Chapter 7

Singapore

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Executive Summary

In the past 60 years, Singapore's focus on economic growth and development has included a commitment to making progress in the early childhood landscape. Investments in the growth of this sector continue in recognition of the relationship of early childhood development to achieving long-term human development potential.

Singapore has undergone a dramatic transformation in the last 60 years, taking the city state from humble beginnings to the world's most globally competitive economy, boasting a highly skilled workforce that is ranked third in the world. These relatively rapid changes have been brought about through strong leadership, careful governance and policy planning, and a track record of strong implementation of these policies on the ground.

The country's commitment to progress is evident in its early childhood landscape. In the areas of health, nutrition, social safety and security, and early childhood education, tremendous gains have been made over the last 60 years. Singapore continues to invest in further advancing the early childhood sector. This is fuelled in part by advances in early childhood research. The government of Singapore has also committed to a national focus on child and maternal health and well-being to '…support our young achieve their maximum human development potential.'[1]

In this period of renewed commitment to strengthening early childhood development (ECD) with the aim to improve long-term outcomes for children and families, a 'stock-

taking' of the existing ECD landscape is timely. Understanding what is currently provided, the intended outcomes and beneficiaries, as well as where gaps exist will contribute to ongoing strategic planning and programme implementation to ensure that services are coordinated and reaching those who most need them. Using an internationally recognised framework, the Nurturing Care Framework (NCF)[2], we map policies, programmes and services to key components of ECD, and identify specific areas that may benefit from strengthening or increased service provision.

A total of 83 programmes, two services, and 13 policies relating to ECD were examined for this study. When mapped to the Nurturing Care Framework (NCF), the majority of programmes focused on Opportunities for Early Learning. The 13 policies spanned all areas of the NCF except Adequate Nutrition.

The research highlights strengths in programme delivery in the areas of Good Health, Opportunities for Early Learning, and Responsive Caregiving. Areas with fewer programmes (e.g., Safety and Security, Adequate Nutrition) are those in which Singapore has achieved significant gains on a national level. The research does indicate that there are areas in which Singapore can continue to make progress in the ECD landscape. First, while the population in general enjoys the security of stable housing due in part to strong government policies, there are smaller groups of families with distinct needs who may still struggle with providing their children with safe and secure homes. Second, increasing concerns about obesity and overweight in young children point to different challenges in the component of Good Nutrition – the issue now is not one of a lack of access to food but equipping families with the right tools to access the 'right' kind of nutrition and instil healthy dietary habits for long term health.

In areas where Singapore has many services and programmes, for example Good Health and Opportunities for Early Learning, the research indicates that coordination of and integration between programmes and providers may require additional attention. Due to circumstance, location, or other factors, some families may still not be able to access needed programmes and services. In other cases, families are required to navigate a complex system with little support, leading to delays in access and intervention for identified issues. New government-led initiatives to address these issues through multi-agency taskforces has started the process of addressing these gaps.

The study also examined all available evaluations of the shortlisted programmes. Of the 83 programmes, only 12 have been evaluated based on either publicly available reports or publications, or information found on programme websites. Of these 12 evaluations, only four are openly available, and one report was made available to the study team. This is an area in which significant improvements can and should be made in the Singapore ECD landscape. Evaluating programmes, and sharing the findings, provides valuable information for other service providers, policymakers, and the sector as a whole, and facilitates the ongoing enhancement of ECD programmes and policies for all families and young children.

Donors can play an important part in improving lives of young children and families in Singapore. The recommendations below focus on the cross-cutting issues found through the study. More detailed recommendations for each of the five NCF components are provided in the first section of this report.

1. **Improving coordination of services across the ECD sector:** Donors might consider working with service providers, practitioners, and policymakers to identify ways in which to help families of young children navigate the comprehensive, but

complex system. Challenges are particularly acute for families with multiple needs or those with children with special needs.

2. **Improving retention and quality of the ECD workforce.** Singapore, like many other countries, is facing a high rate of turnover and attrition of the ECD workforce. This is not limited to the education sector, but many other services and programmes for families and young children. High levels of stress and burnout are frequently cited as the cause of attrition. In addition, quality standards and minimum qualifications for those working in the ECD sector are variable. While some organisations (e.g., ECDA) are taking steps to address these issues, more can be done. Donors can work with service providers and policymakers to support efforts to understand the reasons for turnover and attrition and can support programmes aimed at providing mental health services for staff in the ECD sector.

3. **Strengthening data and monitoring systems.** The lack of reliable and current data affects all sectors of ECD examined in this study. High quality data and monitoring is an essential part of the evidence-based decision-making process, for both policymakers and programme providers. Understanding how to improve or introduce new policies or programmes to best meet the needs of families and young children should be driven by data. Donors can support the work of service providers to enhance data collection processes and encourage the ongoing sharing of data between service providers and policymakers. Donors can also work with researchers to identify areas in which data collection and monitoring can be improved or enhanced.

In the chapter that follows, we provide an introduction to Singapore, the results of the study of policies, programmes and services in the ECD sector, and an analysis of the gaps that exist in policy or programmes. Where available, we also provide information about evaluations that have been conducted of shortlisted programmes and services. Details about the methods used for this landscape study are provided in Chapter 1.

1. Recommendations for donors

In the following section, we explore where donors and philanthropists may consider focusing their efforts.

The landscape study has identified that Singapore has a strong set of national policies related to ECD across the five NCF components (Figure 1-1). The policies are generally well-implemented and enforced. The programmes that support young children focus primarily on Opportunities for Early Learning, but there is representation of the other four NCF components. While there is a strong programme and policy foundation, there are still some gaps that could be addressed, with the support of donors, to strengthen the ECD sector.

In the section that follows, we provide recommendations in each of the five areas of the NCF. For each area, we provide a brief summary of what programmes and policies are currently being provided, the key gaps in service and/or policy provision, and finally what donors can do to have an impact in the NCF component. This section concludes with a set of recommendations for cross-cutting issues that affect the ECD sector.

Recommendations are directional and not exhaustive. Recommendations are also not provided in a way that is immediately 'implementable.' Rather, donors should tailor potential actions to their priorities, capacity, and key interest areas.

Figure 1-1. Nurturing Care Framework Components

1.1. Adequate Nutrition

1.1.1. What do we know?

Compared to other countries in the region, access to adequate nutrition by pregnant mothers and young children is less of a concern in Singapore. There are no specific laws or policies related to Adequate Nutrition, and only one programme found through desktop research. Specifically, this programme promotes breastfeeding in the hours immediately after birth and through the first six months of life.

More recently, increased attention has been paid to maternal well-being, including maternal nutrition. An inter-agency government task force was established in 2021 to oversee the development and implementation of a five-year Child and Maternal Health and Well-being action plan.[3]

Table 1-1 provides an overview of policies and programmes. Please see Section 3.2.1 Overview for more detailed information.

Table 1-1. Overview of Adequate Nutrition

Number of policies	Number of programmes	Number of programmes evaluated
0	1	0

1.1.2. What are the gaps?

Two key gaps revealed through this study related to the increasing prevalence of childhood obesity and rates of breastfeeding. The rates of childhood obesity are rising, due to multiple factors, including poor nutritional intake, sedentary lifestyles, and genetic predisposition. Many existing interventions that aim to address childhood obesity work in siloes, with little cross-sectoral collaboration.

There is also a lack of reliable and consistent population-level data on rates of breastfeeding – both initiation and extent. This is compounded by a lack of understanding of breastfeeding practices and what might facilitate women to continue breastfeeding for longer durations.

For more detailed information, see Section 4.2.1 Gaps.

1.1.3. What can donors do?

Support innovations in programme provision to reduce child obesity

Over the last five years, the rate of child obesity at the age of seven years has been steadily increasing. While the underlying causes are complex, contributing factors include poor nutritional intake and an increasingly sedentary lifestyle. The COVID-19 restrictions also likely contributed to the decrease in physical activity by children. Although resources do exist for families about healthy eating, good nutritional habits, and how to lead an active lifestyle, is unclear if and how families utilise these resources. Few programmes work across sectors (e.g., health, education, environment) to address the issue.

Promote exclusive breastfeeding

In 2012, the World Health Assembly made a commitment to increase the rate of exclusive breastfeeding in the first six months to at least 50% by 2025.[4] While infant mortality is not a crucial issue in Singapore, breastfeeding reduces the risk of infections in infants. It also provides essential energy and nutrients to young children and improves the health and well-being of mothers in the long-term by reducing the risk of ovarian and breast cancer.

The most recently available data in Singapore from 2019 found that approximately 38% of infants are exclusively breastfed at 6 months.[5] While this data was from a small sample size of 2,000 mothers, it does suggest that more needs to be done in Singapore to promote the uptake and continuation of breastfeeding for the first six months.

Recommendations

⇒ Donors can support innovation in non-health sectors to address childhood obesity using existing research evidence about environmental, economic, and societal contributions to obesity.

⇒ Donors can work with existing community organisations to promote cross-sectoral approaches and collaboration to encourage a more holistic approach to addressing childhood obesity at the individual, family, and community level.

⇒ Donors can support large scale research efforts to understand the state of breastfeeding in Singapore, together with exploring the barriers and facilitators to breastfeeding. This includes understanding the issues faced by families and women in the workplace. In addition, donors can explore the activities conducted by existing service providers to identify gaps and opportunities for service strengthening.

⇒ Donors can support community[4] and corporate level efforts to promote extended breastfeeding, including workplace support[6] for breastfeeding such as lactation facilities and provision of nursing breaks.

1.2. Good Health

1.2.1. What do we know?

Within the component of Good Health, the Singapore government has established universal health coverage through a mixed financing system, with added support for lower income families. Childhood vaccination rates are nearly 100%. Most of the programmes identified in this study are operated by the Singapore government, or fully funded by the government. In doing so, the government aims to ensure accessibility to health programmes by all families. The programmes include health screening for young children, immunisation schedules, and support for children with developmental delays.

Table 1-2 provides an overview of policies and programmes. Please see Section 3.2.2 Overview for more detailed information.

Table 1-2. Overview of Good Health

Number of policies	Number of programmes	Number of programmes evaluated
2	11	1

1.2.2. What are the gaps?

There are three key gaps in the component of Good Health. First, families with multiple needs face outsized difficulties in navigating the healthcare system. The system, while comprehensive, is also complex and has multiple entry points and referral options. Choosing the most appropriate path through the system is complex for families with many needs. Second, while most women have access to antenatal care through a gynaecologist or midwife, there are no other programmes that focus on the physical and mental health of pregnant women and new parents. Finally, there is a stark lack of data on maternal mental health and wellbeing, and a lack of data on the programmes that support women.[7]

For more detailed information, see Section 4.2.2 Gaps.

1.2.3. What can donors do?

Build tools to support families seeking healthcare

The comprehensive nature of the healthcare system in Singapore is testament to the investment and attention the government has placed to ensuring all families are able to access the health services they require. However, this has also presented a level of complexity, due to the wide range of healthcare providers, service entry points and referral options. This complexity has created some difficulties, especially for families with the greatest needs. These families often have limited time to navigate the system and understand the best pathway for them. As a result, families are not able to access services in a reasonable amount of time.

Support caregiver mental health and wellbeing

Caregiver mental health has an impact on child development, starting before the child is born. Maternal distress can reduce the placenta's ability to protect the foetus from elevated levels of stress hormones.[7] Anxiety, depression, and stress also reduce positive interactions between caregivers and infants.

In Singapore, there is a lack of data on how many pregnant women and mothers are anxious, stressed, or require mental health support. As such, it is difficult to understand what types of support should be provided to mothers and parents, in order to ensure adequate provision of services for mental wellbeing and health.

Recommendations

⇒ Donors can work with practitioners and service providers to identify innovative approaches to supporting families with multiple and complex needs to navigate the health system and services. This should also involve engagement with families themselves to better understand the types of support and services that would be most beneficial.

⇒ Donors can support large scale research efforts to understand the state of caregiver mental health and wellbeing in Singapore.

⇒ Donors can support screening and intervention efforts across existing assessment and service providers that focus on caregiver mental health. This could include enhancing training of different sectors of the workforce to be able to better identify mental health needs and concerns (e.g., childcare workers, nurses, social workers, etc.)

1.3. Opportunities for Early Learning

1.3.1. What do we know?

In the last decade, Singapore has placed increasing focus and funding towards improving access to and quality of childcare and formal early learning opportunities. Through a large number of subsidy schemes for both preschool providers and families, the government has been able to ensure that the majority of families are able to access childcare as needed. Over 70 programmes focusing on Opportunities for Early Learning were identified in the landscape study. These programmes cover private and not-for-profit childcare centres, as well as programmes for children with identified or suspected additional learning needs. Only six programmes include a focus on equipping parents and caregivers with the skills needed to scaffold learning and development in the home environment.

Table 1-3 provides an overview of policies and programmes. Please see Section 3.2.3 Overview for more detailed information.

Table 1-3. Overview of Opportunities for Early Learning

Number of policies	Number of programmes	Number of programmes evaluated
3	72	8

1.3.2. What are the gaps?

Although many programmes exist that address Opportunities for Early Learning, a number of gaps remain. First, while preschool coverage is high, at approximately 80% capacity nationally, places are not distributed proportionately to the needs of specific neighbourhoods. This has led to families experiencing extended wait times to get a childcare place for their child. Second, little is known about the home learning environment in Singapore, particularly about the role of non-parent caregivers in facilitating child development and early learning. Finally, while there is increasing attention being paid to the need for early intervention, provision is uneven across the sector. Some families, especially those who cannot access private services, faced long waiting times for assessment and consequent delays in receiving timely support.

For more detailed information, see Section 4.2.3 Gaps.

1.3.3. What can donors do?

Enhance the home environment

Learning does not begin in the preschool environment, but at birth. In the earliest years, children acquire skills through relationships and interactions with others, such as smiling, eye contact, talking, singing, imitation and simple games.[2] Interactions with caregivers is crucial in helping children learn and can take place throughout the day, such as during feeding, bathing or other routine household tasks. In Singapore, little is known about the home environment, including the role and capacity for engagement of the consistent caregiver in the home (e.g., grandparents, live-in domestic helpers).[1]

Recommendations

⇒ Donors can support local research to understand the role, skills, and knowledge of non-parent caregivers in the home environment.

⇒ Donors can support programmes that equip all caregivers to provide a nurturing home environment that supports learning and development. This includes working with existing organisations to identify how to support caregivers to build knowledge and skills, and to facilitate peer-to-peer learning opportunities.

1.4. Responsive Caregiving

1.4.1. What do we know?

Responsive Caregiving, as the foundational component, includes programmes and policies that help caregivers to develop healthy supportive relationships with their child. Policies addressing paid parental leave, and access to safe spaces are part of this NCF component. Research conducted in Singapore has shown the positive impact of maternal sensitivity and responsiveness on child outcomes. Singapore has comprehensive policies related to paid parental leave and affordable childcare. However, Singapore does not have policies to regulate the development of child-friendly urban spaces that encourage play and learning. Most programmes identified in this component focus on supporting families in vulnerable situations and those from lower-income backgrounds. Supports provided include those to

equip caregivers with knowledge and skills, and also to support caregivers whose children have specific needs.

Table 1-4 provides an overview of policies and programmes. Please see Section 3.2.4 Overview for more detailed information.

Table 1-4. Overview of Responsive Caregiving

Number of policies	Number of programmes	Number of programmes evaluated
3	14	4

1.4.2. What are the gaps?

One gap in the component of Responsive Caregiving is the lack of gender parity in parental leave. While Singapore has generous paid maternity leave (16 weeks), the current paid paternity leave benefit is only two weeks. From 2024, this will increase to four weeks. In addition, only about 55% of new fathers utilised their paternity leave in 2019.[8] Another gap is the lack of support or services provided for parental depression and stress, including that experienced by fathers. More deliberate engagement of fathers in caregiving, and supporting their mental health, is vital to both caregivers being responsive to the needs of young children. Finally, most programmes provided in Singapore focus on improving the maternal-child caregiving relationship, with comparatively little support provided to non-maternal caregivers (fathers, grandfathers, live-in domestic helpers/nannies) to improve their caregiving practices.

For more detailed information, see Section 4.2.4 Gaps.

1.4.3. What can donors do?

Include fathers and other non-maternal caregivers in programmes
A large proportion of young children in Singapore are cared for by grandparents and other non-maternal caregivers, particularly after women return to work. Enhancing the caregiving practices of non-maternal caregivers will be of benefit to young children.

Encourage Paternity Leave Utilisation
Paid paternity leave positively impacts the involvement of new fathers with their young children, enabling them to take on more childcare responsibilities and engaging with their child. Paid paternity leave may also reduce maternal stress and provide additional support for mother and child.

Recommendations

⇒ Donors can work with community partners who provide programmes and services on sensitive and responsive caregiving to expand their reach to non-maternal caregivers who have a significant role in the lives of young children.

$\Rightarrow$ Donors can support mass media campaigns to shift societal norms about fatherhood and the role of fathers in the first weeks after birth.

$\Rightarrow$ **Donors can lobby employers to increase awareness and understanding of the benefits of paid parental leave, especially for low-income families. Donors can work with employers to encourage new fathers to fully utilise the paid paternity leave provision. Shifting employer culture is a crucial step to increasing leave utilisation.**

1.5. Security and Safety

1.5.1. What do we know?

Singapore has a comprehensive set of policies that aim to protect young children, women, and families. These policies are generally well-enforced and provide a strong safety net for at-risk individuals and families. Only three programmes were identified in Singapore that fall in this NCF component. This may reflect a low perceived need for programme provision around safety and security. All three programmes are operated by the government and target the needs of at-risk families through additional social support and financial assistance.

Table 1-5 provides an overview of policies and programmes. Please see Section 3.2.5 Overview for more detailed information.

Table 1-5. Overview of Security and Safety

Number of policies	Number of programmes	Number of programmes evaluated
8	3	0

1.5.2. What are the gaps?

Two key gaps were identified in the existing policy and programme provision for Security and Safety. First, the needs of specific populations are not effectively met through existing service provision. This includes the needs of young unwed mothers, who face challenges in accessing stable, affordable housing. Second, there is no centralised service through which families can navigate and access required supports. This is similar to the gap within Good Health but includes access to child protection and social assistance.

For more detailed information, see Section 4.2.5 Gaps.

1.5.3. What can donors do?

Simplify System Pathways

The current system of supports is complex, without a central point of contact or referrals to enable families to access meaningful support. Research has shown that time-poor and multi-stressed families often face barriers in making informed decisions on the type of support they require and how to access this support. Simplifying access pathways would be a critical step in providing appropriate support to these families.

Recommendations

⇒ Donors can facilitate collaboration between social service agencies (SSAs) to identify ways in which they can collectively and holistically meet the needs of the community, particularly multi-stressed and low-income families.

⇒ Donors can engage with service providers and policy makers to identify ways in which to simplify the security and safety system and promote consolidated/common touchpoints.

1.6. Cross-cutting topics

1.6.1. Coordination across Providers

Singapore has a comprehensive breadth of ECD programmes provision and policy coverage. However, siloes in both policy and programme provision persist despite the known benefits of multi-sectoral and interdisciplinary approaches. This can lead to fragmentation and challenges for families with navigating the system. This is particularly true for families of children with special needs, or families with multiple needs. These families either get left out inadvertently due to overlapping needs or find it difficult to navigate the system. For families who are already time-poor, it adds a layer of complexity in accessing the services that are most meaningful and necessary.

Recommendations

⇒ Donors can work with community-based service providers and families to identify ways to create 'navigation aides' to support families. This can include creating a central repository or services and programmes that can be referenced by both families and service providers.

⇒ Donors can work with service providers and other agencies to discuss piloting the introduction of a system navigator – a person whose role would be to assist families in accessing the most appropriate services for their needs – and evaluate this pilot to determine if it improves the experiences of families who need the most help.

1.6.2. Retention and Quality of the Workforce

Across the identified programmes, there is little mention of efforts relating to the quality and retention of the early childhood workforce. While the Early Childhood Development Agency (ECDA) and SkillsFuture Singapore have taken concrete steps to develop and implement professional standards and career pathways, this is primarily for the early childhood education workforce, excluding the role of non-education professionals who work with young children and families (e.g., social workers, learning support practitioners and maternal and child health nurses).

Singapore, like many other countries, is experiencing a high turnover and attrition of ECD professionals. Many note burnout as a key stressor and factor in leaving the sector. While this issue is not unique to Singapore, local research is needed to understand the factors that lead to low retention rates. The high turnover of ECD staff has an impact on young children and the ability of the sector to provide high quality and consistent services for families and young children.

Recommendations

⇒ Donors can support local research to understand the barriers and facilitators to workforce retention in ECD.

⇒ Donors can support local organisations to work with ECD professionals in improving workplace mental health to address one factor that may lead to high rates of attrition and staff turnover.

1.6.3. Strengthening Data & Monitoring Systems

Another cross-cutting topic is the lack of specific ECD data at both a national and programmatic level. Missing critical data, such as data about initiation and sustainment of breastfeeding, impedes informed decision making about the need to refine existing programmes or introduce new services or policies. Expert interviews conducted in Singapore also underscored the need for a coherent long-term outcome monitoring system for the ECD sector. Such a system would further support the work of professionals who interact directly with children and caregivers, to understand the impact of service provision, and to address gaps in a timely manner.

Recommendations

⇒ Donors can support the work of statutory boards and SSAs to build data monitoring systems with accessible dashboards. This would involve the alignment of data collection, and capacity building in the sector about how to implement and utilise the dashboard across agencies and service providers.

⇒ Donors can work with researchers to identify priority areas for further data collection and monitoring, particularly in areas identified in this study. Rigorous and reliable data can be used to improve programme provision and more accurately identify areas for further policy expansion.

2. Introduction to Singapore

Singapore is a small country that has undergone 60 years of dramatic social and economic change from a trading settlement to a regional financial powerhouse. Singapore has rapidly transformed since it was established as an independent state in 1965, particularly in terms of its gross domestic product (GDP), where the average rate of growth from the 1960s to the 1990s was 8%, significantly higher than the regional GDP growth of approximately 4%.[9,10] While this figure has slowed in recent years, Singapore still has one of the highest per-capita GDPs in the world, just below US$60K.[11] The Government spends almost half its annual budget on the social sector, with a growth in spending from S$17 billion to S$31 billion over the last decade.[12] The steady economic growth, high per-capita GDP, and high spending on the social sector all indicate an ability and willingness to invest in ECD.

Singapore has been ranked the best country for children to grow up in since 2018 by the Save the Children End of Childhood Index.[13] The Index ranks 174 countries based on a comprehensive set of life-changing events that signal the potential disruption to childhood. These include infant and child mortality, stunting, out-of-school rates, violence, child labour and child marriage. Singapore's maternal, infant and child mortality rates are among the lowest globally.[13] Singapore has the 7th lowest infant mortality rate in the world, and one of the lowest under-5 mortality rates globally (see

Table 2–1).

Table 2–1. Key Country Information

Data	Detail
Land Area[14]	709 km^2
Population Size[15]	5,453,600
GDP Per Capita[16]	US$59,797.80
Yearly Births[17]	38,672 (2021)
Fertility Rate[17]	1.12
Infant Mortality Rate[17]	1.8/1000 (2020)
Under-5 Mortality Rate[18]	2.1/1000 (2020)

Despite these enormous gains, Singapore continues to invest heavily in the early childhood sector. Having achieved success in key indicators such as infant and child mortality rates, and maternal mortality, Singapore is now focusing on a renewed commitment to key aspects of early childhood. This includes a multi-sectoral approach to health and education, including updated policies and strategic approaches that reflect changing population needs.

2.1. Government commitments

The focus on the Early Childhood (EC) landscape was catalysed by the National Day Rally in 2012, where Prime Minister Lee Hsien Loong outlined some of the government's intended developments in the EC sector[19]. Notable developments in education include the Singapore Pre-School Accreditation Framework (SPARK) established in 2010 by the Ministry of Education (MOE) that assesses the effectiveness of pre-school programmes and helps parents make informed choices, as well as the establishment in 2013 of the Early Childhood Development Agency (ECDA), an autonomous agency under the purview of the MOE and the Ministry of Social and Family Development (MSF). [20,21] The inception of ECDA is particularly important for the EC sector as this was a shift towards developing more comprehensive policies across the EC landscape, integrating the MOE's Pre-school Education Branch and the MSF's Child Care Division.[22]

The Ministry of Health (MOH) is leading an inter-agency taskforce for child and maternal health and well-being since 2021. The aim of the taskforce is to bring together agencies across the government to collectively address cross-cutting issues that affect mothers and young children and bring about improved health, education, and social outcomes. This taskforce will take a whole-of-society approach to ensure that programmes and services reach those who are most in need. Among other initiatives, the taskforce will develop and implement a five-year action plan, including a review of upstream preventive health efforts for women and children.[2]

Singapore's early childhood landscape is also being shaped by the recent establishment of new institutions and research initiatives focused on babies and young children. These include the Centre for Holistic Initiatives for Learning and Development (CHILD), a centre based at the NUS Yong Loo Lin School of Medicine established through an endowment from the Lien Foundation and in partnership with the Centre for Evidence and Implementation (CEI) and A*STAR's Singapore Institute for Clinical Sciences (SICS). The National Institute of Early Childhood Development (NIEC) was launched in 2019 to consolidate Singapore's EC training facilities.

ECDA launched a key programme aimed at at-risk families and children, KidSTART, in 2016. The aim of KidSTART was to provide a comprehensive support system for parents and children from birth to 6 years from low-income households. In addition to the pilot intervention programme, the KidSTART project included a large evaluation study that is concluding in 2022. The Singapore Kindergarten Impact Project (SKIP), conducted through the National Institute of Education (NIE) was another significant development and Singapore's first large-scale longitudinal study on pre-school students.[13] Finally, the Singapore Longitudinal Early Development Study (SG LEADS), led by the National University of Singapore, Faculty of Arts and Social Science examines early childhood development in Singapore, with a lens on how investments affect intergenerational mobility and social stratification.[23] These recent developments signal the desire to increase the pace with which the latest evidence on ECD is put into policy and practice to benefit all of Singapore's young children and their families.

Against this backdrop, this ECD Landscape Study will contribute key information to the multi-sector efforts to improve maternal and early childhood outcomes. Understanding the current state of the programme and policy landscape, and importantly, the gaps in both programme and policy, will aid in efforts to better integrate services. Further, knowing what is currently happening and what else is needed can ensure that services are better targeted at those who could most benefit from them.

2.2. Who did we interview?

Through the desktop search and consultation with CEI's networks and the APC Advisory Group, the study team identified a list of Singaporean experts to interview for the study.

We interviewed five people who represented a range of expertise across government, academia, and community services.[1] The list of interviewees is provided in Table 2–2, including details about their area of expertise in relation to this ECD landscape study. Two of the interviewees have requested to remain anonymous; their names and titles have been removed.

Table 2–2. List of Stakeholders Interviewed

Name	Role	Organisation	Rationale
Anonymous	Senior civil servant	Ministry of Social & Family Development	This individual has expertise in early inclusion, mental health and social protection, both in policies and programme.

[1] CEI contacted a further seven individuals who either did not respond or declined to participate in the study.

Dr Sum Chee Wah	Associate Professor, ECE Programme	Singapore University of Social Sciences	Previously at ECDA and MOE, Dr Sum has knowledge and expertise of both the ECCD policy and the programme landscape.
Dr Christine Chen	Founder	Association For Early Childhood Educators	Dr Chen has worked closely with and advocated for practitioners and grassroots initiatives related to the early years. She brought strong insights on educational programmes and the workforce.
A/P Dr Chong Shang Chee	Head, Child Development Unit	National University Hospital	A/P Chong has extensive experience as a developmental paediatrician, as well as expertise in early childhood policy and service provision. She is a member of the Steering Committee of CHILD and brings key insights about policies and structures that affect young children and their families.
Anonymous	Senior academic	NIE/ NTU	As an experienced researcher, this stakeholder shared their expertise about ECD research in Singapore and the policy landscape.

Based on prior research in Singapore, the study team anticipated that securing interviews with key civil servants from specific ministries would be challenging. This was confirmed when some identified topic experts declined the opportunity to be interviewed for the study. To ensure that these perspectives were not omitted from the study, interviews were conducted with individuals who had prior experience or knowledge of these sectors. This included individuals who currently work closely with the Singapore Government or have recently worked within the government.

In the section that follows, we provide details about the ECD programmes and policies that are currently implemented in Singapore, information that is available about the programmes that have been evaluated, and the gaps in both policy and programmes across the ECD landscape.

3. What ECD policies and programmes are currently being implemented in Singapore?

The following section will focus on the research question: "What parenting and ECD policies, programmes and services are currently being implemented in Singapore aimed at families with children between the ages of 0 to 6 years?" We begin with an overview of programmes and policies, providing details using the Nurturing Care Framework to structure the findings, followed by an analysis of the gaps.

## 3.1. Identifying programmes and policies

3.1.1. Programmes

Through the desktop research conducted between March and June 2022, we identified 92 programmes that address ECD. the programmes and services available to young children and families are comprehensive in their scope and reach. As illustrated in Figure 3–1, a total of 92 programmes were identified through the desktop search. After screening these

programmes using inclusion and exclusion criteria (described in Chapter 1), a final shortlist of 83 programmes and two resources were included.

Figure 3–1. Programme inclusion flow diagram
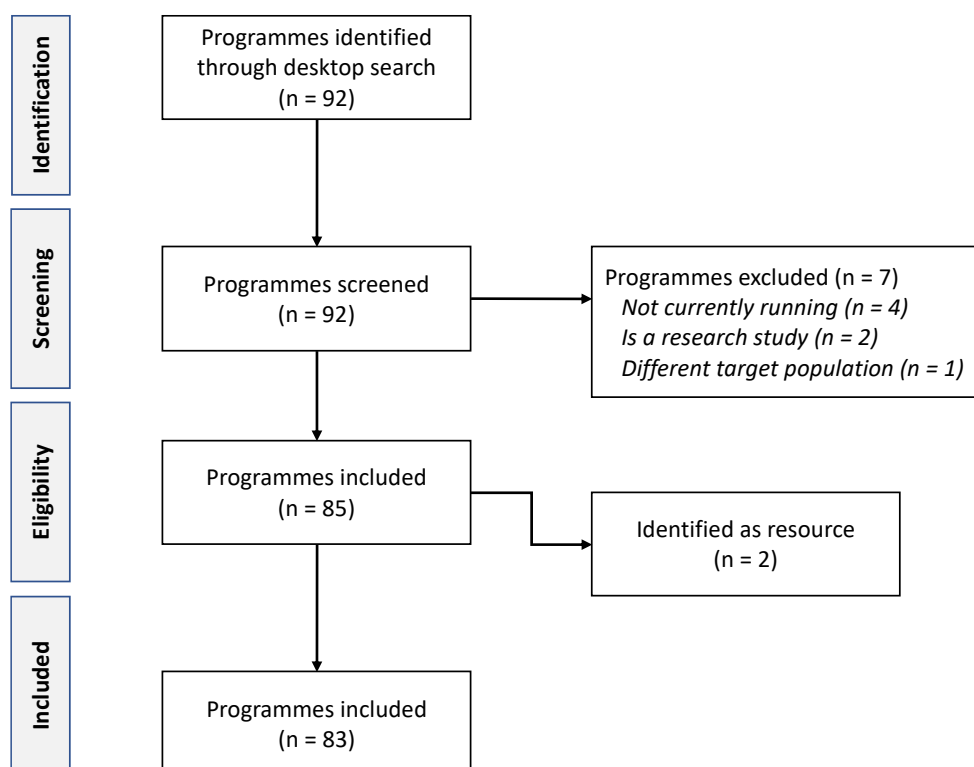
Of the shortlisted programmes, two are defined as resources that are made available to caregivers. These resources have no active intervention or programme delivery for caregivers and young children but are freely available online. Details about these resources are provided here.

- The **Families for Life Parenting Resources**, set up and managed by MSF, aim to provide evidence-based content to support parents in raising children who are happy and healthy.

- The **Parent Hub** is a comprehensive digital resource set up by MOH for parents that provides guidance on parenting and health, categorised by age group, from pregnancy to adolescence. Among other topics, the Parent Hub provides resources to guide parents in making optimal nutritional choices for their children. This includes guidance on serving sizes for different food groups at different ages starting from six months, information on healthier food choices, as well as the My Healthy Plate visual guide.[24] Articles on how to manage children's eating habits are also available on the website.[24] The Parent Hub also covers other facets of a child's health needs, including hygiene, and sleep practices, and helps to prepare parents in what to expect over different age groups and how to care for the child. There are also resources available on the website regarding maternal health, such as resources on post-partum depression.

Of the 83 programmes and services identified in the research, there is a relatively even distribution of programmes across operator types (see Figure 3–2). Seventeen programmes are delivered or run by the government, 27 are run by private organisations, and the remaining 39 are run by SSAs and not-for-profit organisations.

Figure 3–2. Overview of Programme Operators

- Government - 17
- Private - 27
- SSA & Not-for-Profit - 39
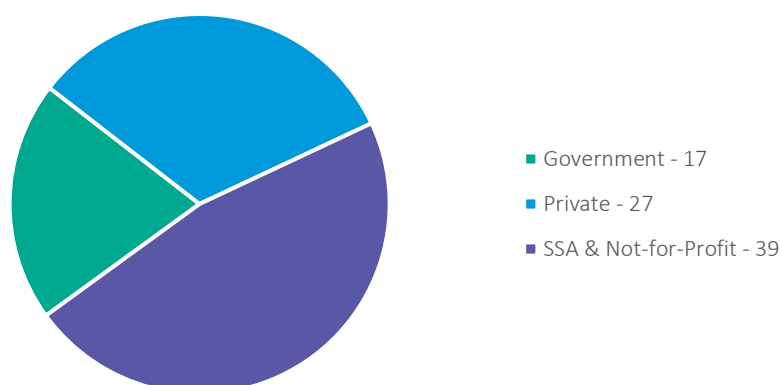
Funding for programmes run by SSAs and not-for-profit organisations varies. Details are provided in Table 3–1, below.

Table 3–1. Funding source for programmes operated by SSAs and Not-for-Profit Organisations

Type of Funding	No. of Programmes	Additional Information
Government	2	These programmes are fully funded by the government, with no expectation of co-payment.
Government & Private	15	These programmes have significant government funding, requiring some co-payment from parents or the organisation themselves. It includes preschool operators in Singapore, all Baby Bonus Scheme approved institutions[2], and targeted programmes to meet specific needs of children, such as the Signposts Parenting Programme for parents with children with developmental needs.
Philanthropy	4	These programmes are fully funded by philanthropic organisations.
Private	21	These programmes typically include a varying amount of parental co-payment.
Non-Profit	24	

The 83 programmes shortlisted in the study were mapped to the NCF. Some programmes map to more than one NCF component. Additionally, we note that although many programmes are universally available, it was beyond the scope of the study to determine the extent to which these programmes are accessed or used by families. The majority of programmes available in Singapore focus on Opportunities for Early Learning.

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[2] Baby Bonus Approved Institutions are organisations registered with the Ministry of Social and Family Development (MSF) to provide value-add services to parents and young children. For more information, see https://www.babybonus.msf.gov.sg/ai/Pages/Home.aspx.

Figure 3–3. Programmes mapped to NCF Components

- Good Health — 11
- Opportunities for Early Learning — 72
- Security and Safety — 3
- Responsive Caregiving — 14
- Adequate Nutrition — 1
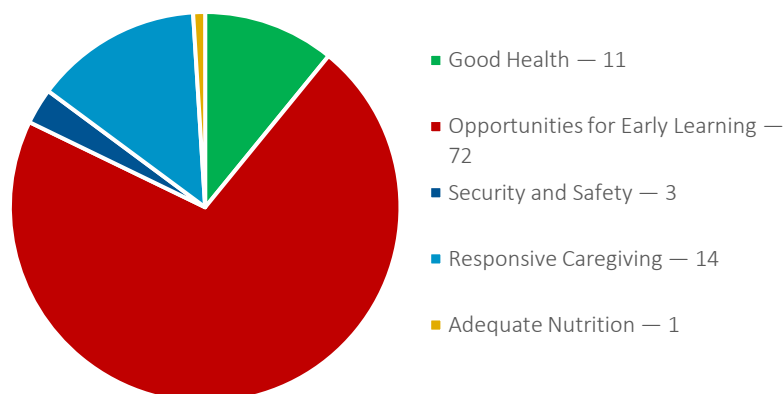
3.1.2. Policies

The desktop search revealed that Singapore has a comprehensive set of policies that govern the ECD sector – policies that span multiple government ministries and address each component of the NCF. In general, the Singapore government's multi-sectoral approach to ECD is meant to ensure that services for young children and their families have broad coverage and address basic needs for care and development.

Although a total of 13 policies have been identified in the desktop search, three policies map to more than one NCF component. The Child Development Co-Savings Act and the Employment Act map to both Responsive Caregiving and Security and Safety, and the Child Care Subsidy maps to both Responsive Caregiving and Opportunities for Early Learning. There are currently no government policies that correspond to the NCF component of Adequate Nutrition. This does not mean that the government is not addressing issues related to nutrition of young children and mothers; rather, there are no legal structures or regulatory frameworks in place that pertain to Adequate Nutrition.

All ECD-related policies have been mapped to the Nurturing Care Framework.

Figure 3–4. Policies mapped to NCF Components

- Good Health — 2
- Opportunities for Early Learning — 3
- Security and Safety — 8
- Responsive Caregiving — 3
- Adequate Nutrition — 0
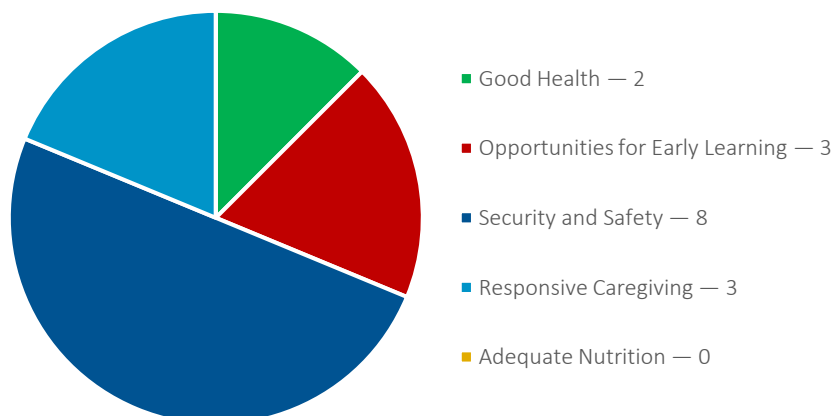
3.2. Findings on Nurturing Care Policies and Programmes in Singapore

The section that follows is organised by the NCF components and provides details about the policies, programmes and services provided in Singapore for young children and families. In some cases, programmes or services fall into more than one NCF component. In these cases, relevant programme components will be described within the NCF component. Appendix G provides details about the 83 shortlisted programmes and two resources, including the programme name, provider, a brief description of the programme and how it maps to both the NCF and the World Bank 25 ECD Interventions. Appendix H provides information about the 13 policies, including the policy name, the year it was implemented or amended, the government ministry in charge of the policy and a brief description of the policy.

3.2.1. Adequate Nutrition

Key Messages

⇒ Singapore has no policies or legal structures that specifically address Adequate Nutrition; however, it does adhere to some international frameworks on breastfeeding and provides guidance through government committees on sales of infant foods, and has implemented regulations on what foods can be served in childcare centres.

⇒ Only one programme was identified in the study that addresses Adequate Nutrition – the Baby-Friendly Hospital Initiative, which supports early breast-feeding.

⇒ While some resources are available for families that provide guidance on healthy eating, feeding, and nutrition, the degree to which families use these resources and the barriers and facilitators they face in implementing guidelines remains unknown.

⇒ Although access and availability of food is not a significant issue in Singapore, rising rates of childhood obesity indicate a need to improve awareness of the importance of healthy eating and active lifestyles. Barriers to good nutritional intake should also be explored.

Overview

Adequate nutrition, as a component of the NCF, includes maternal and child nutrition. Good maternal nutrition during pregnancy has a positive impact on both the mother's and the unborn child's health. Good nutrition after delivery affects the mother's ability to breastfeed and care for her child. In Singapore, malnutrition, stunting and access to adequate nutrition are not generally issues of concern.

Data from 2015 indicates that approximately 10% of infants have a low weight at birth, however more current data is unavailable. Additionally, about 4% of children are stunted, with 3% of children experiencing wasting. This is much lower than the regional average for Asia, at 22%.[25] Furthermore, although 99% of mothers breastfeed their infants within 24 hours of birth, only 38% are still exclusively breastfeeding at 6 months of age.[26,27] Finally, there are no population level data in relation to feeding practices for infant and young children in Singapore.

Policies

Singapore does not have specific laws or policies related to Adequate Nutrition. Although not laws or policies, Singapore has loosely adopted the International Code of Marketing of Breastmilk Substitutes. While this has not been formally implemented, Singapore is in general alignment with the underlying intention of the code, which is to promote the exclusive breastfeeding of infants for at least six months. However, to our knowledge, data about breastfeeding by new mothers is not routinely collected and population-level statistics about breastfeeding practices are not available.

To promote breastfeeding, the NCF includes the adoption of the Baby Friendly Hospital Initiative (BFHI) as a recommended national policy. Singapore has not included the BFHI as a national policy, however, hospitals can attain accreditation as BFHI institutions through the Association for Breastfeeding Advocacy, a local NGO. For the purposes of this landscape study, the BFHI has been categorised as a programme in Singapore; more details are provided in the section that follows.

The NCF component of Adequate Nutrition includes feeding and healthy eating practices other than breastfeeding. In 1979, the MOH established the Sale of Infant Foods Ethics Committee, Singapore (SIFECS), to provide guidance to the practices of the infant food industry as well as protect and promote breastfeeding practices. This was done through the development and implementation of the Code of Ethics on the Sale of Infant Foods in Singapore, which regulates the marketing of infant food products and ensures that parents have sufficient information in making the choice to use products such as infant milk formula. In 2001, the administration of the SIFECS was transferred from the MOH to the HPB. The Code applies to the promotion and distribution practices of the infant food industry, distributors, retailers, the public, healthcare personnel and healthcare institutions. HPB and SIFECS carry out regular monitoring and checks to ensure compliance. This is accompanied with the publication of regular status reports, as well as the publication of names of violators and their violation on the HPB website. However, there are no regulatory measures to ensure compliance and distributors and retailers are only bound by their ethical obligations to mothers and young children.

The government has taken steps to increase regulation around what preschools can serve children for meals, including banning fried foods and sugary drinks. This is in part a response to the increasing rates of obesity in children in Singapore – in 2021, 13.4% of Primary One students (aged 7 years) were identified to be overweight or severely overweight, up from 9% in 2019.[28]

Programmes

Of the 83 shortlisted programmes, there is one formal programme that specifically addresses adequate nutrition. UNICEF and the WHO launched the **Baby Friendly Hospital Initiative** (**BFHI**) in 1991, re-evaluated in 2015, to encourage health facilities around the world to better support breastfeeding. The BFHI outlines 'Ten Steps to Successful Breastfeeding' and evidence indicates that implementing these 10 steps leads to significant improvement in breastfeeding rates.[29] Eight hospitals in Singapore have received accreditation for the BFHI through the Association for Breastfeeding Advocacy. To

receive accreditation, hospitals must demonstrate management and clinical practices that align with the ten steps outlined by the BFHI, and successfully pass an evaluation conducted by the organisation. Activities conducted at the BFHI hospitals include providing antenatal classes to teach pregnant women about the benefits of breastfeeding, supporting new mothers with breastfeeding, and providing a conducive environment for the early initiation of breastfeeding.

Other informal programmes exist to support breastfeeding, including the Temasek Foundation Community Milk Bank programme, run by KK Human Milk Bank, which provides preterm and sick babies with pasteurised breast milk from donors unrelated to the recipient, and the Breastfeeding Mothers Support Group, which provides emotional support, encouragement and education for breastfeeding mothers, and advocates to increase awareness of breastfeeding in the community.[30,31]

Online resources that provide guidance on healthy eating habits are occasionally supplemented in lower-income households by ad-hoc grocery donations provided by charities and grassroots organisations. Other grassroots initiatives include Free Food for All, a charity that aims to reduce food waste and food insecurity in Singapore through initiatives such as community fridges and ready to eat meals for low-income families and individuals.[32] Such initiatives are particularly important - a study conducted by Singapore Management University's Lien Centre for Social Innovation in 2019 found that one in 10 Singaporeans struggled with food insecurity, with approximately 40% of these people struggling to find sufficient, safe and nutritious food at least once a month.[33]

Gaps

In general, malnutrition, stunting, and access to adequate nutrition are not issues of concern in Singapore. However, the lack of policies and consistent enforcement of regulations around adequate nutrition may be problematic.

Data on Breastfeeding Practices

There is no up-to-date, publicly available data on breastfeeding in Singapore. The National Breastfeeding Survey found that almost all babies born in Singapore experienced early initiation of breastfeeding within 24 hours of birth.[26] A study conducted by De Roza et al. (2019) also found that approximately 38% of infants were exclusively breastfed at six months[5]. However, the first survey was conducted on a sample of under 2,000 mothers and the 2019 study was conducted on a sample of 400 mothers. Generalisation to the larger population based on these small studies is problematic.

This lack of up-to-date and consistent data also makes it difficult to understand the success of initiatives such as the BFHI, and what more needs to be done on a national level to improve the nutrition of mothers and young children. The research team reached out to the eight BFHI-accredited hospitals for additional data. However, the hospitals either did not have current data on breastfeeding or were unable to share their data. An expert interviewed for this study also highlighted the challenges faced by policy-makers and practitioners in decision-making as a result of the lack of a coherent and standardised outcome monitoring system across multiple areas of ECD in Singapore.

Childhood Obesity

Rates of childhood obesity and overweight in Singapore are rising. This is of concern due to the long-term health implications related to childhood obesity. The underlying causes of obesity, particularly in childhood, are complex. In addition to genetic predisposition and nutritional intake, sedentary lifestyles are also a contributing factor. Further, some researchers suggest that national economic expansion can be predictive of rising obesity

rates in children.[34] The affordability of healthy food, and the time required for food preparation also adversely impacts families who are time-poor and struggling with financial stability. There is a need to more closely examine if and how resources, such as those provided through the Families for Life or Parent Hub, are being used by families to instil healthy nutritional habits in their children. More work needs to be done to understand the barriers faced by some families in accessing and providing appropriate nutrition for their children. This is indicative of the need to understand and address appropriate nutrition, and not just ensuring access to adequate nutrition.

3.2.2. Good Health

Key Messages

⇒ Policies that cover Good Health have achieved a high level of universal health coverage and nearly 100% immunisation rates in childhood.

⇒ Shortlisted programmes and services in the NCF component of Good Health are characterised by a high level of government funding and support. Many programmes are either free of charge or highly subsidised.

⇒ The list of programmes covers both universal provision, such as the Parent Hub, Baby Bonus Scheme and Antenatal Screening, and targeted interventions such as Signpost Parenting Programme.

⇒ There is an even spread of programmes which are promotive, preventive, and diagnostic in nature. In an expert interview, it was noted that the "system is rationalised with as many children as possible being covered within the system."

Overview
Within the NCF, a crucial policy to promote good health for young children and families is universal health coverage. The ability for families to access the full range of health services within their community is an important promotive and preventive measure.

While there is no publicly available data on the rate of antenatal visits in Singapore, 100% of births had skilled birth attendants and nearly 100% of births are registered.[35] Singapore also has a strong record of addressing maternal mortality: there were no maternal deaths per 100,000 live births in 2020.[36] However, Singapore has among the world's highest incidence rates of gestational diabetes mellitus (GDM), where data from a universal screening as part of Singapore's largest birth cohort study *Growing Up in Singapore Towards Healthy Outcomes* (GUSTO) showed that 18.9% of participants were diagnosed with GDM, significantly higher than the global average of 13.8%.[37] Early screening using the oral glucose tolerance test for women deemed to be at high risk only identified GDM in only 9.8% of women. The findings from the GUSTO study have changed current practice in Singapore to universal GDM screening for all pregnant women.

Policies

Singapore has achieved universal health coverage through a mixed financing system.[38] Healthcare in Singapore is highly subsidised by the Government, and policies such as **MediSave** (a mandatory savings account funded by working Singaporeans' Central Provident Fund contributions), **MediShield** (a national universal healthcare insurance scheme that acts on an opt-out basis), and **MediFund** (an endowment fund that acts as a social safety net for those unable to pay their medical bills after subsidies), have been put in place to ensure that healthcare is accessible regardless of income. Further, the **Community Health Assist Scheme (CHAS)**, which provides means tested subsidies in three different tiers at CHAS registered clinics, has been put in place to support the healthcare needs of low-income households.[39] The Affordable Health Care White Paper, while not regulation or a law, defines a framework for the health sector to provide broad, population-wide access to affordable healthcare.

Singapore has successfully implemented the **National Childhood Immunisation Programme (NCIP)** with near 100% coverage. More recently, Singapore has expanded low-cost immunisation at government-funded polyclinics to provide greater access to all families. All children from birth to 6 years of age have access to vaccines within the NCIP and developmental screenings at polyclinics and government-approved private general practitioners at no cost. This is a universal provision for all Singaporean and Singaporean Permanent Resident children.

Programmes

The study identified 11 programmes that fall under the NCF component of Good Health. The majority are run by the public hospital system in Singapore, including government-run polyclinics. Programmes cover health screening for young children, general health services to monitor child development and immunisation schedules, and programmes to address the needs of children with developmental delays both within preschools and in the health system. All 11 programmes are either fully funded by the government through the public health system or are provided free-of-charge to children and families. Government funded programmes for 'Good Health' also remove barriers to access for vulnerable or low-income families. The 11 programmes include:

Table 3–2. Good Health Programmes

Intervention Name	Brief Programme Description	Evaluation Available	
		Y	N
Antenatal Screening	Between six to 12 weeks of conception, all mothers have access to antenatal screening at all hospitals that provide maternity services. This includes a full blood count to check for anaemia and thalassemia, blood typing, hepatitis B screening, venereal disease research laboratory screening, HIV screening and oral glucose tolerance test for gestational diabetes		✖
Baby Bonus Scheme	The Scheme, set up and run by the MSF, includes a Cash Gift and Child Development Account (CDA) benefits for all Singaporean children. The Cash Gift is disbursed to parents in five instalments within 18 months of the child's birth. The CDA benefits comprise the CDA First Step Grant which will be automatically credited after CDA opening and dollar-for-dollar Government co-matching for each dollar		✖

Intervention Name	Brief Programme Description	Evaluation Available	
		Y	N
	that parents deposit in the CDA, up to the co-matching cap. The cash within the CDA can be used at approved institutions, including registered childcare centres, early intervention, health clinics and pharmacies, before the child turns 12 years old.		
Baby Friendly Hospital Initiative	BFHI hospitals implement best practices to support mothers in establishing breastfeeding. This includes antenatal classes to teach pregnant women about the benefits of breastfeeding, supporting new mothers with breastfeeding, and providing conducive environment for the early initiation of breastfeeding. When breastfeeding is not feasible or if a mother chooses not to breastfeed, education on the safe and hygienic preparation and handling of formula milk will be provided.		✖
Comprehensive Developmental Screening and Assessment	Identifying and screening children for possible development issues are primarily established through a national child development screening program. These visits are called the "well-baby checks" at the population level. They are tied with national vaccination visits where developmental screening is conducted by polyclinic doctors and nurses, or General Practitioners and Paediatricians. The Denver Development Screening Tests (DDST) was adopted in the child health booklet in the mid-1980s with further refinement and validation in 1994 for Singapore children. Parents who are concerned about their child's development, or children who have been identified through the national child development screening programme to have child development concerns, can be referred to KKH and NUH where they are provided with a comprehensive developmental assessment. The assessment is run by a multi-disciplinary team coordinated by a trained paediatrician. Following the assessment, the team will work closely with the family to understand their needs and for the family to make an informed choice in relation to early intervention.		✖
KKH Department of Child Development	The Department at KKH provides diagnostic and intervention services for children with developmental or behavioural difficulties. They also work closely with community services such that children and families are referred to the appropriate supports. KKH DCD also runs programmes to support parents		✖
NUH Child Development Unit	The CDU at NUH provides diagnostic and intervention services for children with developmental or behavioural difficulties. They also work closely with community services such that children and families are referred to the appropriate supports. NUH CDU runs various programmes		✖

Intervention Name	Brief Programme Description	Evaluation Available	
		Y	N
	that relate to a variety of needs of parents, from supporting general parenting towards healthy child development, to supporting parents of children with developmental needs. There are also specific programmes for children with behavioural needs and supporting parents of children with medical complexities.		
Inclusive Preschools	Through the Inclusive Preschools initiative, ECDA plans to introduce inclusion coordinators to all preschools by 2023, where every preschool will have an inclusion coordinator familiar with resources and support for children with developmental needs, able to provide advice to teachers and families and to bring in relevant Early Interventionist support for the children.		✗
Integrated Child Care Programme (ICCP)	ICCP is an inclusive childcare programme for children requiring minimal levels of Early Intervention (EI) support. Run by ECDA, children in this programme attend preschool with other children, with no intervention, at selected preschools. The progress of each child is monitored with regular feedback between the preschool teacher and parent.		✗
Neighbourhood Health Service Kids	Since 2018, NHS Kids, run by the NUS Medical Society and ECDA, offers free health screening, along with other services such as dental cleaning, to children aged six and below. Screening is conducted to identify children and their families who could be facing medical issues or are in vulnerable situations, and to refer them to appropriate services.		✗
Polyclinic Child Health Services	Parents are able to bring their children, from birth to four years of age, to any polyclinic, in order to monitor their child's growth and development. The National Childhood Immunisation Programme also administered through the polyclinics.		✗
Signpost Parenting Program	Signpost, delivered by Fei Yue Community Services, and KKH DCD and NUH CDU, is an evidence-based programme that equips parents with skills to help them understand, prevent and manage their child's difficult behaviour through the development of a personalised programme that suits the unique needs of their child. Parents are also taught to develop strategies to prevent and manage difficult behaviour.	✓	

Gaps

Complex Service Pathways

In general, the health of young children and their parents in Singapore is adequately supported by government policies and programmes. However, a key gap noted during expert interviews is the difficulty faced by families who have multiple needs in navigating

the system. The health system, while comprehensive, is marked by multiple entry points and referral options. This requires families to follow up with referrals and services in order to access needed supports. Additionally, there is little clarity within the service provision pathway. Families may struggle to understand why certain steps are necessary, waitlists are long, especially for specialised services in developmental services and mental health services, and there is not always good communication between service providers in the system. One expert noted that while Singapore does not lack for programmes and policies to govern these programmes, services do not reach families in need in an appropriate or reasonable amount of time. Programme uptake across health systems is also unknown, and practitioners and policymakers do not have a comprehensive understanding of the barriers to health access especially for children from low-income families. Child development screening visits are also not tracked. The only available tracked data is for childhood immunisations.

Maternal and Parental Health and Wellbeing

None of the programmes identified in this study is specifically focused on the physical and mental health of pregnant women and new parents. This is particularly concerning given the impact of maternal mental health on newborn infants. Singapore also has a high prevalence of gestational diabetes mellitus (GDM). Research has shown that women who develop GDM are at increased risk for developing Type II diabetes later in life, and this elevated risk persists for up to 35 years after pregnancy.[40] While GDM is included within the antenatal screening provided to all pregnant women, there is little data to indicate how many of women with GDM are followed or monitored in the long-term. There is a correlation between parental obesity and childhood overweight and obesity[41], but we do not have sufficient data about pre-conception health and wellbeing of parents in Singapore.

There is a lack of data on maternal wellbeing and both universal and targeted support for the mental health and wellbeing of caregivers. This is an area that is not well understood and under-researched in Singapore, particularly in reference to the mental health of fathers and the impact this has on the development of young children. The Singapore government's Working Group for Child and Maternal Health and Wellbeing is planning to focus on maternal mental health, with details to be released in 2023.

3.2.3. Opportunities for Early Learning

Key Messages

⇒ The Singapore government has policies that mandate the provision of both universal subsidies and targeted fee assistance; this way, the government ensures that all Singaporean and Singapore Permanent Resident children, regardless of family income, have access to childcare.

⇒ Implementation of frameworks and guidelines ensure the standardisation and improved quality of pedagogical and operational standards in early childhood care and education.

⇒ Singapore has a comprehensive landscape of formal early learning opportunities for young children.

Overview

In 2019, Prime Minister Lee Hsien Loong announced the goal to expand access to government-supported preschools to 80% of the preschool population by 2025.[42] This was supported by the expansion of the Anchor Operator Scheme (AOP)[3] and the Partner Operator Scheme (POP), as well as the expansion of the Ministry of Education (MOE) Kindergarten programme, which is set to run at least 60 kindergarten centres by 2025.[43] Government spending on the EC sector has already grown significantly over the past decade to around $1 billion in 2018, and is expected to more than double over the next few years.[44]

While enrolment rates in Early Childhood Education and Care (ECEC) have remained relatively stable, the number of preschool places more than doubled in the last 10 years, from 90K to over 200K. The AOP was implemented in 2009 to increase both the availability of childcare and access to quality education for lower income children.[45] AOPs receive additional funding and support from the government to keep fees at a pre-determined cap and to improve the quality of care. The POP was implemented in 2016 to further improve accessibility, affordability and quality of childcare services. This is a broader programme with lower funding support than the AOPs and fewer quality requirements of centres.[46] Notably, the preschool participation rate of children aged 3 to 4 years from lower income families was about 80%, slightly lower than the national average of about 88%[47]. No discernible difference was observed for the enrolment of 5- to 6-year-old children.

Policies

In Singapore, the policies related to Opportunities for Early Learning include the Child Care Subsidy (CCS), the Kindergarten Fee Assistance Scheme (KiFAS), the Child Care Assistance Scheme (CCAS) and the Early Childhood Development Centre Act. The CCS is a universal subsidy available to all families, while KiFAS and CCAS are targeted fee assistance schemes for families with identified financial needs.

Families receive a basic subsidy of up to $600 for full day infant care and up to $300 for full day childcare with a co-payment by the family. Families earning a per capita monthly income of $3,000 and below also qualify for additional subsidies, as well as subsidised kindergarten fees (for children aged four to six years) under the Kindergarten Fee Assistance Scheme (KiFAS) in schools run by AOPs or the MOE[48]. Furthermore, under the additional subsidy, families where mothers are not in paid employment receive $150 in childcare or infant care subsidies regardless of household income, while working mothers are eligible for a means-tested subsidy of up to $710 for full day infant care and up to $467 for full day childcare.[48] Further financial aid is available for lower-income families who are unable to afford childcare fees after these subsidies.[49]

The Early Childhood Development Centre Act provides a set of guidelines for early childcare centres. These guidelines are enforced by ECDA and pertain directly to centre licensing and operations. This includes guidelines related to the safety, wellbeing and welfare of young children while they are attending a childcare centre or kindergarten, and the quality of services delivered at the childcare centre or kindergarten.

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[3] The Anchor Operator Scheme provides funding support to selected preschool operators to increase access to good quality and affordable care and education, especially for children from lower income or disadvantaged backgrounds. For more information, see https://www.ecda.gov.sg/Parents/Pages/AOP.aspx.

While not embedded in formal policy, ECDA has also taken incremental steps to standardise the quality of care across childcare and kindergartens through the development of the Early Years Development Framework (EYDF) for children from birth to 3 years, and the Nurturing Early Learners Framework (NEL) for children aged 4 to 6 years. These frameworks, together with the Singapore Preschool Accreditation Framework (SPARK), guide the improvement of both pedagogical and operational quality across preschools in Singapore. Additionally, a new Multitiered System of Support Framework in EC was put in place in 2021 to increase the level of targeted developmental support that children receive in preschools and expand the accessibility to public early intervention for children with additional learning or developmental needs.[50]

Programmes

Of all components of the NCF, Singapore has the highest number of programmes and services (72) that fall into the component of Opportunities for Early Learning. Of these, 63 are early childhood or pre-primary programmes delivered directly to young children. These include the five AOP-run programmes, 17 private childcare centres, and 41 targeted programmes for children with identified or suspected additional learning needs.

There are currently close to 2,000 preschool and childcare services in Singapore, comprising a mix of for-profit (private) and not-for-profit service providers.[51] Apart from MOE Kindergartens, preschools in Singapore are private business entities and largely deregulated in terms of curriculum and school fees.[52] Preschool attendance is not mandated by the Singapore government. However, approximately 95% of children in Singapore are enrolled in formal care and learning settings in the year before Primary One.[53] This enrolment rate has remained consistent over the last 10 years, despite a 55% increase in available preschool places between 2017 and 2021. The high rate of enrolment is indicative of the success of both funding and subsidies provided to all families, as well as the regulation of the quality of early education settings. At the same time, it should be noted that children from lower-income families have a much lower preschool attendance rate than the national average.[54] This discrepancy requires further examination to determine what barriers are faced by lower-income families in accessing preschool, and what other factors affect their decision to enrol (or not enrol) their child in preschool.

The table below provides a sample of the 63 early childhood programmes. The full list is provided in in Appendix A.

Table 3–3. Opportunities for Early Learning programmes

Intervention Name	Brief Programme Description	Evaluation available	
		Y	N
Anchor Operators			
PCF Sparkletots Preschool My First Skool My World Preschool Skool4Kidz	The five Anchor Operators have been selected by ECDA and provided with additional funding support. The centres run by AOPs are tasked to provide good quality and affordable early childhood care and education, with a fee cap. The centres are also expected to ensure that their educators have access to professional development and career progression opportunities. As of 2019, there were approximately 600 centres across the five AOPs.		✘

Intervention Name	Brief Programme Description	Evaluation available	
		Y	N

E-Bridge Preschool

Privately-run childcare centres			
Caterpillar Club	Led by aLife, a non-profit organisation, the programme aims to empower, educate and equip children aged four to 12 years from low-income and disadvantaged families with life skills. The programme includes elements of art and play therapy and takes place on a weekly basis.		✘
Circle of Care	The programme aims to meet the educational and developmental needs of children from disadvantaged backgrounds. Through the provision of holistic support and strong collaboration between caregivers and professionals, the programme seeks to strengthen the parent-child relationship and equip children with essential life skills, while concurrently coordinating care components across various stakeholders (e.g., teachers, social workers and educational therapists).		✘
YMCA Child Development Centre	The YMCA, a non-profit organisation, delivers a child-centred programme that integrates all areas of learning into an experiential journey and allows for learning outside of the classroom. The four centres are licensed through ECDA and enrols children from 18 months to six years of age.		✘

Targeted early learning programmes for children with identified or suspected additional learning needs			
Private Early Intervention Centres	There are a number of private early intervention centres and services in Singapore. Some of these programmes are covered under the EIPIC-Private Intervention Providers Programme (PPIP), a subsidy scheme provided by ECDA with income tiers. There are also non-funded, fully private centres, where parents pay full fee for the service.		✘
Inclusive Preschools	ECDA plans to introduce Inclusion Coordinators to all preschools by 2023, where every preschool will have a trained individual who is familiar with resources and supports for children with developmental needs. The Inclusion Coordinator will be able to provide advice to teachers and families and to bring in relevant early intervention support for the children.		✘
Making Everly Preschool Inclusive	This pilot programme brings together collaborative teams of early childhood educators from two preschool operators and early interventionists from Rainbow Centre, to carry out a co-teaching model to support children with disabilities in an inclusive preschool setting. The programme will culminate in the development of a service manual and training framework that will guide similar partnerships between other early intervention centres and preschools.		✘
Place for Academic Learning and Support	Through the Singapore Cancer Society, children aged three to 17 years, who are diagnosed with cancer, are provided with personalised academic support in an infection-controlled environment. The programme delivers a holistic curriculum, aimed at preparing children for their eventual return to school.		✘

Other than the 63 early childhood or pre-primary programmes delivered directly to children, six programmes focus on parents and caregivers by equipping parents and caregivers with the skills needed to scaffold their child's learning and development through meaningful and sustained interactions. These include: **KidSTART, Mendaki's Play Fest**, and **KelasMateMatika@CC**. These programmes are also included in the NCF component of Responsive Caregiving.

Only the **KidSTART** programme includes a specific component to support pregnant women, caregivers and young children in the home environment. This includes regular home visits and guidance given to parents on topics such as child development, health and nutrition. The final three programmes are related to cash transfers (e.g., Baby Bonus Scheme) and general support for child development (e.g., KKH Department of Child Development and NUH Child Development Unit).

Funding sources

Close to 30% of programmes (21) are privately operated with no direct government funding. These programmes are run by private, for-profit operators with no means-tested subsidies available. They are primarily early intervention programmes for young children with developmental needs or delays.

Approximately 18% of the programmes (13) are fully funded and run by the Singapore Government. These include the Inclusive Preschools and Early Intervention Program for Infants and Children (EIPIC). Furthermore, 50% of programmes (37) are partially funded by the government and run by non-profit organisations. These programmes require varying amounts of co-payment from parents, but the amounts are usually means-tested based on the income level of the family. The programmes include those run by charity organisations (e.g., Down Syndrome Association), social service agencies (e.g., THK Children Therapy Centre) and other organisations such as the Singapore Science Centre. Finally, two of the programmes are funded by philanthropic organisations (Circle of Care and Making Every Preschool Inclusive).

Gaps
Early education

Despite the efforts made to increase accessibility (through subsidies and increases in preschool places), there is still an unmet demand for preschool places in some communities. While preschools are at approximately 80% capacity nationally, preschool places are not distributed proportionally to the needs across the country and some communities continue to face demand that outstrips supply. Families with young children living in estates such as Punggol are still facing long waiting lists, due to the relatively young demographic of the estate, where 8.3% of the population are children below the age of 5. The unmet demand for preschool spaces in some areas of the country is further exacerbated by the shortage of experienced and qualified preschool educators[55].

Home-based learning opportunities

The NCF component of Opportunities for Early Learning also includes any learning opportunities afforded to infants and young children within the home setting. This typically refers to the presence of children's books and playthings in the home, together with early stimulation activities between caregiver and child. In Singapore, there are currently no policies or regulations to guide the provision or quality of in-home learning opportunities. Aside from the KidSTART programme, no other programmes were identified that support parents within the home environment. Despite increasing use of digital devices in the home, very little research has been conducted to understand the resultant changes to

home-based caregiving practices. Activities that children a decade ago may have engaged in with their caregivers may now have been replaced by digital devices. The impact of this shift is poorly understood. This is a crucial gap as home-based learning environments and interactions with caregivers make up a significant amount of time in which children may have opportunities to gain critical developmental skills.

Some available research indicates that while many families have books in the home, a fewer percentage of these families are reading to children: a survey conducted as part of an early childhood parenting landscape study by ECDA in 2014 found that 96% of parents surveyed had books at home for their children but only 57% read to their children at least twice a week[56]. One contributing factor may be the long working hours of many Singaporean parents. A survey by Kisi in 2019 found that Singaporeans worked an average of 44.6 hours a week and 23% worked more than 48 hours a week[57]. By comparison, the average work week in comparable countries such as the US, UK, or Australia ranges between 31 and 33.5 hours. Long working hours may contribute to parents not having time to engage with their children in play or learning activities at home.

More research is needed to understand the relationship between early childhood education and home learning environments, and dual income families in Singapore. Further, little data is available about non-parent caregivers (e.g., grandparents, family members, live-in domestic workers) and their role in facilitating early learning in young children. None of the shortlisted programmes included storytelling by elders for children, or the use of local languages and mother tongue in the daily care of children. These are interventions specifically highlighted within the NCF as key opportunities for early learning, and areas that could be further explored within Singapore, where the basic provision of quality early learning has already been met.

Early intervention

Singapore has many privately-run early intervention or ECD programmes with limited government regulation and no caps on fees charged to parents. One expert highlighted the high degree of inequity when it comes to resourcing, particularly related to early intervention. They noted that parents who are able to afford the fees have easy access to many more resources than lower-income families. In view of a general shortage of resources for early intervention, for example, parents are left thinking that they are subject to market forces to access necessary services. In addition, many privately-run programmes are not regulated by other government policies concerning early child interventions or education. This expert highlighted that parents who pay for these programmes need to be informed and aware about what they are 'buying.' Several experts highlighted that the lack of regulation over private providers creates challenges when trying to understand the breadth and quality of services available to families and limits the ability of service providers to support families in navigating the ECD system. This is further exacerbated by the inconsistent communication between service providers within the system.

3.2.4. Responsive Caregiving

Key Messages

⇒ The Singapore government has comprehensive policies addressing Responsive Caregiving, including parental leave policies, provision of affordable childcare,

> ⇒ Fourteen programmes address, in whole or in part, Responsive Caregiving.
>
> ⇒ Most focus on equipping parents with skills for positive interactions with their children with the aim to improve child development outcomes.
>
> ⇒ Some programmes focus on children with identified special needs, but also provide support to parents on responsive caregiving
>
> ⇒ Both the government and NGOs provide free online resources for parenting, including guidelines on various aspects of parenting and caregiving and materials to enhance learning and development

Overview

The NCF defines responsive caregiving as "observing and responding to children's movements, sounds and gestures and verbal requests" as well as "responsive feeding". The provision of responsive caregiving helps to safeguard the children's nutrition and safety, recognise illnesses, as well as foster closer bonds between the caregiver and child, allowing for "social engagement, cognitive stimulation, emotional regulation and soothing".[2] In terms of policies, this includes paid parental leave and affordable childcare services. Responsive caregiving programmes should not only include parental education but also focus on caregiver wellbeing, particularly mental health.

The Singapore government provides 16 weeks of maternal leave entitlement for Singapore citizens who have worked for their employers for at least three months before the birth, and two weeks of paternal leave for men who meet the same criteria and are/were legally married to the child's mother between conception and birth. Mothers who do not meet either of the criteria are entitled to 12 weeks of maternal leave. For mothers of non-Singapore citizens, eight weeks of leave are paid if the mother had been working with her company for at least three months prior to the birth and has fewer than two living children, while the remaining four weeks are either paid or unpaid depending on the mother's employment contract. Mothers who have been employed less than three months at the time of birth are entitled to 12 weeks of unpaid maternal leave, while fathers who do not meet the criteria are not entitled to paternal leave.[58,59]

Policies

Within the NCF component of Responsive Caregiving, the associated laws and policies include those related to paid parental leave, affordable childcare services, and urban design.

Paid parental leave

Paid parental leave is important in helping to foster parent-child relationships, allowing parents time to learn about their newborn and be more responsive to their child's cues. It also leads to better child health outcomes, where paid parental leave "increased the overall duration of breastfeeding of infants by nearly 18 days" and was associated with a higher frequency of medical check-ups.[60] A study by Lichtman-Sadot and Bell (2017) found that improvements in health outcomes associated with paid parental leave "[were] driven

by children from lower socioeconomic households", highlighting the impact that such policies have on this demographic.[61] Paid parental leave is also important for the parent's wellbeing. Research by Jou et al. (2017) found that paid maternal leave led to significantly lowered risks of re-hospitalisation for both mothers and infants, as well as higher odds of better exercise and stress management.[62]

The International Labour Organisation (ILO) has standards that mandate a minimum maternity leave period of 14 weeks, with clear recommendations to increase it to 18 weeks to ensure adequate rest and recovery time[63]. The ILO and other international organisations do not have explicit provision or regulations for paternity leave. In Singapore, paid parental leave for both mothers (16 weeks) and fathers (2 weeks) has been incorporated into laws covering early childhood (the Child Development Co-Savings Act), and broader labour laws (the Employment Act). Both provisions for mothers and fathers in Singapore exceed the current global standards. In this way, the Government has demonstrated its belief in the importance of this provision, with clear legal implications for companies that do not comply.

Affordable Childcare Services
While not a specific policy, the Child Care Subsidy provided through ECDA and included in the Government's Budget is crucial to the provision of affordable childcare services for all Singaporean children. Subsidies are provided in a tiered system, based on the employment status and household income of one or both parents. It is important to note that the subsidy for non-working parents is four times lower than for working parents. Non-working parents are those who are not in paid employment. While there are some exceptions (e.g., parent is pregnant, studying, deemed medically unfit for work, primary caregiver for another family member, incarcerated), these are approved on a case-by-case basis with limitations.

Urban Design
The NCF refers to the inclusion and development of green and child-friendly spaces that promote play and learning. Currently, Singapore does not have any existing policies that regulate the development of child-friendly urban spaces. However, the 2019 Masterplan developed by the Urban Redevelopment Authority (URA) of Singapore included the development and expansion of a network of play corridors, green spaces and natural playscapes.[64] While the Masterplan does not define play or the age range of children to which it intends to cater, this offers an opportunity for ideation and collaboration to create spaces that are friendly for the youngest children.

Programmes
Of the programmes identified in Singapore, 14 include components of responsive caregiving. Six programmes specifically seek to equip caregivers with the skills and knowledge to improve positive interactions with their children. This includes programmes such as **Parentwise** (Temasek Foundation) and **The Parenting Years** (Mendaki). Three of the programmes cater to caregivers whose children have specific developmental, behavioural, or learning needs. This includes children with Down Syndrome and anxiety disorders. Most programmes are aimed at families in vulnerable situations and from lower-income backgrounds.

Table 3–4. Responsive Caregiving programmes

Intervention Name	Brief Programme Description	Evaluation Available	
		Y	N
Baby Friendly Hospital Initiative	See Table 3-1. Adequate Nutrition Programmes for further details.		
Early Intervention Programme for Children Aged 2 to 6 with Anxiety Disorder	This parent-based programme, run by KKH, seeks to equip parents with skills to manage their child's anxiety-related behaviour. Over 10 sessions, parents learn about anxiety and how to reduce the frequency of accommodating or giving in to their child's anxiety. They also learn how to support their child in anxious situations, and how to create a practical and detailed plan they can use to help their child cope with anxiety. Note: Each hospital has various programmes within each child development unit/department. This list in not exhaustive but provides examples of these types of programmes.		✖
Family Excellence Circle	This Mendaki programme seeks to bring parents together in an informal setting to facilitate a network of support where parents help on another and exchange knowledge and experience. The programme aims to increase social connectedness among parents and promote confidence in parenting skills.		✖
Healthy START Child Development Centre	While primarily an early learning programme for children from lower socioeconomic backgrounds, the programme run by Beyond Social Services aims to increase parental and caregiver involvement through Individualised Education Plans.	✓	
KelasMate Matika@CC	Jointly run by Mendaki, the Islamic Religious Council of Singapore and the People's Association Malay Activity Executive Committees Council, the programme seeks to empower parents to be more confident in teaching their children basic numeracy concepts.	✓	
KidSTART	This intervention was piloted by ECDA and is now operated by the KidSTART Singapore agency. The intervention comprises of three components: 1. Home visits to pregnant mothers and children from birth to three, to guide parents with practical early childhood knowledge and skills, and to conduct regular developmental screening 2. Weekly playgroup session for children to play and parents to build a support network 3. Additional support in preschool to deepen parental knowledge on growth, development and health, and to ensure children are ready for school. The KidSTART Program also works with KKH and NUH for the home visitation program, and partners with hospitals to support health of the children.		✖
KKH Department of Child Development	See Table 3-2. Good Health Programmes for further details.		

Intervention Name	Brief Programme Description	Evaluation Available	
		Y	N
NUH Child Development Unit	See Table 3-2. Good Health Programmes for further details.		
ParentWise	The programme aims to benefit children and uplift parents, through evidence-based parenting tips. Through ParentWise, parents are aided with new parenting ideas, helping them to be more confident in raising their children.		✘
PlayFest	The programme, run by Mendaki, aims to generate parental awareness on the importance of play and its role in children's holistic development, to empower parents with knowledge on Mediated Learning Experience, and to develop critical skills amongst children.		✘
Prenatal Support	The Down Syndrome Association provides support to expectant parents of children with Down syndrome. This includes up-to-date information, counselling, and preparation for when the child is born.		✘
Preschool Outreach	In conjunction with ECDA and other community partners, the programme seeks to promote importance of preschool education and support families from low-income households enrol their children into preschool. Outreach agencies also work closely with the families to ensure regular attendance after enrolment.		✘
Signposts Parenting Program	See Table 3-2. Good Health Programmes for further details.		
The Parenting Years	The Parenting Years provide parents with the skills to encourage their child to embark on a journey with them to create many happy memories, nurture a closer bond and meaningful relationship.		✘

In addition to government-sponsored online resources, some programmes run by non-governmental organisations also provide accessible parenting materials. For example, Temasek Foundation's **Parentwise** provides parenting tips and educational materials for young children. Some government-supported parenting programmes such as Signposts are available for eligible families. These initiatives, which are complemented by other parenting programmes conducted by private organisations, aim to equip parents with the necessary skills and competencies to respond to their children's needs, particularly very young children.

Gaps
Support for caregiver health
In recent years, organisations in Singapore have begun to place increasing importance on responsive caregiving and on equipping parents with positive parenting skills and knowledge. This is observed through universal programmes such as Parentwise and accessible resources such as the Parent Hub. Further support is provided through programmes like Signpost Parenting Programme and PlayFest, for parents from a wider range of community and faith groups, particularly with lower incomes.

None of the programmes or policies specifically support the mental health and wellbeing of the caregiver or engage fathers and the extended family. This is concerning as international research has demonstrated that parental stress and depression, including that experience by fathers, has a negative impact on maternal-infant bonding and is also associated with increased risks of psychological and developmental difficulties in the child.[6565]

Paid parental leave

While Singapore is comparable to other high-income countries in terms of paid maternal leave, there is a large gap in gender parity when it comes to parental leave. Paternity leave is associated with higher paternal involvement in childcare duties and gender equality within the household, as well as better cognitive and developmental outcomes for the infant.[6666] Additionally, local research has shown that longer paternity leave durations are linked to better child outcomes, more positive family dynamics and fewer behavioural issues.[6767] It is thus important that Singapore public policy puts more focus on this area of leave entitlement.

Non-parent caregivers

In the NCF, Responsive Caregiving refers to any caregiver who is interacting with a young child. According to a study by the Singapore Children's Society in 2019, the main caregiver of children changed at different timepoints.[68] At 4 months of age, most children were cared for by their mother, at 18 months the main caregiver was the grandmother, and by 3 years of age, most children were cared for at a childcare centre. Grandmothers were the second most common caregiver at both 4 months and 3 years; the proportion of mothers who were the main caregiver declined across timepoints. This could be in part the result of women returning to the workforce after their maternity leave ended. A 2017 report by MSF found that the number and proportion of dual income families, defined as married couples with at least one child below the age of 21, have increased by 19.7 percentage points between 2000 and 2015 from 45.9% to 65.6%.[69] As such, it is no surprise that families depend on alternative childcare arrangements after mothers return to work.

The range of people providing caregiving for infants and young children necessitates that programmes seeking to equip parents with positive parenting skills broaden their reach to include other caregivers such as grandparents and other extended family or community members. As many as 20% of Singaporean households employ a foreign domestic worker. While it is unclear how many rely on these (primarily) women for childcare purposes, this is an area that also requires further investigation. Programmes that equip all caregivers with the skills required for responsive caregiving would be beneficial for young children across Singapore.

3.2.5. Security and Safety

Key Messages

⇒ The Singapore government addresses social protection and social services for children and families across several different policies and regulations.

> ⇒ The policies that meet the criteria of the NCF component of Safety and Security cover birth registration, access to clean drinking water, provisions for children who experience abuse, child protection, and adoption.
>
> ⇒ Singapore has no official poverty line or minimum wage mandate but has implemented the Local Qualifying Salary and a Progressive Wage Model.
>
> ⇒ Three programmes address Safety and Security in whole or in part by meeting the needs of low-income or at-risk families and young children.

Overview

Singapore is one of the world's safest countries in which to be a young child. In 2021, Singapore was tied with Slovenia at the top of Save the Children's End of Childhood Index Ranking. This ranking indicates the likelihood of children missing out on their childhoods in 174 countries, where a higher average score across eight domains indicated a lower number of children missing out on childhood due to various factors arising from poverty, conflict, neglect, and discrimination.[70] Safe drinking water and basic sanitation are also available to the entire population.[71]

The Housing Development Board (HDB) was established in 1960, with the mandate to provide affordable public housing to all Singapore citizens.[72] In 2020, nearly 80% of Singapore's resident population lived in subsidised HDB flats, and nearly 90% of households across housing types owned their place of residence.[73] While there is no official data on child poverty or homelessness, in cases where a family is unable to afford the purchase of their own residence, the government provides highly subsidised rental flats in public housing estates. This ensures that at a minimum, children have proper shelter and basic amenities.

The Singapore government has not defined and does not use an official poverty line as a means of gauging the financial security of citizens. According to Minister Chan Chun Sing in 2013, former Minister for Social and Family Development, this was because the Singapore government believed that "a poverty line does not fully reflect the severity and complexity of the issues faced by poor families", and that implementing one might result in a "cliff effect" where genuinely needy families above the officially set poverty line may be excluded from assistance.[74][74] The Singapore Government has instead chosen to use broader definitions of poverty and make use of tailored schemes and different criteria to identify and assess those in need.

Policies

The provision of social protection and social services for young children and families is included across a number of Singaporean regulations and policies. Singapore has made birth registration compulsory and has also achieved access to clean water in every household. This is bolstered by the Environmental Public Health Regulations, that stipulates the quality of water required for drinking.

The Children and Young Persons Act has clear provisions for children who experience abuse and neglect. As noted in an expert interview, the recent update of the Child and Young Persons Act in 2020 has led to an increased focus on the most basic care and protection needs of children, together with a clear and comprehensive framework for the

care of vulnerable children. This act outlines what constitutes abuse and neglect of children and child trafficking as well as outlining the punishments for such offences. The 2020 revision expanded protection to children under 18 (previously below 16 years), increased the stability of children in the foster system through Enhanced Care and Protection Orders, and increased the jurisdiction of MSF and non-family caregivers over the child's development.[75] The bill also extended childcare benefits to foster parents for the care of their ward.[76] These changes allow the government and designated caregivers for vulnerable children to intervene and safeguard the child's safety more swiftly, make take decisive actions for the child's care and wellbeing, and minimise disruption to the child's care, better protecting this vulnerable group of children.

Protection of vulnerable children is enhanced through the National Standards for Protection of Children, which sets out the standards for management of child protection and referrals. The adoption of children, both locally and from overseas is regulated under the Adoption of Children Act, which was revised in 2022. The amendments have sought to increase the protection of children in vulnerable situations and make improvements to the adoption process, with greater transparency across stakeholders.

Within the NCF, minimum wage is a policy that has the potential to improve the lives of children, by ensuring caregivers are able to earn an adequate income to meet each child's basic needs. While Singapore does not have a national minimum wage policy, it has set out a Local Qualifying Salary (LQS) that outlines the minimum salary that a resident worker must be paid, in order for them to count towards the company's total workforce.[77] Furthermore, Singapore has developed a Progressive Wage Model (PWM) for specific blue-collar sectors (e.g., cleaning and security) where workers can earn higher wages as they upgrade their skills.[78] While not comprehensive or applicable across the entire workforce, both the PWM and LQS provide some guidance to employers on what a reasonable or fair wage is, and has an impact on expected salaries.

Programmes
Unmet needs within Security and Safety are relatively low in Singapore. In addition to universal access to clean and safe drinking water and basic sanitation, 99.9% of children are registered at birth. There are three programmes that either directly or in part addresses the NCF component of Security and Safety.

Table 3–5. Security & Safety programmes

Intervention Name	Brief Programme Description	Evaluation Available	
		Y	**N**
Baby Bonus Scheme	See Table 3–2. Good Health Programmes for further details.		
Safe and Strong Families Programme	This programme was piloted as a development of the National Standards for the Protection of Children policy. The programme outlines the role of the community and provisions to support families with child protection concerns in order to improve the environment that the child is in and support parents' needs. This is centred around the goal of keeping families together.		✘
KidSTART	See Table 3–4. Responsive Caregiving programmes for further details.		

The government has also implemented a range of services to support vulnerable families and children in the ECD sector.[79] This includes **KidSTART**, which is aimed at families from low-income households.[80] Welfare services are also supported by Social Service Agencies (SSAs), which often receive the majority of their funding from the government and provide targeted support for specific needs, such as in housing, access to household necessities, and legal services.

Gaps

Vulnerable Populations

First, the needs of certain vulnerable populations, such as young unwed mothers, are not being effectively met, in particular with challenges to accessing stable, affordable housing. Unstable, overcrowded and/or abusive housing situations for children in low-income families remains an under-researched area of concern.[81] A report released by the Association of Women for Action and Research in 2022 on a pilot project that provided 18 vulnerable women and their children with stable housing by paying for the families' rent and utilities for up to two years, found that it helped participants to secure more long-term stable housing, allowed them to improve their financial stability, and increased the families' wellbeing. The report also highlighted the challenges that low-income single parents faced when applying for public housing, where barriers to application such as the age of applicant made it harder for them to gain access to stable housing and increased uncertainty as those who did not meet the criteria were assessed on a case-by-case basis and could have their applications rejected. This is a particular concern for unwed parents under the age of 21, as they are not eligible for public housing and shelters due to their age and often do not have the financial capabilities to seek other housing arrangements.[82] This can have negative repercussions for their young children who lack stability and security as a result.

Centralised Access to Services

Second, there is no centralised point of contact for families to access the support they require and to which they have access. This means that families must navigate and understand a complex system, to find the best support for their specific needs. Based on expert interviews conducted for this study, this frequently results in missed opportunities for essential services or long delays for necessary early intervention. Existing programmes and services should investigate how they can best meet the needs of specific vulnerable or at-risk groups within the larger population of families to whom they provide services.

Other means of reaching children and families with integrated services brought to families and children within high-reach touchpoints, than a system requiring parents to access in multiple sites should be explored.

3.2.6. Cross-cutting Topics

Gaps

Coordination across providers

Singapore has a comprehensive breadth of programmes and services. This was affirmed in the interviews, where experts noted that there was a "good mapping of services… with as many children as possible being covered under the system." As noted by another stakeholder:

> *"In a system where there is good mapping, there will be a service provider for everything. So, the challenge…is when we have children who fit multiple categories of support and whilst the support exists, …caregivers may not always be able to navigate through the system."*

The range of options available to families for ECD programmes and services, while extensive, can lead to fragmentation and challenges for families with navigating the system. This is particularly true for families of children with special needs, or families with multiple needs. These families either get left out inadvertently due to overlapping needs or find it difficult to navigate the system. For families who are already time-poor, it adds a layer of unnecessary complexity in accessing the services that are most meaningful and necessary.

Long waiting lists for some services and a lack of communication between service providers mean that some parents seek support through privately-run organisations. As discussed, there is less regulation for some of these providers, which puts increasing pressure on families to determine if they are receiving high-quality services and value for money. Expert interviews revealed that this fragmentation of the system is equally challenging for service providers and practitioners, who are limited by resources and time to provide the services that they perceive are needed by some families. Further, while they understand that families often need support to navigate the system and organise required services, many providers do not have the capacity to provide this additional help.

Retention and quality of the workforce

Throughout the study, few references were made to the quality improvement and assurance, and retention of the early childhood workforce. The workforce, in the context of this landscape study, refers not only to early childhood educators, but also community health workers, early intervention specialists, nurses, doctors, social workers, child protection officers, and others who work with young children and their families.

Multiple experts noted the increased investments from the Government in the professional development and training of early childhood educators and early intervention specialists. Through the work of ECDA and SkillsFuture Singapore, professional standards and clear career pathways have been implemented across the sector. However, there are currently no programmes pertaining to the training or professional development of other professionals who work directly or indirectly with young children and families, particularly if their role is not specific to working with young children but spans a broader population group. There is also little opportunity for inter-agency and cross-agency learning and apprenticeship for the workforce who are looking after the most vulnerable children,

which could enhance skillsets and lead to better agency coordination with the increased breadth of knowledge and skills.

Furthermore, there is a high turnover and attrition rate of professionals within the ECD sector, which was likely exacerbated in the COVID-19 pandemic. In two expert interviews it was noted that educator burnout has been a prominent stressor on the sustained provision of high-quality care and services for young children. More research will need to be conducted in this area to have a clear understanding of the breadth and depth of the issue.

Data & monitoring systems

While Singapore has a well-developed and relatively advanced ECD sector in terms of programmes and policies, there is still critical data missing in specific areas that is required to make informed decisions about the need for new programmes or policies, or the enhancement of existing programmes. Two examples discussed previously are the lack of data about initiation and sustainment of breastfeeding, and the understanding of the home learning environment and its relationship to ECD.

Furthermore, Singapore is lacking a coherent long-term outcome monitoring system. This was highlighted during an expert interview. This person noted that such a system would allow the country to track long term outcomes and gain clarity of understanding about the needs of children and mothers. They also noted that a data monitoring system would support the work of professionals who interact directly with children and caregivers, to understand the impact and gaps of service provision. Such a system will allow systematic and cross-agency understanding of more complex issues where the needs of children and families cannot be addressed through single agency services and programmes alone.

3.3. Conclusion

Singapore has a comprehensive set of policies and programmes that address most components of the NCF. Where there are no formal policies (Adequate Nutrition), there are guidelines and oversight to ensure adequate coverage of key issues. Of the NCF components, the majority of the programmes fall in Opportunities for Early Learning, an indication of the country's strength and commitment to early education for young children. The establishment of new inter-agency taskforces addressing, among other issues, maternal and child health, are also an indication of the ongoing efforts to ensure that all young children have the same opportunity to achieve their potential.

While Singapore has obvious strengths in the ECD landscape and continues to make investments in improving outcomes for young children and families, there are areas in which additional research and resources are required. Singapore has moved beyond the requirement to meet basic needs of nutrition, clean water, and access to early education. Efforts could now be focused in coordinating services, collecting more and better data, and strengthening the workforce to appropriately meet the needs of the most vulnerable young children and families.

4. What programmes have been evaluated?

This section will address the research question: "What evaluations have been undertaken of ECD programmes and services in Singapore?"

4.1. Overview of evaluations

Of the 83 programmes shortlisted in Singapore, 12 programmes have been evaluated. This includes both publicly available publications (peer-reviewed articles or reports), and evaluations (completed or ongoing) to which reference is made on a programme website or related source. Of the 12 programmes that have been evaluated, six are government-run or supported and six are run by NGOs, social service agencies, or other non-governmental organisations.

Four evaluations have been published and are publicly available. Three have been published in peer-reviewed journals while one is available online through an internal programme report. A fifth programme evaluation summary was provided to the study team upon request.

Of the remaining seven programme evaluations, two are still undergoing evaluation while the rest do not have the evaluation details publicly available. As such, they have not been included in the table below.

Table 4–1 provides details about the five available programme evaluations.

Table 4–1. List of programmes with publicly available evaluations

Name of Programme/ Source document	Source of Evaluation	Evaluation summary	Study design and methods	Additional comments (from ECD Landscape Study team)
Development Support (DS) and Learning Support (LS) Programme (Previously known as Mission I'm Possible) Chong, W., Tang, H., Koh, P., & Choo, S. (2016). *Implementation of an Early Childhood Prevention Program from a Health Care to Community-Based Setting in Singapore: Lessons from "Mission: I'm Possible".* In M. Israelashvili & J. Romano (Eds.), The Cambridge Handbook of International	Peer-Reviewed Journal Article	This study evaluated the outcomes of Mission I'm Possible (MIP), a pilot which was eventually expanded into the nationwide Development Support and Learning Support programme. The full programme has not been evaluated since the publication of this pilot evaluation. The MIP programme aimed to screen and flag pre-school children with developmental needs and address the needs of these children. The evaluation aim was to generate information on the profiles of the children and families involved in MIP, review the program effectiveness, and identify barriers and challenges encountered in the process of programme delivery.	The study collected information on 149 parents and their children who received intervention through MIP. A comparison group of 281 children without developmental concerns was also evaluated. Given the highly individualised nature of the intervention, outcomes were based on the goals established for each child (Individualised Education Plans) and the degree to which children attained these goals, using Goal Attainment Scaling. Additional interviews with parents, surveys and FGDs of teachers and principals were also used to examine programme effectiveness. No objective measures were used to evaluate child outcomes, nor were control group measures used due to the nature of the intervention.	Due to the individualised nature of the intervention, programme evaluators did not use objective measures to assess programme effectiveness. The IEP goals set for each child are unique and thus not comparable to enable a robust assessment of programme effectiveness. The comparison group of peers did not have developmental needs and had significantly higher scores at baseline. Specifically, the children in the intervention group "were comparably less prosocial and adaptable, and displayed less adequate social skills than their peers in the comparison group. Furthermore, they were reported to display significantly more behavioral and attention problems."

Name of Programme/ Source document	Source of Evaluation	Evaluation summary	Study design and methods	Additional comments (from ECD Landscape Study team)
Prevention Science (pp. 574-596). Cambridge: Cambridge University Press.				The lack of a true comparison group makes it difficult to attribute the changes seen in the evaluation to the intervention alone.
		Study Findings Findings from the IEPs and Goal Attainment Scaling "suggested that specialized therapists, in general, set modest goals that can be realistically achieved within a fifteen-week intervention time frame and that children in the program made good progress in attaining them." An additional evaluation of the MIP Literacy Therapy Program also demonstrated that children in the intervention group showed gains in certain aspect of literacy. Parent interviews and FGD with teachers and principals suggested positive shifts in childrens' prosocial behaviours after intervention.		
Early Intervention Program for Infants and Children (EIPIC@Centre) Chong, W. H., Goh, W., Tang, H. N., Chan, W. P., & Choo, S. (2012). *Service practice evaluation of*	Peer-Reviewed Journal Article	This study aimed to evaluate the family-centred practices implemented as part of the services provided by EIPIC. The aim of EIPIC is to support the needs of children who require medium to high levels of EI support, and to improve the child's development in their early years to facilitate integration into mainstream education.	Parent-completed measure (310 parents) and focus group discussions (70 parents) Study used the Measure of Processes of Care-20 (MPOC-20), a tool that measures five dimensions of family-centred service. The tool has been shown to be reliable and has been validated for the measurement of family-centred care.	This evaluation focused on aspects of the EIPIC programme – the extent to which services were family centred- and was not a full evaluation of the EIPIC approach.

Name of Programme/ Source document	Source of Evaluation	Evaluation summary	Study design and methods	Additional comments (from ECD Landscape Study team)
the early intervention programs for infants and young children in Singapore. Children's Health Care, 41(4), 281–301. https://doi.org/10.1080/02739615.2012.721719	Study Findings Results found that parents had a positive perception of the family-centred practices. Parents found the programme to be helpful in addressing the developmental needs of their children and particularly appreciated the personal nature of the service. However, they also highlighted the need for more resources on parental self-care and support.			
Healthy START Child Development Centre Keertana, P. (2020). *Evaluation report on research findings from parental survey (2017-2018).* https://beyondresearch.sg/wordpress/wp-content/uploads/2020/06/HSCDC-Evaluation-report_2-Jun-2020.pdf	Internal Report	This report provided an analysis of the parental feedback surveys completed by recipients at the Healthy Start Child Development Centre and through the surveys, assessed the effectiveness of the programme.	No information provided on methods, including the sampling approach, total number of surveys distributed, response rate, or method of survey administration. Data collected through a survey developed by the programme team. Survey themes are included in the report but not the full survey.	It was not clear how the survey was administered to parents and if changes were made to survey administration between 2017 and 2018. The response rate to the survey was not reported and no information was provided on how many reminders were sent to parents about the survey, or how many attempts were made to engage parents if the survey was conducted in person.

Name of Programme/ Source document	Source of Evaluation	Evaluation summary	Study design and methods	Additional comments (from ECD Landscape Study team)
				These omissions in information about study methods make it difficult to interpret the validity of the findings.
		Study Findings		
		In 2017, more than 50% of the respondents said that the current programme was adequate. The areas with more critical feedback included the literacy, numeracy, and socio-emotional skills parts of the curriculum. The parents were generally satisfied with the quality of care and felt that the centre was responsive to their feedback.		
		In 2018, the survey was modified to streamline the previous year's survey. Respondents generally had good feedback on the programme, with at least two in three parents noticing progress in each of the educational domains.		
KelasMateMatika@CC (KMM) Mendaki KMM Evaluation Summary (Shared with team via email)	Mendaki KMM Programme Evaluation Summary	The KMM programme sought to equip parents with the skills to teach their preschool children basic numeracy concepts. This evaluation examined the relationship between the KMM intervention and the likelihood of children being deemed school ready	RE-AIM Framework, Chi-Square statistical analysis and recursive partitioning	

Name of Programme/ Source document	Source of Evaluation	Evaluation summary	Study design and methods	Additional comments (from ECD Landscape Study team)
Yayasan Mendaki. (n.d.). *KELASMATEMATIKA@ CC*. Yayasan MENDAKI. Retrieved July 19, 2022, from https://www.mendaki. org.sg/programmes/k elasmatematikacc/	Study Findings The study found that there was a statistically significant relation between the KMM graduation status and perceived school readiness of children. The evaluation also found that children whose parents had low expectations of their mathematical ability were more likely to require additional learning support in Primary One.			
Signposts Parenting Programme Yap, D., Lau, L., Nasir, N., Cameron, C., Matthews, J., Tang, H. N., & Moore, D. W. (2014). *Evaluation of a parenting program for children with behavioural problems: Signposts in Singapore*. Journal of Intellectual &	Peer-Reviewed Journal Article	This evaluation was of a systematic replication of the Signposts programme in Singapore, with the aim to determine if the outcomes would be similar to those found in an earlier Australian study. The researchers predicted that parents would be 'significantly less hassled, anxious, depressed, and stressed on completing the program. They would feel more confident and more effective in terms of their role as parents. We also predicted that they would rate their children's behaviour to be less difficult.	The study collected information on 1,021 participants, of which 98.5% (1,006) completed the pre-programme survey, 69% (704) completed the post-programme survey, and 37.3% (381) completed the 3 month follow up. The measures used were: 1) Parenting Sense of Competence Scale, 2) the Depression Anxiety and Stress Scale, 3) the Parenting Hassles Scale, 4) the Developmental Behaviour Checklist, and 5) the Difficult Behaviour Assessment Form. All measures have strong reliability and validity.	The authors acknowledge the lack of a comparison group and the inability to determine if the sample of voluntary participants is representative of the population to which the work will be generalised as limitations of the study. Early findings that fathers and mothers had slightly different outcomes on some measures should be examined in further studies to determine if there are differences in behavioural management approaches between parents, and thus if interventions should be

Name of Programme/ Source document	Source of Evaluation	Evaluation summary	Study design and methods	Additional comments (from ECD Landscape Study team)
Developmental Disability, 39(2), 214–221. https://doi.org/10.3109/13668250.2014.899567				further refined to reflect these differences.
		Study Findings The study found that parents rated themselves to be significantly more confident in managing their child's behaviour and were less hassled, stressed, depressed and anxious after attending the programme, with the small to medium effect sizes ranging from 0.12 to 0.59 across the measures. The highest effect sizes were seen in parents' sense of competency. Parents were significantly less hassled by different behaviours following the intervention, and there were significant improvements in the parents' ratings of their child's level of compliance. Programme effects were maintained 3 months after the programme had ended.		

Conclusion

Despite a robust programmatic and policy landscape, the number of programmes that have been evaluated is very low. Furthermore, less than half of the evaluations are publicly available or published in peer-reviewed journals. There is an urgent need to conduct programme evaluations and openly share the findings. Doing so would support evidence-informed decision making about programme scale up, sustainability or the need for programme modification. Funding decisions, whether to continue funding existing programmes, to fund new initiatives, or to fund scale up of programmes can be evidence-informed if well-designed evaluations are conducted and the findings shared.

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Abbreviations

AOP	Anchor Operator Preschool
CCAS	Child Care Assistance Scheme
CCS	Child Care Subsidy
CDA	Child Development Account
CDU	Child Development Unit
CEI	Centre for Evidence and Implementation
CHAS	Community Health Assist Scheme
CHILD	Centre for Holistic Initiatives for Learning and Development
DS-LS	Developmental Support and Learning Support Programme
EC	Early Childhood
ECD	Early Childhood Development
ECDA	Early Childhood Development Agency
ECEC	Early Childhood Education and Care
ECHO	Early Childhood Holistic Outcomes Framework
EI	Early Intervention
EIPIC	Early Intervention Programme for Infants and Children
EYDF	Early Years Development Framework
GDM	Gestational Diabetes Mellitus
GDP	Gross Domestic Product
GUSTO	Growing Up in Singapore Towards Healthy Outcomes
HDB	Housing and Development Board
HPB	Health Promotion Board
ICCP	Integrated Child Care Programme
ILO	International Labour Organisation
KiFAS	Kindergarten Fee Assistance Scheme
KKH	KK Women's and Children's Hospital
LQS	Local Qualifying Salary
MOE	Ministry of Education
MOH	Ministry of Health
MSF	Ministry of Social and Family Development
NCF	Nurturing Care Framework
NCIP	National Childhood Immunisation Programme
NEL	Nurturing Early Learners Framework
NGO	Non-Governmental Organisation
NIE	National Institute of Education
NIEC	National Institute of Early Childhood Development
NUH	National University Hospital
PWM	Progressive Wage Model
SICS	Singapore Institute for Clinical Sciences
SIFECS	Sale of Infant Foods Ethics Committee
SKIP	Singapore Kindergarten Impact Project
SPARK	Singapore Pre-School Accreditation Framework
SSA	Social Service Agency
UNICEF	United Nations Children's Fund
URA	Urban Redevelopment Authority
WHO	World Health Organisation