

ZERO TO THREE IN BERMUDA

WHAT FURTHER ROLE CAN PHILANTHROPY AND GOVERNMENT
PLAY TO SUPPORT EARLY CHILDHOOD DEVELOPMENT?

FULL REPORT - MAY 2015

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Hemera Foundation Fund
Early Childhood Development
Project & Research Fund



EXECUTIVE SUMMARY

Extensive research and evidence has clearly established that between birth and the fourth birthday (zero to three) are the most critical years of development for a child. This window of opportunity once missed, is nearly impossible to fully recover.

The Early Childhood Development (ECD) landscape in Bermuda reflects a wide range of programmes and services from the Government, private and nonprofit sectors that target the zero to three population. Much is being done. However, optimum ECD delivery is strained by stretched Government services, dated infrastructures, fragmented approaches, insufficient financial resources and troubling social issues. The issue of poverty is a reality for many families.

Other factors that make the landscape even less conducive include: limited standards and regulations for childcare; and a high ratio of incarceration that reduces access to nurturing, especially from fathers.

Individuals interviewed for this report echoed the concerns identified from analysis of the landscape, programmes and services. Key concerns were around:

- » General lack of understanding about ECD in the community
- » Siloed and disjointed programmes and services
- » Lack of adequate qualified professionals
- » Quality care services not readily accessible to all
- » Sparse and unreliable local data collection

In spite of the challenges in the field, some bright spots do exist in all sectors. Exemplary programmes that stand out hold themselves to higher than required standards, implement theory based approaches and integrate evaluation systemically.

When compared to what we know works, **five critical gaps** were identified that limit the opportunity to shape the early experiences of children in Bermuda: Information and education; Regulations and policy; Access to affordable high quality daycare; Measurement and evaluation; and Advocacy.

This report concludes with recommendations for specific action around FOUR Strategic Priorities, proposed as pressing opportunities for funding:

1. Information and Education – stimulate conversations on ECD in the community and deliver information on available resources
2. Support Bright Spots – provide flexible funding to reinforce and enhance exemplary infant programmes and services
3. Incubate Signature Programmes – significantly expand and provide affordable access to one or more high quality daycare programmes
4. Policy and regulation – support the development of the infrastructure needed to coordinate an effective early childhood system at all levels across Bermuda



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1. BACKGROUND & INTRODUCTION

What the report is about

This report has been developed to understand the status of Early Childhood Development (ECD) in Bermuda.

The report was commissioned through the Bermuda Community Foundation (BCF) and is sponsored by the Hemera Foundation as well as the Early Childhood Development Project and Research Funds at BCF, the Gutteridge family, the Bank of Bermuda Foundation and private donors.

The sponsors want to understand the landscape with a view to being able to explore appropriate and focused social investments in the field.

The report focuses specifically on children from conception up until their fourth birthday, the time period referred to throughout this report as 'zero to three'.

Factors prior to birth including during the period of gestation are also considered in the report.

Alignment with social change philanthropy

Social change philanthropy supports organizations that are getting to the roots of problems instead of only addressing the symptoms.

To this end, with the premise of asking those who are directly affected by and working on an issue, the funders have undertaken the development of this report to:

- » Understand ECD issues from a Bermuda community perspective
- » Make it a point to identify and reinforce successful community partners who are making a positive impact within their area of expertise, including professionals and dedicated volunteers
- » Support innovative solutions
- » Potentially engage parents, the public, public officials, and business & community leaders in addressing the gaps that exist

How information was collected

Information for this report was collected from various sources including:

- » Interviews with a broad spectrum of stakeholders representing the public, private and nonprofit sectors in Bermuda and overseas¹ - over 50 individuals were interviewed²
- » Review of scholarly research, publications and reports
- » Analysis of relevant demographics
- » Review of stakeholders in the field
- » Site visits

What is in the report

The report outlines ECD research & evidence, followed by an overview of relevant local demographics. The current economic and social landscape within which early childhood occurs in Bermuda is then discussed.

Key stakeholders, programmes and services are reviewed, followed by an outline of the major themes that emerged from interviews.

The report concludes with a summary of the gaps identified in the field, as well as specific opportunities and proposed strategic priorities for philanthropic and other funding to support addressing those gaps.

Limitations

Possible limitations of this report include lack of available or reliable data, access to potentially significant stakeholders and self-reporting from service providers. Information collected may also be influenced from factors such as current topical economic and political issues.

¹ See Appendix 1 'Register of Interviewees'. Some individuals were interviewed on more than one occasion. Quangos are categorized as 'Government'.

² Many of the interviewees provided more than one level of insight with, for example, parenting perspectives in addition to professional viewpoints.



“Beginning immediately after birth, a strong foundation for human well-being requires responsive environments and supportive relationships to build sturdy brain circuits, facilitate emerging capabilities, and strengthen the roots of physical and mental health.”

Harvard University Center of the Developing Child

“In this, our Island home, the difference between those children who do well and those children who do not is usually determined by the amount of sincere care, time, and relationship that they have at home and with family.”

Bermuda Nonprofit Director

2. BERMUDA LANDSCAPE FOR BABIES & TODDLERS

The social, physical and economic characteristics of a community provide a crucial backdrop for the broad range of factors that contribute to effective ECD. These include health, developmentally appropriate education, quality caregiving, and access to preventive health services.

A recent report¹ by the Inter-Agency Committee for the Protection of Children and Families (IAC), identifies the Island's health profile as representative of a developed society with a fairly advanced health system. However, the report also pinpoints a range of issues and challenges that can have potentially damaging effects on the early development of young children, especially the already financially disadvantaged.

The good

The IAC report identifies advances in Bermuda's health system for children, including the following:

- » Infectious diseases are under control
- » Subsidized by the Government, basic health care and some secondary health care services are available and accessible to those who are most vulnerable
- » Immunization has significantly improved since 2001
- » The majority of the population has access to healthful foods and wide-open space necessary for healthful living
- » Infant Mortality Rates (IMR) and Maternal Mortality Rates (MMR) have remained relatively low over the years
- » Chronic malnutrition has been virtually eliminated
- » Teenage pregnancy has declined significantly, dropping by 50% since the 1990s

The not so good

Challenges in Bermuda that affect the zero to three population captured in the IAC report, include:

- » Ballooning cost of health care that could inhibit health seeking behaviours

- » Limited development in structures for cross sectoral collaboration and cooperation
- » Weak systems of reporting on indicators of infant/child health
- » Low breastfeeding rates
- » Emerging trend of low birth weight babies
- » Early sexual initiation and high proportion of sexually active teens
- » Poor attitudes and behaviours of parents including poor family management, gang involvement, drugs and alcohol
- » High dependence of low income families on social assistance
- » High cost of food
- » Single parent households vulnerable to poverty
- » Frayed capacity of agencies tasked with the delivery of key services or benefits
- » Affordable housing a significant challenge

The recognition of many of these challenges and the call to address them is corroborated in the recommendations from the Sage Commission (2013)², which include the following:

"There needs to be an urgent, formal, strategic review of the delivery of Human Services in Bermuda to ensure that those requiring support receive specific, targeted assistance, while keeping the cost of service delivery to a minimum."

¹ IAC Report on the Assessment of the Situation for Children in Bermuda, 2014

² The SAGE Commission conducted a six-month analysis of Bermuda Government services and made recommendations for a more modern, efficient and accountable government system



BERMUDA LANDSCAPE FOR BABIES & TODDLERS

The Bermuda Civil Society Project (BCSP)³ produced a report in 2010 that detailed the most significant social issues affecting Bermuda's population. Identified from a series of convenings of social service agencies from the public, business and nonprofit sectors, the issues are described in Table 1 below.

These concerns continue to be highly relevant in Bermuda's landscape for babies and toddlers.

Table 1: Key Social Issues in Bermuda (BCSP, 2010)

PRESENTING PROBLEMS	UNDERLYING CAUSES
Lack of healthy relationships	<ul style="list-style-type: none"> » Unaddressed trauma over generations » Family and community disconnect » Lack of focus on well being as a country
Lack of education and life skills	<ul style="list-style-type: none"> » System is broad from the top down – doesn't accommodate learning styles » Politics / lack of leadership in education » Lack of community / family involvement
High cost of living	<ul style="list-style-type: none"> » Goods » Food » Shelter
Lack of protection for our vulnerable populations⁴	<ul style="list-style-type: none"> » Unaddressed trauma » Lack of system(s) that work to address issues » Over / mis / convenient diagnosis
Lack of parenting skills	<ul style="list-style-type: none"> » Breakdown of extended family / community, lack of support » Generational pattern of unresolved trauma » Lack of clarity around what a good parent is
Lack of data/ research/statistics	<ul style="list-style-type: none"> » Data not disseminated » No central database » No independent body to ensure findings are ethical – lack of accountability
Inadequate socialisation	<ul style="list-style-type: none"> » Poor understanding of cause / effect, resulting in loss of personal responsibility and accountability » Breakdown of family unit » Discouraged mixing between systems (races, classes etc)

Poverty in Bermuda... an economic landscape where poverty is a reality for many families.

A particular area of concern for the zero to three population, is the issue of poverty. In a country that boasts the fourth highest per capita income in the world⁵, the number of people living at or below the poverty line continues to increase.

According to the 2000 census, (Department of Statistics, 2002) over 50% of black female-headed households live at or below the poverty line. The Poverty in Paradise documentary (2010)⁶ explores this population in depth, and portrays a compelling and weighty reality of the adverse impact on their infant and older children. The documentary opens a window into the lives of low-income and working class mothers many of whom are homeless, jobless and in despair. Even highly motivated parents who are advocating for their children's needs appear to be weighted down by the circumstances of being poor in Bermuda.

The immediate and long term effects of poverty and consequences such as hunger and homelessness on the zero to three population are well documented. Effects like poor health and well-being, plus increased risk for academic and social problems can in turn undermine healthy development, and consequently impact society in general.

³ The Bermuda Civil Society Project, funded by The Atlantic Philanthropies was established in 2010 to provide independent research and data analysis on how stakeholders deliver programmes and services to the community.

⁴ In 2014, the Registry General & Charity Commissioners of the Bermuda Government Ministry of Home Affairs, released the 'Protecting Vulnerable Persons Policy' for charities working with vulnerable persons because of age, physical or mental ability, ill health or because of affiliation with crime.

⁵ As reported in the 2014 CIA World Factbook.

⁶ Poverty in Paradise: The Price We Pay (Documentary sponsored by The Bermuda Coalition for the Protection of Children, 2010).

BERMUDA LANDSCAPE FOR BABIES & TODDLERS

Highlights of the 2013 Household Expenditure Survey Findings⁷

- » Average weekly household expenditure increased 18% above the 2004 expenditure level reaching \$1,807 in 2013
- » The weekly income for a single parent household is \$2,025 of which \$1,555 (77%) goes to basic expenses like Rent and Electricity. This *excludes* major household costs such as children's education and day-care services
- » Average weekly expenditure on Fuel and Power at \$75.21 was roughly 67% higher than the \$45.16 spent ten years ago. This increase was due mainly to a 70% growth in spending on electricity
- » Expenditure on Medical, Health and Personal Care increased nearly 49% from \$133.06 per week in 2004 to \$197.87. Increase in health insurance costs accounted for 74% of the higher spending level
- » Housing remained the largest share (29%) of weekly spending at \$520 per week

The current reality

In spite of Bermuda's established⁸ network of government programmes and services, there appears to be a growing and urgent need for more to be done to address critical needs of the zero to three population.

Nonprofits like the Coalition for Protection of Children, The Family Centre, Hands of Love operated by Fern Wade, Lady Cubitt Compassionate Association, The Salvation Army and several churches provide a patchwork of programmes and services which help in addressing some of the shortfalls from Government's stretched services.

Despite these and other efforts, the evidence is growing that the economic and social landscape for the zero to three population is increasingly challenging.

Appropriately directed philanthropic funding may be able to assist in establishing a more encouraging landscape for ECD in Bermuda.

⁷ 2013 Household Expenditure Survey – Government of Bermuda, Cabinet Office, Department of Statistics

⁸ A 2010 UNESCO report named Bermuda as the only CARICOM country having a sustainable system in place to perform developmental screening and provide adequate follow up support

“Stress in early childhood which is frequently linked to environments of poverty, may not only impact children's intelligence and ability to develop executive functions, but also have implications for their future academic success.”
Zero to Three JVA Consulting Report (2013)

“Parents don't seem to understand their role in the services we provide and what part they can play – they think the service provider should fix everything. We need to educate both parents and everyone else in the system about what each of them does.”
Child & Family Service Professional



3. EVIDENCE SUPPORTING EARLY CHILDHOOD DEVELOPMENT

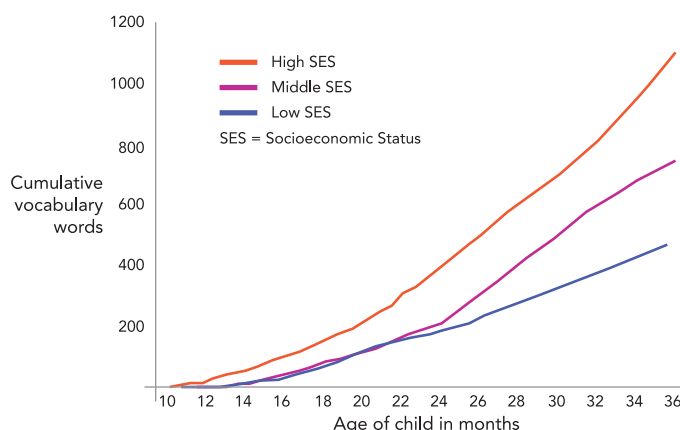
There is an explosion of research, evidence based programmes and evaluation results that informs our knowledge about the developing brain. Such information continues to improve our understanding of how to implement successful adaptation and effective learning and development in early childhood.

Why early childhood development is important

While lifetime events, social environments and other factors can affect the development of children after infancy, the evidence is clear that early childhood development interventions can be directly linked to positive outcomes that influence economic stability, responsible citizenship and successful parenting of the next generation. Other outcomes¹ include:

- » Better math and language skills
- » Better social skills
- » Decreased need for special education programmes
- » Increased school retention
- » Higher graduation rates
- » Improved quality of workforce
- » Lower welfare dependency
- » Higher individual earnings
- » Reduced crime
- » Lower teen pregnancy rates

Graph 1:
Cumulative Language Experience²



The Hart & Risley (1995) seminal ECD study³ demonstrated the significant effects of day to day interactions on infant development. Since that work, a range of follow up studies and evidence based programmes has emerged. Their aim has been to look closely at the data, identify best practice models, and attempt to unite the public, private and philanthropic fields around ECD. The following paragraphs outline a selection of such studies and programmes.

Parenting and Care-giving

Parenting has been established as the cornerstone of early socio-emotional development (Bornstein, 1995), as infants are particularly receptive to, and dependent on sensitive care for their emotional and behavioural regulation (Kochanska, Coy, Tjebkes, & Husarek, 1998).

Infants and young children expect an environment in which they are going to interact and receive nurturance, not only food, but psychological nurturance from adult caregivers. As emphatically demonstrated in the several studies of Romanian orphans⁴, neglect results in a wide range of negative effects. These include serious irreversible impairments to development, including to brain function or IQ (Harvard University Center of the Developing Child, 2012).

Even *before* birth, a range of maternal and family variables have been established as setting children on a risky trajectory early in life. Among the variables identified are a mother's antisocial behaviour during adolescence, giving birth before 21 years of age, not having finished high school, smoking during pregnancy, substance abuse, parent separation before birth and low income (Boivin & Hertzman, 2012).

Studies in epigenetics even suggest that negative experiences of children can get embedded in their biology during their early development resulting in disproportionately high adverse health and social outcomes (Bird, 2007).

¹ As summarized in the Zero to Three JVA Consulting Report (2013)

² Source: Adapted from Betty Hart and Todd R. Risley, Meaningful Differences In The Everyday Experience Of Young American Children (Baltimore, MD: Paul H Brookes, 1995)

³ Hart & Risley conducted a groundbreaking study in 2005 showed a direct relationship between the development of language skills with the level of interaction babies had with their caregivers

⁴ The Bucharest Early Intervention Project (and other studies) studied the effect of neglect on Romanian orphans over a number of years

EVIDENCE SUPPORTING EARLY CHILDHOOD DEVELOPMENT

Role of the Father

Early involvement by fathers in the primary care of their child is a source of emotional security for the child (Scott & DeLa Hunt, 2011).

Six month olds whose fathers are involved in their care score higher on tests of motor development (Gestwicki, 2010).

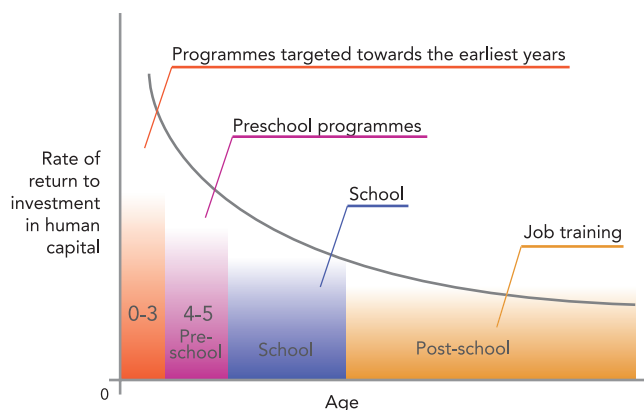
"A number of studies suggest that fathers who are involved, nurturing, and playful with their infants have children with higher IQ's, as well as better linguistic and cognitive capacities" (Pruett, 2000, as cited in Rosenberg & Wilcox, 2006, Section I.2.2, para. 1).

Early, positive involvement of fathers in intellectually stimulating activities, physical care, and general care-giving activities is associated with lower levels of cognitive delay as measured by children's babbling and their exploration of objects with a purpose (Bronte-Tinkew, Carrano, Horowitz, & Kinukawa, 2008).

The Economic Factor

Economists estimate that for every dollar invested in early childhood programmes, savings of \$3.78 to \$17.07 can be expected in future public expenditures. Early investment helps reduce subsequent occurrences of negative educational and life outcomes (Heckman, Grunewald & Reynolds, 2006).

Graph 2:
Rates of Return to Human Capital Investment at Different Ages⁵



Real world examples

- » A simulation on increasing pre-school enrolment in 73 countries found benefits in terms of higher future wages of \$6.4-\$17.6 per dollar invested. The simulation indicated potential long-term benefits ranging from \$11 to \$34 billion (Engle et al, 2011)
- » An evaluation of the HighScope Perry Preschool project, one of the most well-known ECD studies in the US, found up to around \$16 in benefits for every dollar invested, with public benefits estimated to be \$12.90 per dollar invested. (Schweinhart et al, 2005)
- » For The Chicago Child-Parent Centre, a half-day programme for low-income children, benefits included increasing economic well-being and tax revenues; reducing public expenditures for remedial education, criminal justice treatment and crime victims. The benefits are estimated to be approximately \$7.10 per dollar invested. (Reynolds et al, 2001)

Delay in taking Action

Early learning problems often become evident long after the period of development and potential intervention has passed.

As described by Brunner & Copeman (2005):

"Arriving at kindergarten healthy and ready to learn is a formidable challenge for young children who are exposed to high-stress environments because of poverty, abuse, neglect, or maternal depression; who lack stable and nurturing relationships; who suffer from poor nutrition; or who lack access to high-quality health care and early learning opportunities."

In the worst-case scenario, children who are not able to recover from early gaps in learning and development face an increased likelihood of school failure, unemployment, and dependence on social welfare. Such failure poses significant public costs, as the demand for remedial education services, health and social services, and criminal justice services takes a toll on societal resources."

⁵ Source: James Heckman, "Investing In Disadvantaged Young Children Is Good Economics And Good Public Policy." June 27, 2007
Graph 2 shows the (relative) return to a marginal increase in investment at different stages of the life cycle starting from a position of low but equal initial investment at all ages.

EVIDENCE SUPPORTING EARLY CHILDHOOD DEVELOPMENT

Even in the most adverse social and economic circumstances, UNICEF and Save the Children operational research (Kamel, 2006) has revealed that school readiness/ECD programmes can make significant positive impact on primary education grade promotion, repetition and dropout rates.



Effective Interventions and Programmes

Successful programmes and interventions not only have a positive effect on young children directly, but also benefit communities and society at large.

The Zero to Three JVA Consulting Report (2013) identifies and describes four categories of research-based best practices in programming that focus on 'Self Regulation'; 'Home Visitation'; 'Enriched Learning Environments and Play'; and 'Engaging Informal Care Networks'.

Examples of these include:

Thirty Million Words (TMW)

One of the programmes resulting directly from the 1995 Hart & Risley study, TMW combines technology and a public health approach to provide direct ECD services to low income children utilizing the LENA system⁶ to monitor and improve parents speech patterns. A LENA technical report

'The Power of Talk' (Gilkerson & Richards 2007) builds on the Hart & Risley groundbreaking work, emphasizing the important role that parents play in their children's language development.

Early Head Start

A US federal programme that promotes the school readiness of children ages birth to five from low-income families by enhancing their cognitive, social, and emotional development.

While not perfect, rigorous evaluations have found positive impacts on children's cognitive and language development, more positive approaches to learning, and fewer behaviour problems. Parents were more involved, provided more support for learning, and had reduced risk for depression (US Department of Health & Human Services 2002).

The Bermuda Happy Valley Childcare Centre is currently operated around this model.

Evidence-Based Home Visiting

Depending on the model used, positive impacts have been shown including child health, child development and school readiness, maternal health, reductions in child maltreatment, family economic self-sufficiency, positive parenting practices, and linkages and referrals (DiLauro and Shreiber, 2012).

High-Quality Child Care

Positive effects have been shown in the areas of early learning, cognitive and language development, and school achievement, as well as positive associations with early social and emotional development (Lally, Griffin, Fenichel, et al, 2003). Such effects can endure into the adult years, particularly for children from the poorest home environments (National Research Council and Institute of Medicine, 2000).

High quality child care can be offered as centre-based programmes, in small groups, or as 'Family, Friend and Neighbour (FFN)' care (Susman-Stillman & Banghart 2008). Developmental child care activities typically incorporate games, dance movements and art into play.

⁶ The Language Environment Analysis (LENA) is a hands-on tool designed to help parents increase quality language development in young children (Suskind, 2013)

EVIDENCE SUPPORTING EARLY CHILDHOOD DEVELOPMENT

Educare

One of the most promising models of ECD, Educare operates as a partnership of philanthropists, Head Start providers, and school officials. Using their research-based programme to serve at-risk children from birth to 5 years, each Educare School embraces a community's most vulnerable children. The focus is on programming and instructional support to help develop early skills and nurture strong parent child relationships.

Finland

Considered a national model for early childhood education and care (Grierson, 2000), Finland has had access to free universal daycare for children age eight months to five years since 1990.

"Daycare" includes both full-day childcare centres and municipal playgrounds with adult supervision where parents can accompany the child. Municipalities will also pay mothers to stay home and provide "home daycare" for the first three years.

Guided by a national curriculum, Finland sees it as the right of every child to have quality daycare.

This national policy decision has yielded exceptional results. Finland has consistently been among the highest scorers worldwide in the international assessment for student performance, as found in a study carried out by the Organization for Economic Co-operation and Development (Grierson, 2000 and Jiminez, 2009).

In 2006, Finland's 15-year-olds scored the highest in science and the second highest in literacy of 57 countries. The World Economic Forum ranked Finland No. 1 in enrolment and quality and No. 2 in math and science education (Jiminez, 2009).

Philanthropy

Schlossman (1981) affirms that the modern field of child development owes its very existence to philanthropy. Philanthropy "*created one of the main sparkplugs of the parent education movement simply by liberating the latent energies and talents of a small, local, atypical organization to serve broader national goals*".

In order to maximize funding and achieve positive outcomes for young children in the areas of

research, policy development, capacity building and direct services, early childhood development is identified as a specific focus among many of the top 10 philanthropic foundations including Children's Investment Fund Foundation, United Nations Foundation, Bill & Melinda Gates Foundation, MacArthur Foundation and Conrad Hilton Foundation.

As funders develop better understanding of the long term benefits of investing at the front end of childhood development, it is likely that this preventative approach would begin to get at least as much funding attention as the more remedial strategies later in a child's life.

The Evidence and Bermuda:

Several risk factors have been ascertained by the research and evidence as negative influences on the development of infants. Hooper et al, 1998 specifically identified the most significant social and family risk factors as:

- » Poverty status
- » Maternal education less than high school
- » Household size
- » Unmarried mother
- » Stressful life events
- » Depressed maternal emotions
- » Poor mother/infant interactions
- » Quality of the home and/or daycare environments

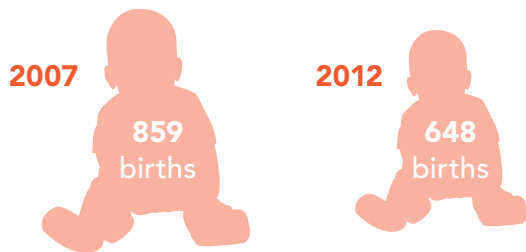
For children exposed to multiples of these risk factors as can happen in Bermuda, research and evidence suggests that urgent interventions are critical. Where the Government safety net is too stretched to contain the risks, philanthropy can play a role.

4. BERMUDA DEMOGRAPHICS

Births¹

Bermuda has been experiencing below-replacement level fertility since the 1970s. This means that women are not having sufficient numbers of babies to replace themselves and their partners (Department of Statistics, 2011). Births have dropped 25% from 2007 (859) to a record low in 2012 (648).

Fertility rates are projected to decline even further from 1.75 children per woman in 2010 to 1.58 children² per woman in 2020 (Department of Statistics, 2014).

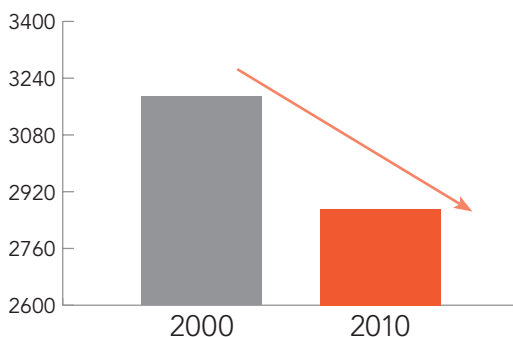


According to the 2010 census, the majority of babies were born to mothers who were between the ages of 30-34 years. An analysis of births by natal status, however, indicated that mothers who had their babies out of wedlock were younger and concentrated in the under 20 and 25-29 age group.

Population Size

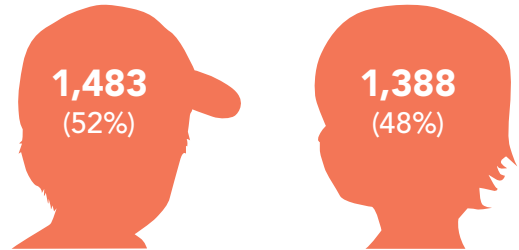
The zero to three population stood at 2,781 in 2010, a decline of 9.9% from the 3,188 recorded in the 2000 census. This trend, also reflective of a declining youth population, is consistent with general shifts in Western countries where the elderly population is on the increase.

Graph 3:
Population of Zero to Three Year Olds for 2010 and 2000



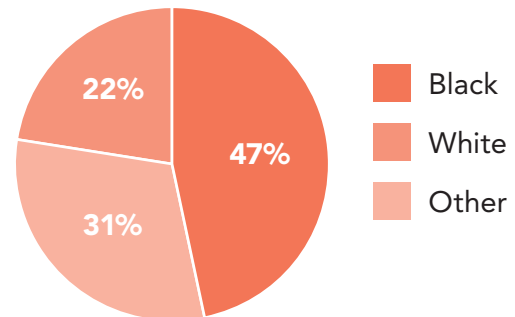
Gender

At zero to three years of age, males³ outnumber females, the opposite of the adult population.



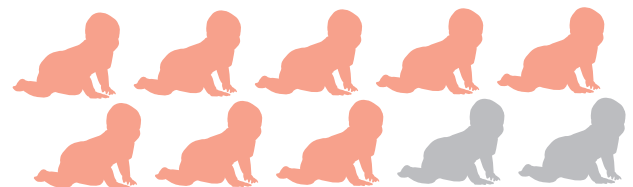
Race

In the general population Blacks make up 54% of the population while Whites make up 31%. In the zero to three population, while Whites are representative of the total population (31%), Blacks account for just 47%⁴.



National Status

Nearly 8 in 10 (77%) of zero to three year olds are Bermudian.



¹ Bermuda demographic data was obtained principally from the following Department of Statistics publications: 2010 Census Data (2011), Household Expenditure Survey Report (2013), Digest of Statistics (2013), 2010-2020 Population Projections (2014)

² As a universal convention in developed countries, a woman in Bermuda would need to have on average 2.10 children to replace herself and her partner and to account for infant mortality.

³ The 2010 census indicates adult females outnumber adult males 52% to 48%. The exact opposite of the zero to three population.

⁴ A probable reason for this is that parents who are of two races, with one parent being Black, may opt to classify their zero to three child as "Other" but when that child reaches the age of maturity, he or she may identify with being Black.

BERMUDA DEMOGRAPHICS

Health Conditions

In 2013, the average household spent roughly \$10,300 a year on health care, nearly 50% more than the amount spent in 2004. Health insurance accounted for \$7,644 or 74% of this expenditure. Some 317, or 11% of the zero to three population, have some form of health condition. However, of these, just 6% are considered to be disabling.

Table 2:
Health Conditions of Zero to Threes

Total 0-3 Y/O with Health Condition	317	100%
Health Condition is Disabling	19	6.0%
Health Condition is Not Disabling	284	89.6%
Not Stated	14	4.4%



52% of all Bermuda households reported owning at least one iPad, kindle, or tablet in 2013.

Learning to use technology at an early age will have an impact on child development, just as learning to read rewires our brains. It is just too early to know what kind of impact although studies indicate both positive and negative implications (JAMA Pediatr, 2011 and 2014).

How zero to three year olds are cared for during the day

Per the 2010 census, for some 37% of the zero to three year-old population, daycare needs are met through a private institution. For just over a fifth (21.4%), a parent looks after their child in their own home. Less than 10% (7.9%) are placed in a public institution during the day.

Table 3:
How Zero to Threes are Cared for During the Day⁵

Total 0-3 Y/O Children	2,871	96%
Enrolled in nursery daycare centre or preschool	1,288	45%
- public	227	8%
- private	1,061	37%
Cared for in own home	854	30%
- by parent	613	21%
- by child-care provider	241	8%
Cared for in another home	484	17%
- In another home with less than 3 children	243	8%
- In another home with 3 or 4 children	205	7%
- In another home with 5 or more children	36	1%
Not stated	120	4%

Child-care arrangements up to age 5 years

The most popular choices for child-care arrangements for Bermudian children zero to four years old were nurseries, daycare centres or preschools. Parents chose these options 59% of the time in 2010, up from 58% in 2000. Within this category, Bermudian children were placed in public facilities 42% of the time.

Fewer parents arranged for their children to be cared for in a private setting, a shift from a decade ago when parents selected this option as their most popular choice.⁶

Who is providing the care outside the home?

In 2010, Bermuda had sixty (60) registered Daycare centres. Of these, 10 were Government-run: Happy Valley Child Care Centre plus nine preschools across the Island.

As of June 2013, there were ninety-one (91) registered private Home Care providers.

⁵ Source: Department of Statistics 2010 Population and Housing Census

⁶ This is likely reflective of economic challenges: according to the 2013 Household Expenditure Report published by the department of Statistics, the weekly income for a single parent household is \$2,025 of which \$1,555 (77%) goes to costs of living ie, rent and electricity and EXCLUDES some major household costs such as children's day-care services.

BERMUDA DEMOGRAPHICS

Household Type⁷

Just slightly more than two-thirds (66.7%) of all zero to three year olds are being raised by their parents, and nearly 10% (9.4%) are raised by an unmarried couple. 1 in 7 (14.3%) reside in single-parent homes.

In the general population, just 22% of all households have both parents (who are married) in the home.

Males who head households⁸ with at least one child under the age of 4, are likely to be married (83.8%), but only in half of female-headed households (52.1%) is the female likely to be married.

Table 4:
Household Type

Household Type	TOTAL	MALE	FEMALE
Total	2,309	1,063	1,246
Married Couple	1,540	891	649
Single Parent	331	17	314
Unmarried Couple	218	85	133
Other	220	70	150

Currently, the number of people living at or below the poverty line is over 3,600 Bermudian households and encompasses 30% of Black Bermudian children.⁹

Type of House Tenure⁷

In nearly 3 in 10 households of zero to three year-olds (28.9%), the home is owned with a mortgage. Just under half (45.9%) of houses are rented for cash unfurnished, and of these, female-headed households are more prevalent.



Child Development Programme (CDP) Data

The CDP provides early intervention services to all children resident on the island between the ages of birth to four years. Developmental screening is provided for children between 24 and 30 months. Younger or older children are eligible if referred and participation is voluntary.

Data related to children serviced between April 1st 2012 and March 31st 2013 is as follows:

- » Total children who received developmental screening: 454
- » Of the 454 screened, 100 or 22% were referred for at least one of CDP's intervention services
- » Fifty-six (56) of the 100 were between 24 and 30 months, and 44 were over 30 months
- » Approximately 47 premature infants (between 24 weeks and 35 weeks gestation) were referred to CDP's Premature Infants Programme
- » Twenty-five (25) children between the ages of birth and 16 months and fifty-two children (52) between the ages of 16 months and 4 years were referred to Parent Child Home Programme

The Prison Population¹⁰ - Inmates with at least one Child under Four Years

Age

The median age of the prison population with children in the zero to three age group (29) is significantly lower than the median age of the rest of the prison population (36).

⁷ Source: Bermuda Government, Department of Statistics, 2010 Census of Population and Housing, June 2012.

⁸ The head of household or 'household reference person' is typically the person with the highest income. If more than one member of a household have the same income, or no member of the household has income, the oldest member of the household is generally selected as the reference person.

⁹ Retrieved from <http://www.coalition.bm/programs-childrens-families.php>.

¹⁰ Data from a 2012 study of the prison population, compared to a similar study in 2000 (Both studies conducted by Profiles of Bermuda).

BERMUDA DEMOGRAPHICS

Gender

The gender of those with young children is representative of the prison population (96% male¹¹ and 4% female).

Race

Inmates with young children are more likely to be Black (94%) than the larger prison population (89%).

Highest Academic Qualification

Inmates with young children are more likely to have no academic qualifications¹² whatsoever (37%) compared to the general prison population (31%). In the Bermudian population, 25% have no academic qualifications.

Rate of Recidivism

Inmates who have young children are less likely than the prison population at large to have been in prison before (50% versus 65%). This may be a function of age since inmates with young children are younger than the prison population as a whole.

Reason for Incarceration

Inmates with younger children are more likely to be incarcerated for driving offenses (75%)¹³ and drug offenses (38%).

Drug/Alcohol Use

Inmates with young children are more likely to have used marijuana (88%) than the general prison population (78%) - additional drugs may or may not have been used. They are less likely to have used alcohol (75%) than the general prison population (82%).

Reading/Learning Difficulties

In the 2012 Profiles study, none of the inmates with younger children reported that they had difficulty reading newsprint compared with 3% of the wider prison population. However, in a literacy study conducted in 1999 by the Reading Clinic (Dunstan, 1999), 74% of 150 inmates assessed "appear to be struggling in terms of functional literacy."¹⁴

Children of Inmates

Those inmates with younger children were more likely to have lived with them prior to incarceration (75%) than the general prison population (54%). In addition, inmates with younger children were less likely to have had involvement with Child and Family Services (19%) compared to the wider prison population (25%).

What the demographics tell us:

While birth rates are falling, the stress on social support systems for babies and toddlers is growing because of household financial constraints, lack of parenting skills and a high prison population.

The Department of Statistics, has calculated that by 2025, the elderly population will overtake the youth population in Bermuda. This suggests the likelihood that even fewer services will be available to the younger population in the coming years.

Bermuda's economic climate appears to be driving a shift towards public daycare (where available) and the less regulated home care options as household expenses and joblessness reduce disposable income.

The good news is that the vast majority of children are born into homes with one or more parents. This suggests that with effective parenting education, many children can have an opportunity for vitally important nurturing in their early years.

Bermuda ranks as one of the world's top incarcerators¹⁵ and the zero to three children of those incarcerated are deprived of vital nurturing from a parent, most likely their father. This raises concern for a significant proportion of the zero to three population.

¹¹ Research indicates that a disproportionately high number of boys suffer from language-literacy delays and if not addressed in early years will create difficulties that lead to learning problems, school drop-out, crime, alcohol and drugs, suicide and prison (Choudry & Benasich, 2003).

¹² "No academic qualifications" means lack of a high school diploma or any further formal education.

¹³ A breakdown of the driving offenses is not available.

¹⁴ The disparity in findings from these two studies is likely reflective of a number of factors including: the exact questions asked; the contextual positioning of the questions; and the trustworthiness of the responses.

¹⁵ Bermuda's incarceration rate (per 100,000 of population) was listed as the 11th highest in the world in 2012. Bermuda's rate stood at 417 compared to just 148 in England & Wales (ranked 101st).



5. STAKEHOLDERS

Stakeholder Map

The following is an illustration of various stakeholders responsible for the zero to three population in Bermuda. The map is not intended to be an exhaustive portrayal, but a representation of those having direct interest and concern in the well-being of babies and toddlers as a core element of their activities.

“Government delivers Human Services through a number of mechanisms, many of which operate in separate Ministries or Departments. This creates a fragmented approach such that one family or individual can be seen by multiple caseworkers.”

Sage Commission Report, 2013

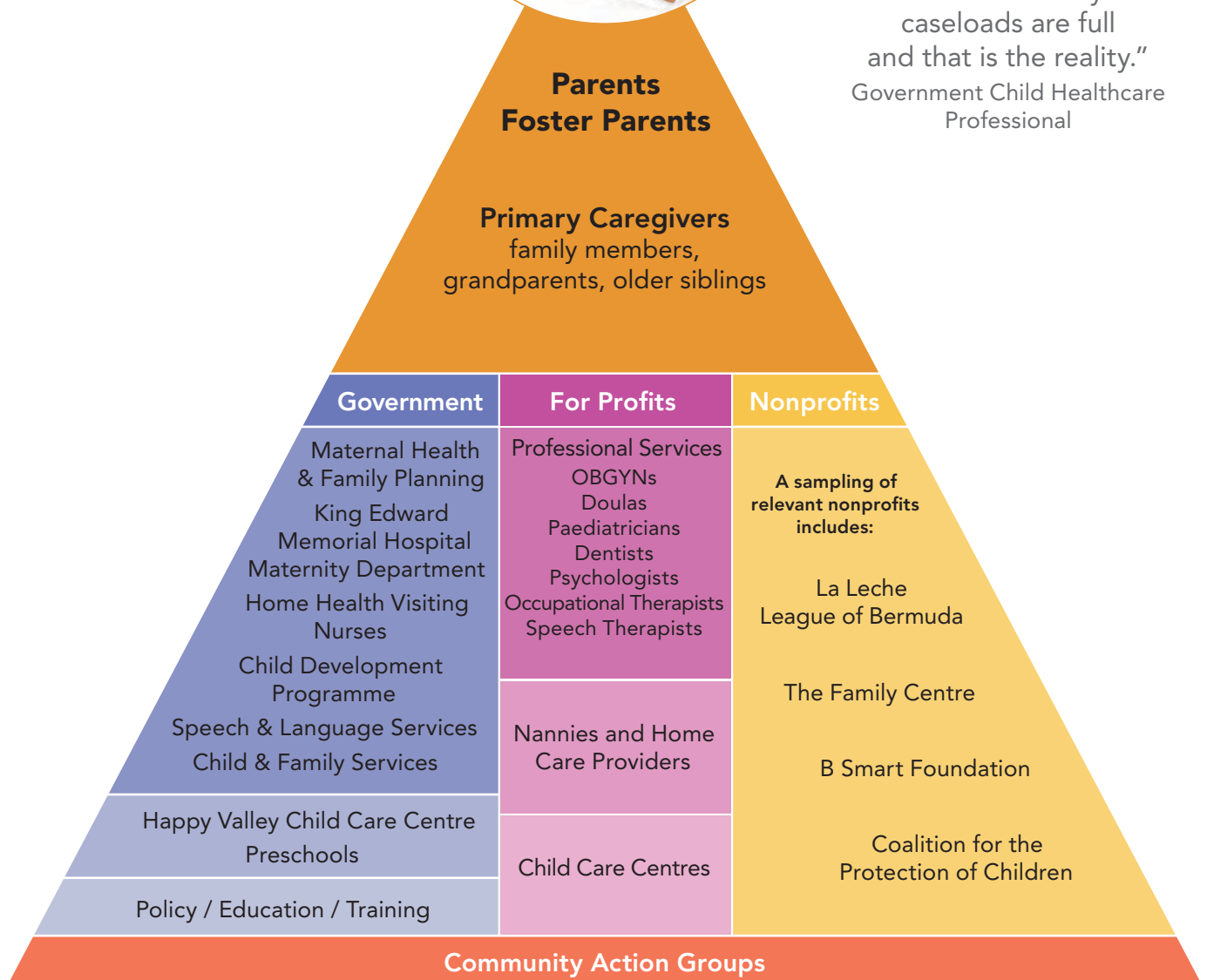


“Everyone has individual boxes... We need to move more towards concentric circles.”

Healthcare Professional

“We seem to be looking for increased outcomes with decreased staff. Unfortunately our caseloads are full and that is the reality.”

Government Child Healthcare Professional



6. PROGRAMMES & SERVICES

Bermuda's spectrum of stakeholder programmes and services related to development of babies and toddlers, from conception to their 4th birthday, is illustrated below in Table 5.

The system of programmes and services in Bermuda can be described as 'Segregated Clusters'¹ where:

- » Programme areas are clustered in government and in organisations: Budgets are combined across

sub-components, sometimes creating overlapping or unclear mandates. There is adhoc sharing of information/data, but no coordinated cross-sectoral system

- » Some duplication occurs in service areas that cut across different mandates and disciplines. For example, childhood screening and assessment is available from different departments within government, as well as from private and nonprofit programmes. This can be confusing for parents

¹ Description of Segregated Clusters adapted from Inter-Agency Conference Series, 1998

Table 5: Programmes and services from pregnancy to 4 years of age

-9 mth to 0	0-2 wks	2 wks to 6 mths	6 to 12 mths	12 to 18 mths	18 to 24 mths	24 to 48 mths
Government (provides maternal health and parenting classes up to 32 weeks gestation, then women must transfer to an Obstetrician)	Home Visiting Nurses (see at least 90% of new babies from 2 weeks to 18 months)					Child Development Screening Programme (standard screening of babies begin at 24-30 months. Other services are available from birth, on referral.)
Obstetricians (services cease at delivery)	Parents / Nannies / Home Caregivers / Other Surrogates (limited regulation and no training requirements)					
Doulas (services cease soon after delivery)	Happy Valley Child Care Centre (provides free daycare for children 3 mos – 4yrs. 90% identified as 'at-risk')					
King Edward Memorial Hospital (handles most births and arranges transition to Paediatricians and to Child Dev. Programme follow up for at-risk babies)					Private Preschools / programmes / services - intake age varies Government Preschools start at age 4yrs	
	Paediatricians (routine treatments, check ups and immunizations)					
	Community Clinics (routine treatments, check ups and immunizations)					
Private & Nonprofit birthing and parenting classes	Special services, local and overseas, for at risk and sick children					

PROGRAMMES & SERVICES

» Limited Continuum of Services

The range, connection and transition between services and providers is not always clear. Recurring questions include: "Who provides what service? Whose client is this?"

Clients with more than one problem can experience (and create) complicated challenges in the system as they attempt to navigate access to services across different government departments and/or private services and/or nonprofit services

Government

The Bermuda Government provides a network of programmes and services across several ministries to address the needs of the zero to three population. These include the Ministry of Education, Ministry of Health, Child and Family Services, Ministry of Justice, The Department of Financial Assistance, Bermuda Housing Corporation, Court Services and the Police Service, together with a Cross-Ministerial Intervention Team (CMIT) that focuses specifically on critical family interventions.

Department of Community Health

The Department of Community Health provides free services in the areas listed below. Referrals are made to other agencies or specialists as required:

» Health Visiting Service

Home visits within the first 2 weeks, at 6 weeks and regular intervals thereafter to assess the mother and baby and discuss immunizations, information and guidance on all areas of parenting

Families typically transition to the care of Child Development Programme after 18 months

» Child Health Services

Clinic services for infants include free medical care and immunization, assessment of growth and development

» Maternal Health and Family Planning

Counselling and evaluation on reproductive health, including family planning, pregnancy care, prevention of sexually transmitted infections, pap smears and breast exams

» Speech Language Services

Speech, language and hearing assessments

and services to children from the age of two

Child Development Programme (CDP)

The intention of CDP is to ensure that care is reaching those who need it the most, in the best possible way. Operated under the Ministry of Education, add-on services like occupational, physiotherapy and speech and language therapy are provided from the Department of Health at the CDP location.

The CDP flagship service is Developmental Screenings and Assessments intended for all children 24 to 30 months of age. Earlier interventions occur depending on risk profile (e.g. Preemies) or through referral from a physician or other government agency.

Other services provided that support the well-being of parents and their toddlers include:

- » Behaviour Management Programme - helps parents and guardians to learn effective strategies for managing their child's inappropriate behaviour
- » Family Counselling, Parent Support and Education
- » Occupational and Physiotherapy
- » Parent-Child Home Programme - trained Parent Support Home Visitors provide sessions in the home to model positive ways for parents to talk and play with their child
- » Portage Programme and Preemie Group Support - designed for families with children between birth and four years of age with overall developmental delays
- » Speech and Language Programme
- » Parenting and child care workshops

In addition, CDP provides a complimentary education package to new mothers after they deliver babies at the hospital.

Recently, CDP released a new guidebook² to help caregivers identify children at risk from potential health and well-being problems (Royal Gazette, 2014).

² The Red Flags guide adapted from a guide used in Canada, is designed to assist professionals and families in identifying when a child six years or under could be at risk of not meeting health and development milestones and should be referred for formal assessment and treatment.

PROGRAMMES & SERVICES

Cross Ministry Intervention Team, (CMIT)

Consists of departments of Child and Family Services, Financial Assistance, Court Services and the Bermuda Housing Corporation.

The team meets regularly, and as needed in emergencies, to provide collaborative case management where the exchange of information between agencies, especially in relation to client families, forms the basis for more cohesive service interventions.

Child and Family Services

This government department provides a variety of family services to the public through its five sections: Child and Family Protection, Residential Care, Daycare, and Bermuda Youth Counselling Services. Programmes include child abuse, foster care, adoption, and daycare.

Happy Valley Child Care Centre

This daycare service has been in operation since 1971, providing high quality care services to at risk children.

- » Accept infants from 3 months
- » Modelled after the Head Start programme, the Centre uses the HighScope³ early childhood curriculum
- » Collaborates with various agencies for intervention services including physiotherapy, speech and language, occupational therapy and behaviour therapy
- » Offers parenting classes for all parents
- » All parents are required to volunteer time to the school
- » Current (2014) population is 39 students
- » In 2013, Happy Valley received about 80 applications for only 5 open places
- » Demographics: 80% single parents; 70% low income; 100% black

'In many OECD countries, the level of regulation of services for children under 3 gives rise for concern: much of the child care sector is private and unregulated, with staff training and pedagogical programming being particularly weak.' (OECD 2006)

Nonprofits

The organizations identified below are a sampling of nonprofits who include early childhood development within their core programmes.

The Family Centre

While the zero to three population is not specifically targeted, this organization offers a continuum of prevention and intervention family services which include this age group. These include parenting workshops, advocacy, counselling and family support. When necessary, they would extend their reach to facilitate overseas interventions.

Coalition for the Protection of Children

With a focus on child rights, protection and social justice advocacy, this group sponsored the documentary "Poverty in Paradise – the Price We Pay." It explores the causes and consequences of living in poverty in Bermuda and the struggles Bermudian families face in providing for themselves and their children.

The Coalition also provides healthy breakfasts in a number of schools and has reported on the difference this has made in children's grades.

La Leche League

Established in 1987, this group provides mother-to-mother support, encouragement, information, and education to promote a better understanding of breastfeeding as an important element in the healthy development of the baby and the mother.

Inter-Agency Committee

The Inter-Agency Committee for Children and Families includes public and private organizations, providing helping services to children and families. The purpose of the committee is to establish an accessible continuum of services, build collaboration and promote standards of practice. The group facilitates accreditation and certification of human service programmes in Bermuda.

BSMART Foundation

As part of a general programme for

³ The HighScope curriculum was developed by the HighScope Educational Research Foundation best known for its landmark Perry Preschool Study, a longitudinal study demonstrating the effectiveness of the HighScope Preschool Curriculum and the lasting effects of high-quality preschool education

PROGRAMMES & SERVICES

children based on brain research, BSMART Development Center offers a fee for service neurodevelopmental programme to help parents maximize the critical periods of brain development during the first years of life. The programme includes senses & perception, movement, reflexes, language and sequential milestone development.

Private Services

The private sector also has a vested interest in supporting the development of a competent and globally competitive work force, which begins by ensuring the developmental needs of young children are met so they enter school healthy and ready to learn.

From obstetricians to doula services, nannies and home care providers, there is a broad range of private services in Bermuda that include the zero to three population in their target market (see page 13: Stakeholder Map).

Care-giving

Bermuda reflects other countries where there is no central body responsible for early childhood development - provision for zero to three year olds is overwhelmingly private compared to services for three to six year olds. Hence, the private sector is making particular impact in the care-giving and pre-school environments.

In June 2013, there were ninety-one registered homecare services, all private. In addition, of sixty (60) nurseries and preschools registered in 2010, forty-nine (49) were privately owned.

The need for development of national standards is even more critical in the face of this situation where the vast majority of daycare and preschool institutions are privately owned with limited standards and regulation for staff training, or for day-to-day quality of care provided.

Corporate social responsibility

A growing culture of corporate social responsibility is also persuading the private sector of the benefits of supporting employees in the early development of their children. A few companies like ACE Bermuda provide daycare

nurseries for the children of employees and up to eight (8) employers have been identified by the La Leche League as providing private breastfeeding areas for new mothers who have returned to work.

Cost of High Quality Services

In some instances, Bermuda's private services offer high quality options, comparable with best practice standards. However the costs associated⁴ with these options can be especially prohibitive to the families that could benefit from these services the most.

Low-income generating households, with parents who are forced to invest more of their time working than their counterparts, are often unable to afford such services offered by the private sector.

An added consideration is that the demand for services from more affluent families is high enough that there is little incentive for the private sector to reduce their rates. Further, proprietors argue that in order to reduce rates, the quality of service will have to be compromised.

⁴ The cost of providing high quality care includes low student to staff ratios, development of innovative activities, specialized equipment and supplies.



PROGRAMMES & SERVICES

Existing challenges

Philanthropy

There were no donors identified with focused funding for programmes and services for this age group in Bermuda.

Government Services

Overlap of Government services, on the one hand tightens the safety net for at risk children. However, it can also result in duplication and inefficient use of limited resources. This sometimes results in frustration both from those attempting to provide the service as well as the parents who do not feel their child is getting the attention they need.

Child Development Programme

In spite of a team of dedicated staff, this programme experiences limitations in many areas. These include understaffed/ unfilled positions and somewhat dated infrastructure. In addition, it can sometimes be difficult to locate two year olds for screening based on last known addresses provided when they were born.

These and other factors limit the effectiveness of the CDP in meeting its own goals and fulfilling its mission. Other challenges faced by the programme include:

- » Unable to screen/assess population of all children between 24 – 30 month with current capacity
- » Duplication of some services with health visitors, private paediatricians, and others
- » Limited access to non-CDP resources to provide the levels of intervention deemed necessary after screening
- » Lack of funding to support programme activities and gaps in services
- » Resources are invested in a parenting education package provided to all new mothers in hospital – but the evidence suggests that the contents of the package are often donated to local second-hand shops, unopened
- » Screeners work on the school year calendar – opportunities to meet case-loads year

round are missed

- » Resources are not allocated to compile and analyse existing data or engage in needed longitudinal studies – lost opportunity to make better informed programme adjustments

Private Programmes & Services

Many are businesses based on the vision of the original owner and often, when they leave or are no longer interested, the service tends to peter out.

Many programmes have their own agendas and preferred orientations that do not necessarily align with identifiable practice models and services.

Nonprofits

Nonprofits face the challenge of trying to access a small pool of dwindling donor funds in Bermuda. Getting the funds to provide the level of service necessary is always a challenge.

In many nonprofits, there are often capacity issues that limit the willingness of donors to invest and constrain the extent to which more effective services could be provided.

As clearer and more robust policy is developed, it is anticipated that standards of practice and minimum performance approaches and quality benchmarks standards will allow for more consistency across the sectors.

“The creation of a full-fledged, dynamic and child-centred system of care for Bermudian children which is responsive to and effective in meeting the needs of children and families, particularly those who are most vulnerable and/or on the fringes of society necessitates a determined and concerted effort. Such a system will acknowledge that children and families face a complex cocktail of circumstances, which affect their well-being. Therefore identifying and developing a deep understanding and appreciation of the key challenges with which children and families are confronted will provide an evidence based launching pad for action from all fronts.”

Inter-Agency Commission for Children and Families (IAC) (2014) re establishment of a National Child Protection and Safeguard Strategy

7. WHAT WE HEARD FROM STAKEHOLDERS

Profile of interviewees

A total of 52 individuals were interviewed from Government departments, nonprofit sector, the private sector and funders.

Many of those interviewed provided perspectives from more than one stakeholder viewpoint, based on their personal, professional and volunteer roles in the community. A register of interviewees is available in Appendix 1.

Themes from interviews

The themes identified are the dominant talking points raised by more than 50% of those interviewed. Each theme, as described below, includes related comments and subtopics raised by interviewees.

Themes from interviews

LACK OF UNDERSTANDING ABOUT ECD 1.

- » Limited public information
- » Parents need to be educated about ECD *before* they have children
- » Multi-generational and cultural issues
- » Reluctance to 'label' at all levels - issues therefore do not get addressed

BERMUDA'S RESOURCES FOR ADEQUATE ECD ARE LIMITED 3.

- » Shortage of professionals, e.g., speech therapists, occupational therapists
- » Lag between referrals and testing
- » Developmental assessment targeted for age 2 is too late
- » Infant mental health a concern – no local resources for testing
- » Interventions - many are 'inadequate', 'too late' or 'not at all'
- » Little to no advocacy for babies and toddlers

NO ONE IS TRACKING AT A NATIONAL LEVEL 5.

- » Need for Bermuda focused longitudinal studies
- » Mismatch between programmes/ services and facts/findings/theory
- » Need to coordinate across agencies on data collection eg maintain databases with screening and immunization information for ready reference
- » Data collection/use of data sparse, fragmented and unreliable
- » No standards for caregivers

PROGRAMMES AND SERVICES ARE DISJOINTED 2.

- » Fragmented and Siloed
- » Overlap & Duplication, Patchwork
- » Landscape is unclear
- » Division in approaches – behavioural versus medical – adverse effects on child
- » Children falling through the cracks
- » No continuum of services

ACCESS TO SERVICES IS A CONCERN 4.

- » Better resourced/experienced parents are more able and likely to access high quality services
- » Low socio-economic status (on its own) should be considered as a risk factor
- » Insurance inadequate for those most at risk



8. BRIGHT SPOTS

A Sampling of Bright Spots

The following are some of the organizations that stand out for their ECD programmes and services in Bermuda. They are identified as bright spots because:

- » Their programmes incorporate theory-based approaches to learning
- » They have demonstrated proven effectiveness
- » Measurement and monitoring of impact is an important programme component
- » They have developed sustainable standards
- » They are outcomes-driven



Chattertots Discovery Zone

- » Offer a play-rich and enquiry based child-centered approach to learning
- » Chattertots current capacity 25 with a 1:3 ratio of staff
- » Strong focus on language and literacy development
- » NAEYC Certified: The National Association for the Education of Young Children, which sets rigorous standards in early childhood education, awarded their first international accreditation to The Chattertots Discovery Zone and The Chatterbox Preschool. Chattertots is the first outside of North America to receive this recognition



Bermuda Parent

- » Harnesses print and social media to promote early childhood development
- » Publisher of Bermuda Parent Magazines – 5,000 copies distributed free each quarter

- » Magazines address taboo issues such as child sexual abuse
- » Interactive website includes research and evidence-based articles, also local information and opportunity to 'Ask the Expert' – experts include pediatrician, language pathologist, vision specialist, general educator
- » Use website as an advocacy vehicle for laws and policies that protect of children



La Leche League of Bermuda

- » Active for 27 years providing mother-to-mother support
- » Experienced mothers trained and accredited by La Leche League International
- » Low budget operation with high impact in the community
- » Active Facebook community – rich anecdotal data
- » International Standards – World Breastfeeding Guidelines
- » Provide telephone and direct help from accredited leaders
- » Integrated sustainability – ongoing pipeline of 'leaders' being trained
- » Lending Library (books on childbirth, breastfeeding and related subjects)
- » Worked with Government to produce national Breastfeeding Guidelines
- » Advocating for child friendly hospital

"The continuity of children's experiences across different environments is greatly enhanced when providers co-operate with parents and communities to adopt consistent approaches to child development and learning."

Quality Matters in Early Childhood Education and Care

BRIGHT SPOTS



Happy Valley Child Care Centre

- » One of 60 nursery and preschools registered in Bermuda
- » Rich curriculum with extensive variety of play-based learning activities
- » ONLY public school that takes babies
- » Strong measurement and evaluation practice that tracks children even after they leave the school
- » Accredited by the Bermuda National Standards Committee
- » Fees are on a sliding scale for low income and at risk families
- » Mandatory parenting classes for all parents
- » Parents required to volunteer in school activities
- » Fathers Club an important aspect of the school



BSMART Foundation

- » Theory based services via affiliation with Minnesota Learning Research Center
- » Arts-rich environment
- » Incorporating infant programming
- » Recently (Feb 2014) expanded from 1,750 sq ft to a new 4,500 sq ft facility
- » Strong measurement practice - diligent with pre/post data collection
- » Founder has been invested in brain centered approaches to ECD for over 10 years and has had formal training with the Minnesota Learning Resource Center
- » Provides neuropsychological assessments



Health Visiting Nurses Programme

- » Collaborated with University of Cumbria to provide Health Visiting Trainee programme to certified nurses
- » Adopted a UK National Health Service model of care for early risk detection and intervention that screens for children's cognitive skills
- » Training a new cadre of health visitors with baseline Masters degree as part of a succession plan to ensure sustainability of global standards of care to meet the needs of the Bermuda population of babies
- » Part of the Inter-Agency Committee



The Coalition for the Protection of Children

This organisation is one of few that have a strong advocacy role for children in Bermuda, including those zero to three. Included in their many activities are the following:

- » Sponsored production of the documentary 'Poverty in Paradise' in 2011
- » Appear in Magistrates Court on behalf of mothers being threatened with incarceration for debt
- » Were instrumental in developing the new Protection of Children Legislation 2000
- » Were instrumental in developing the Child Abuse Task Force
- » Lobbied for new daycare regulations
- » Instrumental in development of Bill of Rights for Children

9. GAPS IN THE FIELD

When compared to what we know works, a review of Bermuda's landscape, demographics, programmes and services, suggests five critical gaps in the field:

1) Information and education, 2) Regulations and policy, 3) Access to affordable high quality daycare, 4) Measurement and evaluation and 5) Advocacy.

Information & Education

Stakeholders consistently identified information and education as the most significant gap in Bermuda for more effective early childhood development. For many, parenting skills, public awareness and knowledge about access to resources appear to be limitations.

While this appears as an easy enough gap to address, the issue is compounded by other prevalent social factors. For example, resistance to learning better parenting techniques when distracted by other pressing challenges like homelessness and joblessness.

The following quotes gathered from stakeholders, reflect the nature of this gap.

"We see evidence of poor parenting everywhere in Bermuda. Many young parents simply don't know better. Some of their behaviour is culturally entrenched." Parenting Instructor



"Our breastfeeding rates¹ in Bermuda are quite low, which impacts our healthcare system as well as the healthy development of our children. We certainly need a national breastfeeding policy and better hospital practices for promoting breastfeeding. We need healthcare professionals who provide consistent and accurate information." ECD Nurse practitioner

"It isn't only the poor and uneducated that have problems with their children because of ignorance" Obstetrician

"Inadequate parenting is THE root cause of many issues in our society." Law Enforcement Officer

"Some parents push back on being taught how to play with their child when their other basic needs like a job are not being met." Parenting Facilitator

Regulations and Policy

Bermuda has a broad spectrum of laws that protect children zero to three (see Appendix 2 for a listing). Provisions for co-parenting orders that recognize the importance of both parents in children's lives are due to be introduced into the Children Act 1998. (Throne Speech, November 2013)

What appears to be lacking, are laws or policies that target the day-to-day care of infants and toddlers. This is a concern as the majority of children zero to three spend the better part of each day with child care providers. Given this is the most critical period for brain development, it is troubling that care-givers are not required to be trained. Further, the quality of the care provided day by day is not regulated. Other than safety pre-requisites, the current requirement for being licensed as a care-giver is an \$8 registration fee to the Department of Health.

¹ According to a 2005 breastfeeding survey, less than 1% of Bermuda mothers were breastfeeding based on World Health Breastfeeding guidelines (i.e. for up to 6 months).



GAPS IN THE FIELD

While education is provided free to Bermuda residents from “Pre-School” (entry at age 4) to the second year of college level study, it is not universally applicable below four years of age.

Given the critical need for early development in this age group, this is a particularly relevant opportunity for additional regulations that would help advance the long-term future of Bermuda’s children.

Addressing the gaps in mandated quality of care for children zero to three would require appropriate policy development and legal standards, together with available resources for licencing and training programmes. In addition, necessary monitoring and enforcement would need to be implemented.

Access to affordable high quality programmes & services

The census data² bears out the fact that household income impacts the quality of care parents can afford. At more than \$1,000 a month in some instances, high quality daycare is outside the financial reach of many households. Even the programmes that operate as nonprofits charge a fee-for-service to cover the high teacher-to-student ratios necessary for the quality of service they provide.

Some parents are resigned to accept that the caregiving service they use may have inadequate quality programmes but it is simply what they can afford so their children are safe while they work.

A related issue to affordability of high quality care is the need for extended hours for caregiver services for parents who work outside of normal working hours.

For these parents, they are often forced to resort to leaving babies and toddlers in the care of family members like older siblings or grandparents, or even, friends and acquaintances.

The following quote from a parent acknowledged their challenge in accessing affordable daycare as:

“I know my kids probably watch TV all day long, but I cannot afford those daycares that have activities for the children. Those are for people with money” Professional mother from a two-parent household.

² Reference the 2013 Household Expenditure Survey Report

“It is now clear from extended longitudinal research that children who, early in life, face chronic adversities such as family poverty, inappropriate care, and child maltreatment are more likely to experience a broad range of impairments later in life.

These difficulties range from emotional, behavioural, interpersonal, school and stress-related adjustment problems, to more severe difficulties such as mental health problems, delinquency and criminal offending. Needless to say, these difficulties may have dire consequences for the individual and society.”

Early Childhood Development (Nov 2012), The Royal Society of Canada & The Canadian Academy of Health Sciences Expert Panel



GAPS IN THE FIELD

Falling through the gaps?

“Mother appeals for help so daughter can get overseas medical tests”

The 40-year-old told The Royal Gazette: “We started noticing just before she went one year old that she wasn’t saying any words at all. When she got to about 15 months, she still wasn’t saying any words.” The newspaper reported that Bermuda did not have adequate equipment or expertise for diagnosis and treatment. Her paediatrician recommended overseas testing but without insurance, they were unable to proceed. The unemployed mother was appealing via the newspaper for donations towards an overseas medical visit. (February, 2014)

Measurement & Evaluation

Measurement is integral to establish standards, determine impact and identify areas in need of improvement. It also provides valuable knowledge of programmes that have succeeded. That information allows us to share best practices with existing partners and replicate them in new initiatives.

The lack of reliable local data on children zero to three is a major gap in the field. Measurement and reporting is siloed, fragmented and limited. Even for those groups who routinely collect data, lack of resources results in data collection becoming an end point in itself with lost opportunity for analysis and utilisation in programming. For example, while the CDP collects the relevant demographic data with which to compile a robust profile of those whom they serve, it appears that they lack the resources to analyse and subsequently make use of the information they collect.

An assessment of Bermuda’s essential public health functions was conducted in 2005 to evaluate the strengths and weaknesses of the public health system (Lalta, S., 2005). The weakest function was Quality Assurance in Personal and Population-based Health Services, identified as an area in which ‘urgent attention’ was required.

As emphasized way back in 1988, “There is a need for a significantly improved records and information management system which can be accessed by service providers in agencies and organizations across disciplines.” Findings from the first Inter-Agency Conference March 6, 1998 Stonington College Campus, Bermuda

Advocacy

Other than the La Leche league and a few individuals, there were no major advocates identified that exclusively focus on the zero to three age group. Nonprofits like the Coalition for the Protection of Children and The Family Centre advocate for children in general, including the zero to three.

Because we now know that the influences on this young population are pivotal to their development, and ultimately on our society, addressing the advocacy gap may lead to better outcomes. Strategically focused advocacy can catalyse the improvement of early childhood development in Bermuda on all fronts.

Some comments from the field:

“If we can make the life of women better, their babies will do better.” Advocate

“We need public information and stronger advocacy on behalf of this population. It is not just about resources... it is a MINDSET in the system.” Paediatrician

The World Health Organization’s Commission on the Social Determinants of Health (World Health Organization, 2008) has made it clear that investing in the early years may be the best way to reduce health and other inequalities across the life course.

Tackling the gaps that exist in Bermuda’s ECD is an important step in taking targeted and meaningful action to increase the quality, accountability and access to programmes and services that are critical for the zero to three population.

10. OPPORTUNITIES & RECOMMENDATIONS

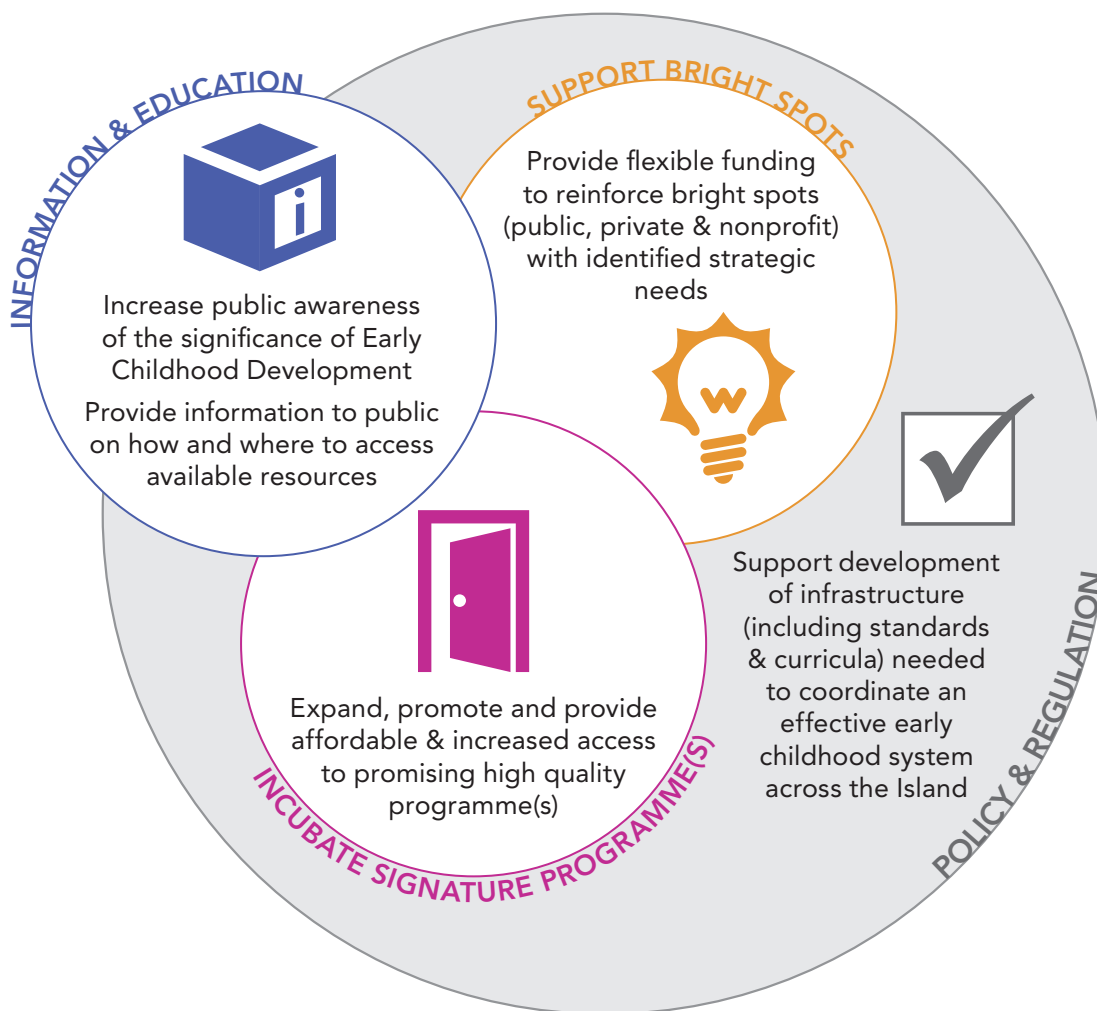
The purpose of this report has been to understand the ECD landscape in Bermuda with a view to being able to explore appropriate and focused social investments in the field.

To this end, outside of existing public programmes and services, opportunities for philanthropic and other funding have been identified in FOUR priority areas, illustrated below, to deliver strong and sustainable gains in ECD.

Each recommended priority area is structured as an opportunity to:

- » Make measurable impact and address gaps in the field
- » Identify and reinforce successful community partners making a positive impact, whether they are professionals or dedicated volunteers
- » Support innovative solutions
- » Engage the public, public officials, and business and community leaders
- » Allow flexibility for focused or pooled philanthropic funding

Illustration: Opportunities & Recommendations for Philanthropic Funding



OPPORTUNITIES & RECOMMENDATIONS

Strategic priorities

Proposed as Strategic Priorities for philanthropic funding, the recommended areas of focus can catalyse the community to come together to help address the gaps in ECD.

These priorities have been developed after a detailed analysis of the status quo of ECD in Bermuda, together with identification of a cadre of potential champions, project leaders and advocates in the field.

The goals, anticipated outcomes and gaps¹ addressed for each strategic priority are outlined in Table 3 below.

Table 6: Strategic priorities

STRATEGIC PRIORITY	GOALS	EXPECTED OUTCOMES	GAPS ADDRESSED
Information & Education	<ul style="list-style-type: none"> » Stimulate conversation amongst parents, caregivers and family decision-makers around ECD topics, to create a learning environment that can lead to positive behaviour change » Deliver current information on how and where to access available resources for optimum child development to the public 	The general community, community leaders and household are sensitized to and informed about the importance of ECD	Information and Education; Advocacy
Support Bright Spots	<ul style="list-style-type: none"> » Provide flexible funding to reinforce bright spots (public, private, nonprofit) with identified strategic needs - funneled through a resource like the Bermuda Community Foundation 	The field of ECD is enhanced in Bermuda	Information and Education, Advocacy, Measurement and Evaluation
Incubate Signature Program(s)	<ul style="list-style-type: none"> » Expand, promote and provide affordable & increased access to promising high quality programme(s) 	Local best practice learnings for broader dissemination to educators, legislators, investors and others	Access to quality programmes, Information and Education, Measurement and Evaluation
Policy & Regulation	<ul style="list-style-type: none"> » Support development of the infrastructure (including standards & curricula) needed to coordinate an effective early childhood system across the Island 	Adequate standards and regulations for all infant caregiving services	Regulations and Policy

Investment in these areas can bring together diverse resources, perspectives, and expertise to significantly enhance the field, while supporting those who deliver the programmes and services in the public, private and nonprofit sectors.

¹ Gaps are described in Section 9 of this report

11. REFERENCES & APPENDICES

Appendix 1: Register of Interviewees

Government
 Nonprofit
 Private
 Funders

Name	Organization	Role/Position
Sara D'Alessio	Min of Health	Policy Analyst
Dr. Alison Atherden	Child Development Program	Psychologist
Susan Price Barrett	Department of Health, Ministry of Health & Environment, Speech & Language Services, Community Health	Coordinator, Speech, Language and Hearing
Judith Brooks	Child Development Program	Family Counselor
Sherrri Lee Bucci	Child Development Program	Director
Gwendolyn Creary	Child Development Program	Behavior Management Counselor?
Gaynell Hayward	Government of Bermuda	Chief Nursing Officer
Donna Jacobs	Francis Patton School	School Administrator
Roxanne Kipps Jackson	Dept of Health, Min of Health	Community Health Coordinator
Lovette Lovell	Child Development Program	Family Coordinator
Kimberly McKeown	Policy Analyst	Ministry of Education
Desiree O'Connor	Bermuda Housing Corporation	Support Services Manager
Dr. Eugene Outerbridge	King Edward Memorial Hospital	Chief of Pediatrics
Cheryl Peek Ball	Ministry of Health & Seniors	Chief Medical Officer
Andalyn Swan	Happy Valley Child Care Center	Coordinator
Julia Swan	Bda Police	Domestic Violence Liaison Officer
Christine Virgil	BHB - Maternal Child Care	Clinical Director, Maternal Child
Tawanna Wedderburn	Bda Health Council	Director - Health Education
Liz Boden	Open Airways	Executive Director
Cindy Corday	National Trust	Director of Education
Martha Dismont	The Family Centre	Director
Julie Dunstan	Reading Clinic	Executive Director
Allison Figuerido	Bsmart	Owner
Thea Furbert	Tomorrows Voices	Board Chair
Stephanie Gothman	The Family Center	Director of Training
Emma Martin	Tomorrows Voices	Therapist
Lena Ostroff	La Leche	Executive Director
Natasha Pedro Petty	Tomorrows Voices	Therapist
Danielle Rivere	The Center of Philanthropy	Programs Officer
Elaine Williams	The Centre on Philanthropy	Executive Director

Name	Organization	Role/Position
Olga Dacara Anderson	Bda Cable Vision	Parent
Dr. Tina Arorash	Assoc. of Diagnostic & Psychological Services	Psychologist
Katrina Ball	Bda Parenting Magazine & Website	Creator
Fiona Dill	Great Beginnings	Doulah
Kay Edwards	Outsight Network	President & CEO
Terrylynn Emery	Terrylynn Emery OBGYN Services	Obstretician & Gynecologist
Kelly Francis	Performance Solutions	CEO
Angela Fubler	Family First Group of Schools	Founder, Director
Dr. Mellisa Gibbons-Tankard	Higher Achievers Reliable Tutoring and Testing Services (HARTT Services),	Psychologist
Dr. Bente Lundh	Assoc. of Diagnostic & Psychological Services	Pediatrician
Dr Sylvanus Nawab	Edgewood Pediatric Services	Pediatrician
Cordell Riley	Profiles of Bermuda	Managing Director
Calvina Simons	Independent Provider	Newborn Care Specialist
Bob Spievogel	Educational Development Center Inc	VP, Chief Technology Officer
Dr Andrea S Taylor	Temple University School of Intergenerational Studies	Director of Training
Lori Gazzard	Hemera Foundation	Director
Jamie Gutteridge	Hemera Foundation	Director
Rob Kaufold	Hemera Foundation	CFO
David Lang	Bank of Bermuda Foundation	Managing Director
Amanda Outerbridge	XL Foundation	Executive Director
Cummings Zuill	Hemera Foundation	Director
Myra Virgil	Bermuda Community Foundation	Managing Director

REFERENCES & APPENDICES

Appendix 2: Bermuda Child Protection Laws

The following is a sampling of major laws relevant to children zero to three.

Adoption of Children Act 1963

Adoption of Children Rules 2013

Adoption of Children Amendment Act 2011

Commencement Notice 2013

Adoption of Children Regulations 2013

Adoption of Children Act 2006

Age of Majority Act 2001

Child Daycare Allowance Act 2008

Child Daycare Allowance Regulations 2008

Children's Act 1998*

Children Amendment Act 2002

Children Amendment Act 2010

Criminal Code Act 1907 – Offences against Morality

Daycare Centre Regulations 1999

Domestic Violence (Protection Orders) Act 1997

Education Act 1996

Education Amendment Act 2003

Financial Assistance Amendment Regulations 2008

Financial Assistance Regulations 2004

Government Fees Amendment Regulations 2004

Human Maintenance Orders (Reciprocal Enforcement) Act 1974

International Child Abduction Act 1998

Mental Health Act 1968

Minors Act 1950

Parental Responsibility Act 2012

Public Health Act 1949

Registration (Births and Deaths) Act 1949

Residential Care Homes and Nursing Homes Act 1999

Rights Act 1981

*Provisions for co-parenting orders that recognize the importance of both parents in children's lives are due to be introduced into the Children Act 1998. (Throne Speech, November 2013)

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Excerpts of this report are available as follows:

Executive Summary
Key Findings
Opportunities & Recommendations
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