents as First Teachers
PHAC	Public Health Advisory Committee
PIECCA	Pacific Islands Early Childhood Council of Aotearoa
PITC	Programme for Infant Toddler Care
RIE	Resources for Infant Educators
SKIP	Strategies with Kids - Information for Parents
TLRI	Teaching and Learning Research Initiative
UNCROC	United Nations Convention on the Rights of the Child
WINZ	Work and Income

EXECUTIVE SUMMARY

The Children's Commissioner has a statutory responsibility to be an independent advocate for children and to investigate matters affecting them. The infant and toddler age group currently has the fastest growing number of enrolments in formal non-parental early childhood services (ECS) in New Zealand. These increasing numbers warranted an inquiry into the impact on their well-being. The overall objective of this inquiry was to provide robust evidence-based information about the provision of formal ECS for under-2s, to analyse it from a child interest perspective, and to make recommendations on how it might be delivered in the best interests of infants and toddlers.

Introduction

The child's perspective underpins this report. Guided by the United Nations Convention on the Rights of the Child (UNCROC), and in particular, Article 3 (best interests of the child should be a primary consideration) and Article 18 (parents and the State have joint primary responsibility for raising the child), issues relating to formal education and care were examined through the lens of the best interests of infants and toddlers.

The specific aims of the inquiry were:

- To set out what is known of current patterns in the use of formal education and care services for infants and toddlers
- To provide information about the known impacts, benefits, and risks on the physical, cognitive, social, emotional health and well-being of infants who spend time in formal childcare settings
- To identify regulatory aspects of the early childhood sector that may have an impact on infants and toddlers
- To report on the quality and accessibility of information available to parents who are choosing when and how to use formal care services for their infants and toddlers
- To identify the key policy and practice issues that arise from the findings

- To make recommendations to Ministers, government departments and sector organisations.

The report primarily draws on current knowledge from existing sources of data and literature and the perceptions of the respondents who participated in the consultation process. Although the findings are not generalisable beyond the specific participants, a variety of perspectives was sought to capture the diversity of New Zealand's early childhood services and the discourses on it.

Consultation was undertaken with (1) parents of infants and toddlers attending formal early childhood services and representing all types of provision offered in New Zealand; (2) chief executives and presidents of early childhood organisations and associations; (3) government officials and policy makers; (4) providers of centre and home-based services; (5) health professionals; (6) centre directors, professional leaders, supervisors and managers; (7) early childhood teachers; (8) nannies and home-based educators; (9) early childhood union representatives; (10) early childhood initial teacher educators; and (11) academics and researchers in early childhood. In addition, observation visits were made to a variety of early childhood settings that provide for infants and toddlers.

Theoretical perspectives

The child's perspective underpins this inquiry into the education and care of infants and toddlers. The child's perspective directs adults' attention to understanding the issues from the viewpoint of infants and toddlers. Sociocultural theory clarifies the concept of infant-toddler agency and how they come to know about their world through their activities, in communication with others (Smith, 2001; Smith & Taylor, 2000). Guided by Articles 3 and 18 of UNCROC, theoretical influences informing the philosophy are given effect using a dual socialisation model (Sommer, in press) to describe the modern context of interactions in both home and childcare environments. A set of "child's questions" (Podmore, May, & Carr, 2001) provide a link to the early childhood curriculum. Contemporary theories about brain development and attachment, in particular, provide a theoretical basis in relation to child development for under-2s. In addition, the right to education framework with its 4-A scheme is used to inform findings on usage and practice.

Policy settings

Children are any country's most valuable resource. Governments therefore have a keen interest in ensuring that young children are well cared for. Government takes responsibility for aspects of care, to varying degrees. Education is one such aspect, and for much of New Zealand's history government has taken responsibility for its provision from the age of six years to some time in adolescence. The policies about education and care before the age of six have been a matter of much more debate, and, over recent years, change.

The policy positions of the previous government administration are under review, in part for their cost and growth path and in part for some of the positions taken on universality and knowledge and skills requirements. If New Zealand is entering a further period of review, then the particular interests of infants and toddlers, the fastest growing group of users, must be given weight.

Complexity and incoherence

The first and obvious point to make about the policy and regulatory settings is their complexity. There are several players within central government policy, a very diverse set of providers, and government inputs into the sector through a complicated interacting mix of licensing, regulation, monitoring and funding incentives. This complexity is compounded by a lack of coherence across related policies and regulatory regimes. Parental leave policy appears to be quite separate from early education and care policy, and public health issues are separate from issues of educational development.

Funding

The funding of support for the care of infants and toddlers mirrors these divisions. Government policy and legislative changes in recent years to support families with young children have included: childcare subsidies for parents of under-five-year-olds; job protection through the Parental Leave and Employment Protection Act 1987; paid parental leave under the Parental Leave and Employment Protection (Paid Parental Leave) Act 2002 (amended in 2004); tax credits towards the costs of raising children under the Working for Families package; and in 2007, 20 hours ECE funding of teacher-led education and care for three and four-year-olds.

Several aspects of the funding system merit comment from the perspective of infants and toddlers. The targeted support under Working for Families, and for those using the childcare subsidy, provide subsidies well into the middle-ranges of family incomes. Second, the paid parental leave provisions are limited and inflexible. Provisions in employment contracts may extend these provisions. Third, the subsidies for early childhood education and care costs paid to providers are not means tested and meet a considerable proportion of the actual costs (perhaps 50 percent) for six hours a day and 30 hours (5 days) a week. There is less flexibility around this funding than with the 20 hours highly subsidised regime for those over three years of age.

Policy settings in early childhood education and care provisions

The understandings and interpretations of policy positions specific to early childhood education and care on which the inquiry has been based are as follows:

- ECS are non compulsory but there has been a strategy by governments to increase participation of 3 and 4-year-olds to effect 100 percent
- The services are provided by non-government organisations; government policy is essentially agnostic to the nature of ownership and whether the provider is for profit or not
- In principle services are user pays but there is a very heavy government subsidy
- There is relatively extensive regulation but relatively light monitoring in respect of licensing and service quality
- There has been a strong commitment to services that contribute to the learning and development of three and four-year-olds.

Patterns of education and care

Early childhood is a growing sector, dominated by home-based and centre-based education and care services, with an increasingly younger set of users whose parents are relatively well off and can afford to pay the fees. Children are there for longer periods of the day and week. In some areas, demand for early childhood services far exceeds the supply and in other areas there is a low participation rate. Ownership is increasingly in the hands of individuals and companies who are there, amongst other things, to get a return on their investment. Significantly for this study,

the fastest areas of growth are home-based and centre-based education and care services for under two-year-olds.

Early childhood services are also changing their traditional types of provision to cater for the changing needs of their users. For example, some kindergartens have moved away from offering sessional services to providing all-day education and care. Kōhanga reo and Pasifika services that originally offered programmes aiming to grow the child's language and that of their parents, are now faced with the reality of needing to facilitate economic advancement by supporting mothers to study or work.

The shift towards ECS for under two-year-olds is a major change to the traditional patterns of education and care for three and four-year-olds. It reflects the demand for ECS to provide care while parents, usually mothers, return to paid work.

Not surprisingly, there are challenges. Evidence from this inquiry suggests that the provision of formal early childhood services for infants and toddlers is mixed in terms of the four "A"s of the availability, accessibility, adaptability, and acceptability of those services. While factors such as long waiting lists clearly influence access by infants and toddlers and their families, attendance is also dependent on the family's background, geographical location, and income.

Impacts, benefits, risks, and mitigations of formal early childhood services

Impacts

One conclusion of a review of the literature on the impacts of formal ECS on infants and toddlers is that impacts are complicated to assess, given the importance of variables such as the quality of education and care provided in the home environment, the quality of the ECS service, individual child characteristics and different patterns of usage of formal, informal and parental care.

One well-supported conclusion, however, is that much of the impact is small, in particular when compared with the impact of home circumstances. The quality of parenting matters much more for under 2-year-olds (and indeed for older children), than ECS provisions. This does not mean that the impact of ECS is unimportant; or that risks and their mitigation do not matter. What we have found is significant for

under 2-year-olds (and in particular for under 1-year-olds) in terms of impact, is duration in care, the numbers of carers and the standard of ECS provided.

Benefits

There are benefits of using ECS. It can allow for higher household incomes and this can materially benefit infants and toddlers. It can allow for parents' preferences about paid work and careers to be better fitted in with childcare responsibilities. It is likely that a happy rather than an unhappy parent benefits a child. These benefits have not been much researched or reported on in terms of direct benefit to the child.

The research literature confirms the benefits of formal early childhood education for three and four-year-olds and for children from disadvantaged families. However the evidence is not so clear for infants and toddlers except to demonstrate that "quality" is at the centre of all issues relating to the attendance of under-2s in formal ECS. In other words, whether the substitution of parental care for non-parental care results in an increase or decrease in child well-being depends on the quality of the care because high quality early childhood education and care is a key predictor for positive outcomes for young children.

Risks

Both the literature and the participants in this inquiry identified some risks in aspects of ECS for infants' and toddlers' optimal development. There is considerable debate about the degree of risk. Having said that, the inquiry has identified some risks that are well supported by the literature:

- Disrupted attachment as a result of long periods away from the primary family carer and/or disrupted attachment in formal ECS
- For under 1-year-olds, greater exposure to infection and subsequent illness at a time when immune and other response systems are underdeveloped.

These risks are heightened by long durations in non-parental care and low quality care. There is some evidence of risks of later behavioural problems from long duration in ECS at a young age but it is not as well established as those above. There has also been research into the risks of heightened levels of cortisol as a consequence of stressful ECS but the findings are varying and subject to much debate.

Mitigations

For infants and toddlers these findings suggest that what is in their best interests is:

- shorter rather than longer durations in ECS, in particular when they are under twelve months old
- higher quality ECS that pays good attention to the attachment and health risks and has settings, practices, and staff knowledge and skills consistent with reducing the risks.

Quality service provision matters. The quality of relationships can ameliorate the elevated risks around brain development and attachment. Mitigating the risk of attachment problems includes small group sizes, low staff/child ratios, the use of primary carers, and managed durations in care. Mitigating the health risk involves adequate space, a healthy physical environment, good practices and staff knowledge and access to advice. Paying attention to space requirements; adhering to safe and effective practices and routines; providing calm environments; nurturing sensitive, responsive and consistent relationships between infants and knowledgeable staff; obtaining health advice and strengthening monitoring regimes, are just some of the examples provided by participants on how to mitigate the risks for infants and toddlers in ECS.

Parental choice and decision-making

Most parents choose to re-enter the labour market because of the financial incentives of increasing the household income and to further their future career prospects. Many parents may not want to go back to work so soon after the birth of their baby but feel they have to in the interests of the family and their future. Childcare is viewed as a less than optimal consequence of the need to return to work.

This is not the perspective that derives from a child's interests framework or concepts of 'dual socialisation'. From those perspectives childcare is viewed not as a "necessary evil" but as an opportunity for a partnership between high quality ECS and parents in their infants' and toddlers' development.

A range of factors is at play in the choice of ECS. Parents of under-2s may choose a service provider that is open for longer periods of time or combine formal care

arrangements with informal care provided by extended family. Some families with a wide social network of friends in similar circumstances (for example, not working full-time) choose to share the care of their children, such as minding each other's children while the other works and vice versa. Others might want their child to be cared for by people from their own culture, such as in a kōhanga reo or Pasifika service with people speaking the same first language. Similarly, families of minority cultures might choose a more multicultural service in their belief that the staff and children will be better accepting of their child. Some may even seek out services that already have children attending who are from the same country as their family.

Many families in this inquiry considered their choice to be very constrained by factors other than their preference. Fees charged by service providers affect parental choice, as does the availability of places or the convenience of the location. Some parents were aware that in selecting one type of service provision they were trading off elements of quality over others. For example, parents choosing home-based education and care prioritised small group size over qualified teachers.

Whatever their reasons for choosing home-based or centre-based education and care, participating parents were comfortable with the choices they made. This finding is supported by earlier research studies. Holloway and Fuller (1992) wrote that while parents might be able to articulate problems within the state of childcare, they still tend to feel comfortable with their own arrangements.

Parental choice of childcare does not inevitably lead to high quality education and care, as defined by the research literature and the early childhood professionals in this inquiry. This is because many parents are not fully aware of the learning and developmental needs of their infants and of the importance of responsive relationships as a crucial aspect of quality.

Quality early childhood services for under-2s

While various interrelated factors contribute to quality practice, the literature and professionals' evidence was that the key elements of quality education and care for under-2s are: high adult to child ratios; small group sizes; staff education, qualifications and skills; positive, sensitive and responsive caregiving; superior physical environments with well-defined indoor and outdoor spaces; significant

parental involvement; attention to health and safety; and effective pedagogy via a socially, culturally and developmentally appropriate curriculum.

Parents' perceptions of quality education and care tended to be more basic, with an emphasis on physical surroundings and the quality of the emotional responses of the caregivers. There was recognition by the early childhood professionals, confirmed in the literature review, that structural and regulatory elements set up the conditions for quality practice, and that the quality of interactions between practitioners and individual infants and toddlers was crucial.

The participants in this inquiry reported examples of exceptional practices alongside examples of poor quality education and care. This is consistent with ERO reports. This report therefore sets out the concerns raised about quality and recommends that Ministers and their officials consider the adequacy of some current monitoring regimes.

Discussion

The findings of this inquiry need to be set in the wider context of issues of availability, access, acceptability, and adaptability. There are issues of availability that arise out of the distribution of early childhood services. There is an under-supply of centre-based services for infants and toddlers generally and especially in areas of low income households. Access to services is also limited by the cost of the service, and for some, a question of acceptability from a cultural perspective. The inquiry also found some inflexibility in service provision that reduced adaptability to infants' and parents' needs.

The discussion on impact, risk and benefits focuses on risks for infants and notes that while quality formal non-parental education and care is not harmful, and may benefit some children, there are risks to be managed. These risks are of exposure too early to infections and of disrupted attachment. These can be mitigated by managing durations in formal education and care at a very young age, good health practices, and relationships between carers and children well attuned to the individual child.

The key policy implications of the findings are in support of:

- Policies that support parental care in the first 12 months of life
- Policy settings that allow for flexible use of formal ECS for under-2s
- Policy and regulatory settings that support quality provisions
- Policies that support provisions of early childhood education and care services by a knowledgeable and skilled workforce

The key practice implications are supportive of:

- Quality education and care
- Practices that enhance responsive relationships
- Education and professional learning that increase knowledge about and skilled work with infants and toddlers
- Better management of the health-related interests of infants and toddlers

Conclusions

This inquiry has concluded that the interests of infants and toddlers could be better taken account of in the current policies, regulations, and practices around both support for parental care and support for non-parental education and care. While the inquiry did not find formal non-parental education and care was inimical to the interests of infants and toddlers, or find widespread and serious deficiencies in the quality of the formal non-parental care provided, this does not mean that change is not needed.

There is much to admire in early childhood policies, curriculum and practice for young children in New Zealand, including a strong emphasis on what is in children's interests. Overall, however, this report finds that greater emphasis needs to be given to the particular needs of infants and toddlers. There should be more support for parental care of those under 12 months, some tightening up of important quality standards in the provision of formal non-parental care for infants and toddlers, and greater attention to the knowledge and skills needed to work with under 2-year-olds in the education and professional learning of those who work with them.

These findings are made in a context in which many parents feel they do not have a choice about returning early to work, or that their choice is very constrained and determined by factors other than their preference. These findings should not be construed as a criticism of working mothers. Society has changed. Working mothers and consequently non-maternal childcare are part of this change. The inquiry on which this report is based has concluded that formal ECS should be seen as a contribution, in partnership with parents and often extended family members, to a child's learning and development.

As a signatory to UNCROC, New Zealand has a legal obligation to consider the best interests of children in its policies. If this is to be done well, some changes need to be made to the current set of policies, regulations and practices around support for parental and non-parental care of infants and toddlers. The recommendations in this report set out a pathway to achieve those changes.

Recommendations

This report recommends a review of the policy settings across paid parental leave provisions as well as childcare provisions. The aim of the review should be to make recommendations that will tip the incentives and supports towards parental and extended family care of very young infants.

A related area of change is to provide for greater flexibility in the provision of ECS, to meet the interests of infants and toddlers in part-time use of formal early childhood services. There is some evidence that the current set of policies, regulations and funding incentives are leading to rigidity in provision and less choice for parents rather than flexibility.

The second area of recommendations for change concerns quality. This is consistent with the conclusion of this report that the regulatory regime, the education and support services and the monitoring of practices for under 2-year-olds falls short of what is in their best interests. The regulatory regime has minimum standards that are too low; the infant and toddler content in teacher education programmes is too meagre; and this report confirms the more extensive ERO report that quality standards are too low in too many services.

This inquiry has not included the detailed work that would lead to specific and costed recommendations. That is the work of government's officials. However, taxpayers make a very large investment in the education and care of infants and toddlers, specifically through paid parental leave provisions and subsidies for early childhood education and care services. The most recent investments, valid enough in their own right, have gone to enhance services to three and four-year-olds. The main effects, it would seem, have been to reduce the fees to the existing user population and fund the higher costs of increasing the proportions of qualified teachers.

The government has already embarked on some re-prioritisation of that expenditure to meet goals of greater support for early childhood education and care for young children in low income, Māori and Pasifika households. Some of the recommendations made here have cost implications that could be met by further re-prioritisation in the interests of infants and toddlers.

The following recommendations are couched as proposals that current policy and regulatory settings, or current practices, be reviewed, or that new settings or practices be considered. The recommendations are addressed to the responsible Minister.

Policies that support parental care in the first 12 months of life

- 1 It is recommended that the Minister of Education and the Minister of Labour direct their officials, in consultation with other officials as appropriate, to:
 - review current policies for paid parental leave and funding of early childhood education and care to identify the balance of incentives provided for parental care and formal non-parental care
 - provide advice on increasing the quantum and flexibility of support for parental care
 - provide advice on the merits of having ECS funding attached to the individual child rather than tied to types of provision and paid to providers.

Policies, regulatory settings and funding structures that allow for flexible use of formal non-parental early childhood education and care services by infants and toddlers

- 2 It is recommended that the Minister of Education direct her officials to:
 - review policy, regulatory and funding settings for their impact on flexible provision of hours and days of attendance for infants and toddlers
 - provide advice on changes that would improve access to part-time and flexible education and care for infants and toddlers.

Policies and regulatory settings that support quality service provision for infants and toddlers

- 3 It is recommended that the Minister of Education note the conclusion of this report, that several regulated minimum standards are set too low in aspects of service quality that are important for infants and toddlers.
- 4 It is recommended that the Minister of Education direct her officials to provide advice on:
 - making a regulation that limits group size to no more than eight under two-year-olds for purposes of supporting responsive and stimulating interactions
 - reducing the regulated minimum ratio of adults to children for under two-year-olds from 1:5 to 1:3 in ECEC centres and from 1:4 to 1:3 for home-based educators caring for children where two are aged less than two years
 - increasing the regulated minimum space for under 2-year-olds from 2.5 m² to 3 m²
 - supporting ECS to give effect to the inclusion of quiet spaces in the design and layout of their premises and the provision of acoustic absorption materials, if necessary, to reduce noise levels that may negatively affect young children's learning and well-being.

Policies that support the provision of early childhood education and care services to infants and toddlers by a knowledgeable and skilled workforce

- 5 It is recommended that the Minister of Education direct her officials to:
- report on the extent to which services to infants and toddlers in licensed ECS are provided by qualified and registered teachers, and any trends that are occurring
 - provide advice on the extent to which changes are a consequence of the recent regulatory and funding changes and on any remedial changes that are necessary
 - provide advice on amending the regulations in mixed age settings to apply the minimum of 50 percent of qualified, knowledgeable, and skilled staff to service provision in the under-2 area.

Practices that enhance responsive education and care

- 6 It is recommended that the Minister of Education:
- note that the issues about quality of service reported by ERO in 2010 are confirmed in this inquiry
 - note that the relicensing process will not address these concerns for many infants and toddlers who will use services over the next three years
 - direct officials, in consultation with ERO, to advise how improvements to practice quality might be more quickly achieved.

Education and professional learning

- 7 It is recommended that the Minister of Education:
- note the role of education and professional learning in addressing quality issues for the learning and development of infants and toddlers

- encourage a focus on current and up-to-date professional learning in areas where it could make a contribution to infants and toddlers
 - reconsider the decision to cease practitioner research initiatives such as the Centres of Innovation that help to improve the quality of provision to under-2s
 - direct officials to provide advice on the merits of amending regulations to require qualified staff providing services to infants and toddlers to have obtained, or be obtaining, specific professional learning on working with under-2s
 - direct officials to review the regulations and funding settings of home-based educators with a view to enhancing the levels of knowledge and skills expected of these carers and levels of support provided by their employers.
- 8 It is recommended that the Minister of Education direct her officials to provide advice, in consultation with the New Zealand Teachers Council, on how to:
- encourage teacher education providers to review their initial teacher education programmes to ensure they provide adequate content specific to infants and toddlers
 - support teacher education providers to offer postgraduate papers and qualifications on infant-toddler specialisation.

Improved management of health interests of infants and toddler in formal education and care

- 9 It is recommended that the Minister of Education and Minister of Health direct their officials, in consultation with other agencies as appropriate, to:
- set up a process for health sector engagement in policy development, regulation and operational planning for formal non-parental ECS at national and regional levels
 - provide advice on the merits of allowing registered health professionals with appropriate qualifications to count as

additional qualified staff for the purposes of early childhood regulatory and funding requirements

- provide advice on ways to increase the engagement of primary health professionals in early childhood services
- review the adequacy of the monitoring regimes for health standards in formal non-parental education and care.

Information to support parents' decision-making

10 It is recommended that the Minister of Education direct her officials to:

- review the information for parents on the Ministry of Education website for early childhood to enhance the information for parents of infants and toddlers on the aspects of quality in ECS important to their child's stage of learning and development
- improve parents' access to information by making the Ministry of Education website resources and information about parents' choices and elements of quality in ECS more widely available through links to other websites (e.g., Department of Labour) and in community settings frequented by parents (e.g., Well-Child providers, Plunket, doctors' surgeries, public libraries).

SECTION 1: INTRODUCTION

The Children's Commissioner has a statutory responsibility to be an independent advocate for children and to investigate matters affecting them. One of the priorities for the Office of the Children's Commissioner in 2010 was to consider the provision of early childhood education and care for infants and toddlers from a perspective of children's interests. The project focused on the provision of licensed non-parental (formal) early childhood services (both centre-based and home-based) for children under two years of age.

Background

In New Zealand today most parents are working at least some hours per week in paid employment. The need for parents to find alternative care arrangements for their children while they work has facilitated the establishment of formal early childhood services to provide for the increased number of children requiring child care.

As part of this trend of increased participation in the labour market, there has been an increase in non-parental early childhood education and care for infants and toddlers aged under two years. In fact, this age group currently has the fastest growing number of enrolments in non-parental education and care services (MoE, 2010a). Some under 2-year-olds are attending formal early childhood services eight hours a day, five days a week.

A change of this magnitude merits investigation of its impact on children's well-being. The Office of the Children's Commissioner inquiry started with two questions:

1. What is in the best interests of children in the first two years of life?
2. What are the best ways to use formal education and care and the standards of provision that are in the best interests of infants and toddlers?

Some broader policy questions arise when considering the best interests of under 2-year-olds, such as:

1. All things being equal, what is the best way to bring up children in their first two years, and, in particular, the first year of life?
2. What then is in children's best interests?

3. What should the government be supporting?

Children's interests do not necessarily drive the current answers to questions one and three, at least not explicitly. Much of the policy discourse suggests that economic and women's freedom issues are the drivers for early childhood policies rather than considering the benefits to children. Changes in family and employment patterns have led to increasing numbers of under 2-year-olds being enrolled in formal education and care services due to both parents, or their sole parent, working or engaging in study outside the home.

How families combine working and caring for their young children is a complex issue and one that raises debate about the most effective way to give children the best start in life. Most often the debate focuses on whether helping families earn enough money to live free from poverty, or helping mothers (in particular) to realise their aspirations, is best for the children (Dex & Ward, 2007; Gentleman, 2010). To borrow the words of Sommer, Pramling Samuelsson, and Hundeide (2010) "whether caring for children in daycare is beneficial or not is to some degree ideologically loaded, and some may argue that the child's daycare socialization may be out of tune with the best interests of the child" (p. 15).

This report does not start from that perspective. Nor should it be read as making a judgement on women's participation in paid work. As stated by people who were consulted for this inquiry, "*that horse has bolted*" and "*child care is a happening thing in New Zealand*". Rather, the inquiry was about finding the best way to manage this change.

Scope and goals of the inquiry

The specific aims of the inquiry were:

- To set out what is known of current patterns in the use of formal education and care services for infants and toddlers
- To report on what is known of the benefits, risks, and impacts on the physical, cognitive, social, emotional health and well-being of infants who spend time in formal childcare settings

- To identify regulatory aspects of the early childhood sector that may have an impact on infants and toddlers
- To report on the quality and accessibility of information available to parents who are choosing when and how to use formal care services for their infants, and on their decision-making
- To identify the key policy and practice issues that arise from the findings
- To make recommendations to Ministers, government departments and sector organisations.

To assess the patterns, use and quality of the formal care of infants, it was necessary to also examine parental decision-making and choices, importance of the age of entering formal care, flexibility of hours in care, and the impact of duration of time in care.

Informed by a review of the literature, consideration was given to the research on child development, neuroscience, primary caregiving and attachment. Specifically, the literature review identified research studies that supported evidence on:

- Contemporary theories relevant to the topic (such as ways of explaining child development, attachment, early childhood education and care)
- What the provision of quality education and care looks like in practice
- Comparisons with other countries, such as in policies on parental leave and employment protection
- Regulatory aspects likely to impact on the well-being of very young children
- Benefits, risks, and impact of non-parental education and care for infants and toddlers
- Recommended best practice for early childhood services.

Quality education and care can be experienced in either home-based, centre-based, private, community, for profit, or not-for-profit settings. Therefore the findings of this inquiry will have generic relevance to all service providers.

Consultation process

Participants

A range of diverse perspectives was sought for this inquiry. Consultation was undertaken with (1) parents of infants and toddlers attending formal early childhood services and representing all types of provision offered in New Zealand; (2) chief executives and presidents of early childhood organisations and associations; (3) government officials and policy makers; (4) providers of centre and home-based services; (5) health professionals; (6) centre directors, professional leaders, supervisors and managers; (7) early childhood teachers; (8) nannies and home-based educators; (9) early childhood union representatives; (10) early childhood initial teacher educators; and (11) academics and researchers in early childhood.

Observation visits were made to a range of early childhood settings that provide for infants and toddlers. Consultation was primarily undertaken via face-to-face semi-structured interviews, and in a few cases, telephone interviews. Some of the participants helped to provide a snowball effect by forwarding the information sheet and interview questions around their own networks. Those people wishing to be included in the consultation process responded via email. It should be noted that informal care provided by family members and unlicensed providers was outside the scope of this inquiry.

While not claiming to be a representative sample or generalisable beyond the specific participants, the perspectives of those participants did provide rich information from which a great deal was able to be learned about the current patterns of education and care for infants and toddlers in New Zealand. Those who participated in this inquiry came from a range of cultures and socioeconomic backgrounds.

The early childhood professionals represented the diverse range of early childhood services in New Zealand. Participating parents included two-parent families, single parents, civil union parents, mothers pregnant with their second, third or fourth child, as well as families raising twins and foster children. Numbers of children in their families ranged from one child through to six. Overall, 118 formal interviews were undertaken. Table 1 outlines the numbers and characteristics of the participants.

Table 1: Numbers and characteristics of the participants

Characteristics	Number
Parents	30
Academics	13
Policy makers	13
Early childhood service providers	24
Early childhood teachers and educators	26
Health professionals	12
Total	118

Thirty parents, with children who attended formal early childhood services as under 2-year-olds, were interviewed. In addition to the 30 structured interviews, data was obtained from other parents attending (1) an antenatal class; (2) a pre-school music class; and (3) parents who, as a result of the media publicity about the inquiry, contacted the Office to offer their perspectives. Informal discussions were held with other parents during the visits to early childhood services and one home-based provider also coordinated a focus group interview with parents.

Thirteen academics were invited and agreed to participate in individual semi-structured interviews. These participants were well respected within the early childhood sector. All had undertaken research in the field of early childhood education and care. Some of this group were lecturers in early childhood initial teacher education programmes who also supervised student teachers on teaching practicum. Interviews were undertaken with 24 chief executives, owners or managing directors of various early childhood services. A further 26 interviews were conducted with individual early childhood teachers and educators working in either home or centre-based services. One focus group interview was held with early childhood centre teachers and two focus group interviews were held with different home-based providers. In addition, 13 officials from the public policy sector and 12 health professionals (such as Public Health and Plunket nurses, paediatricians, doctors, and midwives) also contributed to the consultation process.

Many other people contributed their perspectives in different ways (for example, during workshop activities, forums hosted by other organisations, and visits to early childhood services in six cities). Observation visits were made to 15 early childhood services that represented the diverse range of early childhood services in New Zealand. In addition, an analysis was undertaken of correspondence and complaints

received by the Office of the Children’s Commissioner, external reports, early childhood policies and regulations, procedures and practices, as well as media reports.

Key stakeholders in the early childhood sector and government agencies were informed about the inquiry prior to its implementation and kept updated of its progress, with opportunities provided for them to present their views¹. An advisory reference group was established to provide expert advice and consultation for the project. Membership of this group, including an international advisor, was comprised of key people in academic and government agencies who have credibility in the early childhood field.

Procedures and caveats

The report primarily draws on current knowledge from existing sources of data and literature, and on the perceptions of the respondents who participated in the consultation process. Despite the limitations of being an inquiry rather than a formal research study, ethical and methodological procedures were adhered to in ensuring a range of diverse perspectives was obtained.

The perceptions of the participants are faithfully reported (see italicised quotes) but they are their perceptions only. However, the philosophy underpinning this inquiry is about valuing the right of stakeholders to represent their own views and for others to listen to what they say. These parents and early childhood professionals should be considered “the experts” of their own information because they hold the most valid perceptions of their experiences. Interview schedules were used to ensure consistency and to help to identify patterns and trends that emerged (see Appendix A).

No evaluation of specific early childhood service providers or even the extent to which providers address the goals of the early childhood curriculum, *Te Whāriki*, was undertaken. The aim of the report is to extend understanding on what the research literature and the participants in this inquiry perceive to be quality education and care

¹ To avoid any risk of creating unintentional competition among providers, none of the early childhood service providers that were visited or interviewed as part of the consultation process have been identified in the report. In fact, all of the participants have had their anonymity protected to allow people to speak freely and frankly.

for infants and toddlers from a perspective of their interests. Quality issues arise in its findings, but it is not a report of the quality of existing services.

Other relevant work

Like many reports, this report builds on the work of others, including ERO (2010); Farquhar (2003); May and Mitchell (2009); Mitchell and Brooking (2007); Mitchell, Wylie, and Carr (2008); and Podmore and Meade (2000). In addition, the Ministry of Education recently commissioned Dalli, White, Rockel, and Duhn (2010) to undertake a literature review on what quality early childhood education for infants and toddlers should look like. The practice-based evidence in this document complements the research-based evidence of Dalli and colleagues. Although both reports were written independently of each other, together they should extend understanding on the education and care of infants and toddlers in New Zealand.

Definitions

‘Child care’, ‘care and education’, or ‘education and care’?

Many New Zealand pre-schoolers will at some stage experience child care with an adult who is not their parent. Most will experience some form of early childhood education. There is an argument that it is difficult to determine when child care becomes education. Looking through the eyes of infants and toddlers, perhaps “care” should come first. As stated by one participant, “*our babies need to be cared for and loved so that they can be open to education*”. The Organisation for Economic Cooperation and Development (OECD) concludes that inevitably “care shades into education” (2009a, p. 112). Care versus education may be a false dichotomy. No clear preference could be found in the research literature. Indeed, inconsistent ordering of the terms *education and care* and *care and education* was noted throughout the New Zealand literature.

Care and education are inextricably linked. The UNICEF (2008) report states that “... today, care without education is not care” (p. 8). In New Zealand, it is well established that the concepts of education and care should not be separated, with both contributing to the developmental goals outlined in *Te Whāriki*. Mindful of the political and historical struggles to get education recognised, and of the preference

on the participants consulted during the inquiry, this report will use the preferred New Zealand terminology of “early childhood education and care”.

Whichever ordering is used, care and education are inseparable activities when working with children under two years of age. Education and care for infants and toddlers requires teaching and caregiving. You cannot have one without the other. Lally and Mangione (2006) use the term “infant care teacher” to illustrate how adults simultaneously teach and care for young children in infant settings. In New Zealand, the preferred terminology for early childhood professionals who work with infants and toddlers is “teacher” or “educator” rather than “caregiver” (Rockel, 2009a). As education and care run together for infants, ideally, all adults working with under 2-year-olds would be qualified in developmental care and developmental education within a holistic, social and cultural context. New Zealand does not have a dual qualification for education and care because the expectation is that all early childhood teaching qualifications would contain some elements of developmental care and that teachers will be “educated on how to care”. Perhaps Smith’s (1999) notion of “educare” best describes the concept of education and care, that is, as inseparable components of early childhood learning environments when provided in caring, responsive social contexts that promote children’s social and intellectual development and well-being.

The research literature uses the terms “child care” and “childcare” synonymously. Some researchers also use the word “daycare”. For the purposes of this report, when it is not practical to employ the term “education and care services”, the term “child care” will be used to denote the care of a child and “childcare” will be used when referring to a childcare setting.

Education and care services

In accordance with New Zealand’s integrated services model, early childhood education (ECE) and early childhood services (ECS) refer to early education and care. The Ministry of Education makes a distinction between early childhood education and care (ECEC) centres and home-based services. This report does not make comparisons between services, and because all services catering for under 2-year-olds must provide both education and care, the term “early childhood services” (ECS) has been used to encompass all licensed early childhood services, including home-based services, unless clearly differentiated.

Infants and toddlers

Infants and toddlers refer to the under 2-year-old children who are the focus of this inquiry.

Parent/s

For the purposes of this report, parent is the word used to denote the mother, father or any adult who usually resides with the child and assumes responsibility for their well-being.

Report structure

The report is organised into nine sections. This first section introduces the aims and purpose of the inquiry, the information in it and how that information is used. The background to the inquiry is outlined. The next section outlines the theoretical influences informing the philosophy that underpins this inquiry. Section 3 presents the current trends and patterns of non-parental education and care within the context of early childhood services in New Zealand. Policy settings in the New Zealand context are outlined in Section 4, with a particular focus on the role of government and the financial support and provisions available for families of children aged less than two years. Section 5 is divided into three parts. First, there is an examination of what the literature says about the impact of early childhood services on children and the risks and mitigation. The second part explores what the participants consulted for this inquiry had to say about the impacts, risks and benefits, and the third part summarises the findings. The weight given to children's interests and their parents' choices and decision-making about formal education and care is described in Section 6. Section 7 examines the key elements of quality education and care for under-2s according to the research literature, followed by current practice issues for infants and toddlers attending formal early childhood services in New Zealand as reported by the participants in this inquiry. A discussion of the key policy and practice issues is included in Section 8. Finally, Section 9 presents the conclusions of the inquiry. Recommendations are made for giving consideration to the interests of infants and toddlers to ensure they get the best start in life.

SECTION 2: THEORETICAL FRAMEWORK

Child's perspective

The child's perspective is central to this inquiry into New Zealand's early childhood education and care provisions for infants and toddlers. Issues relating to non-parental ECS are examined through the lens of infants and toddlers. The sociology of childhood sets out the theoretical rationale and conceptual framework for putting the child's perspective at the forefront (see Alanen & Mayall, 2001; Davison & Mitchell, 2009; James & Prout, 1997; Lewis & Lindsay, 2000; Lloyd-Smith & Tarr, 2000; Qvortrup, 2000; Qvortrup, Corsaro, & Honig, 2009; Smith, Taylor, & Gollop, 2000).

Sommer, Pramling Samuelsson, and Hundeide, (2010, p. 22) define the child's perspective as:

...seeing, understanding and empathizing with a child's needs, motives, intentions, actions, etc., i.e., the ability to interpret from a child's perspective, to seek to understand and empathize with the child's world and the way it is perceived from the child's point of view. (Paedagogisk-psykologisk Opslagsbog, 2006, p. 25)

According to Sommer and colleagues, the child's perspective is about directing adults' attention "towards an understanding of children's perceptions, experiences, and actions in the world" (2010, p. 22). In other words, the child's perspective helps adults to understand the world from a child's point of view. While this perspective gets as close as possible to the experiential world of children, it always represents adults' objectification of children (ibid, 2010).

The child's perspective should not be confused with children's perspectives, which "represent children's experiences, perceptions, and understanding in their life world" (Sommer et al., 2010, p. 23). Children's perspectives involve "the child's own phenomenology". In children's perspectives children's own contributions, i.e., their expression and presentation of their perceptions, experiences, and feelings, are expressed (ibid, 2010, p. 23).

An example of Denmark's "child perspective" approach is reflected in its Dagtilbudsloven (2007) child care law for reviewing its non-parental early childhood services.

Children's environments shall be evaluated in accordance with a child perspective, and children's experiences of their child-environment shall be involved according to the children's age and maturity. (Paragraph 12, part 2, p. 4, www.minff/1/familieomradet/, as cited by Sommer et al., 2010, p. 16)

Sommer and colleagues (2010) also describe why early childhood education must be educational and democratic when promoting the child's perspective. They explain:

Educational means that children always build their understanding on the meaning they have gained, which will come through in their expression of meaning – that is, their perspectives. Democratic means that children are respected and accepted as equal human beings in early childhood education and by this have to be active partners in their daily life – their perspective must be listened to. (p. 221)

At the heart of the child's perspective is an acceptance that children are citizens in their own right. As a recent report points out:

If New Zealand is to be a great place for children, we need to change. We need to treat children as respected citizens who can contribute to society now and not just as 'adults in the making'. (Public Health Advisory Committee, 2010, p. 20)

The United Nations Convention on the Rights of the Child

The United Nations Convention on the Rights of the Child (UNCROC) is an international treaty that spells out the basic human rights of children everywhere. In ratifying the Convention in 1993, New Zealand officially adopted UNCROC as a blueprint for the rights of every person in New Zealand under the age of 18 years. By law (Children's Commissioner Act 2003), the Office is obliged to use UNCROC as a foundation document in its work.

The Convention's 54 articles can be divided into four groups of rights for children: (1) survival; (2) protection (right to be kept safe from harm); (3) provision (right to the necessities of life, e.g., education, health services); and (4) participation (right to have a say in matters affecting them). As an international treaty, UNCROC is the world's most important document on children's rights, setting the standard for the way all children should be treated. Ratification represents New Zealand's commitment to promote and protect children's interests, welfare and positive

development. At least ten articles in UNCROC are directly relevant to the provision of early childhood services in New Zealand:

- Article 2 no discrimination
- Article 3 best interests of the child
- Article 6 survival and development
- Article 12 voice and respect
- Article 18 parents and the state share joint primary responsibility for raising the child
- Article 23 access and integration for children with disability
- Article 28 access to education
- Article 29 purpose of education
- Article 30 indigenous rights to language and culture
- Article 31 the right to play and recreation (pp. 65-67).

Two articles (3 and 18) are particularly germane to the inquiry. Article 3 affirms that:

In all actions concerning children, the best interests of the child should be a primary consideration.

Sommer, Pramling Samuelsson and Hundeide (2010) argue that when interpreting UNCROC “from a societal to a personal level, the ‘best for each child’ has to be a guiding principle, which means that a child perspective orientation and the understanding and implementation of children’s own perspectives will be a necessity” (p. 221). In considering the provision of early childhood education and care from a children’s interest perspective, the first challenge is to determine what is in the best interests of the child.

This discussion of what are the best interests of children will begin at the policy level. Penn (2009) advises that “there are many competing, intersecting and overlapping arguments that drive the development of early childhood policy; not all of them are compatible” (p. 1). The three dominating frameworks are: (a) all embracing state support; (b) minimal state support; or (c) partnership between state and family. This report adopts a position that the best interests of the child lie in the latter paradigm.

The concept of joint responsibility aligns well with Article 18 of UNCROC, which sets out that:

Parents have joint primary responsibility for raising the child, and the State shall support them in this. The State shall provide appropriate assistance to parents in child raising, such as ensuring the development of institutions, facilities and services for the care of children.

Article 18 also accords well with Mitchell's (2010) view. She suggests that new policy directions for early childhood education in New Zealand should reflect the education and the upbringing of children as a cooperative, shared effort between families, communities, and the State (supportive state intervention) rather than a largely family and private responsibility (minimal state intervention).

In accordance with UNCROC's requirement on States parties to provide assistance, including quality childcare services (article 18), the Committee on the Rights of the Child (2005) recognises that "family" refers to a variety of arrangements that can provide for young children's care, nurturance and development, including modern community-based arrangements such as childcare settings, provided they are consistent with children's rights and best interests (UN Committee, 2005). Te One (2006, 2008, 2010) writes about this also. As a strong advocate for infants' rights in early childhood education, Te One explores the shifting theoretical frameworks that enable more weight to be given to the child's perspective. She examines the implications of a rights-based agenda for policy development when determining what quality education and care looks like for the under-2 age group and the actual realities of their experiences in formal early childhood services in New Zealand. Sommer's dual socialisation model (see later in this section) lends further support to this concept of shared responsibility.

The child's questions

The child's perspective has also formed the basis of an assessment framework for programme evaluation in this country. Podmore, May, and Carr's (2001) assessment and evaluation process aligns the interests of children and their families with the principles of the early childhood curriculum, *Te Whāriki* (MoE, 1996). Starting with "the child's questions" as a link to the strands of *Te Whāriki*, Podmore, May and Carr's child perspective approach is also relevant to this project because it provides a structure by which those same "child's voice" questions can be used by ECS to

evaluate the quality of their infant and toddler programmes. Table 2 presents the “child’s questions”, as developed by Podmore, May, and Carr (2001, p. 9).

Table 2: The “child’s questions”

Strands of <i>Te Whāriki</i>	Learning and development questions	The “child’s questions”
Belonging	Do you appreciate and understand my interests and abilities and those of my family?	Do you know me?
Well-being	Do you meet my daily needs with care and sensitive consideration?	Can I trust you?
Exploration	Do you engage my mind, offer challenges, and extend my world?	Do you let me fly?
Communication	Do you invite me to communicate and respond to my own particular efforts?	Do you hear me?
Contribution	Do you encourage and facilitate my endeavours to be part of the wider group?	Is this place fair for us?

A theoretical paradigm that incorporates the child’s perspective was evident in some of the discussions with participants. For example, an early childhood teacher explained that her ECS follows the babies’ interests. She said, *“They cue us”*. This teacher incorporated the child’s voice into her explanation, *“when I show them I’m tired, I’m heard, which in turn shows that you value me”* and then linked it to the principle of empowerment, one of the four principles at the centre of the early childhood curriculum, on which *Te Whāriki*’s strands are based.

Some ECEC centres in New Zealand are based on specific philosophies that focus on the child’s perspective, such as Magda Gerber’s RIE (Resources for Infant Educators) approach, which emphasises caring for infants with respect.

When considering the rights of infants and toddlers, workshop participants at the Rainbow in my Head Day (24 July 2010) said that they practised this by (1) meeting their basic needs; (2) treating them with dignity and respect; (3) developing positive relationships; (4) respecting their human rights and the environment they are in; and (5) using official documents to support their work.

The right to education framework

Another useful framework is the 4-A framework. From a child rights perspective, the framework can be adapted to examine the current patterns of infant and toddler participation in formal early childhood services. May and Mitchell (2009) used the 4-A

framework to inform their work on early childhood within the non-compulsory education sector. This framework of four broad standards (availability, accessibility, acceptability, and adaptability) was first proposed by Katarina Tomasevski, United Nations' Special Rapporteur on children's right to education at the United Nations Economic and Social Council (1999).

Child development

Sociocultural theory

Sociocultural theory (Vygotsky, 1978) offers a useful conceptual framework for understanding infant-toddler agency and therefore has considerable implications for the learning and development of under 2-year-olds attending formal ECS. Rather than viewing infants as passive, sociocultural theory focuses on infants and toddlers as individuals within a wider social context, in which development occurs through sociocultural activity. Smith (2001) explains that children are “active co-constructors” of their own knowledge and understanding, as opposed to being “passive recipients” of environmental events, so they come to know about their world through their activities, in communication with others. The process of social mediation through the responses or reactions from other people in the environment helps the child to internalise environmental experiences. That is, they adopt certain views and beliefs, according to the interactions they have experienced (Smith et al., 2005). In this way children's understanding of their world is rooted in the specific historical and cultural activities of the community in which they interact. Children's individual thinking processes therefore relate to their cultural context and social interactions so that cognitive development becomes embedded in the context of social relationships and sociocultural tools and practices (Rogoff, 1990, 2003).

By embedding learning and development within sociocultural activity and identifying infants and toddlers as active participants, some theorists view learning as a social phenomenon when they adopt the perspective of placing the learner in the context of their lived experience of participating in the world (Lave & Wenger, 1991; Wenger, 1998). Wenger describes this to be “learning as social participation” (1998, p. 4). In her examination of the relationship between thinking processes and the cultural context, Rogoff (1990) considered learning to be an “apprenticeship” where the social activity is mediated by adults and peers who support and challenge the child's

understanding and skills so that acquisition of cognition is developed through the interaction.

Brain development

In considering the best interests of the child this inquiry has given weight to advances in knowledge about child development. There is now compelling evidence from neuroscience about how early relationships and experiences influence the architecture of the brain (Gammage, 2003; National Scientific Council on the Developing Child, 2004b, 2007; Perry, 2002; Rockel, 2002; UNICEF, 2008; Shonkoff & Phillips, 2000; Springford & van Druiven, 2009; Waldegrave & Waldegrave, 2009). The first two years of life are considered to be a “sensitive” period for establishing trajectories that shape children’s development (Belsky, 2006).

Brains are developed over time, with a substantial proportion constructed during the earliest years of life. The interactive influences of genes and experience shape the architecture of the developing brain, and the active ingredient in that process is the “serve and return” nature of children’s relationships with their parents and other caregivers in their family and community. The National Scientific Council on the Developing Child (NSC) compares the “serve and return process” during a game of tennis to the “mutuality and reciprocity” of the interaction process where adults respond to babies’ facial expressions and babbling by responsive vocalising and gesturing back to them, helping to shape the capacities of the brain. Thus, the quality of a child’s early environment experiences and the availability of appropriate experiences at the right stages of development are vital for determining the strength or weakness of the brain’s architecture, which in turn determines the child’s ability to think and to regulate emotions (NSC, 2007).

Babies develop the intuitive and emotional skills that are needed for relationships, and for the empathetic understanding of another person’s feelings, by regularly experiencing sensitive and responsive care. Thus, at the same time that infants and toddlers are developing capabilities in mobility (motor control), thinking (cognition), and communication (language), they are also developing their abilities to experience, express, and cope with a variety of feelings and emotions (NSC, 2004b).

Babies’ emotional experiences usually occur within the context of caregiving interactions (such as feeding, holding, comforting). Infants get distressed and cry

when they are hungry, wet or uncomfortable, and they experience positive emotions when they are soothed, held, or fed. During infancy, associations between positive emotions and the availability of sensitive and responsive caregiving support both behaviour and brain architecture. On the other hand, the emotional states of toddlers are more complex. Toddlers' emerging capability to interpret their own experiences, understand the thoughts and actions of others, as well as managing and regulating their feelings (one of the most challenging tasks of early childhood) is dependent on the foundations established earlier (NSC, 2004b).

The quality of relationships and the feelings they generate day after day can have a significant influence on the structure of the developing brain. Furthermore, the hormones that are generated within attachment relationships during those first two years when their brains are doubling in size affect the physical structure of babies' brains. These early experiences cannot be consciously recalled later on because they occur during the pre-verbal phase of brain development, but they will play an important part in forming their personality throughout childhood (Bowlby, 2007). Young children are "wired" to learn and will do so unless they are in a deprived environment (Marshall, 2010).

Attachment theory

Attachment theory also contributes to determining what is in children's best interests in decision-making around child care (Atwool, 2002, 2008). By the second half of their first year, infants become attached to familiar people who have responded to their needs. Attachment is "the strong, affectionate tie we have with special people in our lives that leads us to feel pleasure when we interact with them and to be comforted by their nearness during times of stress" (Berk, 2006, p. 419).

The most widely accepted view of attachment is Bowlby's ethological theory of attachment, which recognises the infant's emotional tie to the caregiver as an evolved response that promotes survival. Attachment theory predicts that babies and toddlers will sense an increased level of danger when they are unable to access their primary or a secondary attachment figure, and this triggers an alarm reaction that activates their attachment seeking response, which is heightened if they are in unfamiliar surroundings.

The theory also predicts that a relatively unknown person is unable to adequately satisfy (terminate) an infant's attachment seeking response. If infants do not receive sensory evidence (sight, sound, touch, smell, or taste) that any of their familiar attachment figures are available, their instinctive sense of danger increases by the minute. This sense of danger raises their levels of cortisol (the fight, flight, or freeze hormone) and induces a degree of distress or fear (Bowlby, 2007). Thus, infants and toddlers will have their attachment seeking response activated in the absence of the primary or a secondary attachment figure when they are in the presence of a stranger and in unfamiliar surroundings. Between the ages of about 6 to 30 months, babies and toddlers can only terminate their attachment seeking response by reaching proximity to an attachment figure, and unless this can be achieved, their attachment seeking response will remain unterminated. According to Bowlby (2007) "this is the experience of many babies and toddlers each day during certain forms of non-parental daycare" (p. 307).

Much of the criticisms and concerns about child care for infants and toddlers focus on potential damage to the infant's first intimate attachment relationship with its mother (or much more rarely mentioned, father). Those researchers, however, are using the original monotropic one-to-one attachment paradigm (Sommer, in press). Recent research has focused on the infant's capacity for multiple attachments (Cassidy & Shaver, 2008; Grossmann, Grossman, & Waters, 2005; Hrdy, 2009; Howes & Spieker, 2008; NICHD Early Child Care Research Group, 2005; Rutter, 2008). Contemporary attachment researchers offer alternative explanations of the developmental influences of attachment on infants (Bretherton, 2008; Howes & Spieker, 2008; Sagi-Schwartz, & Aviezer, 2005; Sommer, in press). The revised theorising, while not suggesting that many attachments are better than few, makes the case that the quality of the attachment is of greater importance than it being one-to-one. Studies indicate that infants and toddlers form attachment relationships with child care providers in the same way they form infant-mother attachments, and they respond better to long-term staff members who are present for longer periods of time and are therefore more predictable (Howes & Spieker, 2008). This has considerable implications for formal early childhood services because it supports the position that unlike the more simplistic views of attachment theory, formal child care is not by definition a bad thing provided the secondary attachment relationships are of sufficient quality (Sommer, in press).

Developmental characteristics of infants and toddlers

Another important understanding from studies on childhood is the distinctiveness of under two-year-old development from that of young children aged two years and older. A child's developmental course is determined genetically in combination with their environment (Marshall, 2010). In describing the unique make-up of infants, Lally and Mangione (2006) identify four key areas in which under 2-year-olds differ from older pre-schoolers:

2. The intensity of infants' inborn inclination to learn and develop in particular areas (babies have their own learning agenda – they are genetically programmed to seek out the skills and relationships that will help them survive and prosper)
3. The holistic nature of infant learning (infants take in information continuously, naturally, and fluidly)
4. Infants' rapid move through three major developmental stages in their first two years (creating challenges for their carers to be responsive to developmental shifts and bumpy transitions between stages)
5. Development of a first sense of self (through their interactions with others).

Lally and Mangione (2006) argue that it is this uniqueness that makes it obligatory to teach under 2-year-olds differently from older children. As increasing numbers of infants and toddlers are enrolled in non-parental child care, concerns have been raised and questions asked. The following questions, posed by Lally and Magione, informed this inquiry:

- Given the importance of emotional bonding between parents and their children, can children enrolled in ECS form similar attachments with their educators?
- What impact do child care experiences have on the infant and toddlers' developing sense of self?
- How can the culture and values of the child be reinforced in a formal ECS?
- Are the needs of an infant and toddler in an early childhood service different to those of older pre-schoolers?
- Whose agenda should be prioritised? Adults or babies?

Developmental contexts

This inquiry has also drawn on Sommer's concept of dual socialisation. Situated within a sociocultural and ecological framework, the term dual socialisation describes the modern context in which young children interact with a number of developmental partners rather than solely growing up in their own family environment (Sommer, Pramling Samuelsson, & Hundeide, 2010). Sommer (in press) illustrates this model as the "Dual-Socialisation Butterfly".

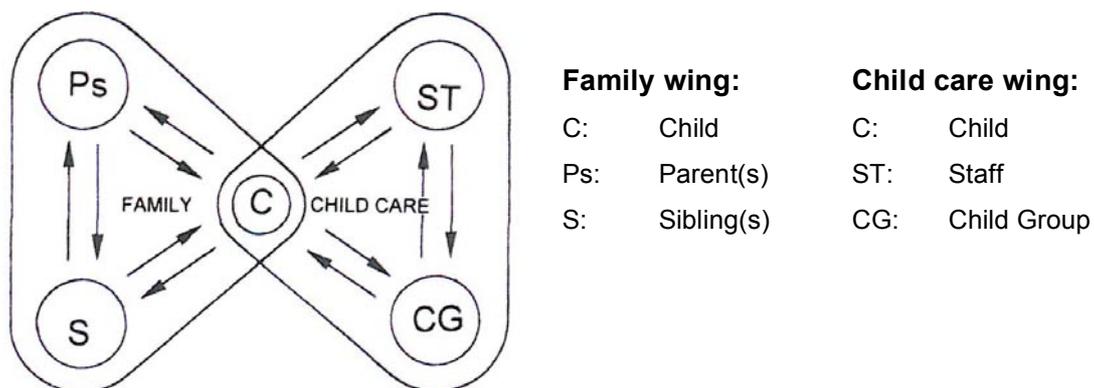


Figure 1. The Dual-Socialisation Butterfly (Sommer, in press)

In this model, the child's experience of dual development occurs between the home and childcare environments. Each of the "wings", and the interaction between them, influence the child's development. The butterfly model is useful for the project because, as found by Professor Sommer (in press), the developmental context changes the outcomes of children through several interacting influences. A healthy community that supports the child and family can be a crucial factor in the development of the child. Therefore similar to Bronfenbrenner's mesosystem (see Bronfenbrenner, 1977, 1979, 1986, 1992, 2005), the butterfly model can be placed within a circle that represents the community so that neither the child and family or the early childhood service exists in isolation. Te One (2010) argues that children and their families are connected to Bronfenbrenner's macrosystem and influenced by social, economic, and political forces, including educational and cultural aspirations.

Sommer's Dual-Socialisation Butterfly model frames the "new normality" situation for a growing number of today's infants and enables discourses about the importance of family and child care that are not an "either or" but rather a "both-and" situation. Similar to Sommer's dual experiences approach, Sphancer (2002) examines the home/childcare link and connects the changed world of children to both their home

and childcare environments. Further to the concept of quality attachment relationship(s) mentioned earlier, a link can be made to the butterfly model whereby Sommer argues for an “arena” balance. He theorises that dual attachment quality in both the family and childcare arenas are important, thus making the two arenas highly interrelated. In addition to the holistic family and childcare links made by Sommer (in press) and Sphancer (2002), the National Institute for Child Health and Development (NICHD) Early Child Care Research Group (2005) also provide an interpretive and balancing framework for its findings relating to family and child care attachments.

While child care has become the new normality for many young children, its context and meaning varies in different countries. For example, Sommer cites research demonstrating that Nordic parents now desire to have a “Negotiation Family”. Children who experience negotiated childhoods grow up in a family in which:

- The needs of the children are considered the needs of the family
- Children have rights and are consulted on matters affecting them
- Children are granted autonomy, independence, and self-governance while being protected and cared for
- Children are both “seen” and “heard” (Sommer, in press).

Summary of theoretical perspectives

The child’s perspective underpins this inquiry into the education and care of infants and toddlers. The child’s perspective directs adults’ attention to understanding the issues from the viewpoint of infants and toddlers. Sociocultural theory clarifies the concept of infant-toddler agency and how they come to know about their world through their activities, in communication with others. Guided by Articles 3 and 18 of the United Nations Convention on the Rights of the Child (1989), theoretical influences informing the philosophy are given effect using a dual socialisation model to describe the modern context of interactions in both home and childcare environments. A set of “child’s questions” provides a link to the early childhood curriculum. Contemporary theories about brain development and attachment, in particular, provide a theoretical basis in relation to child development for under-2s. In addition, the right to education framework with its 4-A scheme is used to inform findings on usage and practice.

SECTION 3: EARLY CHILDHOOD SERVICES IN THE NEW ZEALAND CONTEXT

New Zealand's early childhood services are characterised by their diversity in ownership; service and management structures; and philosophical approaches. The young children that use these services are also a diverse group in terms of age and ethnicity. Historically early childhood services have always catered for a range of children, parents and communities. The early childhood curriculum, *Te Whāriki*, notes that, "as new needs have emerged, existing services have changed and new services have developed, each with a distinctive approach to early childhood education" (MoE, 1996, p. 17).

Structure and composition of early childhood services

The early childhood sector consists of a wide range of service providers, which vary in ownership, governance, and commercial purpose (non-profit or for-profit). Early childhood services in New Zealand are private organisations and are not owned, provided, or managed by the Government. Ownership types include corporate, owner-operators, and charitable or community trusts. In almost all cases ECS are funded by a mixture of parent fees, government subsidies on fees, and government block grants.

ECS also vary according to size, location, hours of operation, language of instruction and character (ECE Taskforce, 2010). Services can be licensed under the Education (Early Childhood Services) Regulations 2008 or the Education (Playgroups) Regulations 2008 and receive government funding or they can be license-exempted by the Education (Early Childhood Centres) Regulations 1998. Playgroups are mostly license exempt.

Te Tari Puna Ora o Aotearoa/NZ Childcare Association (NZCA) and the Early Childhood Council are the membership organisations representing and supporting the community and commercially-owned licensed early childhood centres and a range of organisations support the home-based providers. Te Kōhanga Reo National Trust and the Pacific Islands Early Childhood Council of Aotearoa (PIECCA) are charitable trusts that act for kōhanga reo and Pasifika early childhood services respectively.

Early childhood services can be centre-based or home-based (either in the child's home or a caregiver's home) and either teacher or parent-led. Parents and whānau provide the education and care in parent-led services. Teacher-led services are comprised of kindergartens, centre-based and some home-based education and care services. The person responsible and at least 50 percent of the staff must hold an early childhood teaching qualification recognised by the New Zealand Teachers Council for registration purposes. All home-based coordinators must be teacher qualified and registered (MoE, 2010b).

Centre-based education and care services

Early childhood education and care services (ECEC) centres provide all-day sessions, with some offering flexible part-time hours. They cater for children from birth to five years. Some are work-based, some part of franchise or corporate company, and some are owned and operated by a community group. Some have more than one centre and provide for specific age groups (such as under and over two-year-olds). Some ECEC centres are underpinned by certain philosophical perspectives (such as language and culture, for example, bilingual or immersion centres) or informed by theories about infant-toddler learning (such as Attachment Based Learning) or the work of theorists such as Rudolf Steiner and Maria Montessori and more recently, Reggio Emilia, Magda Gerber, and Emmi Pikler.

Kindergartens

Managed by a Kindergarten Association, kindergartens with sessional licenses employ 100 percent qualified and registered teachers. Kindergartens traditionally provided morning and afternoon sessions for young children aged three to five years. To meet the needs of the communities in which they operate, some kindergartens are now offering a variety of hours including lengthening their session times. Different attendance models include part days, full days, two or three days per week, or five days per week. Six hours is the usual maximum daily attendance time in most kindergartens although some do offer longer hours. While the predominant age group continues to be three and four-year-olds, some kindergartens are also offering all-day or flexible sessions that include under 2-year-old children.

Home-based education and care

Licensed home-based services provide education and care for up to four children (aged 0-5 years, with no more than two children aged less than two years) in either the children or educator's home. Nannies and in-home educators are required to belong to a home-based service. They must be supported by a coordinator (who is a qualified and registered early childhood teacher) that supervises their practice. Home-based educators providing the day-to-day education and care do not have to be qualified. Some home-based services also provide their educators with professional development and training (such as courses on baby care, early brain development, *Te Whāriki*). Others might support them to complete the NZQA accredited National Certificate in Early Childhood Education and Care. All home-based educators must hold a first aid qualification.

Te Kōhanga Reo

Te Kōhanga Reo is a total immersion Māori language and tikanga based programme that was born out of the need to revive the Māori language. Using a whānau development model, underpinned by elements of cultural and administrative sovereignty (Tawhiwhirangi, 2009), kōhanga reo centres cater for children aged from birth to five years. They are led and managed by whānau. Kōhanga reo is “not just pre-school education in the Māori language” (Black, Marshall, & Irwin, 2003, p. 16). It is about nation building within an early childhood context, i.e., “the ultimate objective of the Kōhanga is nothing less than the rebirth of the Māori nation as an equal but separate element contributing to the common good of New Zealand society” (Fleras, as cited in Black et al., 2003, p. 6).

Licensed by the Ministry of Education, kōhanga reo operate under Te Kōhanga Reo National Trust. The Trust was established in 1982 and formalised as a charitable trust in 1983. The mission of the Trust is to protect the language, values and what being Māori looks like by providing for the participation of mokopuna and whānau in the kōhanga reo movement. By totally immersing the children in the Māori language and culture, the kōhanga reo programme is more about language regeneration than just early childhood education (Charlotte Gibson, personal communication, 25 May, 2010).

Pasifika early childhood services

Similar to kōhanga reo, Pasifika early childhood playgroups and centres focus on developing and maintaining Pasifika languages and cultures (such as Samoan, Cook Island, Tongan, Niuean, Tokelauan, Tuvaluan, and Fijian). They are often community-based and/or situated in church grounds.

There are three types of Pasifika ECS. Anau Ako Pasifika (children and families learning in the Pasifika way) is a home-based parent education home tutoring programme that caters primarily for disadvantaged families. A key focus is to facilitate the transition of children from home to an early childhood service. Pasifika Early Childhood Groups operate out of community facilities and are parent-led licence-exempt groups. Of most relevance to this inquiry are the licensed and chartered Pasifika Education and Care Centres. They are mostly owned by incorporated societies and trusts and run by Pasifika people for Pasifika children taught in their Pasifika languages (Meade, PuhīPuhī, & Foster-Cohen, 2003). Not all are language nests where only the specific Pasifika language is spoken. Examples of these include Samoan 'A'oga, 'Amata, and Tongan Akoteu. Some centres accept children from other cultures, for example, a participant in this inquiry described how a Tongan ECS has welcomed African and Chinese children into its centre. Those children speak Tongan during the day at the centre and their first language when they are at home with their parents.

Playcentres

Playcentres are parent cooperatives in which volunteers undertake all of the organisational, administrative, planning and implementation aspects of the service. Providing a unique programme of combining social support for parents with a child-initiated early childhood programme, Playcentre's family-centred philosophy supports parents as they learn alongside their young children, with the multi-age grouping enabling siblings within families to all attend the same sessions (Powell, 2008). Based on a philosophy that parents are the first and best educators of their children, the New Zealand Playcentre Federation supports local playcentre associations to train parents to become educators who take collective responsibility for the education and care of the children, by administering and managing centres and running sessions (Hill, Reid, & Stover, 1998). Depending on the region, half day sessions are run by a team of parents (team supervision), all parents (group supervision) or one

person (supervisor). Playcentres are outside the scope of this inquiry because under 2-year-olds do not attend without a parent.

Playgroups

Informal community playgroups are another parent-led service where groups of parents and their children meet for between one to three sessions per week. Playgroups are also outside the scope of this inquiry because they are licence-exempt and parents remain with their children throughout the session.

Correspondence School

Te Aho o Te Kura Pounamu (the Correspondence School) provides distance education in the form of personalised learning programmes for some young children aged between three and five years, who live too far away from early childhood services. The Correspondence School is also outside the scope of this inquiry because it does not provide non-parental education and care for infants and toddlers.

Number of early childhood services

According to the Ministry of Education's latest *Annual ECE Summary Report* (MoE, 2010a)² numbers of early childhood education services have increased by 14.6 percent ($n = 656$) to 5,152 services. This is due to an increase in the number of licensed services ($n = 4,321$). Growth in services is lower in poorer communities (ECE Takforce, 2010). The following table presents the numbers of licensed early childhood services over the past five years as reported by the Ministry of Education.

² The July 2010 annual census of children and staff at licensed ECS and licence-exempt ECE groups is now called the Annual ECE Summary Report 2010.

Table 3: Numbers of licensed ECS by service type as at 1 July 2006 to 2010

Type of service	Enrolment year					Difference 2006-2010	
	2006	2007	2008	2009	2010	<i>n</i>	%
ECEC centre	1,842	1,932	2,047	2,236	2,419	577	31.3
Home-based	202	227	244	297	307	105	52.0
Kindergarten	619	618	622	626	632	13	2.1
Playcentre	474	466	464	461	461	-13	-2.7
Kōhanga reo	486	470	467	464	463	-23	-4.7
Correspondence School	1	1	1	1	1	0	0.0
Casual ECEC	41	36	36	38	29	-12	-29.3
Hospital-based	-	-	-	-	9	9	N/A
Total Licensed Services	3,665	3,750	3,881	4,123	4,321	656	17.9

Note there are also 831 licence-exempt ECE groups comprised of various playgroups, Pasifika early childhood groups, Nga Puna Kohungahunga, playcentres and licence-exempt kōhanga reo.

Current patterns in the use of early childhood services

In New Zealand, approximately 95 percent of children participate in some form of ECS before starting school (MSD, 2008). The number of children enrolled in licensed early childhood services continues to rise. Since 2006, numbers of children enrolled in those licensed services have increased by 14.3 percent, bringing the total to 188,924 children. The growth in the sector has occurred in education and care centres and home-based services rather than in the parent-led services (MoE, 2010a). Table 4 presents the number of enrolments by service type.

Table 4: Enrolments in licensed ECS by service type (MoE, 2010a)

Type of service	Enrolment year					Difference 2006-2010	
	2006	2007	2008	2009	2010	<i>n</i>	%
ECEC centre	86,059	91,733	97,756	101,424	109,204	23,145	26.9
Home-based	9,802	11,073	13,065	15,054	17,084	7,282	74.3
Kindergarten	44,435	43,695	41,487	39,346	37,600	-6,835	-15.4
Playcentre	14,888	14,664	14,929	15,171	15,049	161	1.1
Kōhanga reo	9,493	9,236	9,165	9,288	9,370	-123	-1.3
Correspondence School	577	737	591	627	617	40	6.9
Total Licensed Services	165,254	171,138	176,993	180,910	188,924	23,670	14.3

The highest increase of enrolments has been in the centre-based and home-based services that provide all-day education and care. Kindergarten, kōhanga reo and playcentre enrolments have decreased – although during the 2008/2009 year, kōhanga reo enrolments rose by 123 to 9,288, reversing a six-year trend of declining enrolments (Johnson, 2010).

Age

The Ministry of Education's *Annual Summary Report 2010* confirms that over the past five years the greatest percentage increases in early childhood enrolments have been with our youngest children (one year and below). Of the total number of enrolments in licensed ECS, 17.7 percent were aged one year and below, 19.5 percent were aged two years and 62.8 percent were three years and older (MoE, 2010a). When enrolments in licensed and licence-exempt services are combined, 11,764 (5.6 percent) of those enrolments were by children under 12 months of age. This table provides a breakdown of the licensed ECS enrolments by age (MoE, 2010a).

Table 5: Enrolments in licensed ECS by age as at 1 July 2010

Age	Enrolment year					Difference 2006-2010	
	2006	2007	2008	2009	2010	<i>n</i>	%
Under 1	6,721	7,803	7,894	7,972	8,704	1,983	29.5
1 year	20,390	21,783	23,593	23,917	24,771	4,381	21.5
2 years	32,106	33,040	33,707	35,293	36,873	4,767	14.8
3 years	49,767	51,918	53,298	54,541	57,729	7,962	16.0
4 years	54,406	55,057	57,278	57,506	59,141	4,735	8.7
5 years	1,864	1,537	1,223	1,681	1,706	-158	-8.5
Total	165,254	171,138	176,993	180,910	188,924	23,670	14.3

Although enrolments in licensed services for two, three and four-year-olds continue to increase also, they are not increasing at the same rate as the younger age groups.

Another change is that kindergartens, which traditionally cater for older pre-schoolers, are now enrolling younger children. The total number of under-2s attending kindergarten is, however, relatively low ($n = 135$) and the three and four-year-old age group still comprises the highest number of children attending kindergarten, as demonstrated in the following table.

Table 6: Kindergarten enrolments by age

Age	Male	Female
Under 1	9	15
Age 1	57	54
Age 2	487	569
Age 3	6,977	6,924
Age 4	11,151	10,910
Age 5	241	206
Total	18,922	18,678

The *Childcare Survey* conducted by Statistics New Zealand provides a snapshot of the total number of infants, toddlers and young children in ECS during the September

quarter of 2009. Of the total 308,800 children estimated to be aged 0-6 years, 53.9 percent attended at least one formal ECS during the week surveyed.

The next table presents the age distribution of children attending formal ECS at the time of the Statistics New Zealand survey.

Table 7: Percentage of children attending formal ECS by age

Age	Percent (As at Sept 2009)
Under 1	12.9
1 year	45.6
2 years	52.7
3 years	73.3
4 years	86.7

The usage of ECS differs by age and ethnicity of the child (MoE, 2010a; Statistics NZ, 2010). The enrolment and percentages tables demonstrate that formal ECS usage increases with the age of the child. In regard to ethnicity differences, participation rates are lower for Māori and Pasifika children (MoE, 2010a). Pasifika children are least likely to attend a formal early childhood service (Statistics NZ, 2010).

Statistics New Zealand found that informal care by a grandparent is the most common non-parental arrangement for infants and toddlers (32.5 percent), followed by 'other' childcare centres (18.1 percent). Formal ECS were often used in conjunction with parental care and other informal arrangements and suggests that mixed care arrangements are probably more common for parents in full time employment.

Use of informal child care arrangements is more common for Māori and Pasifika children (52.6 percent and 52.6 percent respectively). After care by parents or grandparents, care by extended family was also most common for Māori and Pasifika children. For Māori children attending formal early childhood services, the most common type of service attended was kōhanga reo (Statistics NZ, 2010).

Age of entry

The enrolment and survey figures suggest a movement into formal ECS for many toddlers between 12 and 24 months. Information from this inquiry also indicates that some very young babies are attending full-day (early morning to early evening) services. When the parents who participated in the consultation process were asked the age that their child began attending a non-parental service, the youngest age reported was six weeks. In one family, the oldest child had started home-based care at six weeks and their youngest began attending an ECEC service at six weeks. Practitioners also reported eight and ten-day-old babies starting at their ECS and one of the academics came across a four-day-old baby in child care during her recent PhD study. Some young babies began with home-based care and transferred into an ECEC centre when they were older (for example, at 9 to 12 months). Others remained in home-based care until they began kindergarten. A family's second and third child often enters formal home-based care earlier because of the educator's relationship with the first child. While some early childhood services choose not to accept very young babies (before three, six and nine months were the ages reported to this inquiry), many ECS do advertise that they cater for children from 0 to 5 years and a large number of parents in this inquiry reported starting their baby in formal education and care services (both home and centre-based) between 4 and 10 months. During the visits to ECEC centres, 11 to 12 months was a common age stated for when many of their babies started, however this might be more a result of the wait lists and where spaces were available. In a couple of participating ECEC centres, the youngest babies belonged to staff members.

Employment patterns

The first report of a major New Zealand longitudinal study (*Growing up in New Zealand*) reports that the majority of the mothers remain in paid employment until late in their pregnancy, regardless of whether it is their first or later baby. Most intend to return to work after their child is born (Morton et al., 2010).

In the *Childcare Survey*, use of formal early childhood services was most common for children in two-parent families where both parents were employed (66.4 percent) and for single parents if they were in paid employment (60.6 percent). However, children from one-parent families were also the most likely to be using a combination of formal and informal child care arrangements (Statistics NZ, 2010).

ECS use also differed according to parental income. For example, 39.6 percent of children in families earning \$20,000 or less attended formal ECS, in comparison to 68.6 percent of children in families with a combined income of more than \$70,000 (Statistics NZ, 2010).

The majority of parents consulted for this inquiry were in paid employment or study, with others choosing to work part-time. In one family, the father and paternal grandmother respectively cared for the child at home on the two days that the mother worked on a contract basis, but the parents were also considering hiring a nanny (perhaps sharing with another family they met through antenatal class) or enrolling in a home-based service when the mother returned to permanent work. Parents who chose to work part-time mostly did so to allow them to spend some time with their young children. However, the need to fit in with their employer was the reason often cited for the decision to work either part-time or full-time. One parent said:

Had to make decision to go part-time rather than full-time, because what to do when children are sick? I can't ask for time off when they were sick.

Conversely, another parent said:

Ideally, would have considered five days at home, two days at work. But harder to work part-time than full-time from employers' perspectives. Have to fit in with employer. Policies encourage going back to work.

A smaller group reported choosing to stay at home while their children were pre-schoolers. These parents had decided that the mother would care for the child(ren) while they were young. Some participants in this group were “*firm believers*” that after making the decision to have children, one parent should put their career on hold for a few years to stay at home. That said, further comments from the “choosing to stay home” group showed they did not think that low-income earners or sole parents should necessarily do the same as them.

Having a young child with a medical condition adds another dimension to the decision to stay home. One parent explained that the decision was especially hard when the child's first language was Māori:

Although, I view the home as the most significant site of education for children, I enrolled her in pre-school because through necessity, I became the primary

income earner in our household and family were not available to assist to this level. My preference would have been to have her at home with some established socialisation with other little friends – this however is limited when one's first language is Māori. Most other parents raising their children to speak Māori have their children in Kōhanga Reo or Immersion Māori pre-school full-time from a very early age. My child was diagnosed with a chronic lung condition and pre-school attendance was not recommended due to her medical fragility.

Duration

As will be evident later in this report, the number of hours infants and toddlers do spend in ECS is important. The potential exists for very long durations. Bedford (2008) advises that for children starting child care at six weeks of age, and attending full-time until they are five, their hours in education and care will exceed their hours in primary and intermediate school combined. Current patterns, however, have most infants spending less time than this in child care.

The length of time that children spend in non-parental child care is related to the type of service provision being used (for example, children spend shorter amounts of time in services only offering sessional provision compared to full-day services). When averaging the hours across all types of early childhood services, statistics indicate that New Zealand children spent an average of 18 hours a week in ECS in 2005, with the most time spent in kōhanga reo and home-based care, followed by education and care centres.

This has changed. By 2010 children were spending longer in most licensed services, excepting playcentre. The greatest growth in hours was for ECEC centres followed by kindergartens (MoE, 2010a). The increase in kindergarten hours may be attributed to the move away from sessional to full-day programmes by some kindergartens. Figure 2 depicts the trend that has occurred in kindergartens during the past five years.

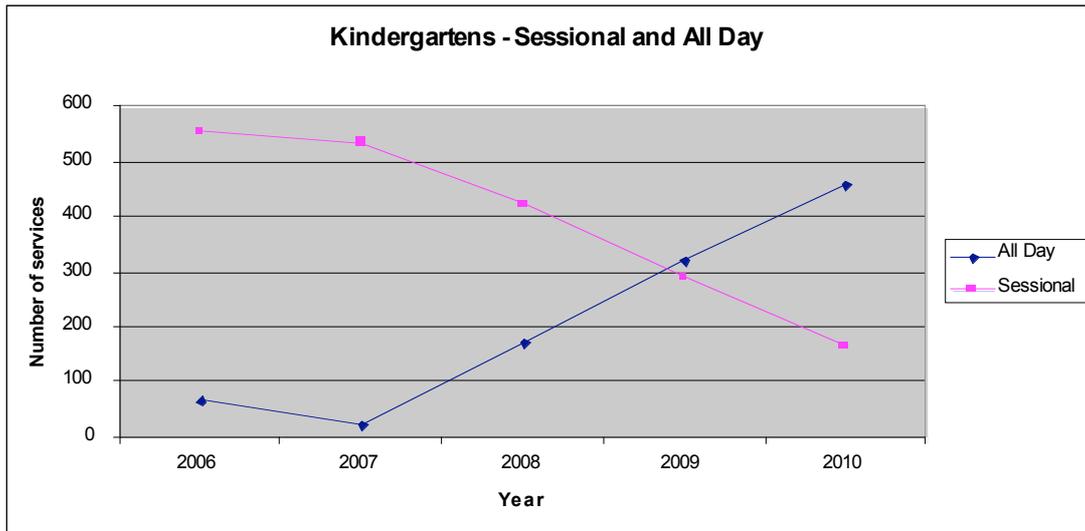


Figure 2. Sessional and all day kindergartens by year (MoE, 2010).

To further illustrate the move away from sessional kindergartens, the next table sets out the number of kindergartens offering sessional, mixed, and all day services over the past five years.

Table 8: Number of kindergartens by operating structure and year (MoE, 2010).

Type of Service	Operating Structure			TOTAL
	All Day	Mixed	Sessional	
2006	65	0	554	619
2007	24	60	534	618
2008	171	30	421	622
2009	321	15	290	626
2010	459	8	165	632

The *median* length of time spent in formal ECS was recorded by Statistics New Zealand (2010) as 17 hours per week, with kōhanga reo recording the highest median weekly length of time at 24 hours per week. The Ministry of Education did not collect hours of attendance for kōhanga reo, but overall, as at July 2010, the *average* number of hours per enrolment per week was 20.1 hours, reflecting an 18.9 percent (3.2 hours) increase from July 2006.

The following table presents the Ministry of Education statistics over the past five years on the average hours of attendance in licensed early childhood services by service type.

Table 9: Average hours of attendance in licensed ECS by service type

Service Type	2006	2007	2008	2009	2010	% Change (2006-2010)
ECEC centre	20.8	21.5	22.9	23.5	23.7	13.9
Home-based	22	22.5	22.8	21.5	21.9	-0.5
Kindergarten	12.6	12.6	13.4	14.2	15.1	19.8
Playcentre	4.4	4.3	4.2	4.0	4.0	-9.1
Total	16.9	17.6	18.9	19.5	20.1	18.9

In the September 2009 quarter (reported in the *New Zealand Childcare Survey*, Statistics NZ 2010), more than a quarter (29.2 percent) of the overall children in ECS attended for 10 or less hours per week, 37.2 percent attended for 10 and 20 hours per week, and 33.5 percent were there for more than 20 hours per week. Although some of the Statistics New Zealand data relating to hours of attendance for under-1s was suppressed for reliability and confidentiality reasons, 45.8 percent of this age group were reported to be attending formal child care for three hours or less per week and 15.6 percent attended more than 10 to 20 hours. The figures for 1-year-olds revealed longer duration with 30.7 percent attending for 20 hours or more.

- 26.0 percent attended for three hours or less
- 9.1 percent attended for more than 3 to 5 hours
- 10.7 percent attended for more than 5-10 hours
- 23.4 percent attended for more than 10-20 hours
- 12.0 percent attended for more than 20-30 hours
- 7.1 percent attended for more than 30-40 hours
- 11.6 percent attended for more than 40 hours.

The observations of usage made in this inquiry confirm the pattern in the childcare survey of a wide spread of durations. The youngest babies were in formal education and care (home-based and centre-based) for both the shortest and longest times. Duration ranged from three hours, two afternoons a week, to 10.5 hours a day, five days a week. Even though centre managers advised that very few of their babies “do 50 hours”, they were still able to point to infants and toddlers that were attending on a full-time basis. The manager of a university ECEC centre provided for lecturers and students who had babies less than six weeks old to give or attend lectures, with the expectation that the infant remained in the centre for no longer than two hours at any

one time. Other managers/supervisors reported that in their services most parents initially choose the hours they want but then request extra hours as they become more comfortable with the ECS.

In one focus group interview with home-based service providers, there was a consistency to the minimum length of time required by parents for their children (nine hours), which is often funded by Work and Income New Zealand (WINZ). Most commonly for these providers, parents enrolled their children for 22 hours, three days per week. The most sought after days for childcare spaces were Mondays, Wednesdays, and Fridays.

Different providers offer different options so that children can use non-parental services part-time (for a few hours each day or each week) or full-time (for example, 7.30am to 5.30pm). The most common pattern in this inquiry was that service providers offered parents of infants and toddlers the choice of either full or part-time days, with a stipulation of at least two days attendance per week. Nonetheless, a number of providers did expect full-time attendance. As one manager said, "*Lots want part-time but it is too hard to offer part-time because of filling those extra days*". Hours of service provision can vary across providers and within services. For example, one university service with ECEC centres on each campus reported that normal hours were from 9am to 5pm, but available from 8am to 6.10pm by agreement. However, some providers only provide "*all or nothing*" so the parents must pay for full-time education and care.

Use of more than one ECS

Working parents face further issues around the hours of operation of ECE services and the ability to use more than one type of service (Robertson, 2007). While obtaining accurate statistics is problematic, indications are that some young children attend more than one type of early childhood service and they are counted in each service they are enrolled in (MoE, 2010a; Statistics NZ, 2010). Statistics New Zealand report that of all the children (not just under-2s) who attended formal ECS, 11.6 percent attended more than one type. This indicates that multiple enrolments across services is relatively uncommon.

Service providers consulted for this inquiry indicated that for funding purposes, ECS require parents to sign a form confirming that the child is only attending that particular

centre, but this information is not passed on to the Ministry of Education. Probably the most common scenario is that, as they get older, some children move from home-based care to group care (such as early childhood centres and kindergartens).

Some participants in this inquiry explained their reasons for using more than one service. For example:

I went back to work part-time... then three days a week increased to five days a week... My son was attending about 20 hours per week at kindy, and about 10-15 hours per week at the Centre. My daughter was attending 30-35 hours at the Centre.

More rarely, families were forced to change services when the one they were using closed down. One parent explained:

...that service closed and the name and equipment was bought by another private childcare centre – a church-based one. We had no interest in continuing at the new church-based centre, as we did not share the same values as their philosophy.

Enrolments are tracked by name, so technically children enrolled in two centres can be identified. Providers reported that parents were expected to sign a declaration (for funding purposes) that they were only using one service but considered it was possible that parents might not disclose they were using more than one service, as in the case with one family in this inquiry where both children attended a private ECEC centre as well as a kōhanga reo. The main reason for this is that if the maximum hours funded by the Ministry of Education are 30 hours per week, the mokopuna cannot stay on at that kōhanga for the extra 10 hours that the mother is working so they attend another ECS to cover the hours of child care needed. As explained by one participant, “...parents are being forced to work longer hours but MOE haven’t reflected this in the way they fund us.”

In this inquiry, the majority of parents reported that their child only attended one service, although some employed temporary nannies when their child was sick and unable to attend their ECS. In other families, nannies were employed for part of the day to drop off or pick up children from centre care:

Centre care in mornings, nanny picks up and home-based care in afternoons. Nanny cooks dinner as well.

Families were more likely to use more than one service if they had more than one child. For example:

Boy attending a creche (had a part-time nanny for the first year, baby is in care two days a week (I drop her off at someone else's house)).

Sometimes both home and centre-based services were used. Most commonly, the older siblings attended sessional kindergarten while the infants attended either a home-based or ECEC service. In families using a nanny service, the nanny cared for the younger children at home as well as taking the older sibling to, or from, kindergarten. For example:

Two days per week [ECEC]. A nanny is employed one day per week so eldest child can attend kindergarten three afternoons per week as well as daycare two days per week.

Home-based providers who participated in a focus group interview confirmed that babies in their services were using more than one service, with the most common scenario being that nannies picked them up from an ECEC centre and then cared for them at home for the remainder of the day. As previously stated, the current statistics do not differentiate between children who are attending more than one service so it is not possible to obtain accurate numbers on how many children are attending more than one service provider.

Availability of ECE: Waiting lists

The proportion of licensed ECS with waiting times of over six months has been increasing over time. For under-2s the overall proportion of ECS with long waiting lists increased from 11.9 percent in 2002 to 22.4 percent in 2009, with the highest peak in 2008 (MoE, 2010a). With home-based services, parents only needed to wait longer when they wanted a caregiver that exactly matched their family's specific needs (MoE, 2010a).

From 2002 to 2008 the growth in the number of ECEC centres was not meeting the demand of enrolments. Therefore as the demand for education and care services has increased, so have their waiting times, with ECEC centres having the longest waiting times of all licensed services (MoE, 2010a).

This inquiry found that the majority of people choosing to enrol their infants and toddlers in education and care centres put their child's name down on more than one waiting list. A small minority simply chose the centre they could get into immediately rather than having to wait until a space became available. More often this was a newly opened centre. However, the offer of an immediate place did not happen for most people, with the availability of spaces in centres very much depending on location. The centres with sound reputations tended to have longer waiting lists. The length of time spent on the waiting list ranged from three to 24 months.

Parents' perceptions of waiting lists

Parents wanting to enrol their babies in a specific centre were prepared to make sacrifices to achieve this. For example, after being on the waiting list for some time, parents agreed to change the days they wanted in order to accept the place offered. Rather than pass up the offer of a rare community place in a work-based centre one mother did not take her full maternity leave entitlement. She went back to work earlier than planned to ensure her child got a place in that particular centre. The next table presents a snapshot of parents' experiences on waiting lists for places in centre-based services:

Table 10: Parents' reports of waiting list experiences

<p><i>Put name on multiple wait lists when six weeks pregnant – as soon as I knew I was pregnant. Initially chose all centres in the Central Business District – knew would not accept if they were not quality. Was on wait lists for 16 months.</i></p>
<p><i>It took at least six months to be offered places and those were not on my preferred days. The notice given to start was short – about two weeks, which was very hard to coordinate with resuming paid work.</i></p>
<p><i>I initially put my girl's name on the waiting list for [name of kōhanga reo]. I think it was about six months before a space became available, and although I would have preferred to wait until she was a little older, I took the space when it became available. Most people at that time were waiting for around one year to get into that facility and we were 'bumped up' the list somehow at that time.</i></p>
<p><i>All centres I looked at had six month wait lists, so Plunket gave me the names of two centres not yet open but were soon to open and would have vacancies. I only wanted just one day but the minimum was two days.</i></p>
<p><i>Put name on a lot of wait lists. For some centres in Central Auckland we have to wait one year or more. Centres suggested that I put my name down before getting pregnant with my next child.</i></p>
<p><i>Put on various Wait Lists advised by Plunket, because difficult to find a space and then narrowed down to three so we could have a choice. Didn't need to in the end because we weren't comfortable with any of them. In the end we chose one recommended by the Ministry of Education. Space was available but not for a couple of months so had to put a bond of \$240 – which we will only get back when child leaves the centre.</i></p>
<p><i>A place was going to be available for my boy at eight months, but I chose not to put him in until he was a year old. The childcare centre is very hard to get into. With the sibling I don't need to worry, have confirmed place when she's nine months.</i></p>
<p><i>No wait lists because places at kindy [for older sibling] and childcare were available when I needed them.</i></p>
<p><i>[Name of eldest child] was on a waiting list since birth until he was able to start. [Name of second child] was also placed on the waiting list from birth till two years before starting.</i></p>
<p><i>Put on three wait lists when children were born. Got in at one year.</i></p>
<p><i>Initially we had name on (Centre A's) waitlist, and we also tried to get them into Centre B with no luck. We were given two days at Centre A after about three months (but did not take them up).</i></p>
<p><i>I put both children's names on waiting lists for more than one service. This was because I knew that the waiting lists were very long. I booked eldest child in for childcare when I was still pregnant because I knew how hard it was to get care. Fortunately I found a centre that was just opening and didn't have pre-established waiting lists. I put second child's name on the waiting list close to where I worked, but their waiting list is so long, they only had a limited number of spaces for under-2s, and preference goes to siblings of children already at the service, so they told me that he wouldn't get a place before he was two.</i></p>
<p><i>When our home-based carer decided to work outside of the home I put my son's name on the wait list at a centre. Fortunately an under-2 place became available within a few months.</i></p>
<p><i>Neither of the centres needed the twins going on a waiting list but that was mainly due to my planned timing of making an application (just after Christmas when most families take their children on leave from the centres).</i></p>

Early childhood teachers/educators

Staff at early childhood services visited for this inquiry also expressed their frustrations with waiting lists. For example, the director of six centres catering for up to 200 children at any one time reported not being able to keep up with demand. Some centre directors talked about the amount of time taken up in juggling the part-time and full-time wait lists. Children were not accepted for spaces according to the length of time they were on the waiting list. Criteria for selection depended more on the ages of children and the hours required. In some centres it was easier for infants to get places than toddlers. In others the opposite applied. Some ECEC centres prioritised siblings of children already attending the centre; others did not. In some sought after centres, children on waiting lists would be lucky to get offered a place, and in these cases, the directors often preferred not to hold waiting lists. They told the parents when they rang that their child would be unlikely to get in and advised them to enrol at other ECEC services.

Early childhood service providers

ECS providers confirmed the lack of parental choice and recounted their own services' waiting list experiences in terms of the numbers and length of time for waiting. One large provider with five centres claimed to have "*hundreds*" of children on their centres' waiting lists, whereas some providers chose only to add a child to its waiting list if there was any chance the child would be offered a place. For example, one workplace centre was licensed for 10 under 2-year-olds (with no more than seven on one day) but they had a waiting list of 33 children in that age group and the children of parents from that workplace were given priority placement. Furthermore, some of the workplace centres acknowledged that children on their community lists might never get a place. Staff at one centre reported that although they received many general inquiries from the public, it was very difficult for other parents working in the city's central business district to secure a place for their child. The location and reputation made this a sought after centre so places were filled according to word-of-mouth, with no advertising necessary.

Some providers in this inquiry noted that parents on their waiting lists were lucky to get a place and if they did, it would be very unusual to get the place for the time they wanted it. They confirmed that most of the under-2s on their waiting lists had been enrolled since before birth. In the ECS that preferred their babies to attend on a part-

time basis, the managers juggled the waiting lists. Children were not prioritised according to length of time on the waiting lists, rather spaces were dependent on the days and times parents wanted and what became available. In other words, if there was *“a space available, the days fitted and nobody else wanted those days, they got in”*. Most service providers required a minimum of two days attendance to be considered.

Conversely one large corporation reported carrying no waiting lists. The reasons they gave for this were (1) many of their centres were located in low useage areas and (2) parents in their catchment areas who did require child care for their infants and toddlers were tending to choose home-based provisions.

The home-based service providers who participated in a focus group interview confirmed that their under-2 spaces were the most sought after. According to these providers, *“more educators in the system meant more children were also showing up”*. The home-based providers that chose not to run waiting lists reported that they do not take every parent that approaches them. They considered the match between what the parent is looking for and what the educator can do for them to be absolutely crucial. Furthermore, *“relationships cannot be manufactured; it is about joint responsibility and joint respect”*. These home-based providers do the matching (except for nannies, where the parents choose) and then support the care arrangements. However different home-based providers do things differently, as revealed in visits to other home-based providers (for example, parents choose their educator from a book of profiles and preliminary face-to-face meetings), and some educators are independent contractors but working under an umbrella organisation.

Cost of ECS

The economics of ECS, either for society as a whole, for providers, or for households has not been a focus of this study. However, some information on fees provides a useful background to other sections. Government subsidises the cost of provision but early childhood services usually charge fees to meet their operating expenses. In the *New Zealand Childcare Survey 2009*, parents were asked how much they paid for their child’s care per week. Of the parents with infants less than 12 months, 32.0 percent paid no fees, 31.5 percent paid \$20 or less, and 21.1 percent paid over \$101 per week. There was no cost for 20.2 percent of parents with one-year-olds. A further 26.4 percent paid \$20 or less and 12.9 percent paid between \$51 and \$100 per

week. For 24.6 parents of one-year-olds, the cost was \$101 or more (Statistics NZ, 2010). Prices varied according to the hours of attendance and benefit entitlements.

The visits to centres and interviews with parents confirmed this lack of consistency although there was some consistency across locations, indicating that child care costs may be higher in some cities than others. Fees ranged from a gold coin in some kōhanga reo and language nests to \$450 per week in a private ECEC centre. Most commonly, costs per day ranged from \$56 to \$85. There were different rates for different enrolments. For example, in one ECEC centre the fee was \$215 per week or \$199 for all mornings, or all afternoons per week, with a minimum of three days attendance. Fees varied across the home-based service providers as well as across the in-home educators. Home-based educators can charge their own fee but prices provided during the course of this inquiry ranged from \$12 to \$28 per hour (in one rare case). Fees varied according to the region and nanny's qualification, with the average cost being around \$15. The relatively high costs of nanny care balanced out when families had more than one child enrolled. In-home educators caring for up to four children charged from \$4 to \$12 per hour per child. Some (but not all) service providers took a percentage of the cost as an administration fee. For instance, instead of the educators getting paid \$5.75 per hour, they received \$5 and the provider got 75 cents for each enrolment.

Qualifying for the childcare subsidy made a difference for some families. In one instance, it cost the family \$50 instead of \$85 per day for their baby to attend an ECS. Other parents (who lived in different parts of the country) reported paying for four days and getting one day free because their child attended on a full-time basis. For example, one ECEC centre charged \$75 per day or \$315 for the full week. Prices also varied according to whether lunch was provided. Two work-based centres in the same central business district charged \$66 and \$68 respectively per day for under-2s with all food included, whereas another centre close by charged \$58.83 with children bringing their own lunch-boxes. There was also another variation in work-based ECEC centres, with some charging more for the community places. In other words, infants and toddlers enrolled under the community places available were charged \$69.34 and staff that worked in the building paid \$58.83. Other work-based centres made no distinction between community and employee places. Staff in work-based ECEC centres referred to their service as being not-for-profit, with relatively low fees because they were often subsidised by the employer. Towards the end of the data

collection for this inquiry, a number of ECS stated they would be raising their fees in the near future as a result of the changes to bulk funding provisions.

Over the years the Office of the Children's Commissioner has received a few complaints from parents angry that some ECS charge full attendance rates to parents on public holidays although they offer no service. In contrast, analyses of ECS documentation for this inquiry revealed that some services do provide a holiday discount (such as 30 days per year at a 50 percent reduced rate which applies to standard weekly bookings when written notice is received). Alternatively some services charge a holding fee, often at 50 percent of the normal rate to hold the child's place. However, other centres closed over the Christmas and New Year period (with no fees payable) but when the hours or days of enrolment fell on other public holidays, the normal weekly fee was payable. Access in some areas is currently outstripping demand, therefore parents reported being prepared to pay "*top price*" to secure a place for their child even if this meant paying the childcare fees to hold the place when their child was absent for long periods of time (such as on a family trip overseas).

Some services provide a sibling discount. For example, when a family had three children attending their service, one ECEC centre offered a 10 percent fee discount for the two youngest children. Similarly, nanny fees even out when there are three children in a family rather than just one child to care for. In addition to the service fees, participants reported extra costs, such as the stipulation by some ECS that parents only supply disposable nappies for their children rather than re-usable ones.

Many ECS have a policy on lateness for when children remain for hours outside those agreed on or parents are late picking up at the end of the day. Late fees varied: (1) a rate of \$20 per hour with a minimum amount payable of \$20; (2) \$6.10 for the first half hour, then \$6.10 every ten minutes after that; and (3) \$10 for every five minutes late. Other ECS charge by the minute (for example, \$2 for every minute late). This extra cost adds to the stress for some parents, for example, if they are caught in peak-hour traffic. To avoid this situation, parents working in central business districts often choose a service close to their workplace rather than the suburb in which they live. Some home-based services simply ask parents to phone their educator to let them know if they are unavoidably delayed and presumably the extra time is added to the time-sheet. While a policy for lateness might seem harsh from the parents' perspective, from the child's perspective, it is desirable that they

are not missing out on parenting time. From the teachers' perspective, they must adhere to the numbers of children allowed in the Ministry of Education license and the ECS is not licensed to operate outside the designated hours of opening.

Trends and growth

Enrolment rates for the youngest age groups have more than doubled over the last decade. In the past five years, enrolments for children aged one year and below have had the highest increase (MoE, 2010a). New Zealand Statistics (2010) data reveals that the care for most infants in New Zealand is either parental or informal. For one-year-olds, almost half use some type of formal education and care. Although much of it is very part-time, almost a third of this group of users attend more than 20 hours per week and usually in an ECEC centre.

A summary of the statistics (MoE, 2010a) reveal that the early childhood sector is now:

- A large one: At 1 July 2010, there were 4,321 licensed and 831 licence exempt services; and 188,924 enrolments in licensed services
- Growing: Since 2006 the number of services has increased by 14.6 percent (656) to 5,152 services
- Increasingly dominated by education and care services, both home and centre-based: The number of those services has grown by 52 percent and 31.3 percent respectively, and enrolments by 74.3 percent and 26.9 percent respectively since 2006
- Increasingly tending towards corporate and for profit ownership structures
- Catering for increasing numbers of infants and toddlers: Enrolment rates for under threes have more than doubled since 1990, with the fastest growth being in services to those children under two years of age: up 29.5 percent for under one year-olds and 21.5 percent for one year-olds over the past five years. At 1 July 2010, there were 8,704 under one-year-olds and 24,771 one-year-old children enrolled in licensed ECS. Combined with licence-exempt services, there were 11,764 infants less than 12 months old and 30,098 one-year-olds (5.6 percent and 14.3 percent of total enrolments respectively) attending ECS
- Providing services to allow children to be there longer: Since 2006 there has been an increase in the number of full-time enrolments at a much faster rate than

part-time enrolments and the overall average number of hours has increased by 18.9 percent (3.2 hours).

Summary of the current trends and growth

Early childhood is a growing sector, dominated by home and centre based services, with an increasingly younger set of “consumers” whose parents are relatively well off and can afford to pay the fees. Children are there for longer periods of the day and more days of the week. In some areas, demand for early childhood services far exceeds the supply and in other areas there is a low participation rate. Ownership is increasingly in the hands of individuals and companies who are there, amongst other things, to get a return on their investment. Significantly for this study, the fastest area of growth are home-based and centre-based education and care services for under two-year-olds.

Early childhood services are also changing their traditional types of provision to cater for the changing needs of their users. For example, some kindergartens have moved away from offering sessional services to providing all-day education and care. Whereas kōhanga reo and Pasifika services originally offered programmes aiming to grow the child’s language and that of their parents, they are now faced with the reality of needing to facilitate economic advancement by supporting mothers to study or work.

The shift towards ECS for under two-year-olds is a major change in the traditional nature of service provision of education and care for three and four year-olds. It reflects the demand for ECS to provide care while parents, usually mothers, return to paid work.

Not surprisingly, there are challenges. Evidence from this inquiry suggests that the provision of formal early childhood services for infants and toddlers is mixed in terms of the availability, accessibility, adaptability and acceptability of those services. While factors such as long waiting lists clearly influence current usage by infants and toddlers and their families, attendance is also dependent on the family’s background, geographical location, and income.

SECTION 4: POLICY SETTINGS IN THE NEW ZEALAND CONTEXT

Children are any country's most valuable resource. Governments therefore have a keen interest in ensuring that young children are well cared for. Government takes responsibility for aspects of care to varying degrees. Education is one such aspect, and for much of New Zealand's history government has taken responsibility for its provision from the age of six years to some time in adolescence (Hakim et al., 2008, Te One, 2010).

The policies about education and care before the age of six have been a matter of much more debate, and over recent years, change. According to Davison and Mitchell (2009), the political decisions made about the government's responsibility for early childhood education and care are largely influenced by theories about childhood and preferred policy approaches that, in turn, help to determine the nature of early childhood education. Similarly, Farquhar (2008) argues that education and care policies are based on ideology and not on evidence of what is best for children. Bell (2010) considers that New Zealand's history shows us that the same policy questions are revisited, each time in a different context and with different players.

New Zealand may be entering another such period of policy discussion. The policy positions of the previous government administration are under review, in part for their cost and growth path and in part for some of the positions taken on universality and knowledge and skill requirements. Government has set up an Early Childhood Education (ECE) Taskforce with a broad mandate to look at issues of value, effectiveness and efficiency. The Taskforce has produced a set of papers on aspects of policy regulation and funding that do not need to be repeated here. However, it is important that the understanding and interpretation of current policy used in this report are made transparent. If New Zealand is entering a period of review, then the particular interests of infants and toddlers, the fastest growing group of users, must be given weight. And as Brownlee (2008) notes, "As a country we need to look at the policies we are enacting that affect small children. We need to fund the services that support the first relationship"... (p.66).

Complexity and incoherence

The first and obvious point to make about the policy and regulatory settings is their complexity. This is not surprising. There are several players within central government policy, a very diverse set of providers, and government inputs into the sector through a complicated interacting mix of registration, regulation, monitoring and funding incentives.

This complexity is compounded by a lack of coherence across related policies and regulatory regimes. Parental leave policy appears to be quite separate from early education and care policy, and public health issues appear separate from issues of educational development. The funding of support for the care of infants and toddlers mirrors these divisions. A parent seeking government support to care for her or his infant will want to access Working for Families tax credits, paid parental leave, early childhood education and care, some targeted assistance and, if needed, help with any health or disability related costs. He or she will need to be in contact with IRD (via employer), Department of Labour (DOL), Ministry of Education (via ECEC provider), Work and Income, and sections of the health sector. At a policy level the divisions are reflected in the terms of reference of the Taskforce, that make no reference to child care nor to the interface with paid parental leave so obvious to many parents.

As Powell (2007) notes, what is needed [for infants] is not necessarily more child care, but a collective, national commitment to integrated services for all infants and their families. Given the wider political, economic and social forces on the early childhood sector, Te One (2010) argues that advocacy for children's rights to high-quality services needs to be targeted to the government's policy-makers across the social sector. This section of the report therefore starts by looking broadly at the policy environment that supports the care of infants and toddlers.

Financial support for care of under 2-year-olds

Government policy and legislative changes in recent years to support families with young children have included childcare subsidies for under five year olds; job protection through the Parental Leave and Employment Protection Act 1987; paid parental leave under the Parental Leave and Employment Protection (Paid Parental

Leave) Act 2002 (amended in 2004); tax credits towards the costs of raising children under the Working for Families package; and in 2007, 20 hours ECE funding of teacher-led education and care for three and four-year-olds (Families Commission, 2008).

Working for families tax credits

The most extensive form of support is Working for Families tax credits, an entitlement for families with dependent children aged 18 or younger. The package is designed to make it easier to work and raise a family by helping with the family's day-to-day living costs. Financial support from Work and Income and Inland Revenue is available to almost all families with children earning under \$70,000 per year; many families with children earning up to \$100,000 a year; and some families earning more and who have a large number of children. Working for Families tax credits are made up of four types of payments: (1) family tax credit; (2) in-work tax credit; (3) minimum family tax credit; and (4) parental tax credit.

Paid parental leave

Eligible employees and self-employed parents are entitled to 14 weeks continuous paid parental leave. If partners meet the qualifying criteria, part or all of the parental leave can be shared with them. At the time of writing this report, payment is the same as the ordinary weekly pay or average weekly earnings up to a maximum of \$441.62 per week before tax. Self-employed parents, who make a loss or earn less than the equivalent of 10 hours pay at the highest rate of minimum wage, receive a minimum rate of \$127.50.

According to the Families Commission (2007, 2008), New Zealand was one of the last countries to introduce paid parental leave entitlements and remains one of the least generous (in terms of the level and duration of those entitlements) and most restrictive (in terms of its employment criteria for accessing parental leave and flexibility for using the leave). There is little flexibility in when and how it is taken. It does not appear to be able to be used to complement part-time employment, or used after the first few months of an infant's life.

Participants across all stakeholder groups were unified in thinking that improving the paid parental leave provisions was the best way to support parents with infants.

Benefit system

The domestic purposes benefit is available for sole parents who need to provide full-time care and attention for a dependant child with high needs. The early learning payment helps pay the costs of ECS for children aged 18 months to 3 years whose families are enrolled in either the Family Start or Early Start programmes. Home help may be available for parents who have (1) had a multiple birth; (2) adopted three or more children; or (3) had a domestic emergency (conditional on income). The young parent childcare payment provides child care support for young parents to attend secondary school (including a teen parent unit or correspondence school).

Early childhood education provider funding

There are various funding regimes for different types of services (well set out in ECE Taskforce papers). The most significant for the licensed services that are used by most infants and toddlers are subsidies that reflect teaching salary costs in teacher-led early childhood services and four components of operating costs: operating, capital, property operating, and non-teaching (MoE, 2010c). Early childhood services are entitled to a maximum of six hours a day, up to 30 hours per child/place per week. The 80 percent plus rates are from \$11.80 an hour for under 2-year-old children and \$6.53 an hour for two-year-olds and over. The 50 to 79 percent rates are \$10.68 for under-2s and \$5.63 for 2-year-olds and over.

From 1 February 2011, the subsidy funding rates for early childhood services with 80-99 percent and 100 percent registered teachers will be removed and replaced with new 80 percent plus funding rates. There is a regulated minimum requirement for 50 percent of the staff in a service to be qualified and registered teachers.

Although not applicable for under 2-year-olds who are the focus of this inquiry, 20 hours ECE funding is worth mentioning here because of its relevance to early childhood policy. All 3, 4 and 5-year-olds are entitled to 20 hours ECE if they attend a service offering it. The Government totally funds 20 hours ECE up to six hours a day, 20 hours a week. Parents who are eligible for the childcare subsidy cannot receive that subsidy for the same hours their child receives for free under the 20 hours ECE.

Childcare subsidy for pre-school children

This subsidy provides financial support with the cost of early childhood services for low and middle-income families based on their income and number of children. From 27 September 2010, the income limits are: \$72,800 for one child, \$83,200 for two children, and \$93,600 for three or more children (MSD, 2010). The maximum current rate of subsidy is \$3.70 an hour.

The subsidy is available for pre-school children (and children under 6 years who receive a disability allowance) if they attend a formal early childhood programme for three or more hours per week. To get the subsidy, a person must be the main carer of a dependent child, not have a partner able to provide child care, and be a New Zealand or permanent resident who normally lives in New Zealand (MSD, 2010). Parents can receive the subsidy for up to nine hours of ECS a week where the parent is not working. The subsidised hours are much greater if parents are working, studying, involved in a WINZ activity, working night shifts, seriously ill, or caring for a child in hospital (Statistics NZ, 2010).

Funding amounts are assessed according to the number of children in the family, income levels, number of study/work hours, hours of children's attendance at the early childhood service, and the fee charged by the service provider. Families with more than one child can get more than one subsidy (ibid, 2010). The subsidy is paid directly to the provider. To be eligible for the subsidy, the ECS must be either (1) a licensed early childhood centre; (2) a kōhanga reo chartered by the Kōhanga Reo National Trust or (3) a licensed and approved home-based organisation.

Summary of financial support for care of under-2s

Several aspects of the funding system merit comment from the perspective of infants and toddlers. The targeted support under Working for Families, and for those using the childcare subsidy, provide subsidies well into the middle-ranges of family incomes. Second, the paid parental leave provisions are limited and inflexible. Provisions in employment contracts may extend these provisions. Third, the subsidies for education and care costs paid to centres are not means tested and meet a considerable proportion of the actual costs (perhaps 50 percent) for 6 hours a day and 30 hours (5 days) a week. There is less flexibility around this funding than with the 20 hours highly subsidised regime for those over three years of age.

Early childhood education and care provisions

The sections below set out the understandings and interpretations of policy positions specific to early childhood education and care on which this inquiry has been based.

Non compulsory

Early childhood is not a compulsory part of the education sector. Unlike the compulsory school sector, early childhood education and care is voluntary. There is no mandatory policy and legislation to guarantee children's rights to enrolment and participation. Parental choice is valued. There has been a strategy of increasing participation, explicit since 2002, but the focus has been mainly on participation of three and four-year-olds.

Provision by non government organisations

Almost all early childhood education and care is provided by non-government organisations. This has helped to sustain the considerable diversity that is a feature of the New Zealand sector. It is seen as a strength and as consistent with the value put on parental choice.

A partnership between the New Zealand government and the early childhood sector was recognised in *Pathways to the future: Ngā huarahi arataki* (MoE, 2002). This 10-year strategic plan (2002-2012) for early childhood education set policy directions towards quality participation, the aim being to create a fully-qualified workforce in teacher-led services and to provide additional funding and support for whānau/parent-led services. Furthermore, the hope was to redress the barriers to provision and participation that existed for Māori and Pasifika children (Davison & Mitchell, 2009; May & Mitchell, 2009). The specific goals for this shared vision between the early childhood sector and government, as outlined in the strategic plan, were to: (1) increase participation in quality early childhood education; (2) improve quality of early childhood education services; and (3) promote collaborative partnerships. To address these goals the following changes in direction were envisaged:

- New funding and regulatory systems to support diverse early childhood services to achieve quality early childhood education
- Better support for community-based early childhood services

- The introduction of professional registration requirements, for all teachers in teacher-led services – the same as for those applying in the schools sector and kindergartens
- Better cooperation and collaboration between early childhood services, parent support and development and education, health and social services to empower parents and whānau to be involved in their children's early learning
- Greater involvement by the government in early childhood, with a particular focus on communities where participation in quality early childhood services is low (MoE, 2002, pp. 2-3).

Non-government provision contains some elements of market provision. This is particularly apparent in the provision of services, which has largely been left to the decisions of the various provider organisations. One consequence of this, it would seem, is that it is the corporate for-profit sector that has had the best capacity to fund the building of new centres. This has meant a growth in the proportion of services that are commercial. Government policy is essentially agnostic to the nature of ownership and whether the provider is for profit or not.

A second consequence is that the growth has been in locations where the provider, for-profit or not, expects to attract a pool of parents willing and able to pay fees that sustain a viable service. This has meant a lack of supply in areas of lower income families.

User pays but with a very heavy government subsidy

As noted in the section on funding, services are funded through a complicated mixture of subsidies and fees, in which the fees would seem to operate for many, though perhaps less for those under two, as a top up to the subsidy. Two consequences of this are that the government subsidy is effectively to the provider, and is not transparent to the user, or available to them to use in other ways. (This is of course not uncommon in subsidised services). The second is that the amount that the parent does pay in fees is very visible and the subject of political debate.

Extensive regulation but light monitoring

The New Zealand government, through the Ministry of Education, regulates much of the service provision. Despite its breadth, the regulation is not particularly heavy in many areas. The centralised regulatory framework is matched to a holistic and inclusive early childhood curriculum that promotes diversity (Cullen, 2008).

The regulations set minimum standards to ensure basic levels of quality and as a benchmark for measuring the quality of service provision. The structure and nature of early childhood services in New Zealand means that the government has to provide incentives and rely on service providers to make the changes it desires.

The regulatory regime is monitored relatively lightly, other than accountability for funds. The relicensing provisions are being relaxed. ERO runs a three yearly cycle of assessment visits. The public health monitoring regime is variable. Arguably for infants and toddlers rather much is left to their parents to monitor and to the quality assurance systems of the providers.

Commitment to pre-schoolers' learning and development

Since 1986 government's actions in almost all aspects of early childhood education and care have been located within the education sector, in an educational setting of institutional arrangements, discourse, and goals. Not surprisingly, the emphasis has been primarily on the learning and development of three and four-year-olds.

The learning needs of infants and toddlers are different to those of older pre-schoolers and the entrance of this age group into formal early childhood services has created some new challenges to the prevailing paradigm. It will be argued later in this report that the challenge requires some changes in current policies and practices if the sector is to meet the best interests of infants and toddlers.

Not surprisingly given the hegemony of educational paradigms, the predominant strategy to improve quality has been to increase the knowledge and skills of workers by incentivising the employment of qualified and registered teachers. Cullen notes that the history of early childhood education as a non-compulsory, voluntary sector has meant that student outcomes have not been a major focus of many early

childhood programmes (Cullen, 2008). However New Zealand does have a history of commitment to quality provision across the early childhood sector with a particular focus on quality through funding incentives, a widely respected curriculum, teacher qualifications and regulation.

Summary

This section of the report has identified current policy settings within the New Zealand context. Historically New Zealand has demonstrated a commitment to quality provision across the early childhood sector and is envied internationally for its focus on quality through funding, curriculum, teacher qualifications and regulation. However there is room for improvement and the increasing numbers of under-2s in formal ECS brings some added challenges.

SECTION 5: IMPACT, BENEFITS, RISKS AND MITIGATION OF FORMAL EARLY CHILDHOOD SERVICES FOR UNDER 2-YEAR-OLDS

This section is in three parts. The first reports on what the literature says about the impact of ECS on outcomes for children (positive and negative) and risks and mitigation. The second part reports the perceptions of participants in the inquiry (parents, health professionals, early childhood teacher educators and researchers, ECS providers and their staff). The third part summarises the findings.

Literature review

General comments

It is important context in reviewing the impact of child care to recognise that family influences are much more important than childcare influences on outcomes for children (NICHD Early Child Care Research Group, 2005). Family income, parents' education, and of course the home setting will have a far greater impact. Child-rearing behaviour by the parents is more important in explaining children's early social, vocational, motor, and intelligence development and adaptation than whether parents routinely use the services of high-quality centre-based care facilities or the length of time children spend in these services (Anme & Segal, 2004). Melhuish's synthesis of the research available up to 2004 concluded that family influences were twice as important as childcare influences. The quality of parenting that children receive is a far stronger and more consistent predictor of children's academic achievement and social functioning than children's experiences in early child care (Belsky et al., 2007). This holds even more for mainstream families whose children are not subject to the sorts of family adversity associated with vulnerability to poor outcomes (see appendices B and C).

The focus of this report is on mainstream New Zealand families. Although it is difficult to disengage findings about under two-year-olds from the literature on the over-3s, the next section outlines what is said about the social, emotional, behavioural, cognitive and health impacts of formal education and care on infants and toddlers within the mainstream.

Before embarking on the discussion, it is useful to clarify some of the technical terms that help explain the degree of impact. Consideration of the size of the effect is vital to assessing the importance of findings. What is in the relative best interests of the child cannot be assessed by simply weighing up the “good and bad” or “positive and negative” effects. For example, an understanding of effect sizes is crucial when interpreting research studies about cortisol. The effect size is a measure of the magnitude of the impact. A small effect size ranges from 0.0 to .20, a medium effect size ranges from .20 to .50 and a large effect size ranges from .50 and above. More often research studies in this field report small and moderate effects rather than large effect sizes.³ Secondly, as Hakim, Bradley, Price, and Mitchell (2008) advise, statistical significance, the conventional test used in academic journals, is not often useful in a policy context because more often than not it simply reflects the size of the sample. It is the size and strength of any effect as well as robustness of the results that is more important. Policy reports are also likely to present the magnitude or ‘effect size’ of the policy’s impact, yet the more useful way of measuring impact is to report effect sizes compared to some other well-known factors, such as the effect of high quality childcare compared to high quality parental care. This is rarely done.

Impact in general

Debate about the impact of child care on infants and toddlers began in the mid to late 1980s with Jay Belsky’s analyses of the research literature concluding that early, extensive and continuous non-maternal care may increase the risk of both attachment and behavioural difficulties. There is some contention in the literature regarding the impact of formal education and care on infants and toddlers. Melhuish’s (2004) review of the literature found that while care by relatives generally improved social development, formal child care for under-3s sometimes had harmful effects. According to Hakim and colleagues (2008) the policy and practices of non-parental education and care might have a greater impact on our youngest infants, if only because “childcare requirements are the most intensive during the first three years of a child’s life” (p. 8).

Some researchers (e.g., Biddulph, 2006; Cook, 2008; Hakim et al., 2008, Lally, 2009; Melhuish, 2004) voice stronger concerns. These opponents of formal childcare for infants and toddlers are adamant that non-parental child care for this age group can

³ For further reading, the NICHD Early Child Care Research Network (1999) discusses the importance of how to interpret the NICHD findings in relation to effect sizes.

have a negative impact on them. Lally (2009) states, “The research is clear: putting infants and toddlers in care settings in which older children thrive has been shown to produce negative effects in the younger children” (p. 48).

Others hold a different view. Ahnert and Lamb (2003) argue that negative findings do not necessarily mean that non-parental care has direct adverse effects on early development. Instead, they consider that the effects may best be interpreted “in the context of complex changes in children’s experiences both at home and in non-parental care settings” (p. 1044). Child care experiences interact with experiences at home and the child’s own characteristics (Bradley & Vandell, 2007). Poor-quality relationships at home may magnify the adverse effects of the high stress levels associated with childcare, so it might be desirable to limit the amount of attendance time. Ahnert and Lamb consider it to be far more important for children to spend as much time as possible with supportive parents. Thus, the maladaptive behaviour of children who spend many hours in childcare may reflect the inability of parents to buffer the enhanced levels of stress experienced in childcare rather than the direct effects of non-parental care (Ahnert & Lamb, 2003). Similarly, a Japanese study concluded that factors in the home environment, not length of centre-based care, explained developmental risks two years later (Anme & Segal, 2004).

Demonstrating the influence of parents’ interactions with their toddlers, Ahnert, Rickert and Lamb’s (2000) study of middle-class German children (aged between 12-24 months, and observed both at home and/or in their childcare centres) found that patterns of parental care changed significantly when families used childcare centres. Mothers of children in out-of-home care compensated for the time they spent away from their children by interacting with increased intensity when they were with their children in the early morning and evening hours. As a result, the total amount of attention the toddlers received from adults was the same, whether or not they were enrolled in non-parental care. The NICHD group had similar findings: mothers gave up their personal time to spend more time with their children when they were not at work and fathers were more involved in childrearing when mothers were working outside the home (NICHD, 2005).

In the German study, however, mothers of children in childcare tended to respond less promptly to their toddlers’ signals of distress than did mothers of children at home. Although they experienced less prompt responses to their distress signals, childcare toddlers experienced high levels of emotional support at home, with their

parents providing the types and amounts of care and stimulation that the children might have missed while at the centres (for example, types of intimate interaction). Interestingly, this study also found that while home-reared toddlers were periodically and minimally distressed throughout the day, the toddlers in childcare showed heightened levels of behavioural distress around the time they were picked up from childcare but not during the hours they were in the centres (Ahnert et al., 2000).

Clearly the child's environment influences the degree of impact. For children attending child care the home and ECS will be their key environments. In terms of the home environment, the New Zealand Families Commission (2008) emphasise the importance of both the physical quality and the character of the neighbourhood and unsurprisingly state that "enduring, consistent experiences with people and places over time have stronger impacts on children than do environments experienced more briefly" (p. 99). Extending this thesis to the early childhood environment, ERO (2004) state that children's learning and development are "influenced by their interactions with adults, other children, the physical environment and the philosophy and resources within the service" (p. 2).

Whether the impact is positive or negative is determined by a number of factors. Bradley and Vandell (2007) explain that determining impact is challenging because "child care is a complex phenomenon that varies along multiple dimensions (eg, amount, type, and quality), making it difficult to isolate the effects of just one dimension" (p. 669). The OECD report (2009, p. 118) suggested that the following questions might help to determine impact:

- What is the impact on the child if the mother moves back into the workforce after 12 weeks as opposed to 20 weeks?
- How does this affect breastfeeding?

In New Zealand, Mitchell, Wylie, and Carr (2008) listed the factors affecting impact as being: duration, hours per week, and quality of the service provision. Their synthesis of the literature found longer duration of high quality early childhood education to be linked to academic gains for the over-2s. The impact of early entry and long duration has been a subject of contention, primarily about whether, and to what extent, it has a negative impact on infants and toddlers. Of interest to this inquiry, the benefits were not the same for starting before the age of two years, where early starting age was linked to higher levels of antisocial or anxious behaviour at the time of attendance

through to school entry. Long hours of non-parental care and frequent change of care were also associated with antisocial behaviour, suggesting that poor quality care combined with early entry contributes to those negative outcomes for under-2s (Mitchell et al., 2006).

Frequent change of care affects impact. Worth noting is the evidence to suggest that experiencing several childcare settings (and the associated instability of different philosophies, educators and routines) can have an impact on young children, particularly if the child has a difficult temperament (De Schipper, Tavecchio, van IJendoorn, & van Zeijl, 2004).

Social, emotional, behavioural, cognitive, and health impact

Social and emotional impact

Vandell's (2004) review of the research supports the association between experiences in child-care settings and socioemotional outcomes in children. The structure and quality of ECS can influence adult-child interactions and children's outcomes. Child care may reduce direct children-adult interaction because of the higher adult to child ratios in early childhood services compared to families (OECD, 2009). On the other hand, low child-adult ratios allow educators to spend less time managing disruptive behaviour and more time in one-to-one interactions. Staff within such settings have been found to be more supportive, warm, socially stimulating, and responsive toward young children (Vandell, 2004).

While child care can facilitate positive social interactions with other children (although this is more important for over-2s rather than infants and toddlers) it can also expose children to stressful interactions with other children at a time when they are less capable of dealing with this (OECD, 2009). Toddlers in centre-based care have been found to be more competent with strangers and more independent of mothers in a laboratory playroom compared to children in home care (NICHD, 2002).

Behavioural impact

The research literature was mixed about the behavioural impacts of formal child care on the under-2 age group. The Organisation for Economic Cooperation and Development (2009) report that child care in the first three years, regardless of quality, can raise risks of externalising behavioural problems. Findings from the Effective Provision of Pre-School Education (EPPE) project in the United Kingdom

found that pre-school education for three and four-year-olds improved both cognitive and social skills whereas high levels of “group care” before the age of three (and particularly before the age of two) were associated with higher levels of anti-social behaviour (Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2004). In addition, Loeb, Bridges, Bassock, Fuller, and Rumberger (2007) emphasise how reviews repeatedly demonstrate that the academic benefits of pre-school centre-based childcare are bought at the price of increased behaviour problems. Yet an earlier study of child care in poor communities by Loeb, Fuller, Kagan and Carrol (2004) concluded that participation in centres was unrelated to behavioural problems. Datta Gupta and Simonsen (2009) found the worst behavioural outcomes were for boys of mothers with low levels of education and in another study (Bradley & Vandell, 2007), there seemed to be an interactive effect: children with elevated risk in child care tended to have difficulties interacting with peers or had insensitive parents.

The NICHD study (2003) found that a history of extensive out-of-home care predicts externalising behaviour in early childhood but acknowledged that the total amount of non-parental childcare experienced by children might only be an indicator, rather than the direct cause, of increases in problem behaviour, assertiveness, disobedience, and aggression. Similarly Anme and Segal’s Japanese study (2004) found little evidence that the amount of time children spent in non-parental care in the first two or three years of life is, in and of itself, systematically related to children’s self-control, compliance, or problem behaviour by age three years.

The establishment of universally available child care in Quebec, Canada, in the late 1990s allowed a large quasi-experimental evaluation of the effect of publicly-financed child care, at least in the short term. The evaluation found that over a variety of socioemotional outcomes for pre-school children (including hyperactivity, anxiety, and aggressiveness), things worsened. Parental interactions with children deteriorated and no improvements were found in cognitive performance (OECD, 2009).

A large American study (Belsky, et al., 2007) measured the quality, quantity, and type of non-maternal childcare received by 1364 children from when they were one month old until they were 54 months old. In this study, attending formal child care as infants and toddlers was associated with higher rates of aggressive behaviours in year six. The more time children spent in centre-based care before starting school the more likely they were to score higher on teacher reports of aggression and disobedience.

This was true regardless of the quality of the centre-based care they received. The study found that higher quality child care predicts higher levels of pre-academic skills and language performance, although not social functioning, whereas more hours in care and increasing hours in care predict higher levels of behaviour problems, but not academic skills or language functioning. Furthermore, the study confirms prior research that all three of the core features of early child care – quality, quantity, and type – are related to children’s school readiness and social behaviour (Belsky et al., 2007).

Cognitive impact

Although not specific to the under-2 age group, indications are that higher-quality child care improves early cognitive functioning, measured at up to five years (OECD, 2009). While the effect sizes were modest in Belsky’s (2003) study, there was evidence to show that higher quality childcare improves early cognitive functioning and early school achievement, particularly for disadvantaged children.

In 1991, the American National Institute for Child Health and Development (NICHD) launched the study of Early Child Care and Youth Development. They followed more than 1000 children from one month old, to investigate the short and long-term relationship between child care and children’s development. The participating children were evaluated periodically, the most recently at age 15 (Griffin, 2010). Griffin found that teenagers who attended high quality childcare settings scored higher on measures of academic and cognitive achievement and reported fewer acting out behaviours than peers who were in lower quality education and care during their early years. Conclusions from that study are that high quality child care appears to provide a small boost to academic performance and a reduction in problem behaviours, perhaps by fostering early acquisition of school readiness skills. Similarly, the latest iteration of an ongoing longitudinal study (Wylie, Thompson, Hodgen, Ferral, Lythe, & Fijn, 2004) in New Zealand found that 12-year-olds who participated in high quality early childhood education performed better in reading and mathematics than those whose early education was of a low standard. Even after family income and parental education were taken into account the differences remained, with these gaps widening with age.

In contrast (and further to their behavioural findings), Belsky and colleagues (2007) found that greater exposure to centre-type care proved to be related to child functioning in both positive and negative ways. Children’s cognitive and social

functioning was measured at school in years two, four, six and seven. Children who experienced higher quality early child care before school entry had somewhat better vocabularies in year six than children who were enrolled in lower quality care. On the other hand, numeracy and literacy gains made by children who had been in high quality childcare did not continue beyond the second year of school.

Evidence from Barnett and Belfield's (2006) study indicates that although early entry into child care has positive initial effects on cognitive abilities, those effects tend to decline over time and in many studies are negligible several years after children leave the programmes. Interestingly, this study found that out of all the education and care services, only centre-based programmes that provide individual tutoring sessions improve cognitive development. Generally, there is limited information about the impact of child care for infants and toddlers on their subsequent cognitive development.

Health impact

The health benefits and risks of formal childcare for under 2-year-olds have created debate in the child development research literature. The general benefits of child care have been well established, in particular the positive impact of quality ECS for children in families vulnerable to poorer outcomes. However, there remain questions about the impact of care, in particular for long periods, on the immediate well-being of infants and on their longer-term development. Implications regarding attachment, health and brain development need to be considered.

Neuroscientific research suggests that stable, loving, nurturing, secure and stimulating relationships in the earliest months and years of life are critical for every aspect of a child's development (Gammage, 2003; Shonkoff & Phillips, 2000; Springford & van Druiven, 2009; Waldegrave & Waldegrave, 2009). There are concerns that early and long hours of attendance, without safeguards, may impede the development of normal patterns of attachment. (This is discussed further in the section on risks).

There are some concerns in the literature that child care at a very young age may limit breastfeeding or make it too difficult for mothers to sustain (OECD, 2009; Rutter, 2008). A second concern is the risk of infants, in particular, being exposed to sickness. Centre-based child care, in particular, may expose a child to a higher amount of infection, from both viruses and bacteria, than would be expected within

the average home environment (OECD, 2009). Parents worry that in formal “institutional” settings, children catch “bugs” from other children thereby causing parents to take time off work to care for a sick child, often at very short notice (Hakim et al., 2008).

For young children in childcare more than 30 hours a week, physical health can be compromised with an increased risk of communicable illnesses and ear infections, although these health problems do not appear to have any long-term adverse consequences (Bedford, 2008; Bradley & Vandell, 2007). Certainly there is evidence that greater time spent by children in ECS is associated with increased rates of respiratory problems and ear infections (NICHD, 2005). Gordon, Kaestner, and Korenman (2007) found increased rates of ear infections in their study of children aged 12 to 24 months. Similarly, Vernon-Feagans and Manlove’s (2005) study of children who entered child care before they were twelve months old found increased rates of otitis media (middle ear infection). In this study, infants and toddlers with chronic otitis media who also attended a poor quality ECS were found to be the most vulnerable to poor language outcomes.

Disease transmission is a significant health issue in New Zealand’s early childhood services. Early childhood settings have been represented in viral outbreaks and found to increase the spread of non vaccine-preventable communicable diseases among children and their families, with major associated costs (Bedford, 1999). Alongside notifiable diseases data, Bedford’s (1999) research study found that infections are a significant quality of life issue in New Zealand early childhood services. According to Bedford (2008), 31 percent of all upper respiratory tract infections have been attributed to child care attendance and 66 percent of all ear infections among full-time attendees were described as attributable to childcare attendance (Bedford, 2008). In terms of gastroenteritis, ECEC centres are high risk for giardia, cryptosporidium, rotavirus, and norovirus. Outbreaks are very common, affecting children, parents, siblings and teachers, and sometimes, whole communities. Most, however, go unreported.

Disease transmission results from a mixture of biology and behaviour. Sometimes regulatory requirements do not reflect reality in relation to hygiene practices. To change behaviour, it is necessary to examine the practices (Bedford, private communication, 3 February, 2010). Bedford’s (1999) study identified the following barriers to dealing with transmission issues:

- Normal child behaviour and developmental stages, including lack of physical self-awareness, lack of understanding of basic hygiene, and children's own behavioural priorities and preferences
- Adult to child ratios resulting in supervision problems and time pressures
- Cost and waste issues
- Poor design of facilities, including failure to design for child physiology and psychology
- Inappropriate risk perception and lack of knowledge and by staff and parents
- Conflicting information from health professionals and health agencies
- Inconsistencies between practices encouraged in early childhood centres and home practices, and lack of adult modelling of desirable hygiene practices
- Lack of set procedures and policies (p. 182).

While many non vaccine-preventable communicable diseases are preventable, especially the gastrointestinal infections, effective preventative measures involve a very complex range of issues (Bedford, 1999). In terms of vaccine-preventable diseases, children's immune systems are not fully developed by one year of age and that is why, for example, infants needed to have an extra dose of the MenZB vaccine during that campaign. Vaccinations help to protect infants against communicable diseases. By the same token, infants also have their mother's antibodies circulating in their bloodstream, and although the level of maternal antibodies decreases over time, some like Hepatitis B antibodies from the mother, can still be detected in the infant after 12 months of age (Immunisation Advisory Centre NZ, 2010). The under-developed immune systems of under-1s in particular, increase their vulnerability in formal childcare settings.

A third health impact is linked to the quality of the environment. Factors such as space, noise and temperature can affect the health and well-being of infants and toddlers in formal early childhood services. For example, the minimum temperature recommended by the World Health Organisation is 18 degrees celsius but New Zealand's minimum standard is 16 degrees (Bedford & Sutherland, 2008).

Bedford and Sutherland also warn of the physical and emotional health consequences related to overcrowding. In addition to increased exposure to

infectious disease, Bedford (2008) argues that the effects of overcrowding are exhaustion, over-stimulation, aggression, interference with the development of learning skills, and lack of privacy.

The early years of life are critical for the development of speech, hearing and auditory processes; yet this is also the most vulnerable time for middle ear infections (McLaren, 2008). Furthermore, McLaren and Dickinson's (2005) study of noise exposure in ECEC centres found that over a quarter of the children and one sixth of the teachers received dosages in excess of the maximum daily sound exposures permitted for employees under the health and safety in employment legislation. Similarly, a survey of early childhood centres conducted by the National Deaf Foundation found that high noise levels had affected 20 percent of children. The impact was greater in centres with large numbers of children and staff and for children with diverse needs, particularly those with sensory challenges (McLaren, 2007, 2008).

Cortisol debate

Potentially, some young children may be particularly stressed by long childcare hours (Berk, 2006). Watamura, Donzella, Alwin, and Gunnar (2003) suggest that regular, full-day placement in formal childcare is physiologically stressful for most infants and toddlers. They refer to the growing evidence that diurnal neuroendocrine rhythms are altered by childcare experiences such that high levels of the stress hormone cortisol are evident in the afternoons when children spend long hours in childcare settings. Bradley and Vandell (2007) support this claim. Their study found that children who began childcare early in life and were in care for 30 or more hours per week were at increased risk for stress-related behavioural problems. Other studies (see Gunnar & Davis, 2003; Gunnar, Kryzer, Phillips and Van Ryzin, 2010) have also found high levels of cortisol in children attending full-time education and care services (at least 30 hours per week).

Findings by Watamura and colleagues (2003) indicate that many infants, toddlers and older pre-schoolers attending early childhood centres on a full-time basis show a mild increase across the day of saliva concentrations of cortisol. In their study, this pattern did not occur on the days they were at home. Anxious or shy children who found the social context of early childhood centres stressful had even higher levels of cortisol (Watamura et al., 2003).

However, there is debate in the literature around cortisol (Gunnar & Davis, 2003). On the one hand, some researchers are becoming very concerned about babies and toddlers whose levels of cortisol are elevated all day. They worry that as babies' brains develop in response to the neurochemicals in their body, their brains may become adapted to chronically high levels of cortisol, and this may be affecting their ability to control their emotions and behaviour as they grow up (Bowlby, 2007). High cortisol levels are a symptom of stress and because the imprint for how adults handle stress is set in early childhood, there is an argument that constant exposure to stress in daycare (via noise, large group interaction, and limited space per child) sets the pattern for reduced affective and cognitive functioning in adulthood (Mitchell et al., 2008; Vermeer & van IJzendoorn, 2006).

Bowlby's (2007) research found that when they were attending early childhood centres without an attachment figure, many babies and toddlers had significantly elevated levels of cortisol in their saliva samples but normal cortisol levels while their parents were present during the initial settling in period of a few weeks. For Bowlby, this observation suggests that separation from parents is stressful for infants in the absence of a secondary attachment figure. However, when the infants and toddlers were eventually reunited with their primary attachment figure and received enough time and sensitive attention, they were usually comforted enough to enable their cortisol levels to return to normal before bedtime. In terms of attachment theory, Bowlby explains that the "infants' attachment-seeking behaviour was activated as they entered childcare, de-activated during childcare, and then re-activated when they got home" (p. 313). Bowlby notes that without any additional risk factors, many babies and toddlers appear to tolerate this daily cycle without noticeable long-term effects. However, there are some babies and toddlers who are unable to be sufficiently comforted when they return home and their cortisol levels remain elevated and do not return to normal before bedtime. In these cases, the attachment-seeking behaviour remains de-activated, instead of being re-activated, and their cortisol levels are still elevated the following morning (Bowlby, 2007).

Watanabe and colleagues (2003) suggested that while toddlers in non-parental care may experience more stress by the afternoon hours than do those who are in maternal care, the effects of non-parental care may be mitigated by the quality of the peer interaction they experience. Conversely, when mothers are not as effective in dealing with distressed toddlers seeking reassurance, the next day those children might return to the early childhood service inadequately reassured and thus with

lower emotional thresholds that are reflected in increased endocrine levels (Watanura, et al., 2003).

In a German study, Ahnert, Gunnar, Lamb, and Barthel (2004) used cortisol measures to track the adaptation to childcare and reported that adjustment was in part dependent on the quality of prior infant-mother attachment relationships. They found that infant-mother attachment security was unrelated to cortisol levels at home. While they were becoming familiarised with childcare, securely attached infants and toddlers had markedly lower cortisol levels than insecurely attached infants. This suggests that secure infant-mother relationships buffer the stressfulness of entry into childcare. However, when the daily mother-child separations began, cortisol levels were similarly elevated in securely and insecurely attached toddlers but infant-mother attachments remained secure or shifted from insecure to secure when mothers spent more days adapting their children to childcare (Ahnert et al., 2004).

According to Watanura et al. (2003) the evidence is inconclusive as to whether mild elevated levels of cortisol will have a sustained effect on brain development. Indeed, Langlois and Liben (2003) wonder which is the most likely causal factor: (a) the child care environment, (b) separation from the mother, or (c) the stress of having a working mother. They cite other studies whereby the quality of the child care was a more important predictor of child outcomes than was the quantity of child care which is consistent with other research studies.

Other factors need to be taken into account as well. In their meta-analysis, Vermeer and van IJzendoorn (2006) draw the most reliable conclusions at the present time. Through their clustering of relevant studies, they noted that studies using urine rather than saliva samples would have a lag effect and thus be measuring different times of the day. High cortisol levels might only be dangerous if they remain persistently elevated, so the counter argument is that if cortisol levels were lowered when the child goes home, there would be no risk to future functioning.

The research on children's cortisol levels in child care also needs to be balanced in terms of the effect sizes (Sommer, in press; Vermeer & van IJzendoorn, 2006). In the cortisol studies many of the correlations were weak and therefore of minimal practical significance because the effect sizes were small and only accounted for a fraction of the variation. In all likelihood other unexplained factors such as certain conditions associated with the quality of the child care account for some of the variance, but as

Sommer explains, small effect sizes will not impact on individual children but could have broader scale implications for policy. Nor does the evidence currently support the view that elevated levels in ECS will have negative implications for later development (Vermeer & van IJzendoorn, 2006).

Further to Vermeer and van IJzendoorn's synopsis of the research literature, Sommer reviews the public warnings and alarms based on the cortisol studies in his latest book (Sommer, in press). Drawing on the research, Sommer now concludes that the "cortisol-card used in the public debate is wildly overplayed". What happens in stress-hormone production, according to Sommer's interpretation of the literature so far is that raised cortisol levels in the afternoon sessions may be the consequence of "temporary excitement" (not fear) due, for example, to the rough-and-tumble of peer-group play. Furthermore it is unlikely that the cortisol levels of young children attending full-time education and care services are elevated, other than for a relatively few hours in the afternoon on a 24 hour scale, thus indicating an adapted hormonal response to the joys of social play. In Sommer's considered opinion the "argument of persistent elevated levels is simply wrong" and the studies should not be used as warnings of later developmental problems (such as in regard to antisocial and aggressive behaviour) because there is not enough evidence to confirm that argument as yet. In summary, while it would seem that more research is needed before the effects of cortisol levels on young children in formal ECS can be accurately determined, the evidence is not strong that one negative health outcome for infants and toddlers is sustained high levels of cortisol.

Benefits of early childhood education and care

The following discussion focuses on the benefits to children of use of ECS when they are less than two years of age. The literature on the societal benefits of ECS will not be covered except to note there is evidence of wider social benefits from ECS generally. There are economic gains from women's increased labour force participation. If child care facilitates higher family employment and economic advancement, more income could have positive benefits for children through improved material circumstances (OECD, 2009). There is also evidence of reduced social costs from early childhood investment in children who might otherwise have poorer educational, health and social outcomes. There are known benefits of early childhood services for disadvantaged children whose parents are mentally ill,

addicted, overly stressed, or exhibit poor parenting skills (Penn, 2009). It should also be noted that much of the literature reports the benefits for pre-schoolers rather than specifically for under-2s.

The UNICEF Report (2008) outlines a series of international longitudinal studies that provide sound evidence of the benefits of high quality education and care (see pp. 10-11). In this country the Education Review Office confirms that participation in high quality early childhood education increases the likelihood of children being successful in later formal education because the “benefits gained through involvement in high quality early education support young children’s learning and development both at the time and in later life” (ERO, 2004, p. 6). Similarly Mitchell, Wylie, and Carr (2008) found that centre-based services specifically catering for infants and toddlers and which offered good quality service provision and a range of family support services (such as health, community connections, and parenting) were associated with positive cognitive, learning and social outcomes for children as well as positive parent-child interactions.

As previously stated, most of the studies reporting benefits of formal child care relate to young children over the age of two years and clearly demonstrate that high quality ECS helps most children older than 36 months to develop their cognitive and social skills and their emotional interdependence. Babies are born to be social and from a sociocultural perspective infant and toddlers come to know about their world through their activities, in communication with others (Smith, 2001, Smith and Taylor, 2000). From a developmental perspective, however, they are at least two years old before they begin to develop and engage in associative play, followed by cooperative play interactions (Berk, 2006). So while there is universal consensus in the literature that quality early childhood education and care is beneficial for children aged three to five years (particularly in relation to cognitive outcomes), it does not indicate the same benefits for infants and toddlers attending formal early childhood services because researchers have consistently found no real benefit for children younger than 24 months (Bowlby, 2007).

Rutter (2008) provides a useful summary of the conclusions from the research literature to date:

- The majority of children attending good-quality education and care cope well
- Poor quality care (both home-based and centre-based) carries risk

- Children from disadvantaged backgrounds can benefit if the quality of care is better than what their own mothers are able to provide
- There are health risks for very young babies. Furthermore a very early return to full-time work is associated with less regular medical check ups and less complete immunisation, as well as a lower rate of breastfeeding
- Questions remain as to the potential risks for under-1s if they experience many hours in formal ECS or changing patterns in their care.

Risks of formal early childhood education and care for under 2-year-olds

This section reports on what the literature says about the risks of formal child care and its mitigation.

Attachment

As already mentioned, there are risks around attachment for infants and toddlers attending formal education and care. Some early childhood services do not lend themselves to infants and toddlers developing a lasting secondary attachment bond to one key person because the difficulty of maintaining continuity of personalised caregiving is too great. For example, there may be too many babies or toddlers per adult, or more than one staff member providing for a baby's needs each day, or staff who may not have the time or inclination to form an attachment, or are young and may not intend to stay very long. Furthermore, if babies experience too many educators who only work part-time, student teachers on placement who only stay a few weeks, or relieving teachers, the pain of repeated separation or loss can make infants and toddlers reluctant to form a new secondary attachment bond to another primary caregiver, especially if either the baby or the adult tends towards insecure-avoidant attachments (Bowlby, 2007).

The NICHD group (2005) identified insecure attachment to be one of the negative developmental effects of poor quality child care. Infants were less likely to be securely attached when low maternal responsiveness was combined with (1) poor-quality child care; (2) more than minimal amounts of child care; or (3) more than one care arrangement. Therefore characteristics of child care (such as quality, quantity and type) can mitigate the impact of formal education and care.

An earlier Italian study (Fein, Gariboldi, & Boni, 1993) found that after six months, infants less than a year old who entered formal care showed little of the despair and

detachment of infants who experience prolonged separation from their mothers. The infants' patterns of distress and recovery were similar to pre-schoolers entering ECS for the first time. Conclusions of this study were that infants and toddlers do adjust to non-parental childcare environments but it takes them between 3-6 months to adjust and feel comfortable in that setting, with the adjustment period perhaps even longer for infants receiving poor quality care or coming from troubled homes. Fein et al's study is a reminder of the need for sustained effort by early childhood professionals to provide careful monitoring and responsive support during the adjustment period. The research literature is clear that high quality education and care helps to mitigate the impact and manage the risks of non-parental care.

Duration

Extending the opening hours of education and care services is often seen as a family-friendly way of supporting parents trying to juggle work and child care (Kampmann & Nielson, 2004). However, the extended periods of time spent in formal education and care is consistently viewed as a risk for the under-2 age group. Long hours in formal early childhood services can be problematic for some young children and lead to poorer child outcomes (Griffin, 2010; OECD, 2009). In particular, long hours of non-parental care in the first year of life may raise risks of insecure attachment to parents, which in turn may create poorer quality interactions (Belsky, 2001; Bowlby, 2007; Hakim et al., 2008; Lally & Mangione, 2006; OECD, 2009).

The NICHD longitudinal study of early child care (1997, 1999), involving 1300 infants and their families, found that although non-parental child care alone did not contribute to attachment insecurity, the rate of insecurity did increase when the infant was also exposed to other risk factors (such as insensitive caregiving at home as well as in the childcare setting, long hours in childcare, or more than one childcare arrangement). The NICHD findings indicated that mother-child interaction is more favourable when young children receive better quality childcare and spend fewer hours in child care.

With the exception of children from disadvantaged homes, full-time attendance has no extra benefits over part-time attendance (Mitchell et al., 2008). In fact child care in the first three years, regardless of quality, can raise risks of externalising behavioural problems (OECD, 2009). The risks are even greater for infants and toddlers in poor quality services when it is combined with long periods of attendance (Berk, 2006; Scarr & Eisenberg, 1993). Consistent with the findings of earlier NICHD studies,

children who spent more hours in child care reported more impulsive and risk-taking behaviours than did their peers who spent less time in child care (Griffin, 2010).

Some other studies report that children who begin care early in life and who are in care for more than 30 hours per week have higher risks of behavioural problems due to the social stress in the child care environment (Bradley & Vandell, 2007; Fergusson, 2008). An increase in pre-school hours from 20-30 hours to 30-40 hours or more was found to cause a small deterioration in child behaviour at age seven (Datta Gupta & Simonsen, 2009). New Zealand research shows there may be negative implications for children from high socioeconomic backgrounds who spend more than 30 hours per week in ECS, whereas children from at-risk families can be advantaged, particularly when swapping a chaotic home environment for a structured and caring early childhood environment (Fergusson, 2008). It should be remembered too, that while long hours in ECS for under-3s can produce behavioural problems that persist, this is not the case for over 3-year-olds where group care has been found to be beneficial for social and emotional development (Hakim et al., 2008).

Several factors mitigate against the risks of long duration in child care. The quality of care, the family background of the child, and the child's characteristics (not just temperament, but age, gender and other vulnerabilities) may all have an effect on young children's education and care experiences (Scarr & Eisenberg, 1993). As parents have far more influence on their child's development and well-being than the type of child care they receive (Griffin, 2010), it is clear that other factors (such as a child's temperament, and parenting quality) can mitigate against the potential risks associated with the extent of time spent in early childhood services.

Certainly, the quality of the care very much influences the impact and risk involved, regardless of the type of care provided (such as home or centre-based, private or community) or how many hours the child is spending in care (Canadian Council on Learning, 2006). Some researchers have found, therefore, that quality of care, rather than quantity, is a better predictor of children's outcomes (Love, Harrison, Sagi-Schwartz, van IJzendoorn, Ross, & Ungerer, 2003).

Earlier results of the NICHD (Brooks-Gunn, Han, & Waldfogel, 2002; NICHD, 2000, 2002, 2003a, 2003b, 2006) and EPPE studies (Sylva, 1999, Sylva et al., 2004, 2007) show that most effects of childcare dissipate over time but they lend support for policies that reduce the amount of time children spend in childcare. Other

researchers also support these findings (see Belsky, 2001; Hakim et al., 2008) and the most recent findings of the longitudinal NICHD study (Griffin, 2010) underscore the linkages between early care and later development. The weight of evidence suggests that reducing the risks of childcare involves decreasing the duration and increasing the quality of formal ECS.

Early entry

The optimal age for entering formal education and care services is also a factor. Although the literature review revealed no definitive studies about the best age for entering formal education and care, greater risks were identified for under one-year-olds. There is evidence to indicate that the risks increase the longer they are there. Associations have also been found between early starting age (under two years) into low-quality child care and antisocial, aggressive or anxious behaviour that continues into school entry (Mitchell et al., 2008).

If there is “*no golden age*” (as stated by one researcher in this inquiry), but a risk associated with spending “too much time” in formal education and care (particularly if it is not high quality), managing the risks may be more about the optimal amount of time spent in child care rather than an optimal age for entering child care. Berk (2006) provides a soundly based prescription to mitigate risks by (1) increasing the availability of high quality child care; (2) providing paid parental employment leave so parents can limit the hours their children spend in child care; and (3) educating parents about the vital role of sensitive and responsive relationships and child care quality in early emotional development.

Health

The research literature also shows that there are very real health risks that need to be managed for infants and toddlers attending ECS. Early entry into formal education and care can affect the sustainability of breastfeeding and the associated health benefits that breastfeeding provides to an infant (OECD, 2009). As discussed in the section on impact, disease transmission and exposure to infection from both viruses and bacteria are of particular concern for under two-year-olds. Infants less than 12 months old are most at risk due to their under-developed immune systems. Greater time spent in centre-based care is associated with increased rates of respiratory problems and ear infections for under-2s (Gordon et al., 2007; Vernon-Feagans & Manlove, 2005). Early childhood services are high-risk settings for outbreaks of gastroenteritis (Bedford, 2008).

Poor quality environments in terms of hygiene, space, temperature, and noise bring added health risks to infants and toddlers (Bedford & Sutherland, 2008; McLaren, 2008). To reinforce his assertion that there is a negative correlation between the spread of bacteria in child care settings and space in terms of square metres per child and how this might be mitigated, Bedford (2008) cites a Danish study that showed an 11 percent drop in the occurrence of illness was gained for every additional square metre per child. In addition, the amount of time spent outdoors reduces the extent of infection transmission.

McLaren (2005) warns that while many young children are affected by noisy learning environments, mitigating noise levels is even more important for the successful inclusion of children with diverse needs. Centres located in commercial and industrial areas also tend to be noisier (Bedford, 2008; McLaren, 2008). The National Deaf Association hopes to provide early childhood centre with “safe sound indicators” and are recommending that babies wear earmuffs in loud environments to mitigate the impact (Dominion Post, 2010), and McLaren (2007) has been working with the Ministry of Education to develop a framework requiring licensees to take all practicable steps to control noise in their centres.

High quality ECS

Whether the substitution of parental care for non-parental care results in an increase or decrease in child well-being depends on the quality of the care. High quality early childhood education and care is the key predictor for the optimal learning and development of young children attending formal ECS (Anme & Segal, 2004; Mitchell et al., 2006; OECD, 2009).

Brooks-Gunn, Han, and Waldfogel (2002) analysed data on 900 European American infants and toddlers from the NICHD longitudinal study. Taking the context into account (quality of the child care available in the United States during the early 1990s) and after controlling for childcare (such as quality, type), home environment (such as provision of learning), and/or parenting effects (such as sensitivity), these researchers also concluded that unless a service is of high quality, the placement of infants under 12 months in non-parental childcare can have negative developmental effects. Improving the quality of child care used by the children of full-time working mothers was recommended for helping to mitigate the observed negative effects of mothers' early and full-time employment on children's cognitive development. New

Zealand researchers (Mitchell, Wylie, & Carr, 2008) are of the same opinion and suggest that improving the provision of quality education and care services might be the easiest way in which to effect change.

Participants' perceptions of the impact, benefits and risks of ECS for infants and toddlers

The following section reports the perceptions of the parents, health professionals, early childhood teacher educators and researchers, and ECS providers and their staff who were consulted for this inquiry about the impact, benefits and risks of formal ECS for infants and toddlers.

Impact

The perception that health issues have a negative impact on infants and toddlers was very evident across all participants. In fact, when discussing the impact and risks of formal ECS in their interviews, they mostly only discussed the health effects.

Some services have 100 percent of their staff qualified in first aid and know when to call an ambulance. This includes home-based educators. Documentation from various early childhood services indicates that their policies on infectious diseases are often stated in their information booklet, together with children's length of exclusion after a specific illness (for example, 24 hours minimum after a norovirus episode). However, there was also evidence of uncertainty around best practice and its subsequent impact on children's health. As noted by one early childhood teacher:

I did have one issue though – to do with sick children. There were several infants who were stuffed up with colds. One in particular was just not settled at all. I suggested he should go home but the parents were not rung. Some children definitely had green noses. Noses were constantly being wiped and there were times when I would wipe five noses in a row. Not the ideal situation. I understand the pressures the staff are under and it is hard to get everyone with the same view on when to send children home. Parents have some responsibility too. Some parents knowingly drop off sick children and leave in a hurry. Also the latest information I have read about green noses is now less clear. What I read..." green noses may be an indicator of a virus being present but it may not and it needs a doctor to verify the presence of the virus". You can see why teachers would not act, especially as some parents can get quite irate.

A relieving teacher reported her negative experience of when policies were not adhered to:

I only remained at this centre for an hour because after a child vomited enormously I recommended that he be isolated first, his temperature to be taken and for someone to stay with him until he was sent home. All of this information was refuted by the manager although I sought out their regulations (in the spacious lobby) which backed up my recommendation. The manager stated, "His temperature is only 33 [sic] so he does not need to go home". I was sent home for being an advocate for the child! I found this most disquieting. The child [toddler] was denied a say in his own well-being as was I. My qualification accounted for very little except meeting ratios and legal requirements, not for health and well-being of the children. Very sad.

Table 11 lists the factors impacting on the health and well-being of infants and toddlers that were identified by participants in this inquiry.

Table 11: Participants' perceptions of health issues in formal ECS

Communicable diseases and infections
Professionals and parents alike worry about viral outbreaks and view communicable diseases as a risk to be managed. Despite good systems and procedures, outbreaks are considered to be inevitable.
Centre managers reported that when the ECEC centre has a norovirus outbreak, it also affects their staffing because the staff fall sick as well as the children.
One ECEC centre was currently in the process of purchasing a steam cleaner to reduce the "lurgies in the carpet".
Drawing on their expert knowledge, health professionals confirmed that there were increased health risks for under one-year-olds attending formal ECS.
ECS managers said they advised parents in their documentation that it is not possible to prevent the spread of all infections and illnesses within their service.
ECS managers outlined how they informed parents of their policies on infectious diseases and listed the infectious period for specific communicable diseases and its length of time for exclusion from attending.
There was recognition by the health professionals that infants less than 12 months old have not developed their immune system and so are more vulnerable to infections and viruses.
Public health officials reported that ECE is represented in viral outbreaks and that all outbreaks should be investigated properly. They considered it is imperative to look at practices in order to change behaviour.
Health professionals expressed the view that the regulations do not reflect the reality of handwashing practices with toileting. One said, " <i>upping the hand-washing space</i> " would help to reduce the risk of cross infection.
Early childhood union representatives highlighted bacteria levels as a factor. They also noted that while group size might affect cortisol levels, the levels might equally be high at home and reduced in quality care, their view being that some children are safer in the care environment than in the home environment.

Breastfeeding
Health professionals outlined the issues around breastfeeding and attachment and why they matter during this developmental stage of a child's life.
Some parents experienced good experiences for continuing to breastfeed but others did not. For example, in university settings, centre staff texted lecturers and students when their babies were ready for a feed. However, in another work-based centre the policy was to contact only the breastfeeding mothers who worked in the same building, thereby excluding the mothers whose babies were enrolled under the "community placement" quota. In some centres there was a special "breastfeeding chair", giving the message that mothers were welcome, and indeed, encouraged, to continue breastfeeding. Parents also reported how much they appreciated being able to pop in during their lunch hour to breastfeed or eat lunch with their babies. On the other hand some parents reported that they were made to feel uneasy about calling in to breastfeed (e.g., asked to go into a room away from the other children) to the point that they did not pop in during the day and weaned their baby because breastfeeding became too difficult to sustain.
Sickness
Practitioners felt pressure to accept sick children (the assumption being that parents' work is given priority).
Practitioners regularly ring the Plunket HealthLine for advice because they do not have expertise in health-related issues. In early childhood centres, when parents seek information from staff on medical issues they are invited to ring the Plunket Line from their Centre's office telephone. This sometimes happens on a daily basis.
Cleanliness and safety of the environment
Practitioners know the dates of the ERO visits and ensure that the environment is clean and that health practices are adhered to.
Academics considered that the design of early childhood settings has an impact in children's well-being. Some considered " <i>they are designed by adults to attract adults</i> " [parents].
Health and early childhood professionals made recommendations for a wider, better informed health input into the design of early childhood settings.
Concern was expressed by practitioners and academics about high decibel readings for noise levels in ECS in New Zealand.
Public health input
In addition to the computer-generated information available on the Internet and Plunket HealthLine, parents said they want the opportunity to engage in informal face-to-face consultations with health professionals at their child's ECS.
The idea of having either public health or Plunket nurses attached to early childhood services was mooted by the participants of this inquiry.
Health practitioners acknowledged that educators act on parental concerns. In their experiences, educators showed good recognition of developmental disorders.

Participants across the stakeholder groups understood the role of ERO to be the evaluation of early childhood programmes (such as the implementation of *Te Whāriki*) rather than checking property maintenance issues – although one relieving teacher reported being sent home so she "*could not blow the whistle during ERO's visit*". They expressed concern about the Ministry of Health's lack of active involvement with early childhood services. Perceived to be a systemic problem that reflects New Zealand society in terms of the weight afforded to children's interests,

one participant noted that the location of this work is under-resourced through public health regulatory activity and provides only a minor inspection role. For example, the resource allocation for ECS as a setting for health was reported as being one person (whose workload also included responsibility for the SWSS Sewage Subsidy Scheme, social environments, housing and building, clandestine drug laboratories, urban sustainability, health impact assessment, public health engineering, and global warming).

When 40 early childhood educators were asked (as a workshop activity) to identify the influences or issues that impact on the education and care of the under-2s, they listed (but did not rank) the following influences and issues: (1) government policies and funding; (2) early childhood training; (3) professional development; (4) societal trends; (5) perceptions and values; (6) access to early childhood education; and (7) poverty, discrimination, and child abuse.

Benefits and risks

Most parents consulted for this inquiry could see both benefits and risks for infants and toddlers attending ECS. As one parent said:

Of course there are benefits and risks... research documents them. Depends on your kid and also the carers. Sorry but most parents could probably write a book in response to this. There are some kids that dread going to childcare, and others love it. For some kids it would be much better than their home environment and for some Mums it's the best option – and the happiness of mothers (and therefore often fathers) IS IMPORTANT!

Early childhood practitioners perceived the main benefits to infants and toddlers to be cognitive. As one teacher said, “*Everything is learning*”. They were more forthcoming about the potential risks of formal education and care for this age group, perceiving the main risks to involve:

- Security – relationships with primary caregiver so important
- Attachment – more than any other concern
- Emotional well-being – must know someone is there for them
- Health – contracting communicable diseases and infections is compounded by their young age.

Diversity and difference adds to richness but also adds to the complexity – and the risks. In one multicultural ECEC centre visited as part of the inquiry, both the children and staff came from a wide range of ethnic backgrounds. The supervisor's baby was the only Pakeha child across all age groups of this large centre. While the Asian and Pasifika staff members could speak to some of the infants and toddlers in their first language, there were other infants and toddlers who had nobody able to converse with them in their own language, as observed with an upset toddler trying very hard to communicate his frustrations yet despite their best efforts, none of the staff could work out what was wrong.

In one focus group interview, the length of time children attend formal services was perceived to impact on the quality of the experience for under-2s. For example, *“7.30 am to 7.30 pm – this is the pressure we should worry about”*. Concern was expressed for the infants and toddlers who were regularly woken up every morning and brought in and out of the cold when going to and from childcare. These practitioners referred to children attending their services who in the winter months, left home in the dark and arrived home in the dark. They admitted having ethical dilemmas about babies that did not settle (*“just letting baby cry”*) and sending children home when they *“thought (but did not know for sure) that they were developing an illness”* – and the consequences of their decisions. When asked about the main risks to infants and toddlers, the common reply was *“bugs!”*

According to the practitioners there was also a risk that the infants and toddlers might become *“bums on seats”*. Suggestions were made to reduce the maximum number of babies allowed in ECEC centres (*“some of the big centres have over 20 babies”*) because *“the more babies, the more likelihood of having relievers”*.

Some academics were unequivocal about the negative impact of large group size on vulnerable infants and toddlers. While they referred to intergenerational research showing the savings of investing in early childhood and *“getting in quick”*, they also identified a variety of risks that were heightened by the reduction of *“inspection visits”*. The effect of being constantly exposed to noise was identified because it *“was not normal to be with lots of other infants and toddlers”*. The risks associated with regular van pick-ups were also discussed. For example, parents see the picking up and dropping of their children as very supportive but they *“never set foot in the centre to observe how it is”*.

Similar to the research literature as to “*the golden age*” for entering child care, there was no absolute agreement amongst the academics in this inquiry either. One researcher considered that being under 12 months or the length of hours did not matter if the “*model of care works for the child*”. Although most of the academics interviewed for this inquiry considered starting babies younger than six months was perhaps too early, others quoted research that recommended they do not start before 12 months.

Some of the providers said they refuse to accept very young babies (before three, six, or nine months were the ages stated in this inquiry). However, the academics also argued that the risks of early child care should not be used as a rationale for reducing infant child care services because children’s emotional security will not be promoted in stressed families on low-incomes, or with mothers who want to work but are forced to stay home, or with mothers who have mental health difficulties or drug and alcohol problems.

Parents offered a somewhat different perspective. The following table shows parents’ perceptions of the main benefits and risks of formal education and care for infants and toddlers.

Table 12: Parents’ perceptions of the benefits and risks of ECS for under-2s

Benefits	Risks
<ul style="list-style-type: none"> • Socialisation • Interaction • Stimulating play activities • Increased confidence and independence • Better environment for at-risk children 	<ul style="list-style-type: none"> • Health issues • Attachment problems • Relationship variables • Unsafe practices • Supervision • Poor structural variables (ratios etc) • Temperament changes in child • Over or under-stimulation • Associated with extent and duration

The most frequently reported benefit was socialisation. Parents liked that their infants and toddlers were mixing with children from families and cultures with different values to their own – “*gaining world experience*”. Their interactions in ECS were perceived to help develop and extend the child’s language. It also helped them learn to take turns, share and compromise with others. There was a perception that infants and toddlers would be exposed to experiences they would not get at home: “*parents pace*

themselves so kids do more in their 10 hours” of education and care. The following quote reflects the view of many parents:

Benefits would be that they become more confident and independent spending time away from their home/parents. They are looked after by someone with (in our case) years of experience with educating young children, they can offer more variety of activities than they would get in their own home, and more opportunity to learn off other children.

A few participants highlighted the benefits of formal education and care for children from “disadvantaged” families. One participant surmised:

Low income earners and sole parents can still help themselves by having their children taken care of while they go to work and thus enable them to provide for their family instead of being a beneficiary – not all beneficiaries want to collect benefits.

Parents also saw benefits for themselves as well as their infants and toddlers. Besides enabling them to return to work, they talked about the social benefits for parents and also the benefits to them of having “time-out”. Indicative comments included:

Socialisation, for parents as well as children. Feel lost on the parenting journey but supported by teachers to talk to.

On a really personal level I do see benefits to me having ‘timeout’ from my child. By working a couple of days a week I am able to get some balance in my life – and feel excited about seeing my daughter at the end of the day. I can imagine that some women, with very stressful or physically demanding jobs, feel quite the opposite however.

Interestingly, these participating parents identified more risks than benefits for infants and toddlers attending ECS. A couple of mothers (whose children were attending an ECS) quoted research showing it is better for this age group to be cared for by a parent. Risks to health were the most frequently reported. Parents of children with asthma were mindful that their children were more susceptible to colds and viruses. A mother recounted how her son suffered febrile convulsions at his ECS. One parent explained that, health wise, “*her baby’s first year was terrible, but the second year was better*”, leading her to believe that young children “*get more immuned [sic] as they get older, so attending an ECS will help immunity in the long run*”. A number of parents expressed the view that their children would get these communicable illnesses at some time or another. In addition they thought that babies’ immune

systems get used to viruses and infections that are prevalent in early childhood services. While some parents considered the risks might be less in home-based services, others said that even in smaller groups (up to four in home-based services) infants and toddlers were still exposed to germs from children who were not from the same family.

Attachment problems were identified as a risk. First there was concern about babies' "lack of attachment to a primary caregiver due to frequent staff turnover", but concern was also expressed that being in non-parental care for long hours from a very early age might impact on the child's relationship with their parents. At the same time, other parents also expressed the fear that their child would become too attached to a staff member. For example:

I see major risks. In particular, my concern is that my child will develop a personality and moral code based on someone else – not me. I feel very sad about that. My child is such a 'sponge' at the moment and everything I do and say is mimicked and absorbed by her.

Children come to think of the caregivers as their family/parents, especially those that are in care at 6 weeks old. Bonding with family/parents is paramount as it forms a foundation on which the child builds its experiences and interprets the world around them. If there is a third party involved, to me, I would think that it had every chance of interfering with this initial bonding with the consequences being endless.

Staff relationships with children were clearly of concern to these parents. One participant raised the question: "Do they enjoy their job?" In her view, job satisfaction was directly related to staff relationships with children. Others worried that in the bigger ECEC centres there would be "no focused one-on-one time" and their children would be "lost in the crowd".

These participants acknowledged that there was always a risk with someone else looking after their baby – they "never can be sure". They expressed concerns that their babies may not have access to what they need in care (sleep, food, primary caregiver, safety). Inadequate supervision, over-stimulation, and a lack of learning opportunities (under-stimulation) were also identified along with other structural variables such as ratios, staff qualifications, safety procedures that are known to put the quality of the education and care at risk. One person said those risks were the same in all early childhood services, whether there is one staff member or many, but she felt that "with a nanny there is the same risks but in a smaller way".

Nurturing confident and independent children was identified as a benefit, however the opposite effect was also identified, the risk being that infants and toddlers might display separation anxiety by becoming nervous and clingy if they were not happy in their childcare setting or attending for long hours.

The financial stress on parents in relation to the affordability of formal education and care was mentioned too. However, the final word goes to a parent who talked about the risks and benefits of enrolling their under one-year-old in an education and care centre.

Well the guilt of leaving such young babies every day goes without saying and as parents we try not to think of what they are missing out on when they are away from us. But this is appeased by the joy and happiness and development they display in belonging to the centre.

Summary of impacts, benefits, risks, and mitigations

This section reported the impacts, benefits, and risks of formal ECS for infants and toddlers as identified by the research literature and the participants in this inquiry.

Impacts

One conclusion of a review of the literature on the impacts of formal ECS on infants and toddlers is that the impacts are complicated to assess, given the importance of variables such as the quality of education and care provided in the home environment, the quality of the ECS service, individual child characteristics and different patterns of usage of formal, informal and parental care.

One well-supported conclusion however, is that much of the impact is small, in particular when compared with the impact of home circumstances. The quality of parenting matters much more for under 2-year-olds (and indeed for older children) than ECS provisions.

This does not mean that the impact of ECS is unimportant; or that risks and their mitigation do not matter. What we have found is important for under 2-year-olds and in particular for under 1-year-olds in terms of impact is duration in care, the number of carers and the standard of ECS provided.

Benefits

There are benefits of using ECS. It can allow for higher household incomes and this can materially benefit infants and toddlers. It can allow for parents' preferences about paid work and careers to be better fitted in with child care responsibilities. It is likely that a happy rather than an unhappy parent benefits a child. These benefits have not been much researched or reported on in terms of direct benefit to the child.

Risks

Both the literature and the participants in this inquiry identified some risks in aspects of ECS for infants' and toddlers' optimal development. There is considerable debate about the degree of risk. Having said that, the inquiry has identified some risks that are well supported by the literature:

- Disrupted attachment as a result of long periods away from the primary family carer and/or disrupted attachment in formal ECS
- For under 1-year-olds, greater exposure to infection and subsequent illness at a time when immune and other response systems are underdeveloped.

These risks are heightened by long durations in non-parental care and low quality care. There is some evidence of risks of later behavioural problems from long duration in ECS at a young age but it is not as well established as those above. There has also been research into the risks of heightened levels of cortisol as a consequence of stressful ECS but the findings are varying and subject to much debate.

Mitigations

For infants and toddlers these findings suggest that what is in their best interests is:

- shorter rather than longer durations in ECS, in particular when they are under twelve months old
- higher quality ECS that pays good attention to the attachment and health risks and has settings, practices and staff knowledge and skills consistent with reducing the risks.

Mitigating the risk of attachment problems includes small group sizes, low staff/child ratios, the use of primary carers, and managed durations in care.

Mitigating the health risk involves adequate space, a healthy physical environment, good practices and staff knowledge and access to advice. These mitigations will be considered further in the section on quality.

The impact of targeted interventions

The primary focus of the inquiry was on the formal education and care of under-2s living in mainstream families. Although infants and toddlers from vulnerable families are not the focus of this report, the early intervention programmes for such children dating back to the 1960s have been researched extensively and informed this inquiry. Examination of the impact of childcare on at-risk infants and toddlers is warranted because many of the children in those longitudinal studies entered childcare as early as three weeks of age. The review of the literature on targeted early childhood interventions is included in the appendices (see Appendix C).

SECTION 6: CHILDREN'S INTERESTS AND PARENTAL DECISION MAKING

It is in the best interests of infants and toddlers for their parents to make decisions about their choice of care that are informed. Knowledge is key – parents cannot make choices if they do not know or have access to the appropriate information about the learning and developmental needs of under 2-year-olds and what quality child care consists of. Parents must also feel comfortable with the choices they do make. Whether they choose full, part-time, home, or centre-based care, more than anything else they should be confident that their chosen service provider caters for their child's needs.

This section reports on the knowledge base of parents, the quality of information available to parents, how well it is accessed and the factors that influenced their decisions about child care. For infants and toddlers, the decision-making is easy: "Someone to care for me well, to love me irrationally and to do so for many years on end" (Belsky, in Hakim, Bradley, Price, & Mitchell, 2008). However, what children need and what parents and governments want are not necessarily the same thing.

Literature Review: What do parents base their decisions on?

The *Little Britons* report assesses research on parental preferences regarding childcare during the first three years of a child's life. The report makes it clear that "for many families decision-making on a topic where, perhaps, real choice should reign supreme is determined by many factors other than simple preference, not least what childcare is available, at what cost parents can afford, and ... what options government policies subsidise" (Hakim, Bradley, Price, & Mitchell, 2008, p. 6). Furthermore, parental choices have been overshadowed by government policies that focus on women's employment as a contributor to economic growth and gender equality more often than on the needs of babies and toddlers (Hakim et al., 2008).

Parental values and lifestyle choices

In most instances household incomes and economic "imperatives" are identified as the most frequently reported reasons that parents give for returning to the workforce a short time after the birth of a child. There is increasing recognition, however, of the

influence on these “imperatives” of parental values and lifestyle choices. In Penelope Leach’s longitudinal *British Families, Children and Childcare* study that followed a sample of 1200 infants from birth (around the year 2000) up to 4.5 years of age (Leach, 2009; Sylva, Stein, Leach, Barnes, & Malmberg, 2007), parental values emerged as important predictors of the decision to use any childcare, how many hours of care were used, and the choice of family-based care versus formal education and care. This study found that while the family’s financial situation and other practical matters such as availability and cost also influenced their decisions, attitudes and values were the main predictors of whether to use childcare or not.

Similarly, the *Little Britons* study also established that ideology and values (such as family roles, child development and discipline) determine parents’ use and choice of childcare (Hakim et al., 2008). This review of academic studies in both Britain and the United States shows that affordability of childcare is not the only issue for parents. They identify the importance of ideology and values (such as family roles and child development and discipline) because together, these values are the determinants that shape parents’ use and choice of childcare.

In another longitudinal study of 400 first time mothers (Houston & Mark, 2005), lifestyle preferences was found to be the most important predictor of their choice of child care, again supporting the view that values and attitudes (in this case, lifestyle choices) predict whether any child care is used, and what type. This study explored the way that women’s lifestyle preferences meshed together with their perspectives on child development and child care choices. Hakim and colleagues support the findings of this study. Houston and Mark (2008, p. 25) state, “What is often overlooked in debates about childcare is that parents generally (mothers in particular) are making choices about their own lifestyles as well as, and usually before, making decisions about childcare (if any).” Furthermore, it seems that parents are happy if there is a good match between their personal preferences and the actual outcome (Hakim, 2000; Hakim et al., 2008; Houston & Mark, 2005).

The current literature supports earlier research (see Holloway & Fuller, 1992) in regard to parents’ values affecting the type of care they select. It might be that one or other of the parents were brought up in a country where long childcare hours was the norm or they firmly believe that early childhood education sets the child up for life. Other examples in the research literature indicate that parents who value intellectual stimulation and same-age peers are more likely to select early childhood centres,

whereas parents who value a home-like, caring environment choose family day care/home-based care for their child. What is not so clear is whether parents were actually successful in selecting centres that matched their criteria, or even whether parents selected home-based providers with similar socioeconomic status, child-rearing practices, or social support to their own (Holloway & Fuller, 1992).

Parental choice of child care for their under-2s does not inevitably lead to high quality care. Parents tend to prioritise care needs over education rather than seeing the two as inextricably linked. Ahnert and Lamb (2003) state, "Regardless of their educational backgrounds, parents of infants and toddlers (as opposed to parents of pre-schoolers) are more concerned about their child's health and well-being and thus seek environments likely to minimize stress and distress rather than educational opportunities" (p. 1044).

Availability, accessibility, adaptability and acceptability

The 4-A framework of four broad standards, part of the theoretical framework of this inquiry, provides a useful way to explore the reasons for parents' choice of child care.

Conclusions from the early research literature are that the supply and nature of childcare provision in a local setting will, in all likelihood, shape the frequency and form of parental choice. There are, however broader contextual factors that constrain the decision-making of parents of low socioeconomic status and/or who are from minority cultures (Holloway & Fuller, 1992). While the cultural acceptability of the ECS is a key factor for families of different ethnicities, lack of affordability is a significant barrier to the accessibility of child care for many parents. Whether a family considers formal education and care to be affordable is dependent on three factors: the cost of the service to them, the family's household income, and the importance the family attaches to education and care for their children relative to other ways their income can be spent (MoE, 2010).

Do parents discriminate and select higher quality education and care services if available? Earlier research studies indicated that parents endeavour to balance programme quality, location, and price (Holloway & Fuller, 1992). In particular, parents cited aspects of the care provider and the nature of the programme as key determinants in their decision-making, thus suggesting that quality may be an important factor for selecting non-parental child care.

The studies reviewed by Hakim and colleagues (2008) found that trust in the carer was crucial for the parents' confidence in their child's well-being. Trust in the carer, not cost (as usually argued) was the main reason British parents prefer informal childcare provisions (such as relatives, neighbours and friends). Similarly, in Holloway and Fuller's much earlier review (1992), the educator's personality (and in particular, possession of a warm and caring personality) was most often cited, followed by peer relationships with the other children and convenience. Yet they also examined other studies where, besides the quality of the educator, parents prioritised their children's needs over the convenience of the arrangement. In the report by Hakim and colleagues (2008) flexibility, as well as trust, were identified as "the two factors that trump informal care over formal childcare" (p. 21). Conversely, Holloway and Fuller cited studies where parental convenience was the leading factor in selecting childcare. Location, availability, hours, cost, and even the physical facilities played a role in the decision-making.

Factors to consider

When making choices around child care, parents need to be aware of the importance of secure attachment; the factors that put this at risk; and why high quality child care matters for attachment (Atwool, 2002). Brownlee (2008) asks parents, "If not you, then who?" Her advice to parents is that the most important criterion is relationship. She suggests that parents observe interactions so they feel comfortable that the person(s) they choose will be sensitive to the needs of their child. Brownlee advises "it is the spirit behind the actions that is of importance (2008, p. 68). She recommends that parents should base their choice on the following criteria:

- A sense that it "feels right", and the setting demonstrates peace and harmony
- A commitment to primary care (same adult looking after the baby every day)
- A partnership with babies in their interactions (observe feeding and changing of babies)
- An accommodating timetable (Does the timetable adapt to the child's inner needs rather than adhere to the roster timetable, such as feeding when hungry and sleeping them when tired).

Current patterns in New Zealand

For many families in New Zealand, it appears likely that decision-making around ECS is determined not by personal preference, but rather by what child care is available, affordable, and subsidised by government. Recent Colmar Brunton research about childcare (Harland, 2010) found that New Zealand parents' pressures and uncertainties are exacerbated by their worries about lower incomes, having to work outside of the home, and the resulting separation and absence. Their main concern is, "Am I doing it right?". The parents in the Colmar Brunton study expressed self-doubt and fear that the separation might have a profound impact on their children.

The first *Growing up in New Zealand* report shows that parents wanted to take more leave in the first months after their child was born than they were able to take. Mothers wanted their leave to be twice as long as the eight months (on average) they were able to take, and fathers would have liked to take a few extra weeks (Morton et al., 2010).

Robertson (2007) describes the multifaceted nature of parental decision making in selecting early childhood services as involving "a complex interaction between family needs, preferences, knowledge and expectations, made within a specific social and policy context" (p. 83). Despite government's policy initiatives, and similar to the United Kingdom (Hakim et al., 2008), choice remains limited, not only by the number of education and care service providers, but also by how families can access the provider of their choice. Further to Robertson's New Zealand study that found quality and availability of suitable services to be the most important factors for parents when choosing to use early childhood services, indications from this inquiry suggest that many parents do not have a choice of education and care; rather their choice is dictated by the availability of services in their region.

Brownlee (2008) found the following reasons for why parents in New Zealand choose formal non-parental education and care services for their children:

- Financial: current policies assist parents to return to work to assist with the country's skilled labour shortage and "we need two incomes to survive"
- Media stories of super mums contribute to the pressure to balance all roles (parent, partner, work, etc.)
- Feel stifled being home all day with small children and no adult stimulation

- Fear that stepping off the ladder will affect career prospects.

Brownlee also found that the question: “Whose behaviour do you want your baby to imprint?” explains why many parents choose to stay home with their child. This was echoed in the current inquiry, with parents expressing concern that their baby might mimic their educator’s mannerisms rather than their own. While an educator might perceive this to be evidence of the child’s secure attachment to their caregiver, the fact that some parents in this inquiry worried about their child becoming too attached to their educator is evidence of why parental choice may not preference high quality care. It underscores the importance of early childhood professionals explaining principles of child development to the parents in their ECS. When parents feel secure and confident in the choices they make, they are more likely to acknowledge the positive significance of other adults in their child’s life (Atwool, 2002).

Child care attendance increases with income (Department of Labour, 1999, as cited in Robertson, 2007). Robertson’s (2007) qualitative interviews with 30 parents showed that New Zealand parents do try to choose quality education and care services for their children, although lower socioeconomic families (who in addition are more likely to favour services with an educational element in their provision) also took the cost of the service and the availability of subsidies into consideration. Robertson also cites an OECD report that identifies the relatively high costs of child care for a 1-year-old in New Zealand compared to other OECD countries. Of interest to this inquiry is the confirmation that factors such as affordability and proximity to public transport were more important for women with limited financial and social resources, than criteria such as programme quality and staff training. For some families, child care choice is definitely influenced by the family’s financial circumstances.

The availability of culturally appropriate services for Māori children was found to be important in Robertson’s study. In the present inquiry Pasifika parents, in particular, preferred not to use formal education and care services. Reasons given for this were that Pasifika parents consider babies are “too little” to be in formal child care settings, or they are uncomfortable putting their children into settings that do not reflect their own cultures. This finding mirrors the UK study, where regardless of whether the decision around choice of child care is informed by cost, social norms or some combination of the two, few families in the lowest income decile use early childhood services (Hakim, et al., 2008, p. 59). Similar to New Zealand, ethnic minority mothers

in the United Kingdom preferred informal child care arrangements (Sylva et al., 2007).

The longitudinal *Competent Children* study (Wylie et al., 1996) found parents' reasons for their choice of service varied according to the service they used. For example, those choosing education and care centres chose according to the centre facilities and its reputation, how well it suited their needs, location and quality of the programme. Conversely parents who chose private care prioritised cost, the carer's approach to behaviour management and their child being with friends as being most important. Cost was also the most important factor for parents choosing home-based care.

Participants' perceptions of parental decision-making and choices available

The following section is based on the responses of the 30 parents who were interviewed for this inquiry. Returning to work, for whatever reason, was the most frequently mentioned response for why parents needed child care support. The following table provides an illustration of the main factors that influenced parents' decision to enrol their child in a formal early childhood service. The examples have been categorised according to themes and have only been listed if more than two people mentioned them.

Table 13: Factors that influenced parents' decision to enrol their under-2s in ECS

Theme	Examples
Financial	<ul style="list-style-type: none"> • Needed two incomes so having someone at home full-time wasn't an option • Increased income required to pay mortgage • Would have stayed home if childcare costs greater than salary • Financially hard either way (i.e., paying childcare and less pay) • Financial reality: needed one stable income (husband in own business)
Employment/Study	<ul style="list-style-type: none"> • Husband and wife ran a joint business • Working long hours • Married student writing thesis • Needed to fit in with academic year for beginning full-time study

	<ul style="list-style-type: none"> • Wanted to continue with part-time work to remain current in the job for when returning to full-time employment • Self-employed
Parents' needs	<ul style="list-style-type: none"> • Needed stimulation • Wanted time out for self • Wanted to work – unhappy being full-time mums • Work provided a connection with adults • A desire to resume career • Felt more valued in their careers than as stay-at-home mums • Caesarean birth and other pre-schoolers at home too
Family values	<ul style="list-style-type: none"> • Considered it important for children to see mum working as well as career aspirations • Broke maternity leave four months early because considered it more important to accept the place offered in a sought after centre rather than miss out (very few community spaces become available in this work-based centre)
Lack of support	<ul style="list-style-type: none"> • Unsupportive husband • No support from grandparents who live in different cities • No friends or families to share child care with (looking after each other's children)

Some of the factors identified in the above table are further elaborated on and supported by quotes from participants.

Financial reasons

Economic hardship played a key role in many parents' decisions to enrol their infants and toddlers in ECS. One group of families consulted for this project considered they had no choice but to return to work to help them to, for example, pay the mortgage:

Parents, particularly mothers, feel a lot of guilt about returning to work. It can be overwhelming trying to decide what to do and what is the best for your child. I know so many mothers who, when pregnant, said they planned to return to work at a specific time, only to realise when the time came – that returning to work was a horrific thought. But life is so tight on one income now days. Most of us simply have no choice.

In many cases, being eligible for the childcare subsidy made it more viable to earn money in paid employment. Interestingly, one mother in the higher income bracket explained how having the financial means to pay for child care made up for lack of family support and enabled her to work when required.

I enrolled [name of eldest child] for ECE care because I wanted to continue with some part-time work and had no family support. I worked as a locum until he was 15 months old – with regular work on Fridays and additional work when I felt like it and it was available. I couldn't get flexible care, so I paid for full-time

care and only needed 10 hours consistently. So his attendance was variable between 10-40 hours per week. Sometimes I would drop him off for a few hours so I could go shopping etc. on my own. I didn't have any family support and used the ECE for support when I needed to do other things. Paying \$250 a week for such flexible care was rather extravagant, but it helped me to get through that first year of having a baby.

While few families could afford that mother's luxury of having "child care on stand-by", there were plenty of comments expressing regret for others "missing out" because the cost prohibited them from accessing early childhood services. An indicative comment included:

Not everyone can afford to pay \$80.00 per day for childcare – equity issue. Would hate quality childcare to be exclusive to people who can afford it.

An example of not having the choice of more hours was commented on by one foster parent who complained to the Office that the child she cared for only attended her ECS for 12 hours per week because that was all that Child, Youth and Family would fund and she could not afford to pay for extra time herself. Some participants provided anecdotal evidence about friends who would have gone back to work if they had been able to afford the child care fees. Many parents said they "did the sums" before going back to work:

Whether it would be financially viable – whether my income would more than cover the childcare costs (as my husband's income was ear-marked for bills and mortgage and general living costs).

This next quote explains how a family's financial situation can influence the age of entry into formal child care:

Our decision to put our children in full-time daycare was not made lightly. Unfortunately, having a mortgage to pay puts a strain on living off one income. Nevertheless, I would probably still put them back into daycare as I enjoy being a working mum. However, it wouldn't have been from six months if we got longer paid parental leave. My personal opinion is that the first 6 to 12 months is the best time with your baby if you have the chance.

Family values

Worth highlighting too is the role that parents' own upbringing and values play in their decision-making, such as being brought up by a "stay-at-home mother" and wanting the same for their children:

I will always remember as a child coming home from school and loving telling my mum about my day. When she started working when I was about 12 years old it was awful and I missed her being there for me. It makes me sad that my baby daughter will probably never have me there to greet her after school.

Values were also considered important for the early childhood services founded on a specific philosophy. Teachers were keen that parents wanting to enrol their child understood the ECS’s philosophy before signing on. A teacher working in a centre that supported following the child’s lead and letting children develop at their own pace said:

Should check that our centre fits with parents’ values so they know what they are in for. They need to know children develop when not put in positions that they haven’t found themselves.

Parents’ needs

Other parents highlighted their wish of wanting both (career and quality child care) without compromising either. An indicative comment included:

Relatively high income earners and career focussed but huge desire to spend quality time with our children.

Some parents were quite matter-of-fact about their own choices and values, as evidenced by this comment:

...Let’s face it – parents should take responsibility for their choices, e.g., how many kids they have, whether they want to work etc. I have chosen to have two kids, I choose to work. My life is busy, child care is not perfect, but it’s what I choose.

Consultation with parents revealed the reasons why parents chose specific services over other options for their infants and toddlers as illustrated in the following table.

Table 14: Parents’ reasons for choosing their ECS

Reason	Examples
Location	<ul style="list-style-type: none"> • Close to home • Close to home and neighbourhood school • Feeder centre to local school • Handy to work • Interacting with families of high socioeconomic status
Satisfaction	<ul style="list-style-type: none"> • Happy with service provided for older sibling • Confident in the quality of education and care • Confidence in the caregiver • Quality of te reo Māori

	<ul style="list-style-type: none"> • Let babies go to own schedule, don't push them into a centre schedule. • Chose because of ECS philosophy (Steiner, RIE, ABL, Pikler, Reggio Emilia, Magda Gerber, Kōhanga Reo, Pasifika culture were the ones reported) • Gets language consistent with home (te reo) • Walked in and immediately felt at ease • Strong leadership • Good reputation as a caring and innovative centre • Could tell primary caregiver genuinely cares about their babies
Structural variables	<ul style="list-style-type: none"> • Separate age groups • Ages of other children attending the ECS • Consistency of caregivers • Competence and reliability of staff • Staff/child ratios better than MoE regulations • Stability of staff • Centre size • Well resourced • Provision of food (centre had their own chef) • Flexible about preparing frozen breast-milk for individual babies
Education/curriculum	<ul style="list-style-type: none"> • Benefits learning • Social interaction • Exposure to other children • Wanted children to have experiences parents could not provide • Do activities such as painting • Developed with qualified staff • Mix of cultures and values • Qualified teachers
Welcoming nature	<ul style="list-style-type: none"> • Attention received during visit • Insistence on a number of transition visits • Partnership with parents • Has a genuine "feel" to the place
Appearance/environment	<ul style="list-style-type: none"> • Aesthetically pleasing ("<i>not a grotty house</i>") • Large outside area, room for all kids to move, not climbing over each other • The environment seemed peaceful • Facilities (e.g., sleep facilities) • Rural setting • Safety of the environment including protection from the over 2s! • Space is important • New and clean premises
Cost	<ul style="list-style-type: none"> • Free • Cheaper than other services • Agency provided 20 hours ECE at 3 years • Mother's income greater than childcare costs
Convenience	<ul style="list-style-type: none"> • Morning session offered suited a lot better than afternoons • Sessional care suited part-time work

	<ul style="list-style-type: none"> • ECS offered full days so could work full days • Got the sessions we wanted • To make day manageable, chose closer to work so babe would not be in child care longer than needed and/or could get there on time • Open from 7.30 am
Availability	<ul style="list-style-type: none"> • Knew would get preferred entry because older sibling went there first

More often than not, parents based their choice on instinct (for example, “*Small, not flash but had gut feeling about the feel of the place*”). Many parents also said they bypassed other ECS that were closer to home in favour of other factors (such as rapport with educators, or a specific philosophy). There were many comments about wanting a service provider that had a good partnership with parents. Having a primary caregiver was considered much easier because of always talking to the same key person and if parents did leave a message they knew it would be passed on to their child’s key person.

Looking at the lives of some families, it is understandable why they choose convenience as a key factor in choosing their ECS. As one parent explained:

Convenience as well as quality is really important. Currently I have two pickups and two drop offs, as each kid is in a different childcare setting. When the baby goes to the crèche her brother is in this will stop – so it’s a situation for about five months. But it does elongate the day. And I guess for a lot of parents this double pickup drop off situation goes on for far longer.

A national committee of early childhood educators representing services across the sector were of the understanding that parents’ decisions used to be based on hours of operation, cost, and travel time, but in the last seven years or so, the qualification of teachers has become a factor. On the other hand, they also voiced the opinion that some parents “*spend less time choosing child care than they do choosing their refrigerator*” and “*sometimes it may come down to whether there are car parks or not*” (In fact some parents in this inquiry did identify car parks as their reason for choosing a particular ECS).

Choosing service providers

Parents also shared why they chose a certain type of service provision. One mother said her decision-making was based on the question, “*Do you opt for a stranger in*

your home or a creche with not so much familiarity?” The well-being of their infants was uppermost for many parents as evidenced by this quote:

My partner and I have decided that we will put our baby in the best type of care we can afford – even if that means carving a big chunk out of my salary. Especially while she is young - we want to make sure that she is safe, happy and thriving. I also want there to be consistency for her – I don’t like the thought of her being in a daycare where there are a number of different carers coming and going.

Others made their choice according to factors within the service. For example:

At the time we applied to Centre A the other centre was undergoing major staff changes and didn’t (and still don’t offer separate age groups). Our twins are small for their age and hadn’t been in any ECE centre before, they both had delays and I was concerned that being mixed with older pre-schoolers could do more harm than good.

Parents who participated in the consultation process used both centre and home-based services and it is interesting to learn the reasons why they chose one setting over the other, if only to gain a better understanding of their decision-making. The following two tables list some of the reasons for choosing either home-based or centre-based education and care.

Table 15: Parents’ reasons for choosing home-based services

Reason	Examples
Home Environment	<ul style="list-style-type: none"> • <i>Whilst placing children in care under 2 is not ideal for the child, we opted for the next best thing in placing her in in-home childcare where she is still amongst a home environment, and has that one-on-one nurturing.</i> • <i>Wanted a nanny so that kids were in their normal routine. Also seemed like a cheaper option than a good daycare for two kids.</i> • <i>Liked idea of 1 to 1 nanny coming to their house, with safety of their own environment. One safe, secure person (too many kids at daycare). Lots of active things to do.</i>
Attachment	<ul style="list-style-type: none"> • <i>Advantage is the attachment to one person who is able to duplicate their routine of play, sleep and eating. [Name of provider] is really good.</i> • <i>Ability to visit during the day for breastfeeding.</i>
Age of Child	<ul style="list-style-type: none"> • <i>We were only interested in in-home care due to her age, We did not want to send her to a centre with too many other kids, not enough one-on-one time. We had tried [name of provider] who had no carers available in our area. We met with four different educators through [name of provider], and chose the</i>

	<i>person we felt most comfortable with, who had the most experience and offered the best activities/equipment for our baby daughter.</i>
Cost	<ul style="list-style-type: none"> • <i>Chose nanny. [Name of provider] cheaper because of subsidy for in home care but miles away. Had to weigh up the cost of time in pick up and drop off and risks of peak hour traffic because charged by centre for every minute late picking up.</i> • <i>Preferred nanny approach – but only when I had 3 children so it cost no more than creche. Had the same nanny so it was a very good experience. Middle child was keen to learn to read and write so nanny could spend time with her and meet this need – a creche wouldn't have had the time to do this.</i>
Convenience	<ul style="list-style-type: none"> • <i>Has the flexibility for the kids to go to other activities like kindy, gym, pool etc.</i> • <i>Able to do kindy pick up for older sibling.</i> • <i>Able to take baby in to visit parent at work.</i> • <i>When in own home, parents do not have to take time off work when their child is sick.</i>

Some families described different experiences for their different children in spite of using the same type of education and care service provisions. The following quote outlines one family's experiences:

We experienced such a great caregiver with [name of home-based provider] with our newborn son who went into the woman's home. She loved him like her own and had maintained a high quality of care. She only had him and no other children right up until he was 8 months old and we liked the attention he got from her and her husband and their older sons. But we had to move away and it was very sad for everyone when our son left her as a one year old. So we decided to try [name of provider] home-based childcare in our new area for our two sons at two and six months old, because [name of previous provider] was outstanding. But the caregiver assigned to us was not at all acceptable. Her care lacked somewhat for our babies, it was below our standard (left bibs and jerseys and slippers on sleeping babies and had them sleeping at random times and they weren't kept as clean as I keep them. I fear she let them watch DVD movies too often) and she had her own little baby who clashed with our older son. That particular caregiver had to leave home with the children twice a day to drop off and pick up her schoolchildren and we felt this interrupted their routine. We also felt our older son needed far more activity and stimulation than what she could provide. I preferred the concept of home-based childcare for younger babies if it was quality and loving care but it wasn't. We did feel that maybe we just got the wrong caregiver as there were other caregivers who we interviewed, but they charged far more and so in the end we paid for what we got!

In addition to transparency of costing and funding, parents who participated in a focus group interview considered that the licensed nanny model provided convenience for families. It meant babies are not interrupted and nannies can support the family routines. They discussed the "time aspect" – these mothers and

fathers consider that currently infants and toddlers are not being left in the home for long enough. The parents who drop their under-2s off to a home-educator acknowledged there is still a risk of infection but the risks of cross infection are lessened with four children being the maximum number allowed for home-based attendance.

Issues around illness contributed to the parents' reasons for choosing home-based ECS. When children are continually unwell, there may be possible job losses for the parent if they have to constantly take time off work. Often they *"incur large doctor's bills and feel like bad parents for letting their child get sick so often"*.

Home-based service providers highlighted the benefits of infants and toddlers having their own bed, own toys and close one-to-one attachment. They considered some parents chose this type of provision so they could work from home with nanny support. Sometimes too, mothers booked a nanny to help out after a caesarean birth, especially when they also had other pre-schoolers at home to care for. If working outside the home, breastfeeding could be maintained because the nanny could *"take the baby to Mum"*. These providers also considered that some parents like the idea of being able to nanny-share with friends.

The next table provides quotes for why parents chose to enrol their child in an ECEC centre.

Table 16: Parents' reasons for choosing centre-based services

Reason	Examples
Centre environment	<ul style="list-style-type: none"> • <i>[Name of centre] has a great reputation (which is well deserved), but I also would have considered places in other centres as well if they had come up and our centre didn't have a place soon enough. I do backtrack to take my son there as it's in a suburb that is not on my way to work. Adds about 30 mins onto trip each way. But it's a great centre, it's where he started, he loves it (wants to go in the weekends) so I'm sticking with it. We have good relationships with the crèche.</i> • <i>My partner did not want someone in our home. If staff are sick they can get a reliever.</i> • <i>As an ex early childhood teacher, I still value centre-based ECE for infants and toddlers. Prefer shorter periods of time in ECE but still giving parents flexibility to go to work. It benefits learning so much. Home-based must be registered/qualified – pay through nose for registered!</i> • <i>Also it was a bright, clean centre with plenty of indoor and outdoor play space and was well equipped with resources.</i> • <i>[Name of centre] had separate licences for different age groups, so our little baby could still get reasonable attention and our bigger boy could get lots of activity and stimulus and other children to play with. My husband was very panicky about too many older children being around little babies so it made him happy that the age groups were separated and the babies were in their own separate room. But I still wanted our kids to see each other during the day if possible so they would sometimes take [name of child] over to the babies to see his little brother.</i> • <i>The community crèche was chosen because it was a casual centre, and I could use it to give my toddler some more exposure to children his own age, while I had time to sort out things with the baby (and have a little bit of sanity!).</i>
Safety	<ul style="list-style-type: none"> • <i>With a young baby I preferred an ECE service to in-home care with an adult I didn't know. I perceived it as a safer environment with more adults in the service to watch over each other.</i> • <i>When our baby was born she got to be in the under-2s with [name of sibling] so that was great, he got to bond with her still and she was protected by a jealous big brother!</i>
Cost	<ul style="list-style-type: none"> • <i>Financial benefits – cheaper at centre. \$15 per hour for nanny, \$5.88 per hour for centre, plus as a university student I'm eligible for [name of centre] which is a quality centre.</i> • <i>It was one of the only centres to allow us to continue using cloth nappies for our children.</i>
Welcoming attitude	<ul style="list-style-type: none"> • <i>The Manager [name of corporation] was very welcoming to our whole family and our unique needs and made us feel comfortable that our children's unique patterns would be adhered to as much as possible.</i> • <i>We looked at many though and it just felt right.</i>

Philosophy	<ul style="list-style-type: none"> • Liked philosophy (RIE and Magda Gerber). Good relationship between home and centre. At initial meeting, staff were passionate about their philosophy (child-focused, primary caregiver). Talked about their respect for children. • Reason – Centre practices Attachment-Based Learning theory. • The centre provides quality ECE via the medium of the Māori language. I wanted to ensure the quality of both of those things was maintained for my girl. I also liked the fact that there were relatively low numbers of children able to attend (30 in total), I liked that all children attended on a more or less full-time basis. I liked that the centre was clean – very important for a girl who picks up bugs easily, and that the routines were consistent and that the programme was largely play-based. The presence of an experienced kuia and the long-term staff was also significant.
Convenience	<ul style="list-style-type: none"> • It is not even one minute's drive from our home. • If educator is sick, parents do not have to take time off work because relieving staff are brought in.

While parents in smaller towns considered they did not have the same choices, (for example, *“limited choices when in army in Waiouru”*), for others, the lack of choice brought unexpected but positive consequences.

We chose Kōhanga Reo mainly out of circumstance! I had recently found out I was pregnant with our second child, and was offered a three-month contract at [name of workplace]. I said only if they could sort out childcare [for toddler] because I knew how hard it was. They couldn't get me in to [name of workplace centre], and my manager suggested I put him into Kōhanga (where her daughter worked). I thought it was a great idea (and not one I had considered as I thought they were restricted to families with some Māori in them!). What I really like about the Kōhanga was that the emphasis was on relationships more than learning. When I went to [name of another centre] to have a look it was very much like a school for babies, very structured, time slots for activities etc. At the Kōhanga, kids were having cuddles, having stories, lying on the floor with a carer playing with a toy of their choice. It was very much like what I'd do at home with my kids. Of course they still followed the standard curriculum etc, but it felt more caring. I also liked their emphasis on non-plastic toys, lots of dress up clothes, wooden toys etc rather than the plastics. If we had been in a position to pay for childcare after my second child was born (and before I went back to work) I probably would have continued to send them there at least a couple of days a week because I believe my son really enjoyed it, and I appreciated his exposure to full-time te reo.

New parents looked to their child's service provider for parenting skills and education (for example, *“I read up on philosophy (free movement) and now it has changed the way I interact with my children”*). In addition, a number of people thought it would be helpful if their ECS ran actual parenting classes. Others commented that their service already did so. While some said they talked a lot about feeding, one person pointed

out that the Plunket information is printed by a food company that manufactures baby food so they wanted independent information covered in their parenting classes.

Perceived strengths and weaknesses of ECS

Parents were also asked about the perceived strengths and weaknesses of the early childhood service provision. These comments should be read with the proviso that nearly all the parents were perfectly happy with their children's ECS, despite identifying some weaknesses as well as strengths, as evidenced by this comment:

There was a lack of attention to little things like snotty noses and washing hands. But I considered overall my child was better well-loved and dirty than clean and 'in school' before two!

This table outlines some of the strengths that parents identified with their ECS.

Table 17: Perceived strengths of the ECS

Home-based ECS	Centre-based ECS
<ul style="list-style-type: none"> • Stable, loving caregiver • Breastfeeding can be maintained • Safety of own environment • Taken to infant swimming and music classes • Choice of own toys • Individual child focus • Good carer support • Smaller numbers of children together 	<ul style="list-style-type: none"> • Same caregiver for both girls (personal touch) • Well structured • Calibre of teachers (qualified and registered) • Lots of space • Quality of the learning and care received • Range of cultures • Small centre, so plenty of one to one attention • Teaching programme includes structured outdoor play

The following quote illustrates a number of strengths for attending a centre based on growing the child's language and culture:

The centre provides quality ece via the medium of the Māori language. I wanted to ensure the quality of both of those things was maintained for my girl. I also liked the fact that there were relatively low numbers of children able to attend (30 in total), I liked that all children attended on a more or less full-time basis. I liked that the centre was clean – very important for a girl who picks up bugs easily, and that the routines were consistent and that the programme was largely play-based. The presence of an experienced kuia and the long-term staff was also significant.

Effective partnerships with parents were highlighted. While this example relates to a centre-based the identified strengths are equally relevant to a home-based setting.

The element that benefits us the most is the communication avenue we have with the manager. We feel comfortable taking any concerns directly to her and we feel listened to when we need to make unique demands for our babies. Our three children have become so comfortable there and feel close to the caregivers and the other children. We love having a booklet for each of them that records stories and photos of them and the activities and learning they are involved in. The centre manager takes a very hands-on approach and maintains strict levels of care among her staff. She is always introducing new activities and initiatives at her centre to give the children as many opportunities and experiences she can. When we have issues with our children around behaviour, healthcare, developmental queries, she is wealthy with knowledge and guidance for us. We feel that if our children were home with us full-time, they would miss out on the important social life and activities that only a centre can provide.

This table shows the weaknesses identified by the parents for both home and centre-based early childhood services.

Table 18: Perceived weaknesses of the ECS

Home-based ECS	Centre-based ECS
<ul style="list-style-type: none"> • No back up if carer unavailable. • Working on their own without daily monitoring • In-home care more expensive • Annoying timesheet • High trust model • Not qualified teachers • Lack of resources 	<ul style="list-style-type: none"> • Health issues (sick children and staff) • Transmission of infections • Staff retention and staff turnover • Difficulty with sleeping in the centre setting • Emotionally difficult drop-offs (at 1-2 years) • More than one caregiver • Lack of resources

To expand on the weaknesses listed in the table for home-based education and care, the following quotes are examples provided by the parents who identified some weaknesses (very few did) with their ECS:

Sacked one nanny, didn't know she smoked and found her smoking outside.

There is a gap in the market for nannies. Child loved them but felt awful and grieved for them when they left.

The nanny was good for care when he was a baby but expensive and there are also some risks around a nanny (e.g., that they just watch telly etc) – have heard some horror stories and had performance issues with my boy's last nanny (she went places without telling me etc).

With in home service it is also less reliable during winter. If the caregiver or her children are sick then care might not be available. I needed the guarantee that the service would be available when I needed it.

Similarly, the following quotes provide an insight as to why parents perceived these weaknesses with their ECEC centres.

Hated being dropped off. Feel sorry for all day kids.

As many days off as going. Health — ear infections, hand, foot and mouth.

The only weakness we experience are those common to ECE centres in general i.e., sometimes a high turnover of staff, we wish they were paid much more because they are so important.

Weaknesses were that perhaps the centre could have been even smaller – I think a total number of 15-20 children is optimal to maintain a less socially stressful environment for some children, and to be able to get closer to a 'home type' environment.

It was perhaps not quite as play-based as I would have liked – however the routines and programmes were necessary for the group size I guess.

Parents' satisfaction with their choice of ECS

In their consultation interviews, parents were asked how comfortable they were with the choices they had made. Interestingly, out of all the parents consulted for this inquiry, nearly all of them reported feeling very comfortable with their choices. One mother did say that “*Looking back, particularly for my first child I wouldn't have gone back to work so early*”, and another said she would not feel so comfortable if their baby's relationship with them [parents] changed, but all of the other comments were extremely positive. The next table provides a snapshot of why parents felt they had made the right choice.

Table 19: Reasons why parents felt comfortable with their choice of ECS

Reason	Examples
Relationships with child	<ul style="list-style-type: none"> • <i>Saw child was happy and loved her primary caregiver.</i> • <i>Our daughter is happy to be there, she's well looked after, and has built up a good relationship with her carer and the other 3 children who attend.</i>
Relationships with parents	<ul style="list-style-type: none"> • <i>[Name of centre] is a very important extension of our family life. We consider the manager and her team an essential part of our support network and we feel fortunate...</i> • <i>Really comfortable. Particularly because my boy is outgoing and really enjoys it so I don't think suffers from stress through being at the centre (referring to the research which shows higher rates of cortisol among kids in centres). The teachers have so much energy and enthusiasm and good communication with us. They have good systems in place and really good facilities.</i> • <i>Completely comfortable, never looked back, would make the same decision again. A major impact on both myself and the twins was the support that all the staff gave when the twins initially starting going. Both of them took 8 weeks to completely settle with plenty of tears off all three of us. [Name of centre] staff provided such a positive and supportive experience, it taught me what small things to look for...exceeded my expectations.</i> • <i>Very comfortable. They were all great services, with caring, well-educated staff. I also became involved on the committee as the treasurer – so I felt like I had a real say in what was happening there.</i>
Family values and preferences	<ul style="list-style-type: none"> • <i>Comfortable because it is a good compromise. How much do we want to get into debt? (20 hours is good amount of time for Mum and daughter). I couldn't work full-time without parents shifting up from Christchurch!</i> • <i>Wouldn't change. Taught same things we would teach our child, e.g., manners.</i>

Quality of information

The parents consulted for this inquiry received information about early childhood services from a variety of sources: (1) friends, colleagues, and family members; (2) internet; (3) telephone yellow pages; (4) Ministry of Education's website; (5) ERO website for evaluation reports on specific ECS; (6) parenting magazines and books; (7) Plunket; and (8) staff at the ECS they visited.

Usually one parent in a family took responsibility for sourcing the necessary information. Opinions were mixed as to whether they received good information. Comments ranged from "good", to "sort of" and "average". One couple reported

looking at all the nanny options before advertising for a nanny themselves. They described this process as a “*nightmare*”.

Interestingly, there were some queries about the right level of information and whether some parents even wanted further information. In one participant’s view:

The right level of information for some people is NONE, for others it’s talking to other mums, and for others it’s reading the research that underpins the key messages that come out and the media stories that are written.

While most people were content to seek out information: “*I had to search for it and keep an eye out, nothing falls into your lap*”, others questioned whether all parents would know how and where to seek out the information: “*Yes, knew what to look for. Also intuitive. But if you don’t know what to look for it would be much harder.*”

A parent who was also an early childhood professional provided this insight:

Yes, I had good information – but I have worked in the early childhood sector for some years. I don’t know that for other parents the information is that readily available. However, to be honest, the most effective way to find out about ‘good early childhood facilities’ is word of mouth. This relies on parents having their own social networks – where this isn’t the case, and for more isolated parents, the information needs to be out on community boards, on television, and in shops, like the Warehouse for example, which most parents would frequent. Doctor’s surgeries, libraries, and the like should also have information available, however, the reality is that not all populations access those places.

Three examples of website resources providing information on how to choose an ECS are the Ministry of Education’s Choices in Early Childhood Education; ERO’s *Early Childhood Education: A Guide for Parents*, June 2007; and the Brainwave Trust’s *What do High Quality Childcare Centres Look Like?* Knowing how to access websites was perceived as a helpful way to gain good information about early childhood services.

Yes I would say it was good information. I got it off the Internet from a variety of websites. It was accessible because I know my way around these sites... Most people would be able to understand it, even those with no knowledge of ECE.

Further to the quote above, other concerns were raised about accessibility. First, to gain information from websites, people need access to a computer. Second, they need to know how to access the websites and this may be challenging for those who have English as a second language. Third, they need to know the information they

are looking for. Participants questioned whether the “average person” would know the right questions to ask in order to seek the relevant information. While participants considered the Ministry of Education’s information easy to understand, the Ministry of Education’s website was also identified as *“not the easiest site to navigate”*. Although it had a *“good checklist”*, the website *“does not talk about centres offering primary care”*. This prompted one parent to ring the Ministry directly for information on the ECEC services *“considered to provide good level of care”* in her area.

As many people said they accessed the ERO reports as those who said they did not. A couple of participants questioned the merit of looking up ERO reports on its website. For example, one parent initially used those reports to inform her choice of early childhood services but *“after the first terrible experience, she realised that the reality does not always match the report”*.

There were also parents who considered word of mouth to be more important than actual information per se. Some looked no further than the service recommended by their friends, family or colleagues as having a good reputation. An indicative comment included:

To be honest, I just relied on the feel of the place, and the recommendations of my friends with children. I didn’t look at documentation ... so I didn’t have to factor in any government initiatives.

Others relied on their Plunket Nurse’s information. In fact the role of Plunket was valued as a *“way to get more info out there”*. Other information specifically asked for by participants was how to find creches, as well as information on *Te Whāriki* and how it links into ECE, diet, child play and places to go for support. Parents wanted to know how to recognise quality education and care. The request was made to *“get accessible info out there so parents have a full understanding about what is quality child care”*.

Families that preferred to find out about different ECS by visiting them tended to *“visit a large number of the different options”* in order to make an informed choice. For example, one participant *“rang and visited many (more than eight) early childcare facilities”*. Conversely, another participant said their choice of centre was based on referrals and one site visit:

We had no actual information – we had driven past the centre for ten years and it appealed.

Worth noting is that families tended to receive their information about the WINZ subsidies through the service providers. Parents reported that their ECS also provided helpful information. For example:

[Name of home-based service] provided a lot of information on the early childhood curriculum, as well as their philosophy on teaching and early childhood education, and the health and safety regulations they have for all of their educators. Our educator also provided her own information on how she practices according to the curriculum.

Participants reported receiving less information about child development, attachment theory and brain development. The people who did have information relating to these topics had accessed it in the usual way, although they attributed some of the knowledge they had gained to their midwives and what they learned during their antenatal classes. As one parent said:

The midwife and child healthcare checkups have always given me the most info on these issues as a parent. I have always found the Plunket Family centres invaluable.

Some participants expressed familiarity with the Brainwave Trust; however, the people who reported a sound understanding about child development had obtained this knowledge through their professional occupations as teachers and in their university studies. A couple of families had been upskilled through their participation in the Parents as First Teachers (PAFT) programme.

Nevertheless, most of these parents admitted to having little knowledge on these topics, although they also said that they had “*not gone looking for it*”. While they may not have actively sought out this kind of information, there was some awareness of media reports. For example:

I've kept my ears open for research (eg in the media). Some of it makes me angry, but it's also probably the media interpretation.

Some said they would have liked to have more information. They also suggested that it would be helpful to:

break the information down, i.e., why it is important to have a primary caregiver because many centres wrongly say child has to learn to attach to all staff.

Finally, participants provided a salutary reminder on the best way to offer information to parents. For example:

Not having stupid ads funded by the taxpayer saying families are important... People having the choice to make whatever decisions feel right for them, and being able to find information to suit their information needs. And not having a judgemental state (as in government). Just provide the information, not try and judge people for it. Avoid doing the equivalent to the Breast is Best message – which causes women a lot of hurt and which is hardly even justified when you look at the research compared to the key messages pushed. So don't advise, just provide info.

Parents also are quite used to having to look for information and balance competing info before making a decision – as there is no manual on how to look after a newborn etc. So parents also aren't stupid and can deal with grey, rather than seek black and white.

What support do parents say they need?

When asked how they thought parents of infants and toddlers could best be supported, the parents participating in the consultation process offered a variety of suggestions. Supporting parents would, in their view, include extending the length and provisions around paid parental leave. This was by far the most frequently mentioned suggestion. All of the comments around this topic asked for longer paid parental leave, but they differed on the length. These two quotes are a sample of the suggestions made:

At least 80 percent of salary as paid parental leave for 6 months.

Paid parental leave for longer than 14 weeks, ideally up to 12 months, so parents have the option to be at home with their young children.

Some of the parents felt resentful that their circumstances precluded their eligibility for paid parental leave. For example, one parent had been teaching in the same school for 11 months but she needed to have been there for twelve months to qualify for paid maternity leave. Another person said:

Didn't get paid parental leave because employed under a fixed contract. Made choice to stay home but nothing to show the government appreciates it.

Issues for self-employed people were also identified. Parents in this situation said that longer paid parental leave makes no difference to them; rather they need a kind of protection insurance that covers the extent of their income for a set period.

Different people in different ways expressed the view, *“I think parent support at the moment is focused on supporting parents back into work”*. In addition, they considered there to be *“a real issue for parents enrolling kids in childcare centres and matching that up with what they want (and their employer wants) re work”*. Currently only available to 3 and 4-year-olds, *“broadening the 20 hours ECE policy by extending it to younger children”* or providing *“20 hrs ECE straight after paid parental leave, because this is when families need support to return to work”* was raised as a potential way to support parents of under-2s to return to paid employment. Alternative suggestions included:

- Making it easier to work flexible hours
- Workplace creches so parents can be close to their children and drop in during the day
- Supporting part-time return to work by providing easy access to part-time care for infants and toddlers
- Making sufficient spaces available for those who want them.

Providing culturally affirming education and care was considered important for supporting parents from minority cultures. For example:

By providing centres that are based around a whānau environment – where there are both young and old staff members. Growing up I always had extended whānau around and a child I believe feels at ease when he feels that those around him actually want to be there and do genuinely care about his/her needs – all babies love cuddles, smiles and positive affirmations – just like their parents.

Many comments related to government policies. Even parents who would prefer not to use formal education and care had views about child care policies.

In an ideal world, every mother would be able to stay at home with their child until it was two years old. That would be bliss.

I strongly believe that under 2-year-olds need to be with their mothers as this is the most important time for bonding and nurturing. I am not an advocate of babies going into ECE from baby to 2...but am a realist in that I know parents

need to earn and so would like to see increased government support in terms of financing the parent to stay at home longer.

Parents considered that the best interests of the child should guide all thinking around government policy decisions. The recent budget announcements about early childhood generated a lot of discussion. The parents interviewed around this time were very aware of the issues being played out in the media and some expressed their concern about the potential for losing qualified, registered teachers. Their suggestion was to “keep 100 percent qualified teachers as the target”.

There were numerous comments relating to the financial situation of families and to “give more choice by subsidising childcare for all” and to “make childcare affordable for all”.

Childcare that is free!! [we have 6 kids, 3 who are at ECS]. Loads of parenting support with very practical tools. Flexible work arrangements, being able to work from home wherever possible, making it possible to not have to work so soon after the birth of a baby, making the choice to stay at home and spend time with your children a financially realistic one.

A surprise suggestion was to maximise opportunities for parents to learn about the childcare subsidy. Some parents did not know they were eligible until their child’s service provider brought it to their attention.

I don’t know about the best way but I think there should be much more advertisement about the WINZ subsidies. So many friends of mine have not considered ECE for their children...because they couldn’t afford fees for other centres and didn’t know that actually WINZ Childcare Subsidy covers families on a combined income of up to and including \$80k [rates have since changed].

The chief executive of a home-based service confirmed this finding. She said she had learned never to assume that parents knew what they were entitled to and always provided her clients with information about the childcare subsidy. Some providers reported sitting down with the parents and helping them to fill in the forms.

A consistent view was that parents did not want to feel pressured to “have to work”, or made “to feel like a bad parent” if they do work. Parents also wanted real choice as to whether they worked or not. One parent said:

“The average couple pays enough regardless. Would like the money so parents can decide how to use it - stay at home or childcare”.

According to some parents, their choice is regulated. Therefore they suggested “giving the funding direct to parents with someone checking how it is spent”. Early childhood teachers who participated in a focus interview supported this view. Indicative comments included: “parental choice should be there”, “paying parents more to stay at home”, “make the availability of hours in care less”, and “to enable the funding to follow the child as opposed to an agency”.

A large number of parents questioned the wisdom of supporting families to utilise formal ECS as articulated in the following quote:

I should add that although I understand that different things work for different families and children, on the whole I think we institutionalise our children far too early in Aotearoa. The expectations on babies and children under five to constantly socialise in large numbers and to follow institutional (large daycare) routines from early in the morning until evening, five days a week, presents challenges for many. There seems to be a societal assumption now that children are ‘missing out’ if they aren’t attending an early childhood facility. This may be the case for some. However, the ‘gap’ (in their education) if it exists, need not necessarily be filled by early childhood institutions, but rather for many, the home has the potential to provide just as stimulating an environment. In line with the government’s push to improve early childhood education, I would really like to see more efforts being made to support parents who choose the ‘home’ option, to make it as successful and enjoyable as it could be. Successful improvement of early childhood education would see more community wide interventions, of which the focus on early childhood facilities, and our participation in them, would be just a part of a much bigger picture.

Others suggested that looking past the policies to better monitoring of ECS could best support parents.

That’s a difficult question. I think the amount of financial support in the form of family tax credits etc is already reasonably generous. Maybe more could be done to monitor the care facilities so that parents feel confident that their child is in a safe and quality care environment.

The best way to feel supported is to be supported. One participant said, “As a parent I didn’t feel supported to be an at home mum”.

A number of parents wanted to talk generally about support for parents of under 2-year-olds. While not particularly related to the education and care of their children, nevertheless their comments are of interest to the wider societal issues around supporting this population group. These parents wanted to “have increased access to

services like the Plunket Family homes and community groups for parents with young children”; “get parents out of their houses meeting with other parents with under-2s”; “know the places to go to get info/advice on childcare, playgroups, music groups” and “ultimately, teach parents its ok to ask for help” and how to “access advice in friendly environments”.

Many parents valued the support of Plunket and their antenatal groups: For example:

I didn't have any family support... Adjusting to being a parent took time – I appreciated the plunket PIN groups and still have two close friends from my PIN group and the plunket classes – they were really helpful with my first baby.

One parent was being supported by PAFT and wanted more families to experience this particular form of support.

More money should be made available for programmes like Parents as First Teachers and Family Start – instead of the never ending cuts to funding – more advertisement is needed too. Surely, PAFT could be offered through other routes other than MoE/MSD on a group basis. Parent Centre already offer a similar course with its basis being PAFT. Unfortunately, not all of New Zealand has a local Parent Centre!

One parent choosing not to work while her children are very young made a plea for:

Programmes to assist parents who are ‘home early childhooding’ their children – play and learn packages similar to those provided by correspondence school; opportunities to meet up with other parents and children; financial assistance to enable it to be a real option for more people.

This view was further supported for children who are speaking Māori as their first language. As stated by this mother:

There is an assumption that Kōhanga Reo and/or Puna Reo [playgroup] are the only options if you want your child's first language to be Māori. Parents who want their children to speak Māori should be supported to do so at home if that is their choice... I think it would be really exciting to develop a system, such as the early childhood correspondence school, that was specifically for this purpose.

There was also a plea for more community services to be available in te reo Māori.

As a Māori language speaker – more community opportunities for young children's development, for family outings, that occur in Māori. Like Māori storytelling at libraries, and Māori language jumping beans', Māori speakers in the

children's section of the museum etc, Māori speaking swim instructors ... many of the things are not available for Māori speaking children.

The following quote emphasises the importance of supporting parents to learn a range of skills. The courses are more likely to be successful when they are implemented in culturally sensitive ways:

Young parents need to learn the skills to parent. Parenting courses are essential - again these must recognise the ethnicity of the parent so they receive culturally appropriate support. The programme must be free of charge as most young parents struggle financially. There needs to be more interaction with plunket and community nurses and/or health centres that provide support to young parents and their children such as Turuki Health Care, Mangere who provide excellent support and education on 'how to be a great parent', 'how to manage your money', 'how to maintain a clean and healthy home', 'healthy eating and cooking' and 'how to cook on a tight budget' etc.

Another working parent offered an opposing view about the provision of further support for families with infants and toddlers. She said:

Let's also recognise a lot of people don't have kids but also have busy lives juggling things and a lot of people want kids but can't have them. So support and effort around/for parents of kids needs to be in balance – parents who whinge about how hard life is with kids really should have thought a bit harder before having them!

The above view fails to acknowledge the difficulties, not of their choosing, that are faced every day by parents of children with disabilities. On hearing about the Office's inquiry, one such parent was motivated to write about her situation. Although the child's age was not provided, this parent and child reflect the experiences of other families in similar situations:

My daughter could only go to [name of ECS] for 7.5 hours a week. If she didn't have an aide she couldn't go. She had the maximum hours available but it wasn't even half the hours that other children could go. Doesn't seem fair that a child has to stay at home because she was born with a disability that requires constant supervision. I went to [name of ECS] with her for the other hours so that she could actually go and be a normal kid like her friends. [Name] is an only child so I could do this but most parents can't. And we shouldn't have to. Many of us parents cannot go back to work because of our children's health problems and because there is a huge shortage of people suitable to look after them. There is no help from the government in this case. Very frustrating when you see people that can't be bothered going to work getting hand outs and those of us that would be more than willing to have our careers back, but can't, get nothing. We cannot put them in full-time childcare and the respite hours that we do receive only pay for one day a week if you are lucky. It is a huge financial burden raising these kids. Yes, there is help with medical bills,

nappies etc but not with income or child support. The children aren't the only ones with special needs. Raising children like this takes its toll and the parents suffer just as much, i.e., the parents have needs too. There is a serious lack of support out there.

There was a consensus among the parents consulted for this project that support for parents of under 2-year-olds needed to be more readily available, as explained in this quote:

We need to ensure that all parents have better access to support whether younger or older [parents]. Being a parent in my mind is the most difficult job I have ever done and yet there does not seem to be support out there. If there is, they need to promote who they are and what they deliver... Children of poor families should not be disadvantaged because of their parents' financial situation but of course they are.

Early childhood professionals' view

According to early childhood professionals, the best way to support parents is to provide education and care that is free and available to everybody. They stressed the need for it to be accessible and available, so that parents can make an informed choice.

Having health professionals available and accessible to both parents and educators in either the home-based or centre setting would be welcomed, including early intervention support for infants and toddlers with suspected developmental delays. Greater flexibility of employers so a parent could take their child to the doctor was considered to be one way to support families but also early childhood services if it cut down on the prevalence and incidence of sick children in early childhood services.

Longer paid parental leave was seen as a supportive move for both the parents and their babies. In an interview with home-based providers, the recommendation was made that funding should follow the child to support infants to be at home because “*pre-school looks different for babies*”. In addition, some of the academic researchers in this field thought that at the very least, the funding should follow the child instead of service provider – but only to another licensed provider.

Summary of parents' decision-making and choices available

Indications are that many parents choose to re-enter the labour market because of the financial incentives of contributing to the household income or to increase their future career prospects. Many parents may not want to go back to work so soon after the birth of their baby but feel they have to. This seems to be a reality for most parents.

Parental choice of child care does not inevitably lead to high quality care, as defined by the research literature and also the early childhood professionals in this inquiry. Parents need to take the unique needs of their infants and toddlers (that are different to those of pre-schoolers) into account when choosing an early childhood service for their children. A range of diverse responses was reported about the choices parents made in relation to ECS.

When families rely on two incomes and work long hours, parents may choose a service provider that is open for longer periods of time or combine formal care arrangements with informal care provided by extended family. Some families with a wide social network of friends in similar circumstances (for example, not working full-time) choose to share the care of their children, such as minding each other's children while the other works and vice versa. Others might want their child to be cared for by people from their own culture, such as in a *kōhanga reo* or *Pasifika* service with people speaking the same first language. Similarly, families of minority cultures might choose a more multicultural service in their belief that the staff and children will be better accepting of their child. Some may even seek out services that already have children attending who are from the same country as their family.

Other families in this inquiry considered their choice to be very constrained by factors other than their preference. Fees charged by service providers affect parental choice, as does the availability of places or the convenience of the location. Some parents were aware that in selecting one type of service provision they were trading off elements of quality over others. For example, parents choosing home-based education and care prioritised small group size over qualified teachers. (The elements of quality provision for infants and toddlers are outlined in the next section of the report). Whatever their reasons for choosing home-based or centre-based education and care, participating parents were comfortable with the choices they made. This finding is supported by earlier research studies when Holloway and Fuller

(1992) wrote that while parents might be able to articulate problems within the state of child care, they still tend to feel comfortable with their own arrangements.

SECTION 7: QUALITY EDUCATION AND CARE FOR UNDER-2s – KEY PRACTICE ISSUES

There is clear evidence that quality of education and care is a crucial factor in achieving good outcomes for infants and toddlers. Anme and Segal (2004) note, “quality of care must be considered if the effects of early childcare are to be understood” (p. 345).

“Quality” is a complex and values-based notion (EC Australia Inc, 2009). This section of the report looks first at the literature and identifies eight key components of quality. There is some discussion of the practical application of these quality factors. It then reports early childhood professionals’ views on quality. It ends with a discussion of some of the issues around quality that arose in this inquiry.

Literature review

The research literature is unequivocal about the importance of quality early childhood provision for under-2s. Earlier longitudinal studies in Sweden found an association between high-quality childcare in infancy and toddlerhood with cognitive, emotional, and social competence in middle childhood and adolescence (Andersson, 1989, 1992; Broberg, Wessels, Lamb, & Hwang, 1997). Then a later study by Loeb, Fuller, Kagan, and Carrol (2004) found that all types of education and care services predicted moderate improvements in cognitive, emotional, and social development if they provided quality child care. Young children who spend long hours in mediocre to poor non-parental care score lower on measures of cognitive and social skills regardless of socioeconomic status (Kohen, Hunter, Pence, & Goelman, 2000; NICHD 2000, 2003b). Good quality child care can reduce the negative impact of a stressed, poverty-stricken home life as well as sustain the benefits of growing up in an economically advantaged family (Lamb, 1998; NICHD, 2003, as cited in Berk, 2006).

The literature contains examples of good and bad quality. For example, ... “child care in the United States is highly fragmented and erratic and ... the vast majority of child care is of unacceptably low quality and in the first three years of life does not even meet minimal recommended guidelines” (NICHD, 2005, p. 432). New Zealand should emulate the best of the examples in the literature. Eisenstadt (2010) echoes this view

and recommends looking to France, Germany and the Scandinavian countries for guidance. It is worth noting, however, that few infants attend formal education and care services in countries such as Finland, Norway, and Sweden because of the generous parental leave policies in those countries.

Elements of quality ECS provision for infants and toddlers

Quality non-parental education and care for infants and toddlers can be experienced in either home-based or centre-based settings. Therefore this synthesis of the literature on what constitutes quality for this age group is generic to all early childhood services in New Zealand.

The Education Review Office (2010, p. 3) has identified nine key aspects of early childhood practice that contribute to quality learning opportunities for infants, toddlers and young children. These interrelated elements include: (1) leadership; (2) philosophy; (3) vision; (4) relationships and interactions; (5) teaching and learning; (6) assessment and planning; (7) professional learning, qualifications and support; (8) self review; and (9) management.

While many aspects of practice contribute to successful learning, ERO state that it is the interrelationship between the above elements that underpins the quality of the education and care provisions for all children attending early childhood services. There are other elements, however, that are quite specific to the learning and development of under 2-year-olds and it is those aspects that are the focus of the following discussion.

Eight factors have been identified as key components of quality provision of services for under 2-year-olds. As with the ERO components, it is useful to give weight to the quality factors as a package, and note the importance of their inter-relationships. Other factors that contribute to quality education and care for infants and toddlers are categorised as sub-categories, and discussed under these wider headings.

A high adult to child ratio

Ratios relate to the adult-to-child ratios. The research is clear that the fewer children to each adult, the better (Berk, 2006; Canadian Council on Learning, 2006; Centre on the Developing Child, 2007; Lally, 2009; Mitchell et al., 2008; Munton et al., 2002; NACCRRRA, 2008; Penn, 2009; Smith, 1999; Wylie et al., 1996). Berk, 2006;

Canadian Council on Learning, 2006; Centre on the Developing Child, 2007; Lally, 2009; Mitchell et al., 2008; Munton et al., 2002; NACCRRRA, 2008; Penn, 2009; Smith, 1999; Wylie et al., 1996).

Recommended ratios in the literature are 1:3 for under-2s, 1:6 for 2 to 3-year-olds and 1:8 for 3 to 5-year-olds (Munton et al., 2002). Regulations set the minimum numbers of staff to children required and are lower according to the age of the children. Currently in New Zealand the ratio is 1:5 for under-2s in ECEC centres. Home-based services have a 1:4 ratio, with no more than two children aged less than two years.

It would be expected that ratios would be lowered when there were one or more children who needed additional help to fully participate in a programme, due to factors such as disability (NACCRRRA, 2008). Obviously, infants and toddlers require more care, and service providers have lower adult to child ratios to reflect the high care demands of this age group.

Small group sizes

Lally (2009) states, “every major research study on infant and toddler care has shown that small group size and good ratios are key components of quality care” (p. 49). Group sizes relate to the maximum number of children in a group, regardless of the number of staff. In other words, group size is about the number of children in a single space. The size of the ECEC centre is not the important factor here; it is how the under-2s are grouped within the centre that makes the difference to quality. Less is best and the younger the child, the smaller the group should be (Berk, 2006, Canadian Council on Learning, 2006; Goelman et al., 2006; Lally, 2009; Mitchell et al., 2008; Munton et al., 2002; NACCRRRA, 2008; NSC, 2007; Penn, 2009; Scarr & Eisenberg, 1993; Smith, 1999; Wylie et al., 1996).

Between six and eight is the recommended group size for infants and toddlers, with six being the ideal number (Goelman et al., 2006; Lally, 2009). There are no specific requirements for group size in New Zealand except that no more than 25 children under two years can attend an ECEC centre at any one time.

Higher staff-to-child ratios and smaller group sizes allow staff to give individual attention to children and support the nurturance of focused interactions and intentional learning experiences (EC Australia Inc, 2009) rather than simply

managing the group. Small group sizes help to maintain relationships because the group members can provide some of the interactions, not just the adults, thereby allowing the infants to contribute to each other's development. Furthermore, from a child's perspective paradigm, smaller group sizes facilitate the "child's voice".

Practitioners' education, qualifications, and skills

To deliver better outcomes and services that focus on the social, emotional, cognitive and physical development and learning of infants and toddlers, staff must be well educated, professional, prepared and skilled, with qualifications directly relevant to early childhood (Berk, 2006; Canadian Council on Learning, 2006; ERO, 2009; Kane, 2005; Mitchell et al., 2008; Munton et al., 2002; NACCRRRA, 2008; Penn, 2009; Podmore & Meade, 2000; Smith, 1999; Wylie et al., 1996). Fiene's (2000) study confirmed that the best setting for under-2s is with an accredited provider that has highly educated and experienced staff. In addition, Fiene recommended that the director and owner of the ECS should also hold early childhood qualifications and provide ongoing intensive professional development and mentoring programmes for all staff.

Appropriately qualified staff lift the quality of the service provision through:

- The quality of their relationships and interaction with children
- The appropriateness and intentionality of the experiences they provide for young children
- The behaviour they practise with their colleagues and model to children
- Their interactions and partnerships with parents (EC Australia Inc, 2009).

Teachers therefore have a significant impact on the quality of learning and teaching (Kane, 2005). As stated by Tarr (2006)

The notion of what a teacher knows (knowledge), shows (attitudes) and does (skills) having an impact on the learners they work with (and on what the learners learn) is a long held 'given' amongst education practitioners, parents and policy makers the world over. (p. 25)

The importance of pre-service and post-service teacher education must also be acknowledged. Having professionally prepared teachers and staff means that both initial teacher education training and ongoing professional development is necessary

to maintain the required skills and training as well as the promoting of teacher reflection and evaluation (Jalongo et al., 2004).

Earlier research literature indicated that the professional preparation could be in either early childhood education or child development (Scarr & Eisenberg, 1993). Definitely, a personal commitment to learning about and caring for children is required of all practitioners who work with young children (Berk, 2006). There has been some discourse on whether teachers should be better “educated on how to care” for infants and toddlers. By adopting an educational framework, Rockel (2009a) considers that New Zealand’s professionalisation of care in early childhood education and care services has shifted the mindset so that early childhood professionals working with infants and toddlers are better positioned to articulate a pedagogy of care as “teachers” rather than “caregivers”. The early childhood sector in New Zealand is proud of its educational focus.

New Zealand has no established, formal guidelines for infant-toddler accreditation for early childhood professionals. Other countries have had these specialist qualifications for some time. Powell (2007) advocates that New Zealand follows their lead by providing more initial teacher education papers on infants and toddlers as well as a separate infant and toddler qualification.

A positive, sensitive and responsive relationship between educator and child

Quality of care also depends, in part, on the ability of educators to refine models of responsiveness that take the individual patterns of infants into account (Fein, Gariboldi & Boni, 1993). Many studies confirm positive, sensitive, and responsive caregiving as a key element of quality (see Atwool, 2002, 2006; Belsky, 2001; Berk, 2006; Bowlby, 2007; Canadian Council on Learning, 2006; Cassidy, 2008; Cassidy & Shaver, 2008; Dalli, Kibble, Cairns-Cowan, Corrigan, & McBride, 2009; ERO, 2009; Farquhar, 2003; Grossman, Grossman, & Waters, 2005; Centre on the Developing Child, 2007; Lally & Mangione, 2006; NACCRRRA, 2008; NSC, 2007; Podmore & Meade, 2000; Rockel, 2002; Scarr & Eisenberg, 1993; Smith, 1999).

Quality responsive caregiving pays particular attention to attachment. Attachment theory was first discussed in the child development section and is addressed again in this section for its contribution to quality education and care.

Attachment research highlights the importance of proximity and availability of the attachment figure for infants and toddlers. Infants and toddlers rely on proximity to the attachment figure to maintain the stable base allowing them to venture forth and explore their environments (Atwool, 2002). Bowlby (2007) advises that an infant or toddler will often develop secondary attachments to people their primary attachment figure knows well and whom they both see regularly. Having three or more secondary attachment figures will usually increase children's resilience and promote mental health. Babies and toddlers are not usually affected by a few hours of separation from their primary attachment figure if they have a secure bond with a secondary attachment figure that cares for them. When these carers are "consistent, sensitive, and responsive", they can benefit toddlers' social and cognitive development and provide support to families (p. 309).

Extending Bowlby's earlier theories around attachment, we now know that young children are able to form multiple attachment relationships but those attachment figures must be able to provide (1) physical and emotional care; (2) continuity or consistency in a child's life; and (3) emotional investment in the child (Howes, 1999, p. 673, as cited in Atwool, 2002). Those working in the early childhood sector are uniquely placed to provide alternative attachment opportunities, however, there are risks to be managed, such as consistency and continuity issues associated with high staff turnover and whether the staff have the time to pour an emotional investment into each child for whom they are the key person (Atwool, 2002). As stated in UNICEF's (2008) report card on child care:

... the quality of early childhood education and care depends above all else on the ability of the caregiver to build relationships with children, and to help provide a secure, consistent, sensitive, stimulating, and rewarding environment. In other words, good child care is an extension of good parenting. (p. 23)

Bowlby (2007) reinforces this view but at the same time issues a warning:

With so much focus on cognitive educational attainment, there is a grave danger that the emotional development of babies and toddlers will not be sufficient for them to take full advantage of their future educational opportunities. For positive emotional development during this most sensitive period of brain growth, I believe that it's absolutely essential that continuity of personalized caregiving is available to babies and toddlers at all times, either from their primary attachment figure or from a trusted secondary attachment figure. (p. 318)

Bowlby's warning is shared by others, on the evidence that babies attending a full-time non-parental service are more likely to display insecure attachment than babies cared for by their parents (Belsky, 1992, 2001; Lamb, Sternberg, & Prodromidis, 1992). Higher quality child care and fewer hours in child care are associated with favourable mother-child interaction, which contributes to attachment security. Atwool (2002) cites studies that warn of heightened risk of insecure attachment for infants who attend 20-30 hours of child care (home or centre-based) before they are eight months old and remain throughout the first five years.

On the other hand, there is also evidence to suggest that differences in attachment quality are dependent on both family and childcare experiences (NICHD Early Child Care Research Network, 1997; Roggman, Langlois, & Rieser-Danner, 1994). An Australian study found infants enrolled full-time in government-funded high quality early childhood education and care services to have a higher rate of secure attachment than infants informally cared for by relatives, friends or babysitters (Love, Harrison, Sagi-Schwartz, van IJzendoorn, Ross, & Ungerer, 2003). Other studies also suggest that relationships with sensitive teachers can compensate infants who have insecure attachment with parents (Atwool, 2002).

Smith reiterates that one essential ingredient of sensitive environments is a close and nurturing adult-child relationship (Smith, 1999). Probably the best primary caregiver in a formal early childhood service is the one the child chooses. Smith explains that a close relationship is necessary for intersubjectivity, which allows the educator to judge how much the child already knows and understands, in order to provide appropriate scaffolding to extend development. To achieve intersubjectivity, educators need to establish a shared context of meaning and experience with children. Smith (1999) maintains intersubjectivity is crucial in infancy and toddlerhood because of this age group's early developmental stage for both verbal and non-verbal communication and the need for their communication to be interpreted and extended by sensitive adults (p. 87).

In the United States, low-quality care, coupled with low maternal sensitivity, was associated with infant-mother attachment insecurity (NICHD, 2001). Infant-mother attachments remained secure or shifted from insecure to secure when mothers spent more days adapting their children to childcare (Ahnert, Gunmar, Lamb, & Barthel, 2004). Smith's (1999) examination of the nature of infant and toddler experiences in New Zealand education and care services found that of the 1000 education and care

services studied, about one third of the children (and centres) did not have any “shared attention engagement”. A meta-analysis by Ahnert, Pinquart and Lamb (2006) revealed that care providers (who are most often female) develop secure relationships with girls more often than with boys.

Responsive, respectful relationships that model attunement with the child are a vital element of quality service provision; therefore every non-parental ECS should ensure that any issues affecting attachment are addressed so that all infants and toddlers receive quality care from a key person.

A superior physical environment with well-defined indoor and outdoor spaces

Physical environments should reflect knowledge of and respect for the safety, physical well-being, intellectual stimulation and social support of young children (Jalongo et al., 2004). New Zealand’s Education (Early Childhood Services) Regulations 2008 require centre-based and home-based services licensed for under 2-year-olds to ensure there are safe and comfortable spaces for infants, toddlers, or children not walking to lie, roll, creep, crawl, pull themselves up, learn to walk, and to be protected from more mobile children. All-day ECS are required to provide under-2s with a designated space for restful sleep at any time they are attending. They also must have access to the outdoors so they can engage in outdoor experiences in natural settings.

Section 4 of the Education (Early Childhood Services) Regulations 2008 specify that activity spaces for ECEC centres should be 2.5 square metres per child indoors and 5 square metres per child outdoors. For home-based services the activity space should be 10 square metres in one room and there must be some outdoor space. No minimum space requirement has been set to allow flexibility for services to have the autonomy to make best use of their space so that infants and toddlers can move freely and safely.

The design of indoor and outdoor spaces are both important to ensure well-defined spaces that meet the specific needs of infants and toddlers (Bedford, 2008; Bedford & Sutherland, 2008; Canadian Council on Learning, 2006; Jalongo et al., 2004; McLaren, 2008; NACCRRRA, 2008; Penn, 2009; Te One, 2008). Under-2s also require calm environments. Clear boundaries between group space and activity areas encourage positive interactions between children and between children and adults (CLC, 2006). Mitchell and colleagues (2006) cite the findings of *the English*

Effective Provision of Pre-School Education (EPPE) study, that better physical environments and space help to reduce the incidence of antisocial behaviour.

Sufficient space also prevents overcrowding and exposure to infectious disease and excessive noise (Bedford, 2008; Bedford & Sutherland, 2008). Access to the outdoors with designated play space for under-2s reduces infection transmission. Lack of sufficient space has also been blamed for excessive noise levels in ECEC centres, with reverberation times in most centres found to well exceed the 0.6 seconds prescribed by the Australasian standard for schools and learning spaces (McLaren, 2008).

Significant parental involvement

Another factor in quality is the nature and extent of parental involvement. Quality education and care needs a collaborative partnership between ECS and their parents to ensure the successful learning and development of its under 2-year-olds. Respect for families and their communities can be reflected in the level of parental involvement (Canadian Council on Learning, 2006; ERO, 2009; Jalongo et al., 2004; NACCRRRA, 2008; Penn, 2009).

Partnerships based on mutual respect and good communication processes are important for teachers and parents to work together to identify learning goals and teaching strategies for each child (ERO, 2009). In one study it was found that after researchers took account of mothers' childrearing beliefs, mothers who engaged in partnership-type behaviours with their ECS were also more responsive to their children (NICHD, 2005).

All providers and their programmes should have a clearly articulated philosophy and goals that value children, families, cultures, and communities. This philosophy should be communicated to the public, reflected in daily practice, and revised regularly to take account of advances in understanding about how young children grow and learn. Early childhood services should support children and their families by connecting them to services and promoting effective parenting strategies in ways that reflect individual, cultural and ethnic differences (Jalongo et al., 2004).

Carr and Mitchell (2010) warn that relationships between early childhood teachers and the increasing number of families with under-2s attending ECS "calls for an especially professional capacity for understanding and support" (p. 4). Parents'

criteria for assessing childcare quality often differ from those of academics (Barnes, Leach, Sylva, Stein, & Malmberg, 2006; Wylie, Thompson, & Kerlake Hendricks, 1996). For example, the education and qualifications of the carer is valued by educationalists, policy makers and policy analysts, whereas mothers consider a warm and loving carer, plus a trusting relationship and good communication between the parent and carer to be their top priority (Hakim et al., 2008).

Attention to health and safety requirements

Adherence to health and safety requirements and maintaining professional standards have also been identified in the literature as a key element of quality early childhood service provision for infants and toddlers (Bedford, 1999; ERO, 2009; Jalongo et al., 2004; NSC, 2007; Scarr & Eisenberg, 1993). In addition to meeting basic health needs, catering to the diverse needs of young children and early intervention are a wise investment in the future (Jalongo et al., 2004).

Attention to basic and special needs means complying with legal requirements, such as fire and earthquake evacuation procedures and safety provisions; hazard management systems; provision of soft fall surfaces under high play equipment; monitoring of sleeping children; and record keeping in relation to excursions (ERO, 2009). Quality early childhood services ensure there is consistency between their policies and practices, particularly in relation to the prevention of disease transmission (Bedford, 1999, 2008).

In high quality programmes, routines support the infants' learning and development. Having calm and well-established routines that are both familiar and predictable, enable infants to settle quickly. Teachers are aware of and responsive to the needs of individual children for sleep, food and toileting (ERO, 2009).

Socially, culturally, and developmentally appropriate curriculum and pedagogy

The successful learning and development of infants and toddlers in ECS requires a socially, culturally and developmentally appropriate curriculum (Dahlberg, Moss, & Pence, 1999; ERO, 2009; Lally et al., 1995; NSC, 2007; Penn, 2009; Podmore & Meade, 2000; Rockel, 2010a, 2010b; Scarr & Eisenberg, 1993). Quality education and care for infants and toddlers involves responsive teaching and a responsive curriculum that creates a social, emotional and intellectual climate that supports child-initiated learning and imitation and builds and sustains positive relationships among adults and children (Lally & Mangione, 2006). *Te Whāriki*, New Zealand's

early childhood curriculum is a complex document (Podmore, May, & Carr, 2001) but is praised as a relational curriculum in terms of its emphasis on communication, building relationships, and facilitating a sense of belonging, contribution, and well-being.

Equally important, Smith (1999) considers that the early programme for infants and toddlers should be founded on the belief that early childhood is a developmental period that has value in its own right (rather than replicate the curriculum and pedagogy that characterises later academic experiences) with materials, curricula and pedagogy reflecting the ethnic, cultural and language of its learners. Instead of initiating routine activities, Rockel (2010) places the early childhood teacher at the centre of the curriculum within a sociocultural framework. Sommer, Pramling Samuelsson and Huneide (2010) describe nurturing children's development by taking their lead yet at the same time taking an active role in their learning, as developmental pedagogy. Whatever term is used to describe the pedagogy, the extent to which adults participate with children in joint attention or involvement with objects, activities or ideas is an indicator of high quality early childhood environments (Smith, 1999).

If the appropriate view of the infant curriculum is now seen as one with respect for the infant's interests (Rockel, 2010a), then appropriate practice must be facilitative, responsive, reflective, and adaptive (Lally, 2009, pp. 52-53). In practice, quality education and care is evidenced by:

- Attending to the development of a safe and interesting place for learning
- Selecting appropriate materials for meeting the individual needs and interests of the youngsters
- Organising learning and care in small groups
- Developing management policies that maximise children's sense of security in care and continuity of connection with their caregivers
- Building ways to optimise programme connections with children's families
- Grounding caregivers in the cognitive, social, and emotional experiences in which infants and toddlers are naturally interested (Lally & Mangione, 2006, p. 20).

While American researchers and practitioners prioritise the importance of developmentally appropriate programmes for infants and toddlers, the non-

prescriptive, holistic nature of *Te Whāriki*, New Zealand's early childhood curriculum means that a socially and culturally appropriate curriculum is equally valued alongside the need for a developmentally appropriate curriculum. In other words *Te Whāriki* takes a holistic and bicultural approach to promote the full development of the child. High quality ECS in New Zealand demonstrate their commitment to "implementing a bicultural curriculum that acknowledges the dual cultural heritage of Aotearoa New Zealand and honours Te Tiriti o Waitangi" (ERO, 2010, p. 11).

Powell (2007) cites evidence of recent early childhood curriculum and strategy initiatives that have included a focus on infant and toddler education and care in New Zealand (for example, the Ministry of Education's (2005) guidelines and exemplars for early childhood assessment, *Kei Tua o te Pae* and the Ministry of Health's (2007) review of the *Well Child/Tamariki Ora Framework*).

Rigorous programme evaluation is also necessary to ensure quality service provision (Jalongo et al., 2004). ERO (2009) recommend that planning and assessment practices for under-2s should be based on children's interests, with teachers working collaboratively and engaging in professional conversations about children's learning and using their assessment information to make informed decisions about the programme. In addition, Jalongo and colleagues (2004) recommend that assessment of programmes should be comprehensive (all contributions to children's education and care would be considered); ongoing (regular monitoring rather than during one brief visit); and longitudinal (young children's progress is monitored throughout their time in the service). Similarly, Penn's (2009) review of the research literature found governance structures needed to be able to regularly undertake programme monitoring and assessment, system accountability and quality assurance.

What the provision of quality education and care looks like in practice

Brownlee (2008) uses routine actions such as feeding, changing and dressing as examples of responsive caregiving. She describes these intimate acts as key care moments for educators to demonstrate their respectful relationships with a baby by giving them their full attention.

Lally (2009) provides the following example of a quality programme for infants and toddlers.

In model programs, policies are being enacted and practices implemented that optimally nurture security and provoke curiosity. Researchers find that quality programs include safe, interesting, and intimate settings in which children have the time and opportunity to establish and sustain long-term, secure, and trusting relationships with knowledgeable caregivers. In addition, these caregivers are responsive to the children's needs and interests, support the children emotionally, model and engage in socially appropriate behaviour including rich language exchanges, and give the children uninterrupted time to explore. (p. 48)

The Programme for Infant Toddler Care (PITC) recommends the following practices as exemplars of quality care:

1. *Primary care*

In a primary care system, each child is matched to one special adult. That person is primarily responsible for that child's care and is assigned to the child at all times during the day. Everyone knows who has primary responsibility for each child. However, primary care does not mean exclusive care. Teaming is important and in this system a second caregiver provides a "backup base for security" by assuming the primary role when the primary caregiver is unavailable (Lally, 2009, pp. 48-49).

2. *Small groups*

The research literature identifies small group size and good ratios as key components of quality care, with the guiding principle being the younger the child, the smaller the group. PITC primary care ratios are 1:3 or 1:4, in groups of six to nine (dependent on the age of the babies).

3. *Continuity*

A baby's need for deep connections can be reinforced through the provision of continuity of care during the three years of infancy or throughout their time in an education and care service.

4. *Individualised/personalised care*

Adapting the programme to meet the needs of the infant rather than vice versa and following the child's unique rhythms and styles teaches infants they are important, their needs will be met and their choices, preferences and impulses will be respected.

5. *Cultural continuity*

To ensure cultural identity and a sense of belonging when infants and toddlers are cared for “in the context of cultural practices different from that of the child’s family”, consistency of care between home and child care becomes even more important (Lally, 2009, p. 49).

6. *Inclusion*

Quality care should be available for all children. This relationship-based approach to the provision of care that is individualised and responsive to the infant’s cues is equally important for young children with diverse needs.

Current practice requirements in New Zealand

In New Zealand, early childhood education and care services are nationally regulated and funded to promote quality. ERO has developed a chain of quality tool (see ERO, 2004, p. 8) to assess the quality of children’s experiences in early childhood. Using that chain of quality, Appendix 1 of ERO’s latest publication (2010, pp. 26-27) provides criteria on which ECS can review the quality of their provision (for example, clear philosophy; learning environment; high quality programmes that contribute to positive outcomes for children; professional leadership and high quality teaching; effective management; and involved families and whanau).

New Zealand’s early childhood curriculum, *Te Whāriki* (MoE, 1996) identifies key curriculum requirements for infants as being:

- One-to-one responsive interactions (those in which caregivers follow the child’s lead)
- An adult who is consistently responsible for, and available to, each infant
- Higher staffing ratios than for older children
- Sociable, loving, and physically responsive adults who can tune in to an infant’s needs
- Individualised programmes that can adjust to the infant’s own rhythms
- A predictable and calm environment that builds trust and anticipation; and partnership between parents and the other adults involved in caring for the infant (p. 22).

Toddlers' needs vary from those of infants. *Te Whāriki* lists their curriculum needs as being:

- A secure environment and a programme that provide both challenges and predictable happenings
- Opportunities for independent exploration and movement
- A flexible approach which can accommodate their spontaneity and whims at a pace that allows them to do things for themselves
- Adults who encourage the toddlers' cognitive skills and language development
- Responsive and predictable adults who both understand and accept the toddler's developmental swings (p. 24).

What to look for in an early childhood service

Parents reading this report may be interested in knowing how to identify a high-quality education and care service. However it must be remembered that these indicators can only *describe* quality so it is important that parents should base their decisions on actual *observations*.

Rather than providing a New Zealand reference that is readily available to parents in this country, the following checklist (based on research about what is important for children's health, safety and development) is adapted from the American National Association of Child Care Resource and Referral Agencies (NACCRRA, 2008). Readers may wish to consider this one in conjunction with New Zealand checklists:

Table 20: Is this the right place for my child?

Indicators	<i>Tick box if the programme meets your expectations</i>	✓
Will my child be supervised?		
<ul style="list-style-type: none"> • Are children watched at all times, including when sleeping? • Are adults warm and welcoming? Do they pay attention to each child? • Are positive guidance techniques used? • Do adults avoid yelling and other negative punishments? • Are the adult-to-child ratios appropriate? (1:3 infants, 1:3 or 4 toddlers, or minimum standards?) 		
Have the adults been trained to care for children?		
<ul style="list-style-type: none"> • Does the owner/director/provider have a degree or experience in caring for children? • Do the teachers have appropriate qualifications? • Is there always someone present with current CPR and first aid training? • Are the adults continuing to receive training on children’s development? • Have the adults been trained on child abuse prevention & reporting? 		
Will my child be able to grow and learn?		
<ul style="list-style-type: none"> • For under-2s, are there toys that “do something” when played with? • For older children, are there specific areas for different kinds of play? • Is the space organised and are materials easy to use? Are some materials available at all times? • Are there daily or weekly activity plans available? Have the adults planned experiences for the children to enjoy? Will the activities help children learn? • Do the adults talk with the children? Do they engage in conversations, ask questions etc when appropriate? • Do the adults read to the children at least twice a day? 		
Is this a safe and healthy place for my child?		
<ul style="list-style-type: none"> • Do adults and children wash their hands (before eating or handling food, or after using the bathroom, changing nappies, touching body fluids or eating?) • Are nappy changing surfaces cleaned and sanitised after each use? • Do all of the children enrolled have the required immunisations? • Are medicines labelled and out of children’s reach? • Are adults trained to give medicines and keep records of medications? • Are surfaces used to clean food cleaned and sanitised? • Are the food and beverages served to children nutritious, and are they stored, prepared and served in the right way to keep children growing and healthy? • Are cleaning supplies and other poisonous materials locked up, out of children’s reach? • Is there a plan to follow if a child is sick, injured, or lost? • Are first aid kits readily available? • Is there a plan for responding to disasters (fire, earthquake etc)? • Has police vetting been undertaken on all staff? • In centres, are two adults with each group of children most of the time? • In home-based care, are family members left alone with children only in emergencies? • Is the outdoor play area a safe place for children to play? • Is it checked every morning for hazards before children use it? 		

<ul style="list-style-type: none"> • Is the equipment the right size and type for the age of children using it? • In centre-based programmes, is the playground surrounded by a fence? • Is the equipment placed on mulch, sand, or rubber matting? • Is the equipment in good condition? • Is the number of children in each group limited? (6-8 infants, 6-12 younger toddlers, 8-12 older toddlers, 12-20 pre-schoolers) 	
Is the programme set up to promote quality?	
<ul style="list-style-type: none"> • Does the programme exceed the Government's minimum regulatory standards? • Are there written personnel policies and job descriptions? • Are parents and staff asked to evaluate the programme? • Are staff evaluated each year; do providers undertake a self-review? • Is there a written annual training plan for staff professional development? • Is the programme evaluated each year by someone outside the programme? • Is the programme accredited by a national organisation? 	
Does the programme work with parents?	
<ul style="list-style-type: none"> • Would I be welcome any time my child is in care? • Is parents' feedback sought and used in making programme improvements? • Will I be given a copy of the programme's policies? • Are annual conferences held with parents? 	

Early childhood professionals' perceptions of quality education and care in practice

Using the same elements identified in the research literature, the following section now reports on what the early childhood professionals in the present inquiry considered to be quality education and care, followed by examples from their unique perspectives.

Ratios

In general, ECEC centres that operated above the minimum standards provided two staff for six infants (a 1:3 ratio) and two staff for eight toddlers (a 1:4 ratio). In some ECEC centres, all ratios were above the legal requirement. Practitioners were proud to state if their service operated above the minimum standards. For example, further to the 1:3 and 1:4 ratios for one and two-year-olds, one ECEC centre (like some other centres visited in this inquiry) had a 1:6 ratio for three year-olds and 1:8 for children over four years. At this particular ECS, the supervisor praised the owner of their centre for "*putting quality over profit*".

Some teachers provided examples of times when ratios did not meet the regulations.

For example:

Again there was the issue of finding yourself with a group of under and over-2s that was not strictly within the ratios. I was due to go on a break and the number of children outside with me had just shot up to 13. I said to the teacher who was relieving me (who was qualified with a degree) that she would need to ask for another teacher because of the numbers. Her reply, "I will be fine".

The above quote also supports the view of an academic who suggested that changing shifts are problematic, not the number of staff. Ratio problems were also identified for under-2s when it did not cover times on the floor while a staff member was either in the toilet, sleep room, or doing a nappy change. When considering quality education and care for infants and toddlers overall, academics held strong views, for example, that the current 1:5 ratio in ECEC centres "*was ridiculous*", as is the requirement for only 50 percent of centre staff having to be qualified.

Early childhood providers discussed the ratio differences for home-based and centre-based care. New Zealand's home-based order stipulates no more than four children (of which only two can be under-2s) to one educator. However, there is no ratio for supervisor to educator. One early childhood teacher can be responsible for 80 full-time equivalent children, although these participants thought services might consider 1:60 as too many. The teacher follows the child not the educator, and knows both the child and parents. Visiting teachers have, on average, 18 educators to look after and visit every month.

Group sizes

For early childhood professionals, quality meant having fewer children to the space. Comments were made that bigger group sizes necessitated more adults in the same space (with their sometimes quite large body sizes) taking up even more room. From a learning perspective, they talked about how small group sizes help to maintain relationships and explained how the group could provide the interactions, not just the adult, because the infants also contribute to each other's development.

Practitioners reported that smaller group sizes eliminated the existence of queues so that babies did not have to wait for nappy changes, cots for sleeping, or their turn for a bib and food. Some of the larger ECEC centres visited for this inquiry actively restructure to ensure smaller group sizes rather than having one large group. For

example, teachers in one centre moved from having a large group of sixteen babies to two groups of eight.

Qualifications and skills

A number of ECS have policies to employ only qualified teachers. Many providers (both home-based and centre-based) are supporting their staff in their training, with a large number also committed to having higher numbers of qualified staff in the infant sections of their centres. The Government's recent funding changes mean that ECS will need to absorb the costs of qualified teacher ratios above those funded. Throughout the consultation process, providers articulated the inevitability of having to pass those costs on to parents.

During the course of this inquiry there was a consistent message from most providers that with the funding reduced to 80 percent (and the timeframe extended for reaching the 100 percent target) they would not be able to afford to sustain that same commitment to quality. With an 80 percent target it will be cheaper to employ unqualified staff, especially in the infant and toddler sections where the requirement is only for 50 percent qualified staff. Already this year, some of the centres visited during this inquiry have raised their fees. One centre planned to raise their fees a second time within the same year and another one aimed to increase their fees in February 2010 to cope with the budget changes. Many have already done the calculations as to how many qualified staff (about 65 percent) they could employ to "get by". Small owner-operated services expressed anxiety that they would not be able to compete with the bigger providers that are in a better position to offer larger salaries.

These early childhood professionals feared the recent funding changes risked (1) a reduction in the quality of education and care and (2) an increase in fees for parents. They consistently identified the following changes as being likely to have a negative impact on the quality of early childhood services for infants and toddlers:

- Reducing the 100 percent target of qualified and registered early childhood teachers to a funded maximum of 80 percent; and a regulated minimum of 50 percent
- Reducing the ratios of adults to children
- Cancelling professional development programmes

- Cancelling the Centres of Innovation research that showcases innovative early childhood practice.

There was agreement among this stakeholder group that qualified registered teachers contribute to the quality of education and care.

Initial teacher education

There was also agreement among the early childhood professionals about graduate teachers' limited knowledge in the specific education and care requirements of infants and toddlers. Centre supervisors highlighted the need to *“mentor student teachers on changing nappies as well as relating theory to practice”*. They were aware of teacher education providers that did not offer any papers specific to the under-2 age group, providers that recently introduced an infant and toddler paper and those that only provided postgraduate papers. Drawing on their own experiences, some supervisors also identified difficulties with teaching practicums. In some cases, they considered the students were not adequately prepared or supported and they also expressed concerns that ECS were sometimes appointing beginning teachers for their under-2 areas who had no previous teaching practice experience with infants and toddlers. Providers wanted more mentoring of beginning teachers through the teacher registration process – with less emphasis on written documentation and more focus on direct observation of their teaching relationships. For example, one provider explained, *“although their practices are not good, beginning teachers are getting through because they completed their written work, yet their rapport with parents is awful”*.

To get around this difficulty, one Pasifika provider was keen to attach a teaching room to the infant/toddler room. Ideally she wanted to go further and build a training centre attached to the ECEC centre so that RIE training⁴ could be offered from the centre as well as mentor-teaching.

Early childhood providers argued that more focus on infants and toddlers was needed in initial teacher education programmes, with specialisation in postgraduate papers (perhaps in the students' final year). Early childhood teachers who did not study infants and toddlers in their own training also called for a higher focus on this

⁴ Magda Gerber's RIE (Resources for Infant Educarers) philosophical approach teaches caring for infants with respect and focuses on freedom of movement in natural environments.

age group within the teacher education programmes. Furthermore, some of them had never undertaken a teaching practicum with this age group prior to getting a job working with the under-2s. They explained how working with infants and toddlers is so much more than just forming relationships and for this reason too, wanted more papers dedicated to infants and toddlers, as well as practicums with this age group. Home-based providers suggested that student teachers could perhaps undertake infant and toddler practicums in home-based settings.

One group of teachers that were interviewed together hypothesised that having the opportunity for infant-toddler specialisation within their training programmes might raise the status of working with this age group. They felt that staff providing education and care to infants were undervalued - from the changing nappies or babysitting viewpoint. Some early childhood teachers noted that their highest turnover of staff occurred in the infant section of their centres and that it was also the hardest area for recruiting staff, perhaps because a baby's cry can be very exhausting for staff who are not trained in infant education and care.

The teacher educators that were interviewed described the infant and toddler coverage in their programmes. They explained that student teachers do a three year diploma (the benchmark) or degree and do not specialise at postgraduate level so they need to have a good foundation for working with infant and toddlers in their undergraduate or graduate diploma programme. Some graduate diploma in teaching programmes were identified as not providing specific papers on infant-toddler learning and teaching (although they might offer postgraduate and masters papers on learning and teaching in the first years). One lecturer expressed concern about the lack of papers covering a wide range of issues for teachers of under-2s in the graduate diploma programmes because those students often hold positions of responsibility with very young children as soon as they graduate.

Similar to the practitioners, the teacher educator group perceived initial teacher education programmes to be targeted to the teaching of older pre-schoolers, with little or no training on how to implement the curriculum for infants and toddlers. Even when infant and toddler preparation was threaded throughout the programme, the content was perceived to be light. In fact, one participant pointed out that *“if you consider that one third of Te Whāriki is about infants, one third about toddlers and one third about young children, then I would expect that teacher education programmes should follow that pattern too.”* It was noted that if students fail to attend

lectures they could completely miss out on learning how to work with this age group. Within their own teacher education programmes, these academics reported a need for stand alone papers with core content that has a direct focus on infants and toddlers, as advocated by the Infant Mental Health Association of Aotearoa New Zealand (IMHAANZ). One teacher educator commented:

If there is not a stand-alone paper with the words infants and toddlers in the course title, it is easy for the wording that includes infants in the course outline to be overlooked in effect. Many lecturers do not have the expertise or specialist knowledge in this area and therefore fall back on what they know, which is usually with older children. A lack of research with infant-teacher pedagogy is responsible too.

Teacher educators also recommended providing student teachers with the choice of infant-toddler specialisation. Some teacher education providers do offer this, for example, as a research paper. The teacher educators across the various institutions also supported the notion of including an early intervention paper within the early childhood degree programmes because of the need for early and accurate identification and assessment, including knowledge of health and development indicators. They saw health and education for under-2s as interrelated. As one early childhood lecturer said:

We need to identify needs as well as strengths as early as possible, which can be presented through the principles of Te Whāriki. Te Whāriki is a complex document – needs sophisticated educators to understand the framework. Some practitioners are “missing the boat” – need to build up from the curriculum and work through those principles.

Practitioners’ assertions that they have little preparation in terms of health and disability issues were also backed up by the sentiments expressed by members of IMHAANZ. The issue was not considered to be about deficits but rather about “arming professionals with basic knowledge they will need every day in the field”. More preparation in teaching infants with disabilities was recommended because early childhood professionals felt disempowered and incompetent at adequately assessing young children with diverse needs. Another teacher educator said:

How can we seriously be concerned about the quality of a learning story, for instance, or even the curriculum itself, when we might have an infant who is contending with chronic illness with a feeding tube, physical disability, asthma and so forth requiring constant vigilance, appointments, interventions, etc... Sometimes these problems that are being sorted out in infancy while a child is being integrated into a regular ECE setting really do overwhelm the professionals and the family and do have a huge impact on that infant’s

experiences... I don't believe ECE training currently gives professionals enough experience or know how in these health areas of infancy. In ECE, professionals are very strong in the parent-professional collaboration area (learning stories, quality care endeavours etc), but faced with challenging infants with major health and infant mental health issues, they are lost.

Lecturers also expressed concerns with the teaching practicum. To ensure quality teachers, some wanted to fail more students on teaching practicum. They confirmed practitioners' claims that not all student teachers experienced an infant or toddlers teaching practice and perceived this as a very real "*lack because the theory in institutions should always be followed up with practice*". However, they also identified some challenges that needed to be addressed. For example, there is the potential for infants to attach themselves to a student teacher – who then leaves at the end of the practicum. To avoid this situation, some ECS do not let student teachers perform key caring tasks, or they are only allowed to do a practicum in the toddler section (but this means some graduate teachers might begin their teaching careers with no experience of working with infants).

Professional learning

For quality service provision and to ensure their skills base remains current, teachers require ongoing professional development. Academics in this inquiry insisted that the necessary mechanisms and structures must be in place to enable reflective practice. In some of the discussions, they described the "*theorising of practice – why we do it needs to be deeply thought out*". They provided examples of how the Teaching and Learning Research Initiative (TLRI) and Centres of Innovation (CoI) research contracts provided professional development opportunities in early childhood. They explained how other infrastructural opportunities could support the education of under-2s (for example, by examining how teachers construct infants as learners and assist ECS to rise above the minimum standards).

Some of the home-based providers said they go beyond minimum standards in providing professional support to their educators (for example, the programme coordinators make weekly, rather than monthly visits). They "*empower their educators to understand their craft and the importance of the child being happy*". During one visit, the provider talked about instilling "*vocational arousal*" in their educators. The educators get a rich programme within an "*I am trainable culture*". This home-based provider has a ruling that educators have to live no more than 20 minutes from an area centre so they can get to professional development training.

The educators who complete the professional development training modules are invited to have their own self-managing business under the umbrella of this provider.

A different home-based provider explained their commitment to being “*quality funded*” as opposed to non-quality funding, where only first aid is required. This provider works with the visiting teacher to provide an integrated professional development for parents and in-home educators.

In one focus interview, leadership and, in particular, the ability of the leaders of their workplace to provide professional development was highlighted as a key indicator of a quality ECS. To keep their teachers empowered, one large work-based centre ran three age-group rooms and supported them to engage in action research and reflective teaching. The infant and toddler teachers considered this specialisation to be one of the strengths of their workplace, thus confirming the value of professional development by staff. The following table illustrates further points that were made in regard to professional learning:

Table 21: ECE professionals’ perceptions of professional learning

Early childhood teachers viewed the provision of professional development as a key benefit when making job comparisons.
Educators were appreciative of their employers’ financial support for professional development and teacher education studies.
Professional learning was viewed as a way of growing the profession in terms of the leadership and quality of staff.
Professional development should be identified in staff appraisals and budgeted for.
Providers described their difficulty in providing funding for professional development, early childhood professionals expressed a huge desire for more money and time to be put into professional development.
Teachers with experience of the TLRI and Col research grants signalled their wish for further involvement in research projects that would support them to reflect on their practice.
Having more money spent on professional learning and research-based practice would in the view of some providers also support parents and their under-2s to better quality education and care.
Academics considered that standards and licensing requirements set a base standard, but other infrastructure opportunities are also needed, e.g., research to assist ECS to rise above minimum standards. They thought the issue was not just about standards – mechanisms and structures are needed to put the structural conditions in place to become a reflective practitioner.
Want better trained staff that are more receptive of professional development.
Some services in low socioeconomic areas struggle to fund professional development for their staff. One Pasifika teacher educator reported that she provides regular professional development to Pasifika centres, but after she receives her koha for the professional development, she gives it back to the centre as a donation.

Teachers saw themselves as teacher-researchers – always trying to learn – supported by management to develop a “*pleasing, potentiating environment*”. However, they stressed the need for the quality environment to be “*an environment for staff to build their capabilities so they [staff] want to stay*”. Of interest to this inquiry is that some beginning teachers did not receive the advice and guidance they were entitled to. They reported that their employers were using the money allocated for this purpose in other ways. Their advice to other teachers was to “*shop around*” to check which services provided professional development before accepting a job. In their view, “*professional development was sometimes more important than a little extra in salary*”.

Responsive relationships

All the stakeholders in this consultation process considered a positive, sensitive, and responsive relationship between educator and child to be a key indicator of quality service provision. There was a consensus that “*bad care is harmful*” and that “*responsive caregiving was critical*”. One researcher said: “*Burn the roster and manage tasks around the infants and toddlers*” – and one centre visited for this inquiry is doing just that with great success. While some parents worried that their child’s attachment to their educator will take away from their bond, the academics interviewed for this inquiry were adamant that this secondary attachment needed to happen. In their view (and supported by the research literature), infants require adults who are enabled to give full attention to the child. The quality of the interaction, engagement and attunement with the infant is a measure of the quality of education and care provided. The Centre of Innovation action research on primary caregiving was frequently mentioned (see Dalli, Kibble, Cairns-Cowan, Corrigan, & McBride, 2009).

Of interest to this inquiry were the contradictory practices employed by different ECEC centres around their perceptions of responsive caregiving. On the one hand, there were centres that allocated one primary caregiver to each child, with a second caregiver providing backup when the primary caregiver was unavailable. On the other hand supervisors in different centres said, “*We want our babies to attach to all staff*”, their view being that all adults will provide responsive education and care to all children.

Comments were also made about the different forms of responsive caregiving. In particular, it was noted that some services do not practise the primary caregiving model. For example, services that cater for children from cultures that take a more whānau-oriented approach to caring for children prefer to practise sensitive, responsive caregiving by all the adults. One researcher referred to the Māori concept of Hauora (whole health and well-being) as depicted in Mason Durie’s Tapu Wha (whole house).

Proponents of Attachment-Based Learning (ABL) stressed this was the key factor in providing infants with very secure attachment. The practitioners identified the following practices as exemplifying sensitive and responsive care relationships.

Table 22: Practitioners’ examples of quality responsive education and care

Centres practicing ABL have two key people for one child (work in buddy groups). It is not about exclusive care.
To support their ABL philosophy, one centre has banished rosters. The children come first. There is no set morning tea break. Each teacher has a break when the child they are responsible for does not need them. The dishes are done whenever a staff member has free time.
Adults follow children’s rhythms. They are allowed to sleep when tired and they are not woken. They have their own bedding that transitions with them.
Work-based centres page or text parents when their babies require breastfeeding.
Other services reported storing breast milk and giving it to the individual infants in a bottle.
One centre operated clustered whānau groups (i.e., one cluster of three staff). With a new child, a primary caregiver, supported by the other two teachers in the cluster whānau, performs the caring routines. When settled, the baby is gradually introduced to other staff to allow opportunities to interact with more adults. If the primary caregiver leaves, the baby remains in the same cluster with a new key person but still supported by the other two familiar staff members in that cluster.
Centre managers reported covering non-contact time.
Some ECS tried not to use staffing agencies for relief teachers if possible, e.g., ECEC centres reported using the same permanent relievers who do not do the care routines. In one centre the same reliever had filled in for over five years.
When under-2 teachers are sick one supervisor reported bringing the over-two teacher to fill in because the babies know her and the reliever is put in with the older children.
One centre is planning to consult with parents to change their times from 7.40 am to 5.40 pm to 8 am to 5 pm so that the infants and toddlers see their primary caregiver at both ends of the day. This move would also get around the non-contact hours.
For attachment reasons, supervisors reported not allowing student teachers on Teaching Practice to perform the key care routines on infants.

An illustration of taking the concept of attachment-based learning even further was found in one ECEC centre where the supervisor described how children were

transitioned out of the infant room according to their emotional readiness rather than age. Interestingly, this ECEC centre was considering moving to a continuity of care model (more common in the United States) where the staff member, responsible for three infants, moves with them to the toddler section until the age of three, when it is considered appropriate for the children to be in full group care.

Transitions in care, such as multiple centres or high staff turnover, were considered to have key impacts on children. High staff turnover, in particular, was reported to affect attachment. Academics expressed concern that non-parental education and care might interfere with infants' abilities to form a secure attachment with either their mothers or the staff at their ECS. Both educators and parents commented on babies getting attached to a key person who moved to other duties or left the ECS shortly after. Babies also moved to new groupings and staff. The findings of this inquiry confirmed other research studies (see Ahnert & Lamb, 2003; Rockel, 2003) that sometimes parents and teachers hold different perceptions about primary care. For example, while both might understand the importance of primary care, some parents expressed their anxiety as to what this might mean for them and their child (such as their baby would bond more with the educator or mimic their educator's mannerisms rather than their own family traits).

The deliberate practice of shifting staff around within their ECEC centres was also reported. In those centres, baby room teachers do not work permanently with the babies. The over-2 staff are given a period in the baby room. Although it varies from centre to centre, the participants who discussed this issue reported that these staff exchanges generally happen every six months. It can upset the continuity of the baby room team as the new people may have different techniques and different levels of ability in working with babies. This practice is not necessarily welcome. As stated by one early childhood teacher:

It is my personal opinion that working with babies, particularly other people's babies is a specialised area and should not be just something that is seen as something that staff should take turns with or be directed to. I would go further and say that if a person has not worked with babies before, they should be mentored by the most experienced person the centre has. While there are heaps of young people who may well love the idea of working with babies, they are not toys and should never be treated as such. This is particularly important as the health and well-being of a baby can change quite dramatically in a short space of time and there needs to be someone who can make the right decisions when this happens.

On the other hand, a number of ECS who participated in this inquiry practised ABL or their own form of a primary care system where each child is matched to one special adult, supported by a second staff member who assumes the key person role when the primary caregiver is unavailable. Not all cultures accept the concept of primary caregiving, however, and those services preferred to implement their own cultural practices of responsive caregiving.

Many of the ECS that participated in this inquiry voiced a strong commitment to following the child's lead and providing their under-2s with individualised attention during care routines. Responsive educare involves the key care routines and these are now discussed in relation to quality service provision.

Sleeping

Looking through the lens of infants and toddlers, regular disruption of their routines (such as sleeping), can affect their health and well-being. According to a small number of practitioners consulted for this inquiry, the sleep room is one of the most difficult areas to manage in an early childhood setting and can be a source of stress for children and staff. Meeting expectations of parents regarding the sleeping needs of their children can also be difficult. For example, some parents ask for their children to be woken after one hour in the belief that if their child sleeps any longer, then they will not sleep at night. One teacher elaborated:

Some centres have policies that say they will only wake a child if they are being picked up, but not many. Every centre I have ever worked in has had trouble in getting agreement by all about what to do about this issue. It usually causes friction and some emotional discussion between staff and staff and parents. Some parents get so distraught when their children are not sleeping at night.

Sleep areas can also be situated next to places where there is a lot of noise (such as kitchens, bathrooms, entrance ways, telephones, driveways, and outside areas where older children race around on bikes). Combined with the noise of upset or crying children it can be problematic for young children to get to sleep or alternatively, to stay asleep.

There should be an area of free space around each child's sleep area but apparently this regulation is not always adhered to. When the beds are crammed together, it is not only difficult for staff to walk between; it is also easy to disturb sleeping toddlers when others wake and get up. For health reasons, toddlers and the over-2s are "top

and tailed” rather than lying face-to-face but this practice interferes with the child’s ability to choose the position in which they want to rest and staff frequently relent when children change their positions. Interestingly, one of the complaints received by the Office of the Children’s Commissioner related to this practice of having more than one child on a sleeping mat. The same teacher as in the previous paragraph was concerned that:

Given that on any one day there will be at least one child in the centre that if sickness policy was adhered to, should not be in attendance. With children lying so close together, the potential for spread of disease is real and potentially horrific.

Baby sleep requirements are even more complex to manage and are more staff intensive. It is difficult to get certain babies to sleep at the times their parents want. Sometimes before a baby can go down to bed there is the need to wait for another baby to wake up so that a cot is free. As one teacher said, *“the right of children of all ages in day care to have a rest is based on availability of space and of beds, rather than the needs of individual children to rest or not to rest”*.

Some centres only have an extra person to manage the busy parts of the day. As a consequence practitioners reported that it is not always possible to put all the babies to bed when they should be going to bed because of the logistics of managing nappy changes, meal times, giving baby’s bottles, staff breaks, and non-contact time. For example, *“if there are three staff and ten babies and one staff member is giving a bottle, one is on a break and one is in the sleep room, they are already stretched, requiring staff breaks to be managed around sleeps”*.

A baby that cries or takes a lot of time to get to sleep presents a difficulty for staff. You can either put that baby to sleep first even when it is not ready for sleep or put it to sleep when it is ready and risk waking up babies already asleep. In reality what often happens is that a baby that makes lot of noise get less sleep than babies who are less noisy. If a baby is noisy and there are babies asleep then that noisy baby will probably not be put down to bed until the others wake up or an attempt will be made to put it down and if it cries it will be immediately brought back out before it wakes the others...The best scenario is when two teachers work as a team and one teacher stays in the sleep room and the other teacher gets the next baby ready for sleep and brings them in but that leaves the third teacher with the rest of the babies.

Pressures around sleep rooms include:

- Other babies needing to come in

- The needs of other staff to go to lunch, to go on non-contact, or even just to go to the toilet
- The general needs of other babies to have lunch, have a bottle or get a nappy change
- Having to wait for a reliever to arrive when there are staff shortages
- Noise factor when sleep room backs onto a room used by others
- If there are other babies in the room they might wake and then the teacher's focus is taken away from the child being put to sleep or the decision is made to leave that child and put the waking child back to sleep
- If there is only one person looking after the other babies, they are unavailable to help the person in the sleep room
- Frustration when the sleep room door is opened (for whatever reason) and the baby that the teacher is trying to put to sleep gets disturbed.

Eating

In mixed centres (catering for both under and over two-year-olds) where the kitchen facilities are shared, unless the kitchen person brings them through, the infant and toddler teachers have the added "hassle" of going to get the bottles, meals, or medicine from the shared kitchen. An early childhood teacher with practical experience of working in a centre with shared kitchen facilities and catering for three different age groups in the same building reported:

Kitchen people also get sick and then one of the teachers, usually an over-2 teacher, has to muck in. When this happens, then the normal timeframes for meals can be disrupted, which in turn disrupts the routines of the babies, including sleep times. Also the person taking over the kitchen may not understand the under-2 needs.

With the kitchen area away from the baby area, there is also the issue of keeping bottles and food at the right temperature to meet hygiene standards. For example:

If a baby only takes a little of their bottle it may be put aside to try again later or if the teacher cannot leave the room if they are the only teacher, then the milk quickly goes off. In some cases if there is nowhere high enough to put the bottle, other babies can gain access to it.

Similarly, the Office of the Children's Commissioner received a complaint from an early childhood teacher because the owner of her centre was insisting that she had to save partly drunk bottles of milk and reheat them.

Changing

One teacher suggested that care moments, such as changing a baby's nappy, are about "*filling their emotional cup*". The ultimate goal is that the children feel safe and secure, but she added that it is also important for parents to see that the baby feels safe, secure and cared for so they feel comfortable about leaving their infant. These care moments do not always go to plan. For example, most mixed centres have shared facilities and for some teachers having to share nappy changing facilities, it is "*frustrating waiting to change a nappy so you can put a baby to bed*". The perception that teacher education programmes focused on education and not care (i.e., did not teach students how to undertake the care routines) prompted some participants to call for teachers to be mentored in nappy changing.

Early childhood teachers considered that quality education and care for under-2s was based on children's needs so that they were "*safe, happy and learning – with qualified teachers, that were working in partnership with parents who were consulted and informed and contributing to their child's portfolio*". This group of practitioners described the quality environment as being "*very peaceful*". One said, "*Everything should be at a slow pace, so the child's needs can be anticipated, with plenty of time allowed for routines*" [e.g., *washing hands with toddlers*]. These teachers understood the research on attachment-based learning so they described responsive care to be "*a primary caregiver who is supported by other staff when the primary caregiver is performing a routine care task*" [for example, *changing nappies*].

Physical environment

Similar to the parents, early childhood professionals talked at length about the physical environment where infants and toddlers spend much of their day. Educators valued pleasant, aesthetically pleasing, and calm environments and a number of ECS visited during the inquiry had beautiful natural space environments, often with native habitat. Although some considered that the outdoor environment could be problematic for babies they also acknowledged their need for multisensory experiences and that "*taking them outside can be calming*". Others raised concerns about infants' access to the outdoors. These participants warned that increasingly

babies are only taken outside for short periods of time and sometimes not at all. Reasons given were that “there is not enough staffing”, “*they have to be traipsed through the over-2 areas to get there*”, or “*the centre is located on a floor of an inner city building*”. They “*cannot get into the ‘real’ outdoors when the only space is a deck so they remain indoors five days a week*”.

In their interviews, both the union representatives and academic groups identified space and the quality of the environment as important. Academics called for a review of the minimum space requirements because as noted by one person, “*Well-designed, spacious environments are not a problem, however overcrowding creates stressed teachers and stressed children*”. A commonly held perception was that New Zealanders’ love of renovating old houses is now reflected in many of its ECEC centres. While a three bedroomed house would be considered as overcrowded with a number of children living in it, having many children and adults in that same space as an ECEC is deemed to be suitable. A public health official described her visit to a centre (where the under-2s were in the house and the over-2s were in a renovated garage) and her dismay at finding her trousers got damp from sitting on the floor.

Researchers, in particular, raised the need to “*move beyond converted houses*” and develop purpose-built centres. A couple of centre-owners in this inquiry had done this and they discussed how designing their ECEC centres helped them to feel very connected to it. One researcher identified a private centre that incorporated acoustical criteria into its building design and when visiting this centre, the effects were palpable. Further to those more frequently reported factors of space, noise, and temperature, special mention was given to lighting as another factor to be considered.

Owners also talked about their difficulties in getting consent to build their centres in residential areas. Their reasoning was that “*residential areas don’t like the noise of children*” so they are built in industrial areas that are not conducive to quality environments for young children. Some of the issues they raised are: proximity to railway lines, major roadways, vandalism, rubbish, and rodents.

Parental involvement

The providers who were interviewed perceived quality early childhood service provisions for under-2s to involve a very strong partnership with parents and high

parental expectations. They thought teachers would “*know the children super well*”. Early childhood services that encouraged parents to come in and speak with the staff (so they could enjoy sharing daily communication about their infant’s food, sleep and development) were perceived to be quality services. Table 23 presents some positive examples of parental involvement reported in this inquiry.

Table 23: ECS providers’ examples of parental involvement

Providers support parents to fill out forms to ensure they benefit from the subsidies they are entitled to.
Some centres have reception areas and reading material for parents as well as comfortable chairs for breastfeeding
Being “rigid” about expecting the parent to come for four visits to aid the transition (until the child and parent become familiar with the three staff that will be responsible for that child).
In some home-based services families get to choose the educator that they feel would suit their family best. They can choose from a book that contains all of the home-based educators’ photos and profiles.
One home-based provider spoken to allows parents to choose to employ a member of their own family. They also actively recruit to match families with educators from the same culture, e.g., recently employed an Italian educator.
Māori and Pasifika families seem particularly pleased that the nanny coming into their home is of the same culture as themselves or that they are taking their child to the educator’s home who is of the same culture as their family.

Early childhood practitioners participating in a workshop (Rainbow in my Head Day, 24 July 2010) to explore the meaning of quality education and care for infants and toddlers, prioritised respect for the infant and warm, positive interactions with both the children and their parents. As well as good ratios of staff to children and access to quality resources these practitioners considered caring for infants and toddlers in culturally appropriate ways, in partnership with their family and whānau, to be an important indicator of quality.

Playcentre’s SPACE programme was consistently lauded as an excellent programme that “*fits with parents, is quality, low cost, and grows the community*” and has “*successfully brought health and social connectedness of parents into its programme*”. Quality education and care was seen to support the parent-child relationship – and was deemed by these academics to be even more important when “*mental health, pre-term babies, children with disabilities or conduct disorder provide a dance between nurturance and nature*”.

In some interviews participants shared their definitions of ineffective partnerships. The Office of the Children's Commissioner has also received its share of complaints that exemplify poor communication with parents. In one case, when a father collected his toddler from the ECEC centre, he was told that the child had not been allowed outdoors for two months because he did not have a sunhat. The father was upset that nobody had informed him earlier so that he could have rectified the situation. Another parent complained about her difficulty in getting the ECS to hand over all the information held about her child. According to all stakeholder groups in this inquiry, however, quality education and care is about supporting and working in partnership with the parents of the children they care for.

Health and safety requirements

There was agreement amongst the researchers who participated in the consultation process that health issues such as noise, temperature and space impacted on quality. Mike Bedford's work in this area was referred to. As one researcher said, *"education and care requires a bigger step up with health, and involving a larger team of specialists"*.

Interviewees raised issues of safety and the need for police checks, trained staff, and formal accountability such as regulation. To ensure quality, early childhood union representatives and academics advocated that for safety reasons, all formal provisions should be chartered, including home-based care. Indeed the Office of the Children's Commissioner has received complaints relating to the safety of young children in formal child care who were found to have been in the care of adults with mental health or drug and alcohol difficulties. There is not the same redress for parents choosing unlicensed service providers as opposed to users of licensed services.

Other health and safety issues were also identified. One interesting comment related to Maslow's hierarchy of needs, i.e., *"Maslow's needs equal warmth, food, and new secure doors!"* In some ECS infants share the nappy change area with the toddler age group. Concern was expressed that changing tables can be a source of cross infection. Another centre, with a limit of seven under-2s and a minimum starting age of six months, reported following the needs of the child by committing to one child sleeping at a time (in a single cot). However, a potential problem with this practice was that the needs of other children were not followed if they had to wait to be put

down to sleep. In contrast, some big ECEC centres have a number of built-in cots along the walls of the sleeping room, with transparent windows facing outwards so that a number of infants can be put in to sleep at the same time.

Participants in all of the stakeholder groups were in favour of a greater engagement with the health sector. Due to increasing numbers of infants and toddlers in formal ECS, they understood the need to involve the health sector in the care of their children. Practitioners explained how they contacted parents when their child was sick. Some also contacted them if they felt the infant or toddler was simply “*not coping with the day.*” Many practitioners consulted in this inquiry did not see themselves as skilled or knowledgeable in identifying illness in babies. Staff regularly rang the Plunket Line (some said they do this on a daily basis) to help them “*make judgement calls on whether babies in their care should see a doctor.*”

The following ideas were proposed for how the health sector might provide support in ECS:

Table 24: ECE and health professionals’ suggestions for health inputs into ECS

Increase resourcing to enable public health nurses to be responsible for a cluster of ECS (similar to the itinerant Resource Teacher Learning and Behaviour model).
By working with a cluster of local ECS (home and centre-based), health professionals could provide a support base to ensure more formal links (e.g., to Plunket).
Health/education overlap could be written into Well Child contracts.
Early childhood staff could make referrals directly to their local Plunket or public health nurse.
Newsletters to parents could inform them of the date and time (perhaps either at drop off or pick up times) that the public health nurse would be available to answer health queries.
Health professionals visiting on a regular basis would be very welcome (e.g., to provide advice on breast care, allergic and diabetic children).
More health assessments, immunisations, etcetera, could be conducted at ECEC centres so infants and toddlers of hard to reach families could have their health needs addressed.
Recognise health qualifications alongside education for staff working with under-2s.
One staff member could be employed with a health rather than a teaching qualification. This person would be additional to the MoE’s qualified teacher ratio but the health qualification would add to the quality of the ECS.
Early start – beneficial to have people with different backgrounds (e.g., psychology, health) to ensure a multi-skilled team.
Public health nurses could upskill ECS around health risks, disease transmission, health practices.
Public health specialists could provide consultation on the impact of centres’ environments, spaces, and building designs on children’s well-being.

Better interagency collaboration and information sharing around needs-based (education) and diagnostic (medical) assessments.

Shared databases.

Within their public health teams, public health nurses could be rostered to be available to the ECS in their team's area.

Early childhood professionals were either strongly for or strongly against the idea of having staff with non-teaching qualifications such as health qualifications employed in ECS. Those who did not want a move away from solely teaching qualifications, did accept the notion of Plunket, public health, or Tamariki Ora nurses making regular visits to early childhood services to support both parents and educators.

Curriculum and pedagogy

Age-appropriate curricula and stimulating materials to promote their learning and development were identified as key aspects of a quality programme for infants and toddlers. In terms of the learning agenda for under 2-year-olds, academics explained how infants and toddlers are learning language development through positive relationships with key people and through their sense of self.

Some of the teacher educators described *Te Whāriki* as a complex document. Its principals go across all providers, thereby requiring sophisticated educators to understand its framework. The holistic nature of New Zealand's early childhood curriculum was frequently mentioned. People enjoyed the fact that *Te Whāriki* was not prescriptive. An indicative comment was:

Training used to be focused on activities – Te Whāriki allows educators to take a more holistic approach to the curriculum, e.g., around security, belonging, exploration.

Educators said:

Toys are passive so children can be active.

We talk about toilet learning not toilet training.

We teach table manners, take food away when they get down from the table.

Infants and toddlers should be seen, heard, engaged and cared for. Learning experiences should reflect quality of language – questions.

Under-2s need to be cared for so they are healthy and ready to learn.

Language rich environments were considered “a *must*” for the under-2 age group. The bicultural aspect of the early childhood curriculum was also recognised and appreciated. One early childhood teacher commented, “*The toddlers’ bilingualism was a joy to witness, especially their level of understanding in Māori if not expressive vocabulary*”. Practitioners were aware that more conversations directly to the infants would benefit their language development, in particular, the songs and music of their individual cultures.

A focus group interview with early childhood teachers highlighted that while “*trying to professionalise the profession*”, it is still vital that practitioners “*relate before they educate*”. They strongly articulated that the four principles of the curriculum (empowerment, holistic development, family and community, and relationships) are the building blocks for infants and toddlers. They understood the relational aspect of the curriculum, particularly around caring routines and considered that “*care is curriculum*”, and helps to make learning visible with curriculum documentation.

Quality issues

This inquiry found ample evidence of high quality ECS provisions for infants and toddlers. Many ECS provided exceptional education and care. Examples of poor quality, however, were also revealed. In addition, while undertaking the inquiry the Office of the Children’s Commissioner received, without prompting, information from early childhood teachers with wide current experience of relief teaching in a range of ECS in several cities. One of these teachers wrote:

I appeal to you to do something on behalf of all the children at these particular centres as they are not getting a fair deal. Also parents are not fully informed of their rights and do not seem to know what questions to ask when enrolling their children. If I had to choose one word to sum up my experiences in these centres it would be 'respect' is missing for children.

This inquiry was not framed around an investigation of quality, nor on an assessment of individual services or types of service. It started with an assumption that, in general, levels of quality were likely to be better than satisfactory, and that existing regulatory and monitoring regimes were operating to address service deficiencies in quality. This report has cast some doubt that that assumption holds.

It was not possible for the Office to visit a large number of centres. However, the messages received from the early childhood practitioners and other participants in this inquiry are consistent enough to suggest that we cannot be confident that quality education and care for under-2s is all that it should be everywhere in New Zealand. The following discussion focuses on the quality issues that came to notice in the inquiry. It was the eight aspects of quality identified earlier in this section that were explored with participants.

Ratios

The early childhood teachers reported on the ways in which meeting the regulations in some centres compromised the quality intentions behind the regulations. For example, teachers often move across centres to make up the ratios. (Some have a floating trained teacher for this purpose). Having to change nappies or put a number of babies to sleep at the same time creates logistical difficulties for ratios, as does transporting babies (sometimes they have to mingle with the over-2s while waiting to get transported). When the ratios of adults to children do not meet regulations, staff sometimes go without a lunch hour.

Group sizes

Some centres can have up to 25 under-2s in one space. With high numbers and little open space, the early childhood teachers reported that babies lacked the spacial freedom to move and toddlers were sometimes jostled and unable to experience enriched learning. Under-2 areas can become very cramped when there are a number of adults sharing the space as well.

Qualifications and skills

Teachers understood the rationale for well-educated and knowledgeable staff that held early childhood qualifications and the necessary skills for working with infants and toddlers. Some reported examples of ECS that were reducing professional development for their staff and when qualified teachers left, they were being replaced by untrained staff.

Responsive relationships

Some respondents expressed concern about the lack of responsive and respectful care relationships and that *“some babies do not get to bond with any teacher”*.

Teachers reported issues with rushed routines, respect of children and a general lack of responsive care. They provided examples of toddlers being shouted at, berated, and laughed at. Sometimes talking at the eating table was discouraged and there was no flexibility around children's food preferences. In a mixed centre, the under-2s had to wait while the over-2s were fed. There were reports of an educator reading the newspaper at the table while toddlers ate their lunch. In one centre, a staff member sat on a chair all afternoon downloading music on to her computer; and in another centre, staff carried out minor cleaning duties while supervising children. Staff in some centres did not respond to children with diverse needs either. Over a two day relieving period one teacher reported that a young child with autism was ignored by staff, even when her parents were present. In another centre the cook excluded a child with cerebral palsy from eating with the other toddlers.

Physical environments

One aspect of inadequate physical environments included the poor design of buildings (*few quiet areas, flow of building makes access to equipment difficult, cramped sleep rooms, toddlers' room is a thoroughfare to the infants' room, toddlers slept on the floor in an art area, and the challenges associated with converted houses*).

Teachers identified a lack of aesthetics (*no displays setting up the environment, no magic in the environment*). Outdoor spaces in some centres were described as *small; artificial strip of playground; no grass; bleak outdoor environment; and unhygienic with a pool of undrained water dammed up when it rains*. There were complaints about lack of shade and in one outdoor area for toddlers, the hot sun made the equipment too hot for the children to play on. On the other hand some infants lacked sunshine because they were not provided with opportunities to go outdoors. Locations of some ECS were also criticised (*sited on the corner of two busy roads, beside a noisy motorway, next to a deafening railway line, built on an industrial site with a barbed wire fence, and constant road noise*).

Parental involvement

Relieving teachers reported that parental involvement was minimal in some ECS. In poor quality services there was no welcoming area for parents. Children and parents were not individually welcomed and farewelled in a respectful and culturally appropriate manner and there was little or no engagement in dialogue with the

parents about their children. Parents and grandparents did not linger when they dropped the children off and did not seem confident in the ECS environment.

Health and safety requirements

Teachers observed a number of health and safety infringements in the ECS they relieved in. A lack of attention to and maintenance of the physical space led to hazards in some centres (*“safety hazards written in the Hazard Chart by staff are not addressed immediately”; “broken toys”; “fence did not meet safety standards”*) and risks to physical safety (*“dangerous drop off areas, lack of security*). In others a lack of attention to health and hygiene included examples of *dirty carpets; toys not washed regularly; nappy change area shared with over-2s; unclean centres that need Ministry of Health checks; risk of cross infection by borrowing over-2 equipment; and rubbish left out*. Similar to other early childhood professionals, concerns were voiced about practices relating to eating (for example, *rationing of fruit and other food; healthy eating was not promoted; babies “sharing” food; bottles left sitting for other babies to pick up; and three buildings sharing one kitchen*) and sleeping (*poor airflow between cots; sleep rooms tightly packed with most beds almost touching so teachers could not walk between them; and 20-22 toddlers all required to rest on the carpet without pillows or blankets for approximately 15 minutes*).

These participants described how staffing issues contribute to poor practices. Sometimes teachers come to work sick because there are not enough staff available and at times there can be more relievers than permanent staff.

Curriculum and pedagogy

In regard to the provision of a socially, culturally, and developmentally appropriate curriculum, teachers most frequently mentioned a lack of resources. In particular these teachers reported instances where toddlers were mainly supervised rather than being provided with opportunities to engage in focused learning opportunities and follow through on their interests. They were seldom given their choices about activities or equipment, both indoors and outdoors. Many constraints were in place, with heavy use of instructive language and little autonomy for the toddlers. Cultural diversity was evident in many of these ECS, but for some children there was nobody else in the ECS who spoke their language. To explain her concerns about the risks to children’s language acquisition, one teacher said:

Music blared out most of the day and this had the unnerving ‘hyping up’ feeling being put upon the toddlers. Many of these toddlers are bilingual. Faced with such high noise levels how can toddlers learn to discriminate between the nuances of conversation or phonetics?

The inquiry does not allow for an assessment of the incidence and prevalence of the shortfalls in quality reported above. The relieving teachers who contacted the Office had worked in many centres, and were concerned at the number of shortfalls they were finding.

Nor is the inquiry in a position to do other than raise a question about the adequacy of current regulatory and monitoring arrangements, either as to their frequency and quality. However, infants and toddlers are amongst the most vulnerable New Zealanders. Parents are not always well placed to know about deficiencies, and face hurdles in seeking change if they are concerned about quality, or indeed in voting with their feet, because it is not easy to access an alternative service.

Parents’ perceptions of quality education and care

This next section reports parents’ perceptions of quality provisions in early childhood services.

When parents were asked for their views on what quality early childhood education and care for under 2-year-olds looked like in practice, there were some reflections that quality would ideally mean, “*being home with Mum or Dad or Nana!*” In terms of non-parental education and care, their responses ranged from “*unsure*” to research-informed indicators of quality. It should be noted that this participant was a former early childhood teacher and her view of quality provision included small group size, registered teachers, lots of available professional learning and resources for teachers, and ratios of 1:3. Most parents offered a variety of criteria as set out in the next table:

Table 25: Parents’ perceptions of quality education and care in practice

Categories	Indicators
Structural elements	<ul style="list-style-type: none"> • <i>High adult to child ratio</i> • <i>Small group size</i> • <i>Part-time attendance (less hours)</i> • <i>Limit to the hours a child under 2 can be enrolled in a centre</i>

Educators' training, qualifications, and skills	<ul style="list-style-type: none"> • Knowledgeable and caring staff • Good communication skills with parents • Friendly staff – who look like they want to be there • 100 percent qualified teachers • Stable, happy, trained staff with ongoing training and good working conditions
A sensitive and responsive relationship between educator and child	<ul style="list-style-type: none"> • Primary caregiver/key person • Key caring moments • Primary caregiver responsible for bottle feeding, nappy changing, stays on adult's lap until ready to leave • Child-centred • Support and encourage babies' development • Culturally safe
Superior physical environment with well defined spaces	<ul style="list-style-type: none"> • Warm and inviting environment • Space to play • Quiet space to sleep • Clean, light, bright environment • Specific areas for under-2s only • Natural outdoor space • Calm environment • Chances to experiment in a clean and safe and stimulating (and restful when needed) environment
Significant parental involvement	<ul style="list-style-type: none"> • Partnership with parents • Good communication (particularly at drop off and pick up times) • Family involvement • Support from parents • Parents and child are involved together • Culturally sensitive
Attention to health and safety requirements	<ul style="list-style-type: none"> • Good, clean equipment/materials • Safe equipment • Good routines
Curriculum and pedagogy	<ul style="list-style-type: none"> • Quality teaching and play resources • Staff stimulate with activities parents wouldn't do at home • Individually-based programmes • Culturally appropriate • Encourage socialisation

The most frequently mentioned aspect of quality was having good ratios to enable “one-on-one time with each child so they're not just part of a pack”. A few of the parents who identified ratios also knew that 1:3 was the recommended ratio, although some also thought it should be lower for babies under six months old. The parent who was a former early childhood teacher recounted that when she was

teaching 10 years ago, the ratio in her centre used to be 1:2 for the 0-9 month age group.

Some parents understood the need for small group sizes as well as ratios.

Small numbers per teacher, a different ratio to the bigger kids. In a different room to older kids. [Name of centre] has an under-2 room and it's far more peaceful than the other rooms.

The same criteria for quality applied to both centre and home-based care, as evidenced by the following two quotes.

Very high carer/child ratios. Preferably in own home, with own routine.

High ratio of caregivers to babies. A culture where kisses, cuddles and direct attention is the norm and encouraged. We made an emphasis with all our babies that they need lots and lots of kisses and cuddles and affection. A centre that allows for milk-feeding and sleeping patterns as the baby requires and is flexible. Very, very loving and caring staff highly important!

When referring to the environment, parents most frequently used the words “clean” and “safe” as key indicators of quality. The parents’ perceptions of quality might be considered minimal. For one parent, quality education and care simply involved having:

Chances to experiment in a clean and safe and stimulating (and restful when needed) environment, to talk and listen, to play, to have fun, to be comforted when hurt, to be happy!

Further to this, another parent said:

An environment that is culturally safe and where a child can develop new skills in a safe, friendly and comfortable environment. One with experienced and qualified teachers and carers who genuinely care and like children.

A consistent theme in the parents’ interviews was that they rated quality of care as being most important for their babies. They talked mainly of care (not education) and attributed their child’s well-being to the quality of that care. As one parent said, “you can see quality!” Parents thought quality education and care meant that babies were “happy”, “healthy”, “safe”, “comfortable”, “cared for”, “nurtured” and they would not be

“sad when their parent leaves”. The bottom line for many was that “parents need reliable care and confidence in the care that their child receives”. In other words:

Children need a caregiver, preferably one, who they trust and know will care for their needs and protect them (often from other children in the ECE setting).

The cost factor was also identified within the context of quality. On the one hand, parents thought quality education and care should be “affordable to the family/whānau” but on the other hand, quality was perceived to cost more.

I think ultimate quality care is one on one (or as close to it as possible) care and attention. The carer needs to have the same attitudes to parenting as the parents themselves – and be committed to the child’s development and well-being. This type of care is really expensive though and really difficult for the average family to afford.

The parents participating in this inquiry identified a number of staff attributes that contributed, in their view, to the provision of quality education and care. They were very appreciative of their educators as evidenced by the following comments:

Early childhood providers have the biggest responsibility in their country – they begin the journey of nurturing and caring for our children outside of their whānau home – for some of them children it is most secure place.

I believe the early childhood centres are the core foundations of helping our children start life in a positive care environment.

Early childhood teachers are underpaid angels.

Summary of quality early childhood services for under-2s

This section began with a review of the research literature, followed by what the participants in this inquiry considered to be quality education and care for infants and toddlers. Quality depends on a range of factors. While various interrelated factors contribute to quality practice, the literature and professionals’ evidence was that the key elements of quality education and care for under-2s are: high adult to child ratios; small group sizes; staff education, qualifications, and skills; positive, sensitive and responsive caregiving; superior physical environments with well-defined indoor and outdoor spaces; significant parental involvement; attention to health and safety; and effective pedagogy via a socially, culturally and developmentally appropriate curriculum.

Parents' perceptions of quality education and care tended to be more basic, with an emphasis on the quality of care, both emotional and physical. There was recognition by the early childhood professionals, and confirmed in the literature review, that structural and regulatory elements set up the conditions for quality practice.

The participants in this inquiry reported examples of exceptional practices alongside examples of poor quality education and care. Clearly the quality of practice in New Zealand is variable. The education and care of infants and toddlers who are attending formal ECS requires some attention. This report therefore sets out the concerns raised about quality and recommends that Ministers and their officials consider the adequacy of current monitoring regimes.

SECTION 8: DISCUSSION

The overall objective of this inquiry is to provide evidence-based information from a child's interests perspective about the provision of formal early childhood education and care for infants and toddlers that can be used to inform decision making across policy, service provision and service usage. This section now discusses the findings in relation to the original reasons for this inquiry, relating some of the findings to the wider early childhood education and care context and the current policy context.

There are four main reasons why the Office of the Children's Commissioner decided to examine non-parental ECS in New Zealand for infants and toddlers: (1) increased usage by this age group; (2) the academic and professional debate about its impact on under-2s; (3) the need for parents to be able to make informed choices; and (4) our commitment to keeping children's interests a priority. These will be discussed in turn.

Patterns of care

Background

More and more families have both parents (or the sole parent) in employment, and patterns of usage of formal non-parental care reflect that. However, as Hakim finds, "present arrangements are not flexible enough to meet the needs of today's varied family structures and working hours" (Hakim et al., 2008, p. 8). Findings from this inquiry suggest that the same interpretation can be applied to New Zealand's situation, and that to some extent this reflects inattention to the interests of infants and toddlers.

Although participation rates vary according to partnership status and the age of children, more mothers with dependant children are now entering the workforce in this country. This has driven much of the policy response. As Powell (2007) states, "The changing landscape of maternal employment in New Zealand has meant that government policy has favoured women's increasing return to paid work outside the home and a consequent need for more child care spaces" (p. 7).

The responses to the movement of women into paid work at personal and policy levels have resulted in a very varied pattern of early childhood services. This inquiry found New Zealand ECS to have all of the diversity described by the National Scientific Council on the Developing Child (2007). For example, variations in usage included differences in timing (early vs. later); setting (relative vs. non-relative, centre-based vs. home-based); auspices (public vs. private funding sources, secular philosophies vs. faith-based programmes, culturally-focused vs generic; for profit vs. not-for-profit centres); and quality as measured by both structural indicators (such as physical environment, materials, group size, child-adult ratio) and process indicators (such as adult responsiveness, stimulation, warmth, and discipline).

Around the world there is a pattern of increasing non-parental care at younger ages and New Zealand is no different. Although usage tends to increase with the age of the child, this inquiry found a growing practice of infants and toddlers using formal early childhood services. Enrolments have increased by 29.5 percent for under one-year-olds over the past five years, making infants the age group in formal ECS for whom enrolment is growing fastest (MoE, 2010a). Some infants attend on a part-time basis, but not all. Many attend for more than 20 hours a week with some evidence of increasing hours. Often a child's attendance was influenced by the service provider's conditions of enrolment (only offer full-time places and, if part-time, a stipulation of at least two days per week).

Home-based care is the fastest growing type of service provision. The Ministry of Education attributes this to labour market changes and the fact that these services provide flexibility and little involvement for parents (MoE, 2010a). Attendance in formal ECS is sometimes mixed with informal care by family. But many families do not have access to extended family support, because grandparents are also in paid employment, or they do not live in close proximity.

The percentage of Māori children enrolled in early childhood education has fallen but the number of Māori pre-schoolers enrolled in licensed centres has increased. Higher birth rates for Māori may account for why the number of Māori children is growing faster than the number of enrolments in early childhood education (Johnson, 2010). According to the Salvation Army's Social Policy and Parliamentary Unit, this trend "poses considerable challenges as to where early childhood centres for Māori children will be placed and by whom" (p. 9), a concern being that current provision models (predominantly driven by private investors) might not prioritise the early

educational needs of this population group (Johnson, 2010). Government has already been required to intervene to increase provision in areas of low income, Māori, and Pacifica households.

Historical patterns of attendance within early childhood services are also changing. For example, parents are choosing all-day services and enrolling their children in them for longer hours (MoE, 2010a). In some areas kindergartens now cater for infants and toddlers. Also, many kindergarten associations are now moving from sessional to all-day licenses in order to better meet the needs of their community and to maximise funding. As early childhood services are funded on attendance, children must attend, for example, three longer days rather than five shorter days, if that is the model adopted by their kindergarten. While some parents see the longer hours as supportive, the Office of the Children's Commissioner has also fielded complaints from other parents who feel quite strongly that their choice has been taken away by this move.

Availability, accessibility, adaptability, and acceptability

The 4-A framework of availability, accessibility, acceptability, and adaptability provides a useful structure for setting current patterns in the use of formal early childhood services for infants and toddlers in New Zealand in a wider context.

Availability

In 1996, Wylie, Thompson and Kerslake Hendricks concluded that not all early childhood services are equally available, either in location, cost to families, or suitable hours. A decade later, Mitchell and Brooking (2007) reported that availability of education and care services to limited due to waiting lists, hours of operation, location and affordability. Now the findings of this 2010 inquiry reveal a similar situation. In some areas there were long waiting lists with limited spaces and hours available at the times sought. Availability also depends on other factors such as the child's age and location (Auckland only has enough centres to cater for 39 percent of children requiring education and care); the family's preferences concerning type of care; and the family's income. Despite considerable taxpayer subsidies, cost remains an important influence on usage. There is evidence of this in patterns that show usage increasing with household income, and supply of places being higher in areas where higher income households predominate.

Accessibility

According to Davison and Mitchell (2009) there are ongoing inequities in young children's access to early childhood services. Most ECS are accessible to infants and toddlers with disabilities (Noonan, 2010) but findings from this inquiry suggest that accessibility is a problem for parents where transport is required to get to the service. Mothers lacking transportation find it prohibitive walking more than a kilometre to the early childhood service, particularly when they have more than one child. Having a car park for drop off and pick ups was rated by some parents as an important consideration in access to a service. Access to information was also an issue. For example, some work-based centres do not advertise, instead relying on word of mouth. As a consequence some families (particularly those wishing to fill the community-allocated places) are unaware of openings.

Acceptability

Families will only find services acceptable if they feel their family and culture is supported and respected by the service (May & Mitchell, 2009). Acceptability is determined (in large part) by trust in the educators. For families from minority cultures, finding culturally appropriate services can be a challenge, particularly when looking for caregivers who speak the same language as the child. MacIntyre (2008) found that Tongan mothers experience the dilemma of trading off access to services with availability of appropriate language. There were mismatches in expectations between them and the mainstream early childhood settings attended by their children. Families from minority cultures in this inquiry reported similar difficulties. Some families may never fully engage and there may be difficulties in getting children enrolled - and remaining enrolled - as evidenced in the visit to an ECS in a low socioeconomic area where staff reported many of their children have intermittent attendance. Although most ECS are meeting the minimum standards (Noonan, 2010), the quality of the provision influenced whether or not it was acceptable for some families who participated in this inquiry.

Adaptability

This inquiry found that more ECS need to adapt to meet the diverse needs of its under-2 age group rather than expecting the children to adapt to meet the needs of the service. Parents in this inquiry asked for child care that is responsive to their

needs. The inflexibility of some early childhood services to accommodate their preferences around part time provision and spaces available on required days is challenging for all concerned. This finding is consistent with the results of the childcare survey undertaken by Statistics New Zealand (2010). For example, parents who had a youngest child aged 0-2 years were most likely to quit their study/training due to child care difficulties (Statistics NZ, 2010).

Based on *Te Whāriki*, early childhood programmes are generally holistic and developmentally appropriate to allow under-2s to thrive (Noonan, 2010). Nevertheless findings suggest that some early childhood services require support to adapt their programmes to ensure all infants and toddlers receive a socially, culturally, and developmentally appropriate curriculum.

Impacts, benefits and risks: the academic and professional debate

One of the features of the debate on the merits of formal non-parental education and care is the rapidity with which it sometimes degenerates into simplistic assertions (for example that it is “a good thing” or “a bad thing” for infants and toddlers) and ideological position taking (for example that any questioning of it is “anti-women”). It is important, therefore, to reiterate the assumptions and caveats around this report.

- Its context is that many parents will return to work before their children turn 2 years of age: the realistic question, given this, is what is in children’s best interests in terms of use, access, and quality
- The inquiry has only looked at part of what is a very large and complicated literature and professional debate on the impacts of formal non-parental education and care on infants and toddlers
- The research evidence about the nature of the impact and its causation is not consistent and there is no consensus in several important areas of impact
- Parenting and home circumstances have a much greater impact than formal non-parental education and care

- There are benefits of parental employment that will accrue to children over time but it is not easy to assess their significance for infants and toddlers
- The report focuses on the mainstream: there are arguments for positive education and care supports for infants and toddlers in the most extreme circumstances of parent and household deprivation and dysfunction.

One of the most important considerations in examining the impacts, benefits and risks, is the increasing evidence from the biological sciences of children's development in the first two years of life that children's experiences with the key people in their lives (including non-family members such as early childhood staff) have an influence on the structure and function of their brains. Infants and toddlers respond positively to environments that are characterised by stability, breastfeeding, relative calmness and predictability, responsive one-to-one interaction with a very small intimate group of carers, and some protection from infections while their physiological systems develop. Concerns that have been raised about the "elevated risks" to optimal brain development that may be associated with early attendance in formal education and care settings should not be ignored, especially for babies. On the other hand, some researchers consider the brain development risk argument, including UNICEF's recent summarising of the evidence, to be over-stated (see Sommer, in press).

Findings from this inquiry suggest that without policies and practices to mitigate risks, the health and wellbeing of infants and toddlers could be compromised in formal early childhood services. The risks that are best supported in the literature particularly concern infants and are around disrupted attachment and exposure too early to infections that bring stresses for babies. There is debate about the extent and duration of adverse impacts but a child's interests perspective would give weight to policies and practices that reduce them.

For infants the risks increase with the length of time in formal early childhood settings. Time spent in child care is not the only factor, however. Sommer argues that it is the combination of both family and child care factors that count (Sommer, in press). While the importance of sustained, reliable relationships within the family is well understood, the need for stable and predictable relationships in child care settings is acknowledged less frequently, and the disruptive impacts of the abrupt changes related to high staff turnover are too often disregarded. The research

evidence supports the view that infants can have significant secondary relationships with other adults such as childcare staff without endangering their primary relationships with parents but it is the repeated “detaching and re-attaching” from those familiar caregivers that creates the risk in early childhood settings.

The second important mitigating factor is quality. The research is clear. Optimal environments for young children including infants and toddlers that consistently produce positive impacts include: (1) highly skilled teachers; (2) small group sizes and high adult-to-child ratios; (3) age-appropriate curricula and stimulating materials in a safe physical setting; (4) a language rich environment; (5) warm, responsive interactions between staff and children; and (6) high and consistent levels of child participation. To these might be added a physical environment and processes that reduce the risk of cross infections, and that respond quickly when it occurs. However, less is known about where the thresholds are that tip positive impacts into negative.

According to Harvard University’s Centre on the Developing Child, the research is inconclusive as to the “threshold of quality that must be crossed” for those positive benefits or whether any of the elements of quality are more important than others. Current research does not differentiate among the multiple characteristics known to have a positive impact (NSC, 2007, p. 16). It is clear that the quality of provision is the strong connecting link to all aspects of education and care for infants and toddlers. In the same way that those characteristics are interrelated in quality practice the absence of such factors will interact to contribute to adverse impacts.

Parental decision-making

Factors influencing parental choice

The Millennium Cohort study determined that mothers’ employment and patterns of work are closely connected to the quality, availability and affordability of childcare (EOC, 2007). Policy and practice should help families gain the benefit of work over time in ways that strengthen family relationships and emotional wellbeing, and to support parents and parenting (Eisenstadt, 2010). This is likely to involve informed choices in a context of support for home-based care (such as paid parental leave), accessible, quality child care support, and flexible working conditions.

Child care should be widely available, offer quality and choice based on appropriate information, be affordable, and offer flexibility (OECD, 2005). Yet the perception across all stakeholder groups in this inquiry was that some parents do not have many choices, let alone the opportunity to make a good choice. In particular, this inquiry found evidence of choice being very constrained by lack of supply (parents were forced to go on long waiting lists); logistics (*“you use what you drive past”*); and cost pressures (to keep fees down). Consequently, parents’ choices were often determined by availability, acceptability, adaptability, and accessibility, (including affordability) of early childhood services for under 2-year-olds. Parents in Robertson’s 2007 study also reported making choices based on cost. Whereas some parents were willing and had the means to pay for quality services, others needed low cost services and subsidies to support their child’s enrolment in those services.

This inquiry found that parents’ decision-making was made harder by practices among providers to incentivise care arrangements that maximise their funding or reduce their costs. For example, many parents put their infant or toddler into full-time education and care because of the financial incentives offered by the provider. Some could only take up a place if their child went full-time. Some mothers felt pressured to break their maternity leave and return to work early simply because a space became available in the desired ECEC centre. None of these practices were in infants’ or toddlers’ best interests.

In Robertson’s 2007 study, parents rated quality according to staff qualifications; the quality of care provided by staff, measured by the safety of the child and how happy the child is with attending the service; and also how welcoming they were of parents. Other factors such as child-staff ratios, overcrowding, and quality of the facilities were also considered to be important. This inquiry supports those findings.

Discrepancies found between the perspectives of parents and professionals were similar to those in the earlier Competent Children study (Wylie et al., 1996). First, the findings around the information held by some parents reveal gaps in their understanding of child development, and in particular, their assumptions around attachment and socialisation. For example, some parents believed that attending an early childhood service will improve the socialisation skills of infants and toddlers, who have no concept of others as more than extensions of themselves. As Penelope Leach states, “the arguments about socialising the [infant or toddler] giving it

stimulation, and a head-start educationally, are simply misplaced” (in Gentleman, 2010, p. 7).

There were also gaps in parents’ ideas about what quality education and care was. For example, a clean and tidy environment was rated the most highly. This inquiry confirmed Eisenstadt’s 2010 conclusion that parents are more likely to ask for improvements to the physical environment. It is also possible that parents consider their children’s child care provisions to be better than they really were (Cryer, Tietze, & Wessels, 2002). If parents are unable to identify quality care, they are not likely to demand it (Cryer, Tietze, & Wessels, 2002; Hakim et al., 2008).

In summary, prior research and the findings of this inquiry suggest that parents make decisions about child care for their under 2-year-olds that are not always informed by accurate knowledge about their child’s developmental needs, nor the key components of quality service. The difference between some parents’ perceptions of quality education and care and what actually affects quality, is compounded by evidence that there is limited correlation between cost to parents and quality (Wylie et al 1996). Paying more does not necessarily mean higher quality. This suggests that there are some risks to infants and toddlers in policies that give great weight to parental choice and market forces to ensure quality provisions.

Access to information

Findings from this inquiry support Robertson’s 2007 study on parental decision-making that parents have a variety of reasons for choosing their child’s ECS. Some parents in this inquiry chose an ECS espousing a specific philosophy; others simply based their decisions on practical considerations, such as opening hours, flexible use and service location. Many were simply guided by the opinions of friends and sought no further information.

Being able to make an evidence-based decision on the quality of the education and care parents choose for their children is important. Parents, however, do not ask for information about evidence-based programmes for their children. Although parents might have better and more accessible information sources (such as the internet) that information is not always the correct or only answer (Marshall, 2010). Accessing information in their own language can also be problematic as revealed in MacIntyre’s (2008) study of Tongan mothers. Therefore the challenge is for government agencies

and local communities to provide accessible information so parents are not making choices based on limited information.

One particular concern was the number of parents in this inquiry who only received information on their eligibility for financial subsidies when visiting prospective early childhood services and who otherwise might not have known about their entitlements. The *Growing Up in New Zealand* study also found that many parents in low socioeconomic areas who perhaps most needed this additional financial support were not aware of either Paid Parental Leave or Working for Families tax credit entitlements (Morton al., 2010).

Key policy implications

On the international stage, New Zealand is envied for its “integrated and coherent national approach to funding, regulation, curriculum and qualifications” (Moss, 2007, p. 33) of early childhood education and care. For example, this country has a proud early childhood record of increased professionalisation, a national bicultural curriculum, the Ministry of Education’s responsibility for this voluntary sector, pay parity with primary and secondary teachers, and 20 hours ECE funding for three and four-year-olds (May & Mitchell, 2009). Nevertheless, Cullen (2008) makes the point that “the positive international image early childhood education in New Zealand now promotes does not, however, negate the responsibility of policy makers, practitioners and academics to ask the hard questions about the outcomes of a publicly-funded early childhood education system” (p. 1).

The following discussion concerns the implications of the findings of the inquiry for policy and regulation. It is important to start by reiterating the focus on the interests of infants and toddlers, and the child’s perspective. The focus has in itself implications for policy and regulations. The first reason is that the interests of infants and toddlers, arising from their vulnerability and stage of development, are distinct from those of their three and four year-old fellow child care users. The language, child development focus, administration in the education sector, teacher education, and discourse about early childhood education and care in New Zealand reflect a tradition that has given emphasis to the educational needs of three and four-year-olds. In the last three decades the needs of infants and toddlers have been recognised and given weight

but much of the discourse still reflects the older users. The needs of infants and toddlers will be a theme throughout the following discussion.

A second reason for reiterating the child's perspective arises from the particular nature of childcare provision in New Zealand. It has its own mix of ownership (corporate, community, for profit and not for profit); market driven supply and heavy state regulation; fee payment and high government subsidy. Such a structure creates a large number of interested adult stakeholders: owners, providers, employees, parents, politicians, and taxpayers. Not surprisingly early childhood education and care has been the subject of considerable political attention. In such a circumstance, the interests of children as stakeholders can be crowded out.

What sort of policy and regulatory settings are consistent with the interests of infants and toddlers and how do current settings measure up? The following discussion covers the findings of this inquiry about the sorts of policies and regulatory settings that are in the best interests of infants and toddlers.

Policies that support parental care in the first 12 months of life

Our findings suggest that long periods in child care in the first few months of life, while not necessarily harmful, are not optimal. This suggests that policies should support parental care as much, if not more, than non-parental care.

Current policy settings in New Zealand have been influenced by goals of increasing the labour force participation of women and increasing their access to child care. Policy in New Zealand includes taxpayer funded paid parental leave, though the extent of the provision is limited and relatively inflexible. Proposals to extend paid parental leave have been rejected because of the costs involved. However, increased use of child care for infants also has cost implications for government because of the very high levels of subsidy (direct and via child care subsidy) that occur. The average cost to government per child in formal education and care is over \$8000. At a 30 hour a week subsidy for 48 weeks of the year the cost for an under 2-year-old is over \$18,000.

It is not the place of this report to set out a redesign of the paid parental leave provisions, but it would be in infants' best interests for some work to be done from a child's interests perspective on the cost and benefits of support. The analysis should

cover support for paid leave and for parental and non-parental care, seeing the two provisions as complementary contributions to an infant's development.

The *Little Britons* report (Hakim et al., 2008) describes a range of initiatives and comparisons across countries and assesses whether spending differently, by shifting the balance of funds from institutions to children, would better meet 21st century family needs. Hakim and colleagues conclude that money should follow the child to provide families with real choice regarding child care in the first three years of a child's life. This idea was also suggested by some of the early childhood professionals that participated in the present inquiry. Although it might be argued that the funding already follows the child to some extent (that is, if the child attends a licensed ECS) perhaps it is time for New Zealand to also consider the potential benefits (and the challenging accountability logistics) of giving money directly to parents of under 2-year-olds rather than the provider. From this perspective, paid parental leave is akin to a carer's allowance. Parents could then choose whether to stay home with their infant or use child care facilities.

Policy settings that allow for flexible use of formal ECS for under-2s

The findings of this inquiry support the use of non-parental early childhood education and care in raising under 2-year-olds, providing quality is satisfactory and durations are limited to infants. It has been described as one half of a dual socialisation model of support for optimal infant and toddler development. This is consistent with what many parents want.

This requires policy, regulatory and funding settings that allow for and encourage flexibility in service provision. Ideally infants and toddlers should be able to access services that fit their needs, for as long as is useful, and on as many days of the week as is appropriate. It is hard to accommodate such flexibility in the real world of service provision, where providers need to juggle enrolment-driven funding streams with less flexible staff costs.

This inquiry found evidence of reductions in flexibility. The rigidities were related to:

- waiting lists and supply side pressures that limited flexibility in starting dates
- regulatory regimes that had providers move from sessional to all day provision

- funding regimes which incentivised providers to stipulate minimum periods of usage and to offer special deals for longer care.

This report recommends that the policy, regulatory, and funding structures for infant and toddler service provision be reviewed for their impact on flexible access to services.

Policy and regulatory settings that support quality provisions

The importance of the quality of service for infants and toddlers has been a key finding of this inquiry. The inquiry has identified several aspects of quality that are directly subject to policy and regulatory settings and to funding structures: group size, ratios, teacher qualifications and physical surroundings.

Current settings are a complicated mix of licensing requirements, regulations and incentives through funding structures. The consultation process identified some confusion around the issues of regulation and funding. Government's policy position on teachers is that there is a target for 80 percent of staff to be qualified and registered early childhood teachers by 2012. No decision has been made, as yet, to regulate for 80 percent. There is a regulated minimum of 50 percent qualified registered teachers in a service. As of February 2011, the government will fund up to 80 percent of qualified registered teachers in a service. So there will be a regulated minimum of 50 percent teachers and a funded maximum of 80 percent. It is up to individual services how they deploy those teachers across particular children and age groups. Any given child in a service (whether under-2 or over-2) may get less than the minimum or more than the maximum depending on how that service deploys its staff.

It is clear from this example, that what is important is the relationship between the quality of service provision and the interaction between registration, regulations and funding structures. Licensing and regulations prescribe a base standard but they are minimum standards only. It is primarily the responsibility of the sector, or the private contract between parents and centres to ensure the health and safety and other standards of their children. In other words, those structural conditions simply set the minimum benchmark.

This discussion will proceed by looking at the quality factors of group size, ratio and physical environment.

Group size

There are no regulations around group size in New Zealand. Research is clear that small group sizes are a vital element of quality care. The research literature identifies between six and eight as the recommended group size for infants and toddlers, with six being the ideal number. However licensed ECEC centres can currently have up to 25 under-2s in attendance at any one time. How infants and toddlers are grouped within the centre makes the difference to quality because smaller group sizes facilitate individualised interactions and communication, whereas staff spend more time managing the group when they are all in one single space together. This report recommends that work be done on regulating for group size for infants and toddlers.

Ratios

The current adult to child ratios for under-2s are:

- In ECEC centres, 1:5
- In home-based services, 1:4, with no more than two children aged less than two years.

These ratios are the minimum. It would be in the interests of infants and toddlers that they be reviewed, with a view to changing them to 1:3 in ECEC centres and 1:3 for home-based educators caring for four children where two are aged less than two years.

Space and noise

It is in infants' and toddlers' interests to have a physical environment that meets their needs. Current policies and regulations set minimum standards of:

- Space per child: 2.5 square metres indoors and 5 square metres outdoors, a total of 7.5 square metres.
- Noise levels: There are no regulated standards for noise.

Reverberation times in most New Zealand ECEC centres exceed the 0.6 seconds prescribed by the Australasian standard for schools and learning spaces. Although there are no regulated standards for children the noise provisions of the Health and

Safety in Employment Regulations 1995 apply to early childhood staff as they do to any other worker in the workplace. The Licensing Criteria for ECEC Centres 2008 requires licensed providers to take all practicable steps to ensure that noise levels do not unduly interfere with normal speech and/or communication, or cause any child attending distress or harm. The design and layout of the premises must include quiet spaces and have acoustic absorption materials if necessary to reduce noise levels that may negatively affect children's learning and well-being.

The space standards are at the very minimum of those established internationally. It would be in the interests of infants and toddlers to have them raised as follows:

- Space: To at least 3 square metres, which is still behind our Australian counterparts where the minimum indoor space is 3.25 square metres in New South Wales and 3.3 square metres in Victoria with both states having an outdoor requirement of 7 square metres (2 square metres more per child than in New Zealand).
- Noise levels: Increasing the space standards would also improve the noise levels.

Policies that support provisions of early childhood education and care services by a knowledgeable and skilled workforce

Infants and toddlers need knowledgeable and skilled staff in the services they use. It is important in providing for their development and in mitigating the risks that arise from their vulnerability and stage of development.

New Zealand has a complicated set of regulations and funding incentives to achieve a policy goal of knowledgeable and skilled staff, as already described earlier in this section. Issues have arisen about the nature of the qualifications, the extent to which qualified staff are necessary to meet quality standards, and the distribution of qualified staff within a service providing for under 2-year-olds and over 2-year-olds.

The growth of home-based education and care services presents another issue. Current regulatory and funding structures provide minimum qualifications and professional learning of home-based educators and minimum standards for their support. Practice varies but many providers deliver much higher levels of support for

their educators. This may be put under pressure as funding tightens. If the trend continues towards greater use of home-based services, it would be very much in the interests of infants and toddlers to review the regulations and funding settings with a view to enhancing the levels of knowledge and skills expected of educators and levels of support provided by their employers.

Issues of specific knowledge and skills will be discussed in the following section on practice.

The nature of the qualifications

The home-based service providers in this inquiry expressed satisfaction that the regulations now make it easier for providers to employ young, unskilled nannies from the age of 17. However, other participants were apprehensive about educators with the least skills and experience working with the most vulnerable age group of children. Provisions have also been relaxed to allow for primary teaching qualifications rather than early childhood education qualifications, to count for funding purposes. Participating early childhood professionals felt concerned about the “dumbing down” of their profession.

The proportion of qualified staff

The decision to move away from fully subsidising up to 100 percent qualified staff, and to cap it to 80 percent, has engendered a heated debate, driven by concerns that it will increase fees to parents and/or have providers reducing the quality of service. While this inquiry did not find evidence that quantifies the percentage of qualified and highly skilled staff there is a vast amount of literature verifying that trained and qualified teachers result in an improved quality learning environment and positive outcomes for children. It is in the interests of infants and toddlers that a focus remains on ensuring the early childhood service they use has a well trained and qualified workforce.

Distribution of qualified staff

The regulations require 50 percent of staff to be qualified within a service. This inquiry has had reported to it evidence of mixed centres using their qualified staff to work with the older children and their less qualified staff to work with the under-2s. In some instances, none of the staff working with infants and toddlers were qualified.

Policy and practice changes may signal a trend that would not be in infants' and toddlers' best interests: reduced standards and a movement of better qualified staff in the sector into the over 2-year-old age group, leaving infants and toddlers to be cared for by less knowledgeable and skilled workers. This report makes recommendations that this risk be investigated.

Key practice implications

Quality education and care

Provision of quality early childhood services is critical. The under-2 stage is a fundamentally important period in a child's development. High quality infant and toddler child care supports learning and development, whereas poor quality can undermine it.

This inquiry found ample evidence of both high quality and poor quality early childhood services for infants and toddlers. Others have reported similar findings (see ERO, 2010; Mitchell & Brooking, 2007; Podmore & Meade, 2000; Rockel, 2010b; Smith, 1999; Wylie et al., 1996). In 1996 (*Competent Children at 5* study Wylie et al., 1996) reported the quality of early childhood services in New Zealand to be variable, with room for improvement. Now, more than a decade later, evidence from both the literature review and the stakeholders who participated in the inquiry, confirm the same situation.

Much of the variability is put at the door of the quality of staff. One early childhood professional contended: *"Quality in New Zealand is variable and will remain variable until we get 100 percent qualified teachers"*. Home-based service professionals recognised the *"potential of caring and committed educators who can benefit from practical training that is tailored to meet their learning needs as well as those of the children they nurture"*. More generally, a recent ERO report concluded:

In many services where quality is poor, there is little sense or understanding by managers and/or educators of what high quality looks like. Managers and educators lack the capability to change practice, often believing that their service is operating well, and unaware of issues or risks to children. (ERO 2010 p. 19)

Quality provision does not depend on any one theoretical position, provided the practices are good. Penn's (2009) key message from the research literature is that quality education and care provides the foundation for more effective future learning, achievements and social development despite the differences in theoretical conceptions of the processes involved. This is good news for the many New Zealand early childhood services that are founded on specific philosophies.

This inquiry found that practice needed to give greater attention to the specific interests and needs of the many new infant and toddler users of early childhood education and care. This held for practice itself, and for the supports of good practice such as education and professional learning.

Three particular aspects for change stood out: more emphasis on responsive caregiving; more attention to specific knowledge, skills and professional learning about infants and toddlers; and greater attention to managing the health interests of infants and toddlers. These implications will be discussed in turn.

Practices that enhance responsive caregiving

Responsive caregiving is known to be a key element of quality, yet this concept is not always well understood in ECS. For example, many ECEC centres do not use a primary care system because they consider it to be too individualistic for a 'collectivist' philosophy of practice, such as whānau-based systems. Whether the environment is individualistic or collectivist, it is critical that responsive interactions occur in ways that support infants and toddlers to form healthy attachments. Careful interpretation of *Te Whāriki* is required to ensure that attachment theory happens in practice.

Key indicators of quality early childhood services are inter alia: trained and qualified staff with educational preparation, a personal commitment to learning about and caring for children; and professional development opportunities (Berk, 2006; EC Australia Inc, 2009; Mitchell et al., 2008; Munton et al., 2002). This means that structural and regulatory elements are not necessarily indicators of quality by themselves. Rather they set up the conditions for quality practice (Goelman et al., 2006). Smith (1999) summarises the literature nicely with her statement that the "people component" affects quality, that dynamic variables such as expressiveness and sensitivity of staff (i.e., relationship aspects) have a huge impact on quality

(Smith, 1999). Citing the NICHD study (2000) Berk also stresses the importance of the educator's relationship to infants and toddlers. She states, "when caregiver-child ratios are generous, group sizes are small, and caregivers are educated about child development and child-rearing, caregivers' interactions are more positive and children develop more favourably" (p. 431).

Currently there are challenges in how to maintain the emphasis on quality that has been such a feature of the history of the sector. Acknowledging the particular complexity of working with infants and toddlers, Farquhar (2003) makes the case that "both teacher education (including knowledge and pedagogical skills) and the teacher's personal characteristics matter" (p. 9). Mitchell and Davison (2009) argue that the best resources for younger children attending ECS are the staff. They state that having a "well-qualified, well-remunerated and professionally supported" workforce will increase the quality of the education and care and reduce the risks to attachment caused by high staff turnover (p. 137).

Factors relating to service conditions such as low salaries, high turnover, little training, and inadequate time for reflection, impact negatively on the quality of child care (Lally, 2009). Job satisfaction and performance are also associated with good salaries and lower staff turnover (Fiene, 2000; Wylie, 2001). This was borne out by early childhood professionals in this inquiry who recognised that quality involved more than staff qualifications and consistently mentioned how high turnover of staff affects quality. It is clear that alongside the good training, key factors for ensuring quality in education and care provision are good pay and good working conditions for staff (Fiene, 2000; Penn, 2009; Wylie, 2001; Wylie et al., 1996).

This inquiry has found that more attention needs to be paid to knowledge about infants and toddlers, their development and needs, in initial training and in professional learning.

Education and professional learning that increases knowledge and skilled work with infants and toddlers

The ERO (2010) report into quality declares, "Professional learning and support for managers and educators keeps them abreast of developments in early childhood education. Engagement in ongoing learning is critical to the provision of high quality education and care" (p. 13). The Ministry of Education, as part of its 10-year Strategic

Plan for Early Childhood, funded Centres of Innovation research whereby centres researched their practice. In their consultation interviews, early childhood practitioners that had been involved in a Centre of Innovation project reinforced the benefits of their involvement in terms of the improvements made to their practice and their enhanced ability as reflective practitioners. Rockel (2009b) echoes the regrets of many early childhood professionals who were consulted for this inquiry, when she writes:

The cessation of the Centre of Innovation research funding in June 2009 halted valuable opportunities for teachers and researchers to examine practice together. This policy of action research is one of the areas that started to close the gap in researching the impact of care for infants in New Zealand centres. (p. 3)

A broader issue in professional development is to ensure that the interests of infants and toddlers are given weight. Powell (2007) believes that with so many under-2s currently attending early childhood services, “we need to look at all our education, health, and social service policies and ask, where is the infant?” (p. 8). This report makes recommendations about the need for ongoing professional learning, specifically about quality service provision to infants and toddlers.

The second aspect of better service through a more knowledgeable workforce concerns initial education. As Rockel notes, the fastest growth in enrolments is in the under-2 area but there has not been a concomitant shift in content of teacher education programmes (Rockel, 2009). Stakeholders who took part in the consultation process of this inquiry strongly supported a recommendation that teacher education providers offer more emphasis on the needs of the under-2 age group. This issue was also discussed in the Early Childhood Education Futures Forum hosted by the Early Education Federation in February 2010. This report makes recommendations for a greater emphasis on under 2-year-olds in initial teacher education programmes. This would certainly be in infants’ and toddlers’ interests.

One specific knowledge gap concerns issues of health and disability. During consultation interviews, early childhood practitioners reported their anxiety in identifying health and disability issues in young children. They indicated that they would have benefited from more preparation around identification and assessment of diverse needs in their own training and considered that a focus on early intervention

in teacher education programmes might help practitioners more accurately identify and assess potential illness or disability in the infants and toddlers they care for. In recent years the discourse of 'needs' has been challenged.

Rockel (2010a) explains that whereas previously assumptions may have been based on stereotypical ideas of an infant's developmental needs rather than on careful observation, cultural perspectives are now taken into account as well. Thus the notion of a 'needy' child has been replaced with the concept of a child with agency who is able to express his or her desires (if adults 'listen'). This explanation is aligned to the discussion of sociocultural theory in Section 2 as well as the views of the early childhood practitioners in this inquiry who were not suggesting that teacher education programmes incorporate a health and potentially deficit focus into education. Rather, they thought it would help practitioners to know when to seek medical or special education support for infants and toddlers in particular. In addition, two recent reviews (the New Zealand Teachers Council's review of initial teacher education and the Government's review of special education) have both called for more professional preparation in teacher education programmes around diversity and inclusive education.

The early childhood professionals recognised that caring for infants and toddlers requires a different way of working that would not suit all teachers and that some practitioners like to vary the age group they work with. Therefore they supported the provision of stand-alone infant and toddler papers within teacher education programmes to help to raise the quality of education and care for this age group, along with the opportunity for infant-toddler specialisation (possibly at postgraduate level). Specifically, there was a consensus that early childhood initial teacher education programmes could be strengthened by including more papers/training with core content on: (1) understanding how infants and toddlers develop and learn; (2) assessment of health indicators, including identification of potential developmental delay and disability; and (3) early intervention.

In the longer term there may be merit in considering the introduction of new infant health care teachers or some form of infant-toddler specialisation for transdisciplinary practitioners desiring career specialisation. In the United States, infant mental health is a field dedicated to understanding and supporting children from birth to three years of age within the context of family, caregiving, and community relationships (Weatherston, 2000). The work of infant health care teachers is embedded in the

belief that development occurs within relationships and therefore is well aligned to New Zealand's early childhood curriculum. In addition, the dual socialisation model developed by Sommer and colleagues (2010) lends weight to the argument that attention to the infant, parent and the early-developing relationships between the child's home and childcare environments requires an approach that facilitates the development and well-being of the infant within those environments. By providing support to individuals and agencies working with under-2s and their families, infant-toddler specialists could facilitate early identification of risk and strategies to reduce the likelihood of learning, development, or relationship difficulties. Specific elements of their work might involve the provision of concrete assistance; emotional support; developmental guidance; early relationship assessment and support; and advocacy (Weatherston, 2000). Given the growing numbers of under 2-year-olds in ECS, there is the potential for this type of qualification to be developed in New Zealand. However, education and care in this country is located within an educational framework and for it to succeed, participants felt it would be important for this infant-toddler specialist to work alongside educators using a strength-based early intervention model (rather than a deficit or medical model) that is more aligned to the sociocultural approach to the early childhood curriculum.

Better management of the health related interests of infants and toddlers

In their recent report, the Public Health Advisory Committee (2010, p. 20), citing Hertzman et al, state:

Children live in a complex and ever-changing social environment. Their needs do not conveniently slot into the functions of one policy sector or another. Their needs overlap and interact with each other; needs range from direct requirements (such as the quality of time and care provided by parents, housing conditions and nutrition) to distal needs (such as government policies to ensure families have sufficient income and employment, access to health care, early childhood education, and safe neighbourhoods).

This inquiry found that with so many infants and toddlers enrolled in formal early childhood services, parents, educators and health professionals wanted a better overlap between health and education within the early childhood sector. As some practitioners said, it is not practical to expect early childhood teachers to become 'experts' in all aspects of children's development and taking a multidisciplinary and integrated services approach makes sense. This could start with a greater

engagement of health officials in policy development and advice. There are also opportunities at the operational level. The concern of some providers and staff for better access to advice about health issues has already been noted. The inquiry also heard information about the difficulties in maintaining practices that minimised health risks, particularly of cross infection.

The inquiry heard various ways in which the health interests of infants and toddlers could be better met. Historically, early childhood staff held a range of qualifications, and some proposed that appropriately qualified health professionals count as additional qualified staff. They saw the merits of having at least one staff member with a different qualification (such as in psychology, health, or child development) to support the teaching staff in ECEC centres. Even the participants who thought all staff should have education qualifications supported the notion of public health, Plunket or Tamariki Ora nurses visiting home and centre-based ECS on a regular and ongoing basis. This was seen as a support for both children, their parents and staff.

One specific aspect of meeting health needs for infants and toddlers is monitoring how well services are managing risks. Like the provision of advice and support from the health sector monitoring practices seem to vary widely. This inquiry has not been able to review the monitoring, but it has identified the increased vulnerability and risks faced by the growing number of infants using child care. The report recommends that monitoring be reviewed in order to identify and remedy any deficiencies in its frequency and quality.

Summary

The section starts by setting the findings of this inquiry in the wider context of issues of availability, access, acceptability, and adaptability. There are issues of availability that arise out of the distribution of early childhood services. There is an under supply of quality centre-based services for infants and toddlers generally and especially in areas of low income households. Access to services is also limited by the cost of service, and for some a question of acceptability, in particular over the first language of learning. The inquiry also found some inflexibility in service provision that reduced adaptability to infants' and parents' needs.

The discussion on impact, risk and benefits focusses on risks for infants and notes that while quality formal non-parental education and care is not harmful, and may benefit some children, there are risks to be managed. These risks are of exposure too early to infections and disrupted attachment. These could be mitigated by managing durations in care at a very young age, good health practices, and responsive caregiving.

The key policy implications of the findings are:

- Policies that support parental care in the first 12 months of life
- Policy settings that allow for flexible use of formal ECS for under-2s
- Policy and regulatory settings that support quality provisions
- Policies that support provisions of early childhood education and care services by a knowledgeable and skilled workforce

The key practice implications are:

- Quality education and care
- Practices that enhance responsive relationships
- Education and professional learning that increases knowledge about and skilled work with infants and toddlers
- Better management of the health related interests of infants and toddlers

SECTION 9: CONCLUSION

The increasing number of infants and toddlers aged under 2 years enrolled in formal non-parental early childhood services in New Zealand warranted an inquiry into the impact on their well-being of this significant change in care arrangement. The overall objective of this inquiry was to consider the best interests of infants and toddlers and to provide robust evidence-based information about the provision of formal early childhood education and care services for under-2s, with the hope that it might extend understanding and inform decision-making in policy and practice.

There is much to admire in early childhood service policies, curriculum and practice for young children in New Zealand, including an emphasis on what is in children's interests. Overall, however, this report finds that greater emphasis needs to be given in policies and practice to the particular needs of infants and toddlers. This inquiry has concluded that the interests of infants and toddlers could be better taken account of in the current policies, regulations, and practices about both support for parental care and support for non-parental education and care.

This report concludes that formal non-parental education and care is not inimical to the interests of infants and toddlers provided it is of good quality and risks are well managed. Having said this, the report further concludes that in an ideal world for young infants in their first 12 months of life, good care at home with a parent and/or care with extended family members is optimal. Government policies should support the capacity of parents to make choices that maximise those ways of caring for their infants. The inquiry did not find widespread deficiencies in the quality of the formal non-parental care and education provided, though there is variability.

This does not mean that change is not needed. There should be more support for parental care of those under 12 months, some tightening up of important quality standards in the provision of formal non-parental care for infants and toddlers, and greater attention to the knowledge and skills needed to work with under 2-year-olds in the education and professional learning of those who work with them.

Support for parental care

Current policies, regulations and funding settings provide less generous and flexible support for parental care, through provisions such as paid parental leave, than they do for the use of non-parental care for infants. Although not harmful to infants, provided attention is paid to durations and quality, non-parental care of very young infants is not as optimal as quality care at home with a parent. If babies could say what matters most, it would probably be to be cared for by someone who loved them passionately and unconditionally. In her book, *Dance with Me in the Heart*, Pennie Brownlie (2008) suggests that besides feeling loved, a baby would want two other wishes: to feel safe and to be respected. It is in infants' interests that government encourages parental care while they are very young.

These conclusions are made in a context in which many parents feel they do not have a choice about returning early to work, or that their choice is very constrained and determined by factors other than their preference. These findings should not be construed as a criticism of working mothers. Society has changed. Working mothers and consequently non-maternal childcare are part of this change. This report concludes that formal non-parental education and care of infants and toddlers is best seen as a contribution, in partnership with parents and often extended family members, to a young child's development. Too often it is seen as a less optimal necessity, a 'necessary evil' even, to accommodate the need to return to work. Rather than making parents feel guilty or anxious, the more pressing issue is take a 'shared responsibility' approach, increase the extent that parents have a choice, and to ensure that all childcare settings for under-2s are of sufficient quality to truly meet their needs.

Attention in early childhood education and care services to the interests of infants and toddlers

During the early days of the "child care controversy era", Richters and Zahn-Waxler (1988) advised that the following questions should underpin any discussion around child care: "Under what circumstances are what outcomes associated with what conditions of day care, to what extent and why?" This inquiry endeavoured to explore those questions within the New Zealand context but found no definitive answers.

There are challenges in determining the impact on infants and toddlers because of the difficulty of isolating the effects of just one dimension. Family influences are more important than childcare influences on outcomes for children. Nevertheless questions remain about the impact and stress of long hours of attendance in non-parental education and care.

The research literature confirms the benefits of formal early childhood education for three and four-year-olds and for children from disadvantaged families. However the evidence is not so clear for infants and toddlers except to demonstrate that “quality” is at the centre of all issues relating to the attendance of under-2s in formal ECS. The quality of relationships can ameliorate the elevated risks around brain development and attachment. Quality practice can manage health risks for infants. So if formal education and care is to benefit the under-2 age group, then policy and practice must focus on how to ensure and strengthen the quality of ECS for all infants and toddlers, across all settings, types of care and communities.

The role of knowledge, professional learning and skills

Caring for infants and toddlers is demanding work. Working with young children on their development requires knowledge and skills, and this applies no less to infants and toddlers than it does to three and four-year-olds. One of the more disturbing findings of this report is that there may be a movement away from valuing knowledge and skills in the provision of services to infants and toddlers.

This report identifies eight interrelated structural and process dimensions that underpin quality education and care provisions for under two-year-olds. High adult to child ratios, small group sizes, staff qualifications and skills, positive and responsive care relationships, superior environments, parent involvement, attention to health and safety requirements, and effective pedagogy through a socially, culturally, and developmentally appropriate curriculum are all important elements of a quality service.

The education and care of infants and toddlers requires particular attention to space requirements, safe and effective practices and routines, calm environments, and above all nurturing sensitive, responsive and consistent relationships between infants and knowledgeable staff. The report concludes that paying attention to the health and

well being of infants and toddlers is a little “underdone” in the current New Zealand policy, regulatory and practice settings. The recommendations in this report set out a pathway to remedying this.

As a signatory to UNCROC, New Zealand has a legal obligation to consider the best interests of children in its policies. Changing the ways in which early childhood services are conceptualised and delivered can and should take a child interests approach. The challenge now is for all whose concern is the education and care of infants and toddlers, be they decision-makers, policy advisors, providers or workers, to bring that child interest perspective to their work. This will mean that the under-2s will be seen, not as passive recipients of a service, but as partners in their development and learning.

It is our intention that the findings of this report may inform discussion on how the government, parents, practitioners, service providers, researchers and policy makers can consider the best options for the education and care of our youngest citizens. Acting in the best interests of children would be to give them the best possible start in life.

As the proverb says:

Ahakoā he iti, he pounamu

All be it small, it is a treasure

RECOMMENDATIONS

The recommendations made in this report are for a process of review and modification to policy, regulation and practice. The first set of recommendations concerns a review of the policy settings across paid parental leave provisions as well as child care provisions. The aim of the review should be to make changes that will tip the incentives and supports towards parental and extended family care of infants in the first 12 months of their life.

A related area of change is to provide for greater flexibility in the provision of ECS, to meet the interests of infants and toddlers in part-time use of formal early childhood services. There is some evidence that the current set of policies, regulations and funding incentives are leading to rigidity in provision and less choice for parents rather than flexibility.

The second area of recommendations concerns quality. This is consistent with the conclusion of this report that the regulatory regime, the education and support services and the monitoring of practices for under 2-year-olds is short of what is in their best interests. The regulatory regime has minimum standards that are too low; the infant and toddler content in teacher education programmes is too meagre; and this report confirms the more extensive ERO report that quality standards are too low in too many services.

This inquiry has not included the detailed work that would lead to specific and costed recommendations. That is the work of government's officials. However, taxpayers make a very large investment in the education and care of infants and toddlers, specifically through paid parental leave provisions and subsidies for early childhood education and care services. The most recent investments, valid enough in their own right, have gone to enhance services to three and four-year-olds. The main effects, it would seem, have been to reduce the fees to the existing user population and fund the higher costs of increasing the proportions of qualified teachers.

The government has already embarked on some re-prioritisation of that expenditure to meet goals of greater support for early childhood education and care for young children in low income, Māori and Pacific Island households. Some of the

recommendations made here have cost implications that could be met by further re-prioritisation in the interests of infants and toddlers.

The following recommendations are therefore couched as proposals for policy development work that would include costs, benefits and trade-offs: that current policy and regulatory settings, or current practices, be reviewed, or that new settings or practices be considered. The recommendations are addressed to the responsible Minister.

Policies that support parental care in the first 12 months of life

1 It is recommended that the Minister of Education and the Minister of Labour direct their officials, in consultation with other officials as appropriate, to:

- review current policies for paid parental leave and funding of early childhood education and care to identify the balance of incentives provided for parental care and formal non-parental care
- provide advice on increasing the quantum and flexibility of support for parental care
- provide advice on the merits of having ECS funding attached to the individual child rather than tied to types of provision and paid to providers.

Policies, regulatory settings and funding structures that allow for flexible use of formal non-parental early childhood education and care services by infants and toddlers

2 It is recommended that the Minister of Education direct her officials to:

- review policy, regulatory and funding settings for their impact on flexible provision of hours and days of attendance for infants and toddlers
- provide advice on changes that would improve access to part-time and flexible education and care for infants and toddlers.

Policies and regulatory settings that support quality service provision for infants and toddlers

- 3 It is recommended that the Minister of Education note the conclusion of this report, that several regulated minimum standards are set too low in aspects of service quality that are important for infants and toddlers.
- 4 It is recommended that the Minister of Education direct her officials to provide advice on:
 - making a regulation that limits group size to no more than eight under two-year-olds for purposes of supporting responsive and stimulating interactions
 - reducing the regulated minimum ratio of adults to children for under two-year-olds from 1:5 to 1:3 in ECEC centres and from 1:4 to 1:3 for home-based educators caring for children where two are aged less than two years
 - increasing the regulated minimum space for under 2-year-olds from 2.5 m² to 3 m²
 - supporting ECS to give effect to the inclusion of quiet spaces in the design and layout of their premises and the provision of acoustic absorption materials, if necessary, to reduce noise levels that may negatively affect young children's learning and well-being.

Policies that support the provision of early childhood education and care services to infants and toddlers by a knowledgeable and skilled workforce

- 5 It is recommended that the Minister of Education direct her officials to:
 - report on the extent to which services to infants and toddlers in licensed ECS are provided by qualified and registered teachers, and any trends that are occurring
 - provide advice on the extent to which changes are a consequence of the recent regulatory and funding changes and on any remedial changes that are necessary

- provide advice on amending the regulations in mixed age settings to apply the minimum of 50 percent of qualified, knowledgeable, and skilled staff to service provision in the under-2 area.

Practices that enhance responsive education and care

6 It is recommended that the Minister of Education:

- note that the issues about quality of service reported by ERO in 2010 are confirmed in this inquiry
- note that the relicensing process will not address these concerns for many infants and toddlers who will use services over the next three years
- direct officials, in consultation with ERO, to advise how improvements to practice quality might be more quickly achieved.

Education and professional learning

7 It is recommended that the Minister of Education:

- note the role of education and professional learning in addressing quality issues for the learning and development of infants and toddlers
- encourage a focus on current and up-to-date professional learning in areas where it could make a contribution to infants and toddlers
- reconsider the decision to cease practitioner research initiatives such as the Centres of Innovation that help to improve the quality of provision to under-2s
- direct officials to provide advice on the merits of amending regulations to require qualified staff providing services to infants and toddlers to have obtained, or be obtaining, specific professional learning on working with under-2s
- direct officials to review the regulations and funding settings of home-based educators with a view to enhancing the levels of

knowledge and skills expected of carers and levels of support provided by their employers.

8 It is recommended that the Minister of Education direct her officials to provide advice, in consultation with the New Zealand Teachers Council, on how to:

- encourage teacher education providers to review their initial teacher education programmes to ensure they provide adequate content specific to infants and toddlers
- support teacher education providers to offer postgraduate papers and qualifications on infant-toddler specialisation.

Improved management of health interests of infants and toddler in formal education and care

9 It is recommended that the Minister of Education and Minister of Health direct their officials, in consultation with other agencies as appropriate, to:

- set up a process for health sector engagement in policy development, regulation and operational planning for formal non-parental ECS at national and regional levels
- provide advice on the merits of allowing registered health professionals with appropriate qualifications to count as additional qualified staff for the purposes of early childhood regulatory and funding requirements
- provide advice on ways to increase the engagement of primary health professionals in early childhood services
- review the adequacy of the monitoring regimes for health standards in formal non-parental education and care.

Information to support parents' decision-making

10 It is recommended that the Minister of Education direct her officials to:

- review the information for parents on the Ministry of Education website for early childhood to enhance the information for parents of infants and toddlers on the aspects

of quality in ECS important to their child's stage of learning and development

- improve parents' access to information by making the Ministry of Education website resources and information about parents' choices and elements of quality in ECS more widely available through links to other websites (e.g., Department of Labour) and in community settings frequented by parents (e.g., Well-Child providers, Plunket, doctors' surgeries, public libraries).

REFERENCES

- Ahnert, L., & Lamb, M. E. (2003). Shared care: Establishing a balance between home and child care settings. *Child Development, 74*(4), 1044-1049.
- Ahnert, L., Gunnar, M. R., Lamb, M. E., & Barthel, M. (2004). Transition to child care: Associations with infant-mother attachment, infant negative emotion, and cortisol elevations. *Child Development, 75*(3), 639-650.
- Ahnert, L., Pinquart, M., & Lamb, M. E. (2006). Security of children's relationships with non-parental care providers: A meta-analysis. *Child Development, 74*(3), 664-679.
- Ahnert, L., Rickert, H., & Lamb, M. E. (2000). Shared caregiving: Comparisons between home and child-care settings. *Developmental Psychology, 36*(3), 339-351.
- Alanen, L., & Mayall, B. (2001). *Conceptualising child-adult relations*. London: Falmer Press.
- Andersson, B-E. (1989). Effects of public day care – A longitudinal study. *Child Development, 60*, 857-866.
- Andersson, B-E. (1992). Effects of day-care on cognitive and socioemotional competence of thirteen-year-old Swedish schoolchildren. *Child Development, 63*, 20-36.
- Angus, J. (2010). *Dancing in their hearts: Some comments on early childhood education and care*. Presentation to the New Zealand Tertiary College 2010 graduation ceremony, 21 April, Auckland.
- Anne, T., & Segal, U. A. (2004). Implications for the development of children in over 11 hours of centre-based care. *Child: Care, Health and Development, 30*(4), 345-352.
- Atwool, N. (2002). Attachment and the developing child. *Children's Issues, 6*(2), 21-43.
- Atwool, N. R. (2008). *Who cares? The role of attachment assessments in decision-making for children in care*. Unpublished doctoral dissertation. University of Otago, Dunedin.
- Barnes, J., Leach, P., Sylva, K., Stein, A., Malmberg, L., & the Families, Children and Child Care team. (2006). Infant care in England: Mothers' aspirations, experiences, satisfaction and caregiver relationships. *Early Child Development and Care, 176*(5), 553-573.
- Barnett, W. S., & Belfield, C. R. (2006). Early childhood development and social mobility. *The Future of Children, 16*(2), 73-98.
- Bary, R., Waugh, O., Martin, L., Moana, P., Deans, C., Charlton, M., Hullett, H., Jordan, B., Scrivens, C., & Martin, F. (2007). Onions, layers and early childhood programmes? *Iti Rearea, 12*, 1-6.
- Bedford, M. (1999). *A needs assessment of early childhood centres – with respect to non vaccine-preventable communicable diseases*. Unpublished Masters thesis. Wellington School of Medicine: University of Otago.

- Bedford, M. (2008). The need for a cross-sector approach to improving environments in early childhood centres. *Proceedings of the National Forum on the Future for Children's Early Care and Education*, 45-50. Wellington: Childforum Research.
- Bedford, M., & Sutherland, K. (2008). Early childhood education and care in New Zealand: Do we have a runaway train? *The First Years: Ngā Tau Tuatahi. New Zealand Journal of Infant and Toddler Education*, 10(1), 38-42.
- Black, T., Marshall, P., & Irwin, K. (2003, May). *Māori Language Nests in New Zealand: Te Kōhanga Reo, 1982-2003*. Paper presented to the United Nations Forum on Indigenous Issues, New York.
- Bell, N. (2010). A fully qualified teaching workforce – a matter of policy and principle. Paper presented to Early Childhood Federation's *Early Childhood Futures Forum*, 12 February, Wellington.
- Belsky, J. (1992). Consequences of child care for children's development. A deconstructionist view. In A Booth (Ed.). *Child care in the 1990s: Trends and consequences* (pp. 83-85). Hillsdale, NJ: Erlbaum.
- Belsky, J. (2001). Developmental risks (still) associated with early child care. *Journal of Child Psychology and Psychiatry*, 42(7), 845-859.
- Belsky, J. (2003). Child care and its impact on young children (0-2). In R.E. Tremblay, R.G. Barr, & RDeV.Peters (eds.). *Encyclopedia on Early Childhood Development*, 1-6. Montreal, Canada: Centre of Excellence for Early Childhood Development.
- Belsky, J. (2006). Early child care and early child development. Major findings of the NICHD Study of Early Child Care. *European Journal of Developmental Psychology*, 3(1), 95-110.
- Belsky, J., Vandell, D. L., Burchinal, M., Clarke-Stewart, K. A., McCartney, K., Owen, M. T., & the NICHD Early Child Care Research Network. (2007). Are there long-term effects of early child care? *Child Development*, 78(2), 681-701.
- Berk, L. E (2006). *Child development*. (7th ed.). Boston: Pearson International and Allyn & Bacon.
- Biddulph, S. (2006). *Raising babies: Should under 3s go to nursery?* London: Harper Thorsons.
- Black, T., Marshall, P., & Irwin, K. (2003). Māori language nests in New Zealand: Te kōhanga reo. Keynote address presented to the *United Nations Permanent Forum on Indigenous Issues*, 20 May, New York, USA.
- Bowlby, R., (2007). *Attachment and Human Development*, 9(4), 307-319.
- Bradley, R. H., & Vandell, D. L. (2007). Child care and the well-being of children. *Archives of Pediatrics and Adolescent Medicine*, 161(7), 669-676.
- Brainwave Trust. (2009). *What do high quality childcare centres look like?* Auckland: Author. Available from: www.brainwave.org.nz
- Bretherton, I. (2008). In pursuit of the internal working model construct and its relevance to attachment relationships. In K. E. Grossman, K. Grossman, & E. Waters (Eds.). *Attachment from infancy to adulthood. The major longitudinal studies*. (pp. 13-47). New York and London: The Guildford Press.
- Broberg, A. G., Wessels, H., Lamb, M. E., & Hwang, C. P. (1997). Effects of day-care on the development of cognitive abilities in 8-year-olds: A longitudinal study. *Developmental Psychology*, 33, 62-69.

- Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, 32, 513-531.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: research perspectives. *Developmental Psychology*, 22, 723-742.
- Bronfenbrenner, U. (1992). Ecological systems theory. In R. Vasta (Ed.), *Six theories of child development: Revised formulations and current issues* (pp. 187-249). London: Jessica Kingsley.
- Bronfenbrenner, U. (Ed.). (2005). *Making human beings human: Bioecological perspectives on human development*. Thousand Oaks, CA: Sage.
- Brooks-Gunn, J., Han, W.-J., & Waldfogel, J. (2002). First-year maternal employment and child development in the first three years of life: The NICHD study of early child care. *Child Development*, 73(4), 1052-1072.
- Brooks-Gunn, J., Han, W.-J., & Waldfogel, J. (2010). *Maternal employment and child cognitive outcomes in the first 7 years*. Monographs of the Society for Research on Child Development. London: Wiley-Blackwell.
- Brownlee, P. (2008). *Dance with me in the heart. The adult's guide to great infant-parent partnerships*. Waitakere, Auckland: New Zealand Playcentre Federation.
- Burchinal, M. R., & Cryer, D. (2003). Diversity, child care quality, and developmental outcomes. *Early Childhood Research Quarterly*, 18, 401-426.
- Burchinal, M. R., Peisner-Feinberg, E., Bryant, D. M., & Clifford, R. (2000). Children's social and cognitive development and child care quality: Testing for differential associations related to poverty, gender, or ethnicity. *Applied Developmental Science*, 4, 149-165.
- Campbell, F. A., Ramey, C. T., Pungello, E., Sparling, J., & Miller-Johnson, S. (2002). Early childhood education: Young adult outcomes from the Abecedarian Project. *Applied Developmental Science*, 6(1), 42-57.
- Canadian Council on Learning (2006). *Why is high-quality child care essential? The link between quality child care and early learning*. Ottawa, Ontario: Early Childhood Learning Knowledge Centre. Available from: http://www.ccl-cca.ca/NR/rdonlyres/6B309C2F-3A0C-4346-9F88-B4E27261DE7E/0/ChildCare_LinL.pdf
- Carr, M., & Mitchell, L. (2010, June). *Qualified teachers in early childhood centres: do we need them?* Occasional Paper. Wellington: Te Tari Puna Ora o Aotearoa/New Zealand Childcare Association. Available from: <http://www.nzchildcare.ac.nz/news/2010/Qualified-teachers-in-early-childhood-centres>
- Cassidy, J. (2008). The nature of the child's ties. In J. Cassidy, & P. R. Shaver (Eds.). (2008). *Handbook of attachment. Theory, research, and clinical applications*. (2nd ed.). (pp. 3-22). New York/London: The Guildford Press.
- Cassidy, J., & Shaver, P. R. (Eds.). (2008). *Handbook of attachment. Theory, research, and clinical applications*. (2nd ed.). New York/London: The Guildford Press.
- Commission on Social Determinants of Health. (2008). *Closing the gap in a generation: Health equity through action on the social determinants of health*. Geneva: World Health Organisation.

- Cook, P. (2008). *Mothering denied. How our culture harms women, infants, and society.* Sydney: Peter Cook Publishing. Available from www.members.optusnet.com.au/pcook62
- Cooper, D., & Royal-Tangaere, P. (1994). A critical analysis of the development of early childhood education in Aotearoa. In E. Coxon, K. Jenkins, J. Marshall, & L. Massey. (Eds.). *The politics of learning and teaching in Aotearoa New Zealand.* (pp. 82-111). Palmerston North: Dunmore Press.
- Cryer, D., Tietze, W., & Wessels, H. (2002). Parents' perceptions of their children's child care: a cross-national comparison. *Early Childhood Research Quarterly*, 17, 259-277.
- Cullen, J. (2008). *Outcomes of early childhood education: Do we know, can we tell, and does it matter?* Jean Herbison Lecture, NZARE Annual Conference, 4 Dec, Palmerston North.
- Dahlberg, G., Moss, P., & Pence, A. (1999). *Beyond quality in early childhood education and care: Postmodern perspectives.* London: Falmer Press.
- Dalli, C. (2000). Starting childcare: What young children learn about relating to adults in the first weeks of starting childcare. *Early childhood Research and Practice*, 2(2). Available from: <http://ecrp.uiuc.edu/v2n2/dalli.html>
- Dalli, C. (2010). Towards the re-emergence of a critical ecology of the early childhood profession in New Zealand. *Contemporary Issues in Early Childhood*, 11(1), 61-74.
- Dalli, C., & Kibble, N. (2010). Peaceful caregiving as curriculum: Insights on primary caregiving from action research. In A. Meade (Ed.). *Dispensing waves: Innovation in early childhood education.* (pp. 27-34). Wellington: NZCER Press.
- Dalli, C., Kibble, N., Cairns-Cowan, N., Corrigan, J., & McBride, B. (2009). Reflecting on primary caregiving through action research: The centre of innovation experience at Childspace Ngaio Infants and Toddlers' Centre. *The First years: Ngā Tau Tuatahi. New Zealand Journal of Infant and Toddler Education*, 11(2), 38-45.
- Dalli, C., White, E. J., Rockel, J. & Duhn, I., with Buchanan, E., Davidson, S., Ganly, S., Kus, L., & Wang, B. (2010). *Quality early childhood education for under-two year olds: What should it look like? A literature review.* Report to the Ministry of Education. Wellington: Jessie Hetherington Centre for Educational Research, Institute for Early Childhood Studies, Victoria University of Wellington.
- Datta Gupta, N., & Simonsen, M. (2009). Non-cognitive child outcomes and universal high quality child care. *Journal of Public Economics*, 1-14.
- Davies, E., & Hewitt, R. (2009). Early childhood education in Manukau City. In E. Davies, & E. Rowe. (2009). *Making links: Taking action. Part 2.* Auckland: Institute of Public Policy, AUT and Elisabeth Rowe Consulting.
- Davison, C., & Mitchell, L. (2009). The role of the State in early childhood care and education: Kindergartens as a case study of changing relationships. In I. Livingstone (Ed.). *New Zealand Annual Review of Education. Te a tau ao te matauranga i Aotearoa*, 18, 123-141. Wellington: School of Education, Victoria University of Wellington.
- Department for Education. (2010). *Help from employers: Childcare costs.* Department for Children, Schools and Families. Available from:

<http://www.dcsf.gov.uk/everychildmatters/earlyyears/childcare/helpwithchildcare/cost...>

- De Schipper, J. C., Tavecchio, L. W. C., van IJzendoorn, M. H., & van Zeijl, J. (2004). Goodness-of-fit in center day care: Relations of temperament, stability, and quality of care with the child's adjustment. *Early Childhood Research Quarterly*, *19*, 257-272.
- De Schipper, J. C., van IJzendoorn, M. H., & Tavecchio, L. W. C. (2004). Stability in center day care: Relations with children's well-being and problem behaviour in day care. *Social Development*, *13*, 531-550.
- Dex, S., & Ward, K. (2007). *Parental care and employment in early childhood – Working Paper Series No 57*. London: Institute of Education. Available from the Equal Opportunities Commission website: http://www.eoc.org.uk/PDF/WP57_parental_care.pdf
- Dominion Post. (2010, June 1). *Campaign to protect baby ears*, p. A4.
- Early Childhood Australia Inc (2009). *Hands up for quality. A report by Early Childhood Australia calling for better quality in early childhood education and care services*. Australia: Author.
- Early Childhood Education Taskforce (2010). *Overview of the New Zealand early childhood education system. Introductory briefing*. Wellington: ECE Taskforce Secretariat, Ministry of Education.
- Education Review Office. (2004). *Evaluation indicators for education reviews in early childhood services*. Wellington: Author.
- Education Review Office. (2007, June). *Early childhood education: A guide for parents*. Wellington: Author. Available from: www.ero.govt.nz/ero/publishing.nsf/Content/ece-guide-jun07
- Education Review Office. (2009). *Early childhood monographs: The quality of education and care in infant and toddler centres*. Wellington: Author. Available from: www.ero.govt.nz.
- Education Review Office. (2010, August). *Quality in early childhood services*. Wellington: Author. Available from: www.ero.govt.nz
- Eisenstadt, N. (2010). *Ten years of early years policy, practice and research in Britain: What we have learned about all three*. Seminar presented to the Children's and Families Commissions, 22 June, Wellington.
- Equal Opportunities Commission (2007). *Mothers and the modern family*. London: Author. Available from <http://www/eoc.org.uk>
- Families Commission. (2007). *It's about time: Towards a parental leave policy that gives New Zealand families real choice*. Research Report No. 3/07. Wellington: Author.
- Families Commission. (2008). *The kiwi nest. Sixty years of change in New Zealand families*. Research Report No. 3/08. Wellington: Author.
- Farquhar, S. E. (2003). *Quality teaching early learning foundations. Best evidence synthesis*. Wellington: Ministry of Education.
- Farquhar, S. E. (2008). *Assessing the evidence on childcare/early education effects*. Porirua, New Zealand: ChildForum. Available from <http://www.childforum.com/research/effects-on-children-of-childcare/128-assessing-the-evidence-on-childcareearly-education-effects.html>

- Fein, G. G., Gariboldi, A., & Boni, R. (1993). The adjustment of infants and toddlers to group care: The first six months. *Early Childhood Research Quarterly*, 8, 1-14.
- Fergusson, D. (2008). *How best to address the needs of children at risk including the benefits of home-visiting*. Presentation to The Future for Children's Early Care and Education, 11 February, Wellington.
- Fergusson, D., Horwood, J., & Ridder, E. (2005). *Early Start evaluation report*. Christchurch: Early Start Project Ltd.
- Fiene, R. (2000). *The state of infant child care quality in Pennsylvania*. Pennsylvania: Capital Area Early Childhood Training Institute, Pennsylvania State University.
- Gammage, P. (2003). The sacred and the profane in early childhood: An Englishman's guide to context and policy. *Contemporary Issues in Early Childhood*, 4(3), 337-356.
- Gentleman, A. (2010, October 2). The great nursery debate. *The Guardian*. Available from: <http://www.guardian.co.uk/lifeandstyle/2010/oct/02/nurseries-childcare-pre-school-cortisol?&CMP=EMCSOCEML657>
- Geoffroy, M., Côté, S. M., Parent, S., & Séguin, J. R. (2006). Daycare attendance, stress, and mental health. *The Canadian Journal of Psychiatry*, 51(9), 607-615.
- Goelman, H. B., Forer, P., Kershaw, G., Doherty, G., Lero, D., & LaGrange, A. (2006). Towards a predictive model of quality in Canadian child care centres. *Early Childhood Research Quarterly*, 21(3), 280-295.
- Gordon, R. A., Kaestner, R., & Korenman, S. (2007). The effects of maternal employment on child injuries and infectious disease. *Demography*, 44(2), 307-333.
- Gottlieb, G., & Blair, C. (2004). How early experience matters in intellectual development in the case of poverty. *Prevention Science*, 5(4), 245-252.
- Griffin, J. A. (2010). *Link between child care and academic achievement and behaviour persists into adolescence*. Rockville, MD: Eunice Kennedy Shriver National Institute of Child Health and Development. Available from: <http://www.nichd.nih.gov/>
- Grossman, K. E., Grossman, K., & E. Waters (Eds.). (2005). *Attachment from infancy to adulthood. The major longitudinal studies*. New York and London: The Guildford Press.
- Gunnar, M. R. & Davis, E. P. (2003). Stress and emotion in early childhood. In R. M. Lerner & M. A. Easterbrooks (Eds.), *Handbook of psychology, Developmental psychology Vol 6*. (pp. 113-134). NY: Wiley.
- Hakim, C. (2000). *Work-lifestyle choices in the 21st century*. Oxford: Oxford University Press.
- Hakim, C., Bradley, K., Price, E., & Mitchell, L. (2008). *Little Britons: Financing childcare choice*. London: Policy Exchange.
- Harland, B. (2010). *Future Families*. Plunket commissioned Colmar Brunton research presented to the Plunket Scenario Development Workshop, 17 May, Wellington: Royal New Zealand Plunket Society (Inc).
- Hill, D., Reid, R., & Stover, S. (1998). More than educating children: the evolutionary nature of Playcentre's philosophy of education. In S. Stover (1998). *Good*

- clean fun: New Zealand's playcentre movement.* (pp. 30-38). Auckland: New Zealand Playcentre Federation.
- Holloway, S. D., & Fuller, B. (1992, Oct). The great child-care experiment. What are the lessons for school improvement? *Educational Researcher*, 12-19.
- Housing New Zealand (2010). *Tamaki Transformation Programme*. Available from: http://www.hnzc.co.nz/hnzc/web/councils-&-community-organisations/community-groups/tamaki-transformation-programme/tamaki-transformation-programme_home.htm
- Houston, D., & Marks, G. (2005). Working, caring and sharing: work-place dilemmas in early motherhood. In D. Houston. (Ed). *Work-Life balance in the 21st century*. (pp. 80-105). Houndmills, Basingstoke: Palgrave Macmillan.
- Hrdy, S. B. (2009). *Mothers and others. The evolutionary origins of mutual understandings*. Cambridge, MA: Harvard University Press.
- Howes, C., & Spieker, S. (2008). Attachment relationships in the context of multiple caregivers. In J. Cassidy & P. R. Shaver (Eds.). *Handbook of attachment. Theory, research, and clinical applications*. (2nd ed.). (pp. 317-332). New York/London: The Guildford Press.
- Human Rights Commission. (2004). The right to education. In Human Rights Commission. (2004). *Human rights in New Zealand today*. (pp. 260-280). Auckland: Author.
- Ikihile, N. (2010). *Early childhood provision – Tamaki Transformation Programme*. Briefing paper to the Ministry of Education. Manukau City: Core Education Ltd.
- Immunisation Advisory Centre (IMAC) NZ (2010). *The immune system, infants and immunisation*. Auckland: University of Auckland, Faculty of Medical and Health Sciences. Available from <http://www.immune.org.nz/?T=899#ii6>
- Jalongo, M. R., Fennimore, B. S., Pattnaik, J., Laverick, D. M., Brewster, J., & Mutuku, M. (2004). Blended perspectives: A global vision for high quality early childhood education. *Early Childhood Education Journal*, 32(3), 143-155.
- James, A., & Prout, A. (Eds.). (1997). *Constructing and reconstructing childhood: Contemporary issues in the sociological study of childhood* (2nd ed.). London: Routledge Falmer.
- Johnson, A. (2010). *A road to recovery. A state of the nation report from the Salvation Army*. Manukau City, Auckland: The Salvation Army Social Policy and Parliamentary Unit.
- Kamerman, S. K., & Moss, P. (Eds.). (2009). *The politics of parental leave policies*. Bristol: The Policy Press.
- Kampmann, J., & Nielson, H. W. (2004). Socialized childhood: Children's childhoods in Denmark. In J. Kampmann, & H. W. Nielson. *Children's welfare in ageing Europe* (pp. 649-702). Trondheim, Norway: NTNU. Available from <http://www.ntnu.no>
- Kane, R. (2005). *Initial Teacher Education Policy and Practice*. Wellington: New Zealand Teachers Council and Ministry of Education.
- Kohen, D. E., Hunter, T., Pence, A., & Goelman, H. (2000). The Victoria Day Care Research Project: Overview of a longitudinal study of child care and human development in Canada. *Canadian Journal of Research in Early Childhood Education*, 8, 49-54.

- Kilburn, M. R., & Karoly, L.A. (2008). *The economics of early childhood policy. What the dismal science has to say about investing in children*. Occasional paper. CA: Rand Corporation.
- Knitzer, J., & Lefkowitz, J. (2006). *Pathways to early school success: Helping the most vulnerable infants, toddlers, and their families*. NY: National Center for Children in Poverty (NCCP), Columbia University, Mailman School of Public Health.
- Lally, J. R. (2009, Nov). The science and psychology of infant toddler care. How an understanding of early learning has transformed child care. *Zero to Three*, 47-53.
- Lally, J. R., Griffin, A., Fenichel, E., Segal, M., Szanton, E., & Weissbourd, B. (1995). *Caring for infants and toddlers in groups: Developmentally appropriate practice*. Washington: Zero to Three: National Centre for Infants, Toddlers and Families.
- Lally, J. R., & Mangione, P. (2006, July). The uniqueness of infancy demands a responsive approach to care. *Young Children*, 14-20.
- Lamb, M. E., Sternberg, K. J., & Prodromidis, M. (1992). Nonmaternal care and the security of infant-mother attachment: A reanalysis of the data. *Infant Behaviour and Development*, 15, 71-83.
- Langlois, J. H., & Liben, L. S. (2003). Child care research: An editorial perspective. *Child Development*, 74 (4), 969-975.
- Lave, J., & Wenger, E. (1991). *Situated learning. Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Leach, P. (2009). *Child care today. Getting it right for everyone*. New York: Alfred A. Knopf.
- Lewis, A., & Lindsay, G. (Eds.). (2000). *Researching children's perspectives*. Buckingham.
- Lloyd-Smith, M., & Tarr, J. (2000). Researching children's perspectives: A sociological dimension. In A. Lewis, & G. Lindsay (Eds.), *Researching children's perspectives* (pp. 59-70). Buckingham: Open University Press.
- Loeb, S., Bridges, M., Bassok, D., Fuller, B., & Rumberger, R. W. (2007). How much is too much? The influence of pre-school centers on children's social and cognitive development. *Economics of Education Review*, 26, 52-66.
- Loeb, S., Fuller, B., Kagan, S. L., & Carrol, B. (2004). Child care in poor communities: Early learning effects of type, quality, and stability. *Child Development*, 75, 47-65.
- Love, J. M., Harrison, L., Sagi-Schwartz, A., van IJzendoorn, M. H., & Ungerer, J. A. (2003). Child care quality matters: How conclusions may vary with context. *Child Development*, 69, 24-36.
- Love, J. M., Harrison, L., Sagi-Schwartz, A., van IJzendoorn, M. H., Ross, C., Ungerer, J. A., & et al. (2003). Child care quality matters: How conclusions may vary with context. *Child Development*, 74(4), 1021-1033.
- Ludwig, J., & Phillips, D. (2007). *The benefits and costs of Head Start. Working Paper No: 07-09*, Michigan: University of Michigan National Poverty Centre. Available from: www.npc.umich.edu/publications/working_papers
- MacIntyre, L. K. (2008). *Tongan mothers contributions to their young children's education in New Zealand: Lukuluku 'a e kau fa'ë Tonga' ki he ako 'enau*

- fānau iiki' i nu 'u sila*. Unpublished PhD thesis. Massey University, Palmerston North.
- Marshall, A. (2010). *Start Strong*. Presentation to the IHC Seminar, 23 March, Wellington.
- May, H. (1996). Training, qualifications and quality: The costs of compromise. In A. B. Smith & N. J. Taylor (Eds.) *Assessing quality in early childhood centres*. (pp. 65-72). Dunedin: Children's Issues Centre, University of Otago.
- May, H. (2001). *Politics in the playground. The world of early childhood in postwar New Zealand*. Wellington: Bridget Williams Books with NZCER.
- May, H., & Mitchell, L. (2009). *Strengthening community-based early childhood education in Aotearoa New Zealand. Report of the Quality Public Early Childhood Education (QPECE) Project*. Wellington: NZEI.
- McLaren, S. J. (2005). Noise and at-risk children in early childhood education centres. *Early Childhood Folio*, 9, 39-43..
- McLaren, S. J. (2007). Noise provisions and at-risk children in New Zealand early childhood centres. *Environmental Health*, (7)1, 60-70.
- McLaren, S. J. (2008). *Noise in early childhood education centres: the effects on the children and their teachers*. Unpublished doctoral dissertation, Massey University, Wellington.
- McLaren, S. J., & Dickinson, P. J. (2005). Noise in early childhood centres and how safe is the level of noise? *New Zealand Research in Early Childhood Education*, 8, 71-79.
- McLaughlin, A. E., Campbell, F. A., Pungello, E. P., & Skinner, M. (2007). Depressive symptoms in young adults: The influences of the early home environment and early educational child care. *Child Development*, 78(3), 746-756.
- Meade, A., PuhīPuhī, H., & Foster-Cohen, S. (2003). *Pasifika early childhood education: Priorities for Pasifika early education research*. Report to the Ministry of Education. Wellington: Ministry of Education Research Division.
- Melhuish, E. C. (2004). *A literature review of the impact of early years provision on young children, with emphasis given to children from disadvantaged backgrounds*. Report to the National Audit Office. London: Birkbeck College Institute for the study of children, families and social issues. Available from: www.nao.org.ukpublications/nao_reports/03-04/268_literaturereview.pdf
- Midlands Network (2009). *Better, sooner, more convenient health care in Midlands*. Hamilton: Author.
- Midlands Health Network (2010). *Business case for the delivery of better, sooner, more convenient primary health care in Midlands*. Hamilton: Author.
- Ministry of Education. (1996). *Te Whāriki. Early Childhood Curriculum*. Wellington: Learning Media Limited.
- Ministry of Education. (2002). *Pathways to the future: Ngā huarahi arataki*. Wellington: Learning Media.
- Ministry of Education. (2005). *Kei Tua o te Pae – Assessment for Learning: Early Childhood Exemplars*. Wellington: Ministry of Education.
- Ministry of Education. (2009a). *Choices in early childhood education*. Wellington: Author. Available from: www.minedu.govt.nz/Parents/EarlyYears/OtherInformationAndResources/Choices.aspx

- Ministry of Education. (2009b). *Licensing criteria for early childhood education and care centres 2008 and early childhood education curriculum framework*. Wellington: New Zealand Government.
- Ministry of Education. (2009c). *Licensing criteria for early home-based education and care services 2008 and early childhood education curriculum framework*. Wellington: New Zealand Government.
- Ministry of Education. (2010a). *Education counts*. Available from: <http://www.educationcounts.govt.nz/statistics/ece>
- Ministry of Education. (2010b). *Early childhood education*. Available from: <http://www.minedu.govt.nz/>
- Ministry of Education. (2010c). *Fact Sheets: Budget 2010*. Wellington: Author. Available from: <http://www.minedu.govt.nz/>
- Ministry of Health. (2007). *Preferred options for changes to the content of the Well Child/Tamariki Ora Framework*. Options Paper. Wellington: Author.
- Ministry of Social Development. (2008). *Participation in early childhood education*. Available from: www.socialreport.msd.govt.nz/2008/knowledge-skills/participation-early-childhood-education.html
- Ministry of Social Development (2010). *Childcare Assistance. Future focus fact sheet*. Wellington: Author.
- Mitchell, L. (2010). The nature of early childhood provision: Towards democratic communities of teaching and learning. Paper presented to the Early Childhood Federation's *Early Childhood Futures Forum*, 12 February, Wellington.
- Mitchell, L., & Brooking, K. (2007). *First NZCER national survey of early childhood education services 2003-2004*. Wellington: New Zealand Council for Educational Research. www. Available from: nzcer.org.nz.
- Mitchell, L., Wylie, C., & Carr, M. (2008). *Outcomes of early childhood education: Literature review. Report to the Ministry of Education*. Wellington: NZCER.
- Moss, P. (2006). Farewell to childcare, *National Institute Economic Review*, 195, 4-17.
- Moss, P. (2007). Leading the wave. New Zealand in an international context. *Travelling pathways to the future: Ngā huarahi arataki. Early Childhood Education Symposium Proceedings*, 2-3 May 2007. (pp. 27-36). Wellington: Ministry of Education. Available from: <http://www.minedu.govt.nz/~media/MinEdu/Files/EducationSectors/EarlyChildhood/ECESymposium.pdf>
- Morton, S. M. B., Atatoa Carr, P. E., Bandara, D. K., Grant, C. C., Ivory, V. C., Kingi, T. R., Liang, R., Perese, L. M., Peterson, E., Pryor, J. E., Reese, E., Robinson, E. M., Schmidt, J. M., & Waldie, K. E. (2010). *Growing Up in New Zealand: A longitudinal study of New Zealand children and their families. Report 1: Before we are born*. Auckland: University of Auckland. Available from: www.growingup.co.nz
- Munton, T., Mooney, A., Moss, P., Petrie, P., Clark, A., & Woolner, J. (2002). *Research on ratios, group size and staff qualifications and training in early years and childcare settings. Research Report 320*. London: Thomas Coram Research Unit, Institute of Education, University of London.
- NACCRRRA. (2008). *Is this the right place for my child? 38 research-based indicators of high quality child care*. Arlington, VA: National Association of Child Care

Resource & Referral Agencies. Retrieved from
http://www.naccrra.org/publications/naccrra-publications/publications/38percent20Questionspercent20Broch-3471101_02.pdf

- National Scientific Council on the Developing Child (2004, Summer). *Young children develop in an environment of relationships*. Working Paper No 1. Cambridge, MA: Harvard University Centre on the Developing Child.
- National Scientific Council on the Developing Child (2004, Winter). *Children's emotional development is built into the architecture of their brains*. Working Paper No 2. Cambridge, MA: Harvard University Centre on the Developing Child.
- National Scientific Council on the Developing Child (2007a). *A science-based framework for early childhood policy. Using evidence to improve outcomes in learning, behaviour, and health for vulnerable children*. Cambridge, MA: Harvard University Centre on the Developing Child. Available from: www.developingchild.harvard.edu
- National Scientific Council on the Developing Child (2007b). *The timing and quality of early experiences combine to shape brain architecture*. Working Paper No 5. Cambridge, MA: Harvard University Centre on the Developing Child.
- NICHD (National Institute for Child Health and Development). Early Child Care Research Network. (1997). The effects of infant child care on infant-mother attachment security: Results of the NICHD Study of Early Child Care. *Child Development, 68*, 800-879.
- NICHD (National Institute for Child Health and Development). Early Child Care Research Network. (1999). Child care and mother-child interaction in the first 3 years of life. *Child Development, 35*, 1399-1413.
- NICHD (National Institute for Child Health and Development). Early Child Care Research Network. (2000). The relation of child care to cognitive and language development. *Child Development, 71(4)*, 960-980.
- NICHD Early Child Care Research Network. (2001). Child-care and family predictors of pre-school attachment and stability from infancy. *Developmental Psychology, 37(6)*, 847-862.
- NICHD Early Child Care Research Network. (2002). Early child care and children's development prior to school entry: Results from the NICHD study of early child care. *American Educational Research Journal, 39(1)*, 133-164.
- NICHD (National Institute for Child Health and Development). Early Child Care Research Network. (2003). Does quality of child care affect child outcomes at age 4 1/2? *Developmental Psychology, 39*, 451-469.
- NICHD Early Child Care Research Network. (2003b). Does amount of time spent in child care predict socioemotional adjustment during the transition to kindergarten? *Child Development, 74(4)*, 976-1005.
- NICHD Early Child Care Research Network. (2005). *Child care and child development. Results from the NICHD study of early child care and youth development*. London and New York: The Guildford Press.
- NICHD Early Child Care Research Network. (2006). Child-care effect sizes for the NICHD study of early child care and youth development. *American Psychologist, 61(2)*, 99-116.
- Noonan, R. (2010). *Children's Rights*. Presentation to Early Childhood Education Futures Forum, 12 February, Wellington.

- OECD (2005). *Extending Opportunities: How active social policy can benefit us all – Final Communiqué*. Meeting of OECD Social Affairs Ministers, March 31-April 1. Paris: The Organisation for Economic Cooperation and Development. Available from: http://www.oecd.org/document/47/0,2340,en_2649_33933_34668207_1_1_1_1,00.html
- OECDa (2009a). *Doing better for children*. Paris: The Organisation for Economic Cooperation and Development.
- OECDb (2009b). *Doing better for children. Country highlights: New Zealand*. Paris: The Organisation for Economic Cooperation and Development. Available from www.oecd.org/els/social/childwell-being
- OECD (2010). *Gender brief*. Paris: The Organisation for Economic Cooperation and Development Social Policy Division. Available from: www.oecd.org/els/social
- Penn, H. (2009). *Early childhood education and care: Key issues from research for policy makers*. An independent report submitted to the European Commission by the network of Experts in Social Sciences of Education and Training (NESSE). Toronto: Childcare Resource and Research Unit. Available from: http://action.web.ca/home/crru/rsrscs_crru_full.shtml?x=126478&...
- Perry, B. D. (2002). Childhood experience and the expression of genetic potential: What childhood neglect tells us about nature and nurture. *Brain and Mind*, 3, 79-100.
- Podmore, V. & Meade, A. (2000). *Aspects of quality in early childhood education: Literature Review Series*. Wellington: New Zealand Council of Educational Research.
- Podmore, V., May, H., & Carr, M. (2001). "The child's questions". *Programme evaluation with Te Whāriki using "Teaching Stories"*. Wellington: Institute for Early Childhood Studies, Victoria University of Wellington.
- Powell, K. (2007). Commentary: Challenges in establishing an infant-toddler specialism in Aotearoa New Zealand. *The First Years Ngā Tau Tuatahi New Zealand Journal of Infant and Toddler Education*, 9(2), 29-33.
- Powell, K. (2008). *Innovative parent support and the potential for infant and child mental health in a New Zealand parent-led early childhood programme: The Playcentre adult social capital project*. Paper presented at the Expanding Horizons Infant Mental Health Promotion Conference, Toronto, Canada.
- Powell, K. (2009). An introduction to infant-toddler practice research in New Zealand. *The First Years Ngā Tau Tuatahi New Zealand Journal of Infant and Toddler Education*, 11(1), 11-18.
- Public Health Advisory Committee. (2010). *The best start in life: Achieving effective action on child health and well-being*. Wellington: Ministry of Health.
- Program for Infant/Toddler Care (2009). PITC's six program policies. Available from <http://www.pitc.org/>
- Qvortrup, J. (2000). Macroanalysis of childhood. In P. Christensen, & A. James (Eds.), *Research with children. Perspectives and practices* (pp. 77-97). London: Falmer Press.
- Qvortrup, J., Corsaro, W. A., & Honig (Eds.). (2009). *The Palgrave Handbook of Childhood Studies*. Basingstoke and New York: Palgrave-McMillan.
- Ramey, C. T., Campbell, F. A., Burchinal, M., Skinner, M. L., Gardner, D. M., & Ramey, S. L. (2000). Persistent effects of early childhood education on high-risk children and their mothers. *Applied Developmental Science*, 4(1), 2-14.

- Robertson, J., with Gunn, T.R., Lanumata, T., & Pryor, J. (2007). *Parental decision making in relation to the use of Early Childhood Education services*. Report to the Ministry of Education. Wellington: Ministry of Education.
- Rockel, J. (2002). Using Neuroscience to Challenge our Thinking on Teaching and Learning in the Early Years. *Children's Issues: Journal of the Children's Issues Centre*, 6(2), 18-20.
- Rockel, J. (2003). "Someone is going to take the place of Mum and Dad and understand": Teachers' and parents' perceptions of primary care for infants in early childhood centres. *New Zealand Research in Early Childhood Education* 6, 113-126.
- Rockel, J. (2009a, Sept). A pedagogy of care: Moving beyond the margins of managing work and minding babies. *Australasian Journal of Early Childhood*, 34(3), 1-8. Available from: earlychildhoodaustralia.org.nz
- Rockel, J. (2009b). Editorial: New directions. *The First Years: Ngā Tau Tuatahi. New Zealand Journal of Infant and Toddler Education*, 11(2), 3-4.
- Rockel, J. (2010a). Infant pedagogy: Learning how to learn. In B. Clark & A. Grey (Eds.), *Ata Kitea Te Pae – Scanning the horizon: Perspectives on early childhood education* (pp 97-110). Auckland, NZ: Pearson.
- Rockel, J. (2010b, Autumn). Back to the future. *The Space*, 19, 10-11.
- Roggman, L. A., Langlois, J. H., & Rieser-Danner, L. A. (1994). Infant day-care, attachment, and the "file drawer problem". *Child development*, 65, 1429-1443.
- Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*. New York: Oxford University Press.
- Rogoff, B. (2003). *The cultural nature of human development*. Oxford: Oxford University Press.
- Rutter, M. (2008). Implications of attachment theory and research for child care policies. In J. Cassidy, & P. R. Shaver (Eds.) *Handbook of attachment. Theory, research, and clinical applications* (2nd ed.). (pp. 958-974). New York/London: The Guildford Press.
- Sagi-Schwartz, A., & Aviezer, O. (2005). Correlates of attachment to multiple caregivers in kibbutz children from birth to emerging adulthood: The Haifa longitudinal study. In K. E. Grossman, K. Grossman, & E. Waters (Eds.). *Attachment from infancy to adulthood. The major longitudinal studies*. (pp. 165-197). New York/London: The Guildford Press.
- Sammons, P., Sylva, K., Melhuish, E., Siraj-Blatchford, I., Taggart, B., & Elliot, K. (2002). *Measuring the impact of pre-school on children's cognitive progress over the pre-school period. Technical Paper 8a*. London: Institute of Education, University of London.
- Scarr, S., & Eisenberg, M. (1993). Child care research. Issues, perspectives, and results. *Annual Review of Psychology*, 44, 613-644.
- Shonkoff, J. P., & Phillips, D. A. (Eds.). (2000). *From neurons to neighbourhoods: The science of early childhood development*. Washington: DC: National Academy Press. Available from: www.nap.edu/books/0309069882/html
- Smith, A. (1999). Quality childcare and joint attention. *International Journal of Early Years Education* 7(1), 85-98.
- Smith, A. B. (2001). Promoting diversity rather than uniformity: Theoretical and practical perspectives. In Children's Issues Centre (Ed.), *2001 collected articles*. Dunedin: Children's Issues Centre, University of Otago.

- Smith, A. B., & Taylor, N. J. (2000). The sociocultural context of childhood: Balancing dependency and agency. In A. B. Smith, N. J. Taylor, & M. M. Gollop (Eds.), *Children's voices. Research, policy and practice* (pp. 1-17). Auckland: Pearson Education New Zealand.
- Smith, A. B., Taylor, N. J., & Gollop, M. M. (Eds.). (2000). *Children's voices. Research, policy and practice*. Auckland: Pearson Education New Zealand.
- Smith, A. B., Gollop, M. M., Taylor, N. J., & Marshall, K. (Eds.). (2005). *The discipline and guidance of children: Messages from research*. A review of research literature for the Office of the Children's Commissioner by the Children's Issues Centre. Dunedin and Wellington, NZ: Children's Issues Centre and Office of the Children's Commissioner.
- Sommer, D. (in press). *A childhood psychology. Young children in changing times. Reflections on a paradigm shift*. Basingstoke and New York: Palgrave-MacMillan.
- Sommer, D., Pramling Samuelsson, I., & Hundeide, K. (2010). *Child perspectives and children's perspectives in theory and practice. International Perspectives on Early Childhood Education and Development 2*. London/New York: Springer.
- Sphancer, N. (2002). The home-daycare link: Mapping children's new world order, *Early Childhood Research Quarterly*, 17, 374-392.
- Springford, A., & van Druiven, K. (2009). *Legacy of the first three years: How experience shapes the brain*. Presentation to the Office of the Children's Commissioner and Families Commission, 12 November, Wellington.
- Statistics New Zealand (2010). *New Zealand childcare survey 2009 (Revised 17 December 2010)*. Wellington: Author. Available from: http://www.stats.govt.nz/browse_for_stats/people_and_communities/Children/ChildcareSurvey_HOTP2009revised.aspx
- Stephen, C., Dunlop, A. and Trevarthen, C. (2003). Meeting the needs of children from birth to three: Research evidence and implications for out-of-home provision. *Insight 6, Scottish Executive*. Available from: www.scotland.gov.uk
- Sylva, K. (1999). *Characteristics of pre-school environments: EPPE Project Technical Paper 6a*. London: DfEE
- Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I., & Taggart, B. (2004). *The effective provision of pre-school education (EPPE) project: Final report*. London: DfES/Institute of Education, University of London.
- Sylva, K., Stein, A., Leach, P., Barnes, J., Malmberg, L., & the FCCC-team. (2007). Family and child factors related to the use of non-maternal infant care: An English study. *Early Childhood Research Quarterly*, 22, 118-136.
- Tamaki Transformation Programme. (2010, June). *Tamaki development plan: Transforming Tamaki together*. Glen Innes: Author.
- Tarr, C. (2006). Initial early childhood teacher education: A look at some research, some policy, and some practices. *New Zealand Journal of Teachers Work*, 3(1), 24-32.
- Tawhiwhirangi, I. (2009). *Education in a Māori context*. Manu ao seminar presentation, 2 December, Victoria University of Wellington.
- Te One, S. (2006). Setting the context for children's rights in early childhood. *Childrenz Issues: Journal of the Childrenz Issues Centre*, 10(1), 18-22.

- Te One, S. (2008). *Perceptions of children's rights in three early childhood settings*. Unpublished doctoral dissertation, Victoria University of Wellington, Wellington.
- Te One, S. (2010). Advocating for infants' rights in early childhood education. *Early Childhood Folio*, 14(1), 13-17.
- Thorpe, K., Taylor, C., Bridgstock, R., Grieshaber, S., Skoien, P., Danby, S., & Petriwskyj, A. (2004). *Preparing for school: Report of the Queensland preparing for school trials 2003/4*. Brisbane: School of Early Childhood, Queensland University of Technology.
- Tolley, A. (2009). *Three new early childhood centres for South Auckland*, 21 July. Available from: <http://www.beehive.govt.nz/release/three+new+early+childhood+ce...>
- United Nations (1989). *The United Nations Convention on the Rights of the Child*. Geneva: Author. Available from: <http://www.unicef.org/crc/fulltext.htm>
- United Nations (2005). *Implementing child rights in early childhood. General comment No.7*. Committee on the Rights of the Child.
- United Nations Economic and Social Council (1999). *Economic, social and cultural rights: preliminary report of the Special Rapporteur Katerina Tomasevski on the right to education*.
- UNICEF. (2008). *The child care transition, Innocenti Report Card 8*. Florence: UNICEF Innocenti Research Centre.
- Vandell, D. L. (2004). Early child care: The known and the unknown. *Merrill-Palmer Quarterly*, 50(3), 387-414.
- Vermeer, H. J., & van IJzendoorn, M. H. (2006). Children's elevated cortisol levels at daycare: A review and meta-analysis. *Early Childhood Research Quarterly*, 21, 90-491.
- Vernon-Feagans, L., & Manlove, E. E. (2005). Otitis media, the quality of child care, and the social/communicative behaviour of toddlers: A replication and extension. *Early Childhood research Quarterly*, 20, 306-328.
- Vygotsky, L. S. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.
- Waldegrave, C., & Waldegrave, K. (2009, March). *Healthy families, young minds and developing brains: Enabling all children to reach their potential*. Report No 2/09. Wellington: Families Commission.
- Watamura, S., Donzella, B., Alwin, J., & Gunnar, M. R. (2003). Morning-to-afternoon increases in cortisol concentrations for infants and toddlers at child care: Age differences and behavioral correlates. *Child Development*, 74(4), 1006-1020.
- Weatherston, D. J. (2000). The infant mental health specialist. *Zero to Three*, October/November, 3-10.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge, UK: Cambridge University Press.
- Woolfson, L., & King, J. (2008). *Evaluation of the extended pre-school provision for vulnerable two year olds pilot programme. Final report*. Edinburgh: Scottish Government Social Research.
- Wylie, C. (2001). Why quality matters in early childhood education: The research evidence. In Webber, B., & Mitchell, L. *Early Childhood Education for a Democratic Society: Conference Proceedings* (pp. 5-14). Wellington: NZCER.

- Wylie, K., Thompson, J., & Kerlake Hendricks, A. (1996). *Competent children at 5. Families and early education*. Wellington: New Zealand Council for Educational Research.
- Wylie, C., Thompson, J., Hodgen, E., Ferral, H., Lythe, C., & Fijn, T. (2004). *Competent children at 12*. Wellington: New Zealand Council for Educational Research.

APPENDICES

Appendix A: Interview Questions

- Interview schedule for parents
- Interview schedule for practitioners
- Interview schedule for academics (teacher educators, researchers)

Appendix B: Achieving participation in low socioeconomic areas

Appendix C: The impact of targeted early childhood interventions

Appendix A: Interview schedules

Parents' interview schedule

1. Tell me a little about your family and child/children.
2. Is your child attending an early childhood education and care service?
 - If not, can you give me your reasons why? (e.g., you made a decision to not work outside the home so you could care for child; you have other family members able to care for your child, or you are able to work from home).
3. If your child is attending a non-parental education and care service, which one?
 - Is (s)he attending more than one service?
 - How many days a week does your child attend and for how many hours per day? (Please give duration for all non-parental services)
4. How old was your child when (s)he began attending a formal education and care service?
5. Did you put your child's name on a waiting list for more than one service?
 - If you had to put your child's name down on a waiting list/s, how long did it take for a place to become available?
6. What were your reasons for choosing the one you did [name of service provider] for your child?
7. What factors influenced your decision to enrol your child in an early childhood education and care service? On what criteria (if any) did you base your decision?
8. How comfortable are you with the choice you made?
 - What are the strengths and weaknesses of that service provider?
9. When making your choice, did you have good information about early childhood education and care provisions in New Zealand?
 - Where did you obtain this information and how accessible was it?
 - Was the information easy to understand?
10. Did you have good information about child development, attachment theory, brain development etc?
 - Where did you obtain this information and how accessible was it?
 - Was the information easy to understand?
11. What do you think that quality early childhood education for under 2-year-olds looks like?
12. Can you think of any benefits or risks of non-parental early childhood education for under 2-year-olds?
13. In your opinion what would be the best way to support parents of young children in this country?
14. Any other comments?

Early childhood practitioners' interview schedule

1. Tell me about the early childhood education and care service that you provide for young children. What is different about the way you cater for young children?
2. Do you provide services for under 2-year-olds?
 - Are any of your under 2-year-olds attending more than one service?
 - How old were all of your under 2-year-olds when they started at your service?
 - How many past and present babies have accessed this service provision? (e.g, the proportion of babies who were under six months when they started).
 - How many days per week and for how many hours a day do your under 2-year-olds attend?
3. Why do you think parents enrol their infants and toddlers in non-parental education and care services?
4. Do you have a waiting list?
 - Number on wait-list
 - How long parents have to wait.
5. Do you make allowances for absence or do parents pay when their child does not attend?
6. In your opinion, what factors do you think influence parents' decisions to enrol their children in your service?
 - Probe strengths and weaknesses
 - On what criteria (if any) do parents base their decision?
7. Do you provide information to prospective parents about your early childhood education and care service?
 - Probe: (a) What is the information about? (b) How accessible is this information for parents?
8. Are your staff knowledgeable about child development, attachment theory, brain development etc?
9. What do you think the provision of quality early childhood education looks like in practice for under 2-year-olds?
10. Can you think of any benefits or risks of non-parental early childhood education and care for under 2-year-olds?
11. In your opinion what would be the best way to support (a) parents of young children and (b) providers in this country?
12. Can you explain some more about your staff? e.g., early childhood qualifications, stability of staff, opportunities for professional development, ongoing training etc. Do you assign primary carers to your children?
13. What issues are specific to your type of provision?
14. Any other comments?

Academics' interview schedule

1. Can you provide a brief background of your professional experiences in the early childhood sector (e.g., academic qualifications and professional experiences)
2. Have you worked or researched in the under-2 age group?
3. Why do you think parents enrol their infants (i.e., under-2s) in non-parental ECS?
4. In your opinion, what factors do you think influence parents' decisions to enrol their children in specific education and care services?
5. Can you comment on the availability and accessibility of information for parents regarding early childhood education and care services?
6. What is your perspective about the impact of non-parental care in regard to child development, attachment theory, brain development etc for the under-2 age group?
7. What do you think the provision of quality early childhood education looks like in practice for under 2-year-olds?
8. Can you think of any benefits or risks of non-parental early childhood education and care for under 2-year-olds?
9. In your opinion what would be the best way to support (a) parents of young children and (b) providers in this country?
10. What recommendations would you make to policy-advisors and decision-makers with government?
11. Can you suggest relevant literature etc or add further comments to strengthen this OCC Inquiry?
12. Any other comments?

Appendix B: Achieving participation and quality ECS in low socioeconomic areas

Despite governmental subsidies in this country that aim to make child care affordable, whether or not a child receives high quality childcare usually depends on the family's situation. Families with higher incomes and greater social and emotional resources generally seek higher quality care, whereas poorer families are limited to poorer quality care because either they cannot afford the higher fees for better care, or high quality care is not available in their community. This is despite the research evidence (Canadian Council on Learning, 2006) that children from lower income families benefit more from high-quality child care and that high-quality child care buffers children from the effects of living in disadvantaged at-risk families.

In its recommendations for the way forward, the 2009 OECD report stated that for some countries like New Zealand, where the majority of children are attending early childhood education, there is a need to improve the quality of the services provided. Average family incomes in New Zealand are low by OECD standards, with high rates of child poverty, and the OECD recommends that the government spends more on younger, disadvantaged children to ensure greater fairness for all children in society. For young children "in need of stronger early environments", the OECD report recommends that "targeted, quality and intensive education and home visiting programmes should be considered" (p. 181). A discussion of high-risk children and their families is included in Appendix C because that subset of the population is not the focus of this report. The following discussion is relevant to the general population including families living in low socioeconomic communities.

First, the Office of the Children's Commissioner recognises the importance of targeting financial support to those children that need it most and welcomed the education initiative announced in the latest 2010 budget round to target resourcing (\$91.8 million over four years) towards a package to increase early childhood participation for Māori and Pasifika children and children from low socioeconomic backgrounds (MoE, 2010c). However, the pressure to increase participation in low-income areas brings with it some challenges that need to be addressed. In discussions with academics during the present inquiry, there was a feeling that while quality and participation should go hand in hand together, there is a real need to increase the participation in quality services only. Their recommendation to halt new

ECEC centres while bringing the others up to standard is a good one. This will require government intervention rather than letting the market provide because indications are it is hard to get even 50 percent qualified staff in some areas such as South Auckland.

Although the need to change the growth chart for government expenditure is understandable in the current economic climate, shifting the funding from qualified teachers to programmes designed to increase participation might be seen as “robbing Peter to pay Paul”. Visits to two participation projects and discussions with stakeholders in early childhood centres in South Auckland, suggest that the new 80 percent plus funding changes may well be hurting the communities where the government is most wanting to increase its early childhood participation rate. The Minister of Education’s announcement (Tolley, 2009) to establish new early childhood centres on school sites is supported by the Manukau City Council (Davies & Hewitt, 2009) and was initially greeted with widespread approval.

One provider already operating a quality ECEC centre on a school site in Counties Manukau reflects the government’s aim to provide services that fit their communities. The centre has excellent links to the secondary school and provides courses on child care for its students. Multicultural families and whānau from the local community feel valued and supported to use its services. A breastfeeding chair sends a welcome message to mothers. The centre boasts an exceptional playground with native plants and views “the environment as the third teacher” although “its philosophy is based on Reggio Emilia and Pikler, with a deeper analysis coming from Inquiry Learning.” The ECS provider was keen to implement its successful model into a second centre by putting its name forward for one of the new school sites. However, since the funding changes, this provider has decided it would not be financially viable to maintain minimum fees for its families and at the same time sustain the quality provisions deserved by its community.

This is a moot point. Early childhood services situated in more affluent suburbs are already increasing their fees because their parents are in a better position to pay more. This is not the same situation for providers in low socioeconomic areas. Taking away the financial incentive to employ qualified teachers will have its greatest impact in such communities that cannot afford to absorb the extra costs, let alone pass them on to their families. This comes at a time when the government is promoting increased early childhood participation for Māori and Pasifika children and children

from low socioeconomic backgrounds in education and care settings that are affordable and of high quality.

Furthermore, indications are that children in some South Auckland communities are not getting places in their neighbourhood ECS. A principal of a South Auckland school advised that the children from the ECEC centre over the road would not be attending her local school because it mainly catered for children from outside the neighbourhood. Their parents knew to enrol them early, and because the centre had a good reputation they chose to drive their children in and out of the neighbourhood on their way to and from work. Meanwhile, local children were missing out because as stated by the principal, *“Pasifika families, in particular, do not know about the importance of enrolling well before they want a place for their child”*.

The school provides a work-based centre for teachers' children and also offers some community places. Owned by the school, the Board of Trustees pays for rates and maintenance and charges very low fees (40 hours x \$3.00 = \$120 per week). The centre caters for 10 under-2s and 14 over-2s. Mothers are encouraged to continue breastfeeding and the quality of the child care has greatly helped the school's retention of teachers in a location where it is hard to recruit staff. The school's neighbours are willing to sell their house to the Board of Trustees to establish another community ECEC centre. The principal applied to the early childhood education funding pool for a discretionary grant but the application was declined.

The Tamaki Transformation Project (TTP) is one of the country's largest urban renewal projects and is supported by a unique partnership between central government agencies, local government, the Tamaki community and the private sector who are all working together to achieve ambitious housing, infrastructure, social services and economic performance goals. The project aims to increase participation in early childhood and pre-school health checks (TTP, 2010). Building on current early childhood education network data in conjunction with the Ministry of Education, a needs and gap analysis is currently being conducted to provide information about non-participation in early childhood education and gaps in early childhood provision in Tamaki (Ikihele, 2010). This work will inform the development of a community inspired plan to create opportunities for supporting engagement in quality education and care in the Tamaki area. This has been identified as an area of low provision and low participation for Māori and Pasifika communities in particular because the enrolment rates for under-1s and 2 to 4 year-olds are lower than the

enrolment rates for both Auckland City and the national averages. Ikihele (2010) found the most likely barriers to participation to be cost and non-responsive services (i.e., service types do not match the community demographic), which are strong indicators of unmet need. Although many of these benefit-dependent families were eligible for the full-time subsidy and some services only charged a gold coin, education and care was seen as “low priority” over other essentials. Furthermore, most of the services where spaces were available are in mainstream and Māori services rather than catering for the large Pasifika community. There was also evidence that that Pasifika families considered their infants and toddlers to be too young for formal education and care and preferred to use informal child care support, usually grandparents. In line with the views of other people working in this area, this gap analysis found that if their first choice was not available when parents did try to enrol their child in an ECS, they were unlikely to look around for another service. Administrative confusion contributed to their reluctance to approach other services. Lack of transport and therefore distance from the ECS was another hurdle (Ikihele, 2010).

To cater for more Pasifika families, one Pasifika owner/operator in this inquiry was considering applying for a discretionary grant to build another centre. Having two centres with the under-2s in one building and the over-2s in the other would also help this ECS to maintain small group sizes. Besides her commitment to providing opportunities for children to participate in high quality education and care, this provider recruits staff from the community. She has recognised strengths in some parents whose children attend the centre and has nurtured opportunities for them to pursue a career in early childhood teaching. While employed at the centre, these staff members are supported in their teacher education studies (paid for 30 hours per week while studying and on teaching practicum).

Investing in quality child care services for low socioeconomic areas has a sound rationale. However there are lessons to be learned from the TTP gap analysis study (Ikihele, 2010) for such target areas. The following recommendations were made:

- Strengthen current services that cater for language and cultural identity
- Facilitate the “right” service, not just any service for any family
- When early childhood services recruit staff, employ the “right” qualified teacher that fits with the service and the children and families using the service

- Make ongoing professional development opportunities available to staff
- Improve ECE network so it is not only context-based and more readily fits with the aims of the community
- Enlist the support of an early childhood broker who links families to services, who is visible and credible in the community and able to be the voice of both families and the ECS
- In addition to non-parental ECS, provide early in-home programmes for disadvantaged children (Ikihele, 2010).

This last recommendation aligns well with findings from the Early Start home-visiting programme for children from families facing stress and difficulty (Fergusson, Horwood, & Ridder, 2005). During the visit to the Tamaki Transformation Office, the value of the Home Instruction Programme for Pre-school Youngsters (HIPPY) programme was acknowledged. Using people who are well known and respected in the community was seen to be a key factor in the success of this programme (see Appendix C for more information on supporting society's most vulnerable families).

Appendix C: The impact of targeted early childhood interventions

Although infants and toddlers from vulnerable families are not the focus of this report, a brief examination of the impact of non-parental education and care on them is worth noting. While there is no clear evidence that non-parental education and care is of benefit to most of the under-2 population, the research for some time has indicated that attending early childhood education and care services can benefit children from at-risk families.

For most youngsters, infancy is a time of great developmental opportunity, but for those children whose environments do not provide the basic level of nurturing and stimulation that the early brain needs, it can also be a time of great vulnerability (Shonkoff & Phillips, 2000). Young children who are born into poverty are doubly vulnerable. This group of children are the most likely to have inadequate childcare and their homes are also most likely to be lacking positive and stimulating experiences known to promote healthy development (Berk, 2006). Attending quality education and care services helps to buffer that disadvantage. For example, children of depressed mothers appeared to be more positively engaged with their mothers when they attended higher-quality child care (Geoffrey, Côté, Parent, & Séguin, 2006).

Early intervention provision for vulnerable pre-schoolers dates back to the 1960s with the establishment of the High/Scope Perry pre-school study in the United States, which aimed to track the effects of early childhood education on children at risk of school failure. The Head Start programme soon followed. Its focus was on mitigating the impact of poverty by providing disadvantaged three and four year olds with early childhood education and a variety of health care services that would help them begin school on an equal footing with their peers. This programme also provided support to parents. In 1995, the Early Head Start was introduced and offered pregnant women and families with infants, access to both centre-based and home-based family development services (Love et al, 2005, as cited in Woolfson & King, 2008).

Examples of other successful American early intervention programmes include Smart Start in North Carolina, which focused on improving child care quality, helping

families to cover the cost of child care, providing support to parents and assisting with access to health care services; and the Carolina Abecedarian study, which provided high quality, intensive services to infants and pre-schoolers from low-income families until school start (Woolfson, & King, 2008).

The Carolina Abecedarian project

The Abecedarian project is a longitudinal prospective study of the benefits for high-risk infants of intensive early childhood education intervention within a childcare setting (Campbell, Ramey, Pungello, Sparling & Miller-Johnson, 2002). Beginning in the 1970s, the Carolina Abecedarian Project aimed to examine whether starting educational enrichment at a very young age could prevent the negative outcomes in intellectual development for children born into extreme poverty. Gottlieb and Blair (2004) described the Abecedarian project as an early compensatory education intervention beginning at birth for children at high risk of poor intellectual development because of multiple factors present in low socioeconomic environments (p. 247).

More than 100 babies from poor families entered childcare as early as three weeks of age with 93 percent of participants enrolled by three months of age. These babies were randomly assigned to either a treatment or control group until they were five years and studied through childhood until they reached 21 years of age (Gottlieb & Blair, 2004). Infants in the treatment group were enrolled in full-time, year round childcare through the pre-school years. While children in both groups received nutrition and health services, the childcare intervention provided the difference between the control and treatment groups (Nelson, Westhues, & McLeod, 2003, as cited in Berk, 2006). Therefore the Abecedarian pre-school programme could be described as a comprehensive education, healthcare and family support programme that provided an individualised approach to at-risk children and their families, drawing as needed on a pool of available services.

The educational childcare component of the intervention employed a variety of developmentally appropriate curricula designed to facilitate children's language, motor, social, and cognitive growth. The early intervention programme's conceptual framework was derived from developmental systems theory, which "promotes a stimulus-rich, positive, responsive social environment for facilitating instrumental and conceptual learning" (Ramey et al., 2000, p. 4). The centre delivering the programme

provided full-day care, 50 weeks per year. This early intervention programme substantially altered the early childhood context through curriculum delivery that enabled the early childcare environment to support young children's cognitive development and learning (Campbell et al., 2002).

Barnett and Belfield (2006) explain that the most effective programmes are intensive interventions such as the Abecedarian programme, which feature highly qualified teachers and small group sizes. The Abecedarian programme had a teacher and an aide for every 12 children and operated for up to 10 hours a day, 50 weeks a year, over almost five years, therefore Barnett and Belfield suggest an interrelated association between high teacher quality, small class sizes, high teacher-pupil ratios, and the amount of education given.

A number of outcomes have been identified in the literature. Campbell, Ramey, Pungello, Sparling and Miller-Johnson (2002) studied the young adult outcomes from the Abecedarian project. The outcomes show that high-quality educational childcare can make a dramatic difference in the lives of young African American adults reared in poverty. Compared to the control group, specific long-term outcomes for the pre-school treatment group included: significantly higher scores on intellectual and academic measures as young adults, being more likely to attend college for four years, reduced teenage pregnancy rates, educationally meaningful effect sizes on reading and mathematical skills that persisted into adulthood. Up to at least 10 years after intervention ended, children with pre-school intervention significantly outscored those in the pre-school control group on standardised measures of academic achievement and were less likely to be held back or placed in special education (Ramey et al., 2000). The Abecedarian project is often cited as having demonstrated long-term effects on intelligence and on several aspects of developmental competence from early childhood through to young adulthood (Gottlieb & Blair, 2004). McLaughlin, Campbell, Pungello, and Skinner (2007) found that infants randomly assigned to receive early childhood intervention in the Abecedarian study reported fewer depressive symptoms in young adulthood. Negative effects of lower quality home environments on young adult depressive symptoms were almost entirely offset by pre-school treatment, whereas depressive symptoms increased as the quality of the early home environment decreased for those in the control group (McLaughlin et al., 2007).

Worth noting is that the study by Thorpe, Taylor, Grieshaber, Skoien, Danby, and Petriwskyi (2004) found that the absence of group-based experience in the year prior to school was a predictor of poor progress, especially for those who were from socially disadvantaged backgrounds. While ECEC centres appear to accelerate language and cognitive development for all children, time spent in centres of moderate to high quality appears to provide even more advantages for low-income and at-risk children (Bradley & Vandell, 2007). After controlling for family background and previous child performance, Loeb, Fuller, Kagan, and Carrol (2004) found that children who attended centres obtained higher cognitive and school readiness scores. Similarly, the American NICHD (2000, 2002) longitudinal study found that high-quality childcare that provides children with rich and varied educational experiences enhances their linguistic and cognitive competence. After controlling for family background, family demographics, parenting, and the quality and amount of child care, the children attending centres scored higher on cognitive and language assessments from the age of two to eight years. The effects of early child care were more modest in terms of language and academic achievement (NICHD, 2006). Nevertheless, Thorpe and colleagues (2004) established that provision of a universally available, full-time, play-based education programme closed the gap in achievement in social development, numeracy, and literacy achievement between socially advantaged and disadvantaged children.

The success of the Abercedarian and Perry High/Scope early intervention projects in providing intensive early childhood education and other services to disadvantaged children highlights the need for targeted, quality and intensive education and home visiting programmes for young children living in at-risk environments (OECD, 2009). The projects demonstrate that the provision of continuous, high quality enrichment from infancy through the pre-school years can reduce the negative impact of poverty on children's cognitive development. Indications are that for disadvantaged children anyway, the "greater the dose of educational intervention, the more powerful its effects" (Nelson, Westhues, & McLeod, 2003, as cited in Berk, 2006).

Only the longest lasting, most intensive educational interventions (year round, full day over many years), like the Abecedarian programme, seem able to produce permanent gains in general cognitive abilities, and these appear considerably smaller than initial gains (Barnett & Belfield, 2006, pp. 82-83). Given the long-term positive outcomes for the Abecedarian youngsters, Campbell and colleagues (2002) stated:

It is imperative that society should recognise the importance of utilising child care settings as ready-made sources of early childhood education... Although not arguing that parents should be displaced as their children's most important teachers in the early years, or that infants and toddlers should be pushed in ways that are developmentally inappropriate, it is nevertheless clear that learning does begin at the beginning of life. (p. 55)

The British equivalent to the American Head Start is Sure Start – although this programme is quite different in its goals and purpose (see Hakim et al., 2008). The focus of the Scottish Sure Start programme is on early intervention with children aged 0-3 years (Scottish Executive, 2000; Stephen, Dunlop, & Trevarthen, 2003). Like the other programmes, Sure Start aims to increase community-based support to vulnerable families living in low socioeconomic areas.

The positive outcomes found in the American studies have been supported by the Effective Provision of Pre-School Education (EPPE) project (1997 to 2003), a large scale longitudinal study carried out in England (Sylva, 1999; Sylva et al, 2004; Sylva et al., 2007), which reported that new entrant children showed higher cognitive attainment, sociability and concentration compared to children without any early childhood education. Of interest to this inquiry is that the EPPE project found age of attendance to be important, with those attending education and care services before the age of three demonstrating higher cognitive and peer sociability gains than those beginning at three years (Woolfson & King, 2008). The EPPE study found the number of months in early childhood to be an important factor, whereas the number of sessions, i.e., full-time or part-time, was not (as cited in Woolfson & King, 2008). Furthermore, findings indicated that the positive cognitive effects were not washed out by age seven, although the size of the effect was less than when they first entered primary school. There was less convincing evidence, however, of improvements in social behaviour still being maintained at age seven (Sammons et al, 2004, Woolfson & King, 2008). The EPPE team found that certain characteristics of the service providers influenced outcomes. Examples of quality education and care were the educational focus with teachers supporting less qualified staff, parental involvement and responsive caregiving (Siraj-Blatchford, Sylva, Taggart, Sammons, Melhuish & Elliot, 2003).

In summary, much of the literature on the benefits of targeting at-risk children has been informed by international studies relating to targeted early childhood interventions. Interestingly, an independent report submitted to the European Commission warns against targeting early childhood services to disadvantaged

children and instead advocates for inclusive, generalised provisions (Penn, 2010). Nevertheless the literature mainly advocates for providing continuous, high quality enrichment to reduce the negative impact of poverty.

Pressures on at-risk families: the need for targeted interventions

Access to high quality child care and parental support improve outcomes for young children in low income areas (Equal Opportunities Commission, 2007). Indeed, the government's resourcing of early childhood interventions for children living in low socioeconomic areas will help to improve outcomes. However, in accordance with the research literature, the Office of the Children's Commissioner considers there is a further obligation to provide intensive early intervention childcare for infants and toddlers living in vulnerable families (for example, similar to the support provided by Teen Parenting Units, HIPPY, PAFT, Early Start, Strengthening Families, and SPACE programmes where parents are learning alongside their babies).

Knitzer and Lefkowitz (2006) reviewed effective American programmes and policies to promote emotional health and school success for young children and their families. Findings from their review of the literature confirm that the most powerful single policy action to improve outcomes for low-income infants and toddlers would be to support infant and toddler child development and family support programmes (for example, they highlighted the American Early Head Start programme). For at-risk children, Knitzer and Lefkowitz (2009) strongly advocate that it is in the public interest to invest in interventions that can help change a negative development course to a positive one. They warn, "helping the most vulnerable infants, toddlers, and parents is not easy, but if we fail to do so, the consequences will most surely spill over into the next generation" (p. 8).

