EVALUATION OF THE EARLY CHILDHOOD OUTREACH PROGRAMME (ECHO) PILOT
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Acronyms and Abbreviations

ASQ–3 ................................................................. Ages and Stages Questionnaire – 3rd edition
CCD ................................................................. Care for Child Development
CCSI ................................................................. Caribbean Child Care Support Initiative
CHA ................................................................. Community Health Aide
CNS ................................................................. Community Nursing Service
CRC ................................................................. Convention on the Rights of the Child
DONE .............................................................. Division on Nursing Education
ECD ................................................................. Early Childhood Development
ECHO ............................................................... Early Childhood Health Outreach
FBO ................................................................. Faith-based Organization
HNS ................................................................. Health Nursing Supervisor
IMCI ................................................................. Integrated Management of Childhood Illnesses
IT ................................................................. Information Technology
M&E ................................................................. monitoring and evaluation
MHWE ........................................................... Ministry of Health, Wellness and the Environment
NCTVET ............................................................ National Council on Technical and Vocational Education and Training
NFP ................................................................. Nurse-Family Partnership
NGO ................................................................. Non-governmental Organization
PAHO ............................................................... Pan American Health Organization
PPVT ................................................................. Peabody Picture Vocabulary Test
PS ................................................................. Permanent Secretary
RCP ................................................................. Roving Caregiver Programme
SMART ............................................................. specific, measurable, achievable, relevant and time-bound
SVG ................................................................. St. Vincent and the Grenadines
UNICEF ............................................................ United Nations Children’s Fund
WHO ............................................................... World Health Organization
WRAT4 ............................................................. Wide Range Achievement Test 4
Understanding the importance of early childhood development, and in particular development during the first three years of life, the Government of St. Vincent and the Grenadines (SVG) made the decision to implement programmes for vulnerable children in this age group. The Roving Caregivers programme (RCP), a home visiting early stimulation programme developed in Jamaica and delivered by community members, was implemented in some areas of the country. Although it received some support from the Government through the health sector, the RCP operated primarily as a privately run organization with its own staff. Inevitably, sustainability of the programme became a challenge, as it did in other Caribbean countries where the RCP was implemented. As in other countries also, the option of delivering the programme through existing paraprofessional commu-

EXECUTIVE SUMMARY

Understanding the importance of early childhood development, and in particular development during the first three years of life, the Government of St. Vincent and the Grenadines (SVG) made the decision to implement programmes for vulnerable children in this age group. The Roving Caregivers programme (RCP), a home visiting early stimulation programme developed in Jamaica and delivered by community members, was implemented in some areas of the country. Although it received some support from the Government through the health sector, the RCP operated primarily as a privately run organization with its own staff. Inevitably, sustainability of the programme became a challenge, as it did in other Caribbean countries where the RCP was implemented. As in other countries also, the option of delivering the programme through existing paraprofessional commu-
nity-based health staff, known as community health aides (CHAs), was considered.

The Ministry of Health, Wellness and the Environment (MHWE), with technical and/or financial support from other ministries and that of regional and international development partners, developed, planned and implemented its own delivery model called the Early Childhood Health Outreach (ECHO) programme. The programme, which was piloted in two phases in 2010 and 2011, had as its overarching objective the provision of health stimulation for at-risk children. This was to be met through six sub-objectives. In 2014, an evaluation of the pilot programme was commissioned based on the need of government partners in the MHWE to determine programme effectiveness and output in order to guide scaling up and as an organizational requirement for the United Nations Children’s Fund (UNICEF), which had invested in the pilot programme.

The objectives of this evaluation were to assess the status of achievement of objectives of the pilot programme and outputs at the individual, household and community level; identify opportunities and constraints for learning good practice; determine the inclusion of human rights approaches, gender equity and results-based monitoring in implementation and to ascertain the requirements and implications for scaling up. In addition, the evaluation could inform the viability of the ECHO programme as a cost-effective ECD intervention for the vulnerable and document the Caribbean experience of modification of the RCP into a country-specific variant.

The evaluation utilized a mixed method of qualitative and quantitative analysis. Qualitative methods included project document review, interviews with senior administrative personnel and focus groups with the Administrative Committee and staff and other participants at the operational level. Quantitative methods included collection of data from a sample of parent beneficiaries and developmental, cognitive and academic assessments of child beneficiaries.

Some 182 children from a socio-economically deprived area of SVG received early childhood stimulation services during the pilot project. The main programme strengths identified were in the support for the programme at the policy and administrative level and capacity building through training. The main programme challenges were in programme design, including weak human rights and monitoring and evaluation frameworks as well as inadequate targeting of services to the most vulnerable. At the operational level, services were not delivered with the frequency and intensity indicated by the protocol due to inadequate human resource provision. CHAs were unable to deliver the required services because of their existing workload.

In the absence of a comprehensive results-based framework, analysis of available data suggests that the ECHO programme only partially met its goal. It achieved the two objectives related to provision of early stimulation and training of staff to deliver stimulation, but the objectives of improving parental practice, promoting and monitoring child health and development and transferring knowledge to parents and community were only partially achieved. It was not possible to assess the objective of promoting healthy parent-child relationships. Programme costs were determined to be approximately EC$2,500.00 per child, more than twice that of the RCP model. Comparison of project outcomes of the two models could not be undertaken due to the lack of available monitoring and evaluation data at all levels of the results chain. Implementing the ECHO programme nationally would require an estimated 4 per cent increase in the budget of the MHWE, while a programme targeted to the 36 per cent of the population aged 0–4 years identified as living in poverty would require an increase of 2 per cent of the budget.

Using the available information from the implementation of the pilot, recommendations were made to address the existing financial and sustainability matters, programme design and training deficiencies, and human resource challenges affecting programme delivery at the operational level.
1. INTRODUCTION

The Convention on the Rights of the Child (CRC) requires that the particular requirements of young children (good nutrition, emotional care, sensitive guidance, time and space for social play, exploration and learning) should be met by the adults in their lives and strongly acknowledges that a positive growth-promoting environment is critical to development. Moreover, research in the fields of anthropology, education, developmental psychology, sociology and medicine indicate the critical impact of early childhood development (ECD) on health, well-being and the formation of intelligence, personality and social behaviour.

This report describes in detail the evaluation of the pilot of the Early Childhood Health Outreach (ECHO) programme, a country-specific home visiting model for children aged 0–3 carried out in St. Vincent and the Grenadines (SVG). The programme goal is to ensure that quality early childhood health stimulation is readily accessible to ‘at-risk’ parents and families. The pilot took place between February 2010 and January 2012, while the evaluation was conducted in 2014.

Section 2 of the report presents information on the importance of the early childhood period and early childhood development, in particular the first three years. This section also reviews international and regional programmes for children 0–3 years, with a focus on home visiting programmes. A description of SVG follows in section 3 to provide the context in which the evaluation was conducted. Additionally, home visiting programmes in the country are discussed.

Section 4 describes the ECHO pilot programme from its conceptualization through to monitoring and evaluation. The objectives of the evaluation are then outlined in section 5, followed by a detailed description in section 6 of the evaluation methodology, which used both qualitative and quantitative methods. Evaluation limitations and ethical considerations are also included.

The results of the evaluation are presented in sections 7–12: Evaluation Overview; ECHO Relevance; ECHO Effectiveness; ECHO Efficiency; ECHO Impact and Outcomes; and ECHO Sustainability (which also looks at considerations for national implementation). These results are used to inform the recommendations in the concluding section 13 of the report.

Following the references section, the appendices include a list of abbreviations and acronyms, the terms of reference, a list of interviewees and focus groups, a list of documents reviewed, the consent forms used for parents who completed questionnaires and whose children were assessed, the questionnaires utilized for primary data collection and a detailed analysis of the logical framework.
The quality of a child’s early environment and the availability of appropriate experiences during sensitive periods of development are crucial in determining the strength or weakness of the brain’s architecture, which, in turn, determines health, cognitive abilities and self-regulation (ibid.).

THE IMPORTANCE OF EARLY CHILDHOOD DEVELOPMENT

Early childhood is defined as the period of a child’s life from conception to age 8 and is now regarded as the most important developmental phase during the lifespan. It is a time of remarkable physical, cognitive, social and emotional growth. Development in these years is both highly robust and highly vulnerable (Shonkoff and Phillips 2000). Almost every aspect of early human development is affected by the environments and experiences that are encountered beginning early in the prenatal period and extending throughout the early childhood years (ibid.).

In recent years, there has been a renewed interest in the 0–3-year-old period. New research points to the unique vulnerability of children during particular periods of development such as gestation, infancy and very early childhood (Golding et al. 2009). Essentially, during the early years of human development the basic architecture and function of the brain are established (McCain et al. 2007). In the first few years of life there is rapid proliferation of neural connections in the brain – as many as 700 new neural connections per second (Shonkoff 2009). This is to accommodate a wide range of environments and interactions. After this initial period, connections proliferate and prune in a prescribed order, with more complex brain circuits being built upon earlier, simpler circuits (ibid.). In other words, brain plasticity decreases with age. As the brain matures and becomes more specialized, it is less capable of reorganizing and adapting to new challenges. Consequently, the first three years of life are especially important because it is easier to influence a child’s developing brain architecture than to rewire parts of its circuitry during adolescence or adulthood (National Scientific Council on the Developing Child 2007).

The quality of a child’s early environment and the availability of appropriate experiences during sensitive periods of development are crucial in determining the strength or weakness of the brain’s architecture, which, in turn, determines health, cognitive abilities and self-regulation (ibid.). Results from studies of developmental neurobiology consistently provide evidence that early neurobiological development affects physical and mental health, behaviour and learning in the later stages of life (Mustard 2010). For example, adverse experiences in early childhood are associated with chronic health problems in adulthood, including alcoholism, depression, heart disease and diabetes (Shonkoff et al. 2009).

Investment in early childhood is associated with high rates of return (Heckman 2004). It is a powerful economic strategy, with returns over the life course many times the size of the original expenditure (Hertzman 2010). Recent studies of early childhood investments along with the basic principles of neuroscience indicate that providing supportive conditions for early childhood development (ECD) is more cost-effective than attempting to address the consequences of early stress and adversity later on (Knudsen et al. 2006). For example, results from the HighScope Perry
Preschool Study estimated a return to society of more than $17 for every dollar invested in providing high quality care and education in the early years, even after controlling for inflation (Schweinhart et al. 2004). These results were largely due to the continuing effect of intervention in reducing crimes perpetrated by males. Analyses of other early childhood interventions have also revealed economic benefits to society attributed not only to decreased criminal justice costs but also to increased earnings due to higher educational attainment, higher employment rates, a decreased need for special/remedial education and decreased burdens on health and welfare systems (Anderson et al. 2003; Engle et al. 2011).

The provision of a high quality early childhood environment enhances the quality of a society’s human capital by promoting individuals’ competencies and skills for participating in civil society and the workforce (Knudsen 2006). Overall, countries that provide high-quality, universal programmes for very young children tend to outperform countries that do not (McCain et al. 2007).

**CHILDREN AT RISK: THE SCOPE OF THE PROBLEM**

More than 200 million children under 5 years living in developing countries are not fulfilling their developmental potential (Grantham-McGregor et al. 2007). The poorest and most marginalized children tend to suffer the most.

**EARLY CHILDHOOD INTERVENTIONS ACROSS THE WORLD**

Internationally, there are many types of early childhood interventions, including programmes linked to health-care services, home visitation services, community-based programmes, parent support programmes and preschool services. These interventions are highly varied in their methods, target group, eligibility criteria, service type and outcomes. However, they are all share a common objective: to moderate the effects of the various risk factors that may compromise healthy growth and development in the early years of life (Karoly et al. 2005).

**Model and targeted early childhood interventions**

Model ECD programmes have generally been of a high quality and have shown statistically significant positive results and good effect sizes (Geddes et al. 2010). This is mostly due to the fact that these interventions are small-scale, well-implemented and intensive programmes targeted at high-risk groups. For example, the Abecedarian Project tracked 111 low-income African-American families in North Carolina from infancy to age 21. Intervention groups were provided with high-quality, intensive education from infancy to age 5 or 8. The intervention groups displayed a number of benefits at follow-up including higher academic achievement, higher rates of high school and college completion, better employment outcomes, delayed parenthood and lower rates of cigarette and marijuana use. Similarly, the HighScope Perry Preschool Project demonstrated that children who attended quality preschools at ages 3–4 were more likely to graduate from high school, have steady employment, have higher earnings and commit fewer crimes than children who did not attend these programmes (Schweinhart et al. 2005).

**Large-scale targeted early childhood interventions**

It has been difficult to determine the true impact of many of the large-scale interventions because of poor...
methodological and evaluation designs, attrition, and follow-up contacts that are conducted too soon after programme implementation (Geddes et al. 2010). For example, the evidence on the positive impact of both Head Start in the United States and Sure Start in the United Kingdom has been inconclusive (Anderson et al. 2003; National Evaluation of Sure Start Team 2012). However, there have been a few large-scale interventions (e.g., Early Head Start, Nurse-Family Partnership and Chicago Child Parent Centers) that have used experimental, quasi-experimental or randomized controlled trials to measure efficacy (Geddes et al. 2010). The results of these studies have generally shown that experimental groups have better outcomes in both the short and long term (ibid.).

Programmes and services linked to health-care systems
Many interventions for children in the early childhood period, particularly for those under the age of 3, are linked to health-care systems. This is generally because very young children are most likely to come in contact with the health sector in the first few years of life. One such programme is the World Health Organization’s (WHO) Integrated Management of Childhood Illnesses (IMCI), the main goal of which is to reduce childhood mortality, illness and disability and to promote health and development among children 0–5 years. By adopting an integrated approach to child health and development, the IMCI focuses on the proper identification and treatment of childhood illness within the home, community and health facilities. It also provides counselling for parents and caregivers and referral services for very sick children. Although there have been major obstacles to the successful wide-scale implementation of the programme (e.g., the cost of training and training materials, poor follow-up support and frequent attrition of trained staff), there is evidence showing that health workers trained in IMCI provided significantly better care to children and their families than those not trained (Amaral et al. 2004).

Care for Child Development (CCD) was developed through a UNICEF/WHO partnership and was designed to be incorporated into existing IMCI programmes. CCD provides information and recommendations for families to help them provide cognitive stimulation and social support to young children as part of the child health visits specified in IMCI. However, adaptations of the CCD module encourage its integration into any programmes that serve young children and their families (e.g., preschools, parenting programmes and community-based programmes for families). There is evidence to suggest that CCD is an effective means of supporting caregivers’ efforts to provide a stimulating environment for their children, improving the quality of the parent-child interaction and improving cognitive, language and motor development outcomes at 12 and 24 months of age (Engle 2011).

Centre-based pre-school education
Research has shown that preschool attendance can provide tremendous benefits for children, especially those from very poor families (Geddes et al. 2010). These benefits include improved language, pre-reading and math skills. The general quality of the preschool programme, as well as factors such as the number of trained teachers and level of positive interactions with children, impact child outcomes (ibid.).

In home visiting programmes, nurses or other trained parent ‘coaches’ provide child development and parenting information to parents and families. This information is usually geared towards monitoring child development as well as creating a safe and stimulating home environment for children.

Home visiting
In home visiting programmes, nurses or other trained parent ‘coaches’ provide child development and parenting information to parents and families. This information is usually geared towards monitoring child development as well as creating a safe and stimulating home environment for children. It is also an opportunity for practitioners to connect families with essential medical, educational and community services. Although the majority of programmes target newborns, there are many programmes that provide services in the antenatal period and keep families enrolled until children are 3–5 years.

Systematic reviews of these programmes have yielded mixed results (Daro 2006). When home visiting is well implemented, evaluators have seen a significant reduction in child-abuse risk and improvements in child and family functioning (Geeraert et al. 2004; Sweet and Appelbaum 2004). Evaluation research has shown...
that home visiting programmes can increase positive birth outcomes for children, decrease the rates of child abuse and neglect and increase children’s literacy and language skills and school completion rates (Daro 2006). One of the most successful home visiting programmes has been the Nurse-Family Partnership (NFP) in the United States (Olds et al. 1995; Olds et al. 1998). The main goal of the NFP is to improve outcomes for families by empowering low-income, first time mothers through evidence-based nurse home visiting. It provides visits ranging from weekly to monthly, beginning during pregnancy through to the child’s second birthday. One unique aspect of the NFP has been its carefully planned and well-conducted randomized controlled trial evaluations. These have shown that there are benefits in all child development domains (Daro 2006). Similar programmes have had success in countries such as Australia, Kazakhstan and Turkey (Irwin et al. 2007).

However, some groups have raised concern about the efficacy of home visitation (Gomby 2005). They have highlighted inconsistencies in programme quality and outcomes and have cautioned against dependence on a single approach to intervention. In many cases, the high expectations of home visiting impact have not been supported by research (Daro 2006). Home visitation may be best viewed as an important aspect of a comprehensive approach to supporting families and improving a child’s developmental trajectory. Regardless, for current home visiting programmes to be effective, administrators must focus on issues of quality, training, content and supervision to ensure that programme outcomes are achieved and maintained.

INTERVENTIONS FROM 0–3 YEARS IN THE CARIBBEAN

In the Caribbean region, there are a few home visiting programmes focused on child health and development. In several countries, nurses/ midwives or health paraprofessionals, known as community health aides (CHAs), visit families for a few weeks after birth to monitor the mother and newborn. In the case of the newborn, these programmes are generally focused on growth, nutrition and health.

**Roving Caregiver Programme**

The Roving Caregiver Programme (RCP), developed in Jamaica in 1992, is primarily aimed at providing stimulation to at-risk children aged 0–3 who are not in formal day-care/ education programmes, through a home visitation intervention model. The specific goals of the RCP are to increase parenting knowledge, encourage good parenting behaviour and change inappropriate child-rearing practices (Wint and Janssens 2008). The programme combines health, nutrition, parenting and income generation of parents. It is delivered by personnel known as ‘rovers’ or ‘roving caregivers’, who are often from the community and who have a minimum of two passes in the regional Caribbean Examinations Council at the Grade 10 level. Rovers undertake a two-week intensive training programme.

An experimental evaluation of the RCP in Jamaica in 2004 demonstrated a significant impact (effect size of 0.5) on the cognitive abilities, particularly in receptive language, fine motor skills and hand and eye coordination, of children aged 3–36 months (Engle et al. 2007; Powell 2004). However, while parental knowledge had improved, there was no significant change in parental practice. This was felt to be due to limited involvement of parents in the stimulation of children by rovers. Programme adjustments were subsequently made to ensure greater parental participation. Because of its success in Jamaica, the RCP has been replicated in many other Caribbean countries.

An evaluation of the RCP programme in Saint Lucia in 2008 showed that one year after implementation there was significant improvement (0.5 SD) in fine motor function and visual reception for the youngest children enrolled in the programme, those aged 6–18 months. However, this was not found for those aged 18–30 months, and there was no improvement in cognitive or socio-emotional development. A further evaluation two years after programme implementation showed that the fine motor improvement had faded but the visual reception improvement had strengthened. In-depth interviews and focus groups with parents, however, indicated that RCP had positive effects on parenting knowledge and self-confidence (Wint and Janssens 2008).

**Community health aide-delivered programme**

An experimental evaluation of the integration of an early childhood stimulation programme, primarily focused on parenting support, in the existing home visitation programme of community health aides (CHAs) was conducted in Jamaica in 2008. Children aged 9–30 months showed significant improvement in speech, eye-hand co-ordination and non-verbal reasoning, with an effect size of 0.8. Parenting knowledge and practice also improved.
3. ST. VINCENT AND THE GRENADINES: AN OVERVIEW

COUNTRY PROFILE

St. Vincent and the Grenadines (SVG) is an archipelagic country located in the Lesser Antilles between Grenada and Saint Lucia in the Eastern Caribbean. The country is a part of the Caribbean Community (CARICOM) and the Organisation of Eastern Caribbean States (OECS). The islands gained independence from Britain in 1979.

SVG consists of 32 islands and cays, nine of which are inhabited. The total land mass is 389 square kilometres, with St. Vincent being the largest island of 344 square kilometres and the Grenadines measuring 45 square kilometres. The largest city and capital is Kingstown, which is located at the southeast coast of the island. Bequia is the largest island in the Grenadines.

In 2013 the population was 109,373 (UNSD 2013). The category accounting for the highest proportion of the population was the 25–54 age group (42.6 per cent), followed by the age groups of birth–14 years (22.9 per cent), 15–24 years (16.7 per cent), 55–64 years (9.2 per cent) and 65 years and over (8.6 per cent).

The population of children (i.e., those under the age of 18) is 34,000 (31.2 per cent). Those under 5 years account for 8.3 per cent of the population (UNICEF 2014). There are 2,000 births per year, with 8 per cent being less than 2,500g or of low birth weight. The neonatal mortality rate (under the age of 28 days) is 15 per 1,000 live births, the infant mortality rate (under the age of one year) is 23 per 1,000 live births and the under-5 mortality rate is 23 per 1,000 live births (ibid.). Immunization coverage for BCG is 97 per cent and for three doses of DPT and oral polio is 96 per cent. 1 The gross enrolment rate is 80 per cent for pre-primary education, 98 per cent for primary education and 85 per cent for secondary education (ibid.).

The main ethnic group is of African descent, accounting for 66 per cent of the population. The other ethnic groups are of mixed descent (19 per cent), East Indians (6 per cent), Europeans (4 per cent) and Caribs (2 per cent). The dominant religion is Christianity and the official language is English.

According to the 2013 Human Development Report (UNDP 2013), the country ranked 83 out of 187 countries on the human development index based on expected years of schooling and life expectancy at birth. In 2012, life expectancy at birth was 72.4 years (75 and 70 for females and males, respectively).

SVG is ranked as an upper middle-income country by the World Bank and has a GDP of US$ 725.6 million (World Bank 2013) and a GNI per capita of US$ 6,380. However, according to the 2008 Country Poverty Assessment, it is one of the poorest islands in the Eastern Caribbean, with only Dominica and Grenada having higher poverty rates (Kairi Consultants Ltd. 2009). Its poverty rate is 30.2 per cent for households

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1. BCG is a vaccine against tuberculosis; DPT is a combination vaccine against diphtheria, pertussis (whooping cough) and tetanus.
and 37.5 per cent for the population; there is a 15 per cent unemployment rate (ibid.).

The poverty rate among children aged 0–4 years is 36 per cent (2,984 of the 8,288 children in this age group). Poverty is spread throughout the island, with the highest concentrations in the villages of Calliaqua, Georgetown/Sandy Bay and the suburbs of Kingstown (Charles & Associates Inc. 2011).

Poverty reduction has been a primary target for the Government for over a decade in an effort to achieve Millennium Development Goal 7 (MDG7).

The Ministry of Education is responsible for the supervision and monitoring of all early childhood education facilities for children under 5 years. SVG has 34 day-care centres that provide services to the 0–2 age group and are owned by the private sector, faith-based organizations (FBOs) and non-governmental organizations (NGOs). There are also 126 preschools providing services to the 3–5 age group; nine are government-owned and the remainder owned by the private sector, FBOs and NGOs (Charles & Associates Inc. 2011). Government-owned preschools are free of charge and include a feeding programme.

Data from the Ministry of Education indicate that in 2009, only 11.5 per cent (642) of the 5,581 children in the 0–2 age cohort were enrolled in centre-based day-care programmes (Charles & Associates Inc. 2011).

The Ministry of Health, Wellness and the Environment (MHWE) is responsible for all public health programmes in the country. The primary health-care system consists of 39 health centres spread over nine health districts offering a wide range of services. Maternal and child health services, including pre- and postnatal care, midwifery and child health services, are provided at health centres by the maternal and child health service. The maternal and child health team includes public health nurses, family nurse practitioners, registered nurses, nursing assistants and community health aides (CHAs). There are 43 CHAs providing service throughout the country, using a mixed home visiting and clinic service model. Home visitation includes provision of basic primary health care to individuals and families; basic education of families in a number of areas including nutrition, family life and dental care; food preparation demonstrations; and follow up with defaulters from clinic.

PROGRAMMES TO SUPPORT VULNERABLE CHILDREN 0–3 YEARS

There have been two main interventions to support vulnerable children 0–3 years in SVG: the Roving Caregivers Programme and the Early Childhood Health and Outreach (ECHO) programme.

The Roving Caregivers Programme

The Roving Caregiver Programme (RCP) was the first national attempt to provide early stimulation services for the most vulnerable children. Its objectives were:

- Serve as a safety net for children 0–3 years who are denied any form of early stimulation and are generally exposed to inappropriate practices
- Equip parents with the knowledge, skills and attitude needed to allow them to deliver early stimulation experiences and activities to children
- Provide training opportunities for children, parents, rovers and supervisors thereby developing a cadre of skilled caregivers capable of implementing and replicating the programme as the need for expansion arises
- Create employment opportunities for young persons

SVG Save the Children Fund (VINSAVE) was the lead agency with responsibility for administering the pilot project. However, the Ministry of National Mobilization began administering the programme in January 2009,
in collaboration with the Caribbean Child Care Support Initiative (CCSI). Funding for the RCP programme was provided primarily by the Bernard van Leer Foundation, which covered personnel and administrative costs. UNICEF provided support for training and material production, and the Canada Fund for Local Initiatives contributed support for public awareness through community radio. The Government provided a small subvention in 2010 as well as in-kind support including duty concessions on imports and use of the government printery. Support was also provided by the Ministry of Education, Youth Empowerment Services, Organization of American States (OAS) and the Basic Needs Trust Fund (BNTF) of the Caribbean Development Bank.

The project commenced as a pilot in three communities in November 2004, but was officially launched in July 2005. The three communities were Byera/Chester Cottage on the eastern side of the island, Sandy Bay in the north and Barrouallie in the west. The target areas were poor communities in which there were no day-care centres. The project subsequently expanded to a total of eight communities, adding Overland, London, Magum, Orange Hill and Colonaire. The RCP staff report that the main reason for the expansion was the initial success in the first villages and the testimonies of parents who were recipients of the programme. The strong request for expansion came from the parents (Amsterdam Institute for International Development 2010).

In 2011, the programme served 308 children from 301 families – approximately 17 per cent of the poor children in SVG (Charles & Associates Inc. 2011).

Apart from child stimulation, the roving caregivers held monthly parent meetings in each village to share programme progress and receive feedback from parents. Community meetings were also held monthly. These were attended by a broad group of community members and discussed topics that were important for the whole community.

No evaluation of programme outcomes has been conducted in SVG, although one was conducted of the RCP in Saint Lucia (see section 2 Background).

In 2008, the cost per child per annum of implementing the RCP in SVG was EC$1,110.72 (US$416). A cost benefit analysis undertaken in Saint Lucia showed that – at a conservative estimate of modest effects on school enrolment – the programme had large benefit-to-cost ratios that are in line with other ECD programmes and well above those of traditional investments. A 3 percentage point increase in primary school enrolment yielded a benefit-to-cost ratio of 1.32, or a return on investment of 32 per cent. If both primary and secondary school enrolment increase by 3 percentage points, the benefits-to-cost ratio increases to 2.67. Return on investments would increase further with an increased number of participants by reducing unit costs (Amsterdam Institute for International Development 2010).

The ECHO programme

With the knowledge that support for the RCP programme from the Bernard van Leer Foundation would end in 2011, mechanisms to sustain an early childhood stimulation programme were actively sought by the Government. This eventually became the Early Childhood Health Outreach (ECHO) programme, the subject of this evaluation.

A review of the RCP programme was done in 2006 with the view of exploring the options for the consolidation of its concepts and methodologies before commencing activities and in fortnightly workshops throughout the year, culminating in a total of 24 in-service training days per year. Practical aspects of the training programme included shadowing of an existing roving caregiver. The initial curriculum guide developed in Jamaica was revised in 2009 with the support of the HighScope Foundation. In 2008, some of the rovers also completed the National Council on Technical and Vocational Education and Training (NCTVET) certification in ECD (Amsterdam Institute for International Development 2010).
and extending its reach and coverage in a national context. The programme was identified as being faced with numerous challenges, the primary one being institutionalization and sustainability. However, there was also concern about image, certification, finances, advocacy, level and capacity of rovers and the ability and resources to sustain services to a large cross-section of families (Community Nursing Services 2009).

Institutionalization of the early stimulation programme within the Community Nursing Service Programme was considered as a possible option. Here, there were CHAs who received specialized training to work with individuals and families, did home visits and worked under the supervision of the Health Nursing Supervisor. These roles were felt to place them in a strategic position to support parent education and child development. It was recognized that, as child stimulation was not included in their six-month training programme, additional training in this area was necessary using the RCP concepts and training tools.

A proposal for the ECHO programme was developed for the Government by the Caribbean Child Support Initiative (CCSI). It identified and described four steps for a pilot programme to be undertaken – assessment, planning, implementation and monitoring and evaluation – and outlined a budget. Concerns raised by stakeholders during the consultation process for the pilot were also documented and addressed in the proposal. These included the addition of work tasks to the CHAs without changes in their job description and additional remuneration, the impact of the termination of the RCP and the need for training and administrative support. Importantly, there were also concerns regarding the financing and sustainability of the ECHO programme (Community Nursing Services 2009).

It was anticipated that once the pilot programme was completed, evaluated and modified, it would be implemented in health districts across the country (Community Nursing Services 2009). A pilot ECHO programme was subsequently implemented in 2010 and 2011.
The Early Childhood Health Outreach (ECHO) programme was a response of the SVG Government to the available international and regional evidence on the importance of providing stimulation to vulnerable children 0–3 years. The vision was the implementation of an effective national programme that would provide the required interventions for all vulnerable Vincentian children and families. The decision was taken to conduct a pilot programme and to monitor and evaluate the outcome of the pilot in order to guide national implementation.

The objectives of the ECHO pilot programme, as indicated by the 2009 programme proposal (Community Nursing Services 2009) were to:

1. Increase parental/caregiver awareness of the importance of early childhood cognitive, social and emotional development in addition to techniques to help promote the good health and development of young children

2. Monitor the early development and health of young children who are not currently exposed to adequate access to early childhood services

3. Increase the partnership between parents/caregivers and health-care providers about early childhood development

The Roving Caregiver Programme (RCP), developed in Jamaica, and the HighScope Programme for children 0–3 years, developed in the United States, were identified as having those principles and methodologies that would best meet the needs of the children and families of SVG. The ECHO pilot programme was therefore developed by integrating the RCP and HighScope programmes into a single model. Based on the RCP, the ECHO programme was designed to be a community-based home-visiting programme, delivered to at-risk children aged 0–3, with a focus on child stimulation, parent support and education on child development and parental financial independence. The HighScope principles adopted ensured that participatory learning, exploration and playing with infants and toddlers were integral to the programme. An additional feature of the programme was its delivery by health-care para-professionals known as community health aides (CHAs) and supervision by community-based nursing staff located at clinics (a recent addition to some models of the RCP).

SUPPORT, ADMINISTRATION AND MANAGEMENT

The pilot had the technical and/or financial support of a number of regional and international development partners, including the Caribbean Child Support Initiative (CCSI), Bernard Van Leer Foundation, United Nations Children Fund (UNICEF) and Pan American Health Organization (PAHO).

3. It should be noted that parental financial independence was not one of the initial programme objectives.
The Ministry of Health, Wellness and the Environment (MHWE) had full responsibility for pilot programme development and implementation. The organizational structure of the pilot programme (Figure 1) indicates the management structure within the MHWE. The Minister takes overall responsibility for all programmes within the MHWE, with the Permanent Secretary having full fiduciary responsibility.

The pilot programme was managed by the Maternal and Child Health Services Division in the MHWE under the direct responsibility of the Chief Nursing Officer, who supervises the Community Nursing Service. This Service has responsibility for the community-based well child clinics. At the clinics, the staff/community nurse manages all nursing services, including those provided by the CHAs.

**Figure 1: ECHO organizational structure**
The Administrative Committee and the ECHO Pilot Coordinator were temporary structures within the MHWE and provided significant support to the programme. As indicated by the second year report of the pilot, the Administrative Committee was chaired by the Permanent Secretary and had 11 members in the first year (Year 2 M&E Report 2012). In the second year, cross-ministerial membership was achieved by the addition of representatives from the Ministries of Education and National Mobilization (Table 1).

Unlike the senior management staff at the MHWE, the field staff at clinics and other members of the Administrative Committee, the ECHO Pilot was the primary responsibility of the Pilot Coordinator. The ECHO Work Plan document (Table 2) indicates the roles of the Administrative Committee and the Pilot Coordinator.

### Table 1: Composition of Administrative Committee

<table>
<thead>
<tr>
<th>Title</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent Secretary (Chair)</td>
<td>MHWE</td>
</tr>
<tr>
<td>Health Planner</td>
<td>MHWE</td>
</tr>
<tr>
<td>Chief Nursing Officer</td>
<td>MHWE</td>
</tr>
<tr>
<td>Senior Nursing Officer, Community Nursing Service</td>
<td>MHWE</td>
</tr>
<tr>
<td>Chief Health Educator</td>
<td>MHWE</td>
</tr>
<tr>
<td>RCP Coordinator</td>
<td>RCP</td>
</tr>
<tr>
<td>Health Nursing Supervisor, Calliaqua District</td>
<td>MHWE</td>
</tr>
<tr>
<td>Tutor</td>
<td>Division of Nursing Education</td>
</tr>
<tr>
<td>Paediatrician</td>
<td>MHWE</td>
</tr>
<tr>
<td>ECHO Coordinator</td>
<td>MHWE (temporary staff)</td>
</tr>
<tr>
<td>ECHO Administrative Assistant</td>
<td>MHWE (temporary staff)</td>
</tr>
<tr>
<td>Representative</td>
<td>Ministry of Education</td>
</tr>
<tr>
<td>Representative</td>
<td>Ministry of National Mobilization</td>
</tr>
<tr>
<td>Objectives</td>
<td>Tasks</td>
</tr>
<tr>
<td>------------</td>
<td>-------</td>
</tr>
<tr>
<td>1. Establish administrative component for the ECHO project</td>
<td>1.1 Identify temporary and permanent location for office</td>
</tr>
<tr>
<td></td>
<td>1.2 Identify in-country consultant</td>
</tr>
<tr>
<td></td>
<td>1.3 Purchase equipment, supplies and materials</td>
</tr>
<tr>
<td></td>
<td>1.4 Identify administrative assistant</td>
</tr>
<tr>
<td>2. Facilitate and encourage community involvement in promoting and supporting the ECHO project</td>
<td>2.1 Continuous education and communication about ECHO project using media; H/C; community-based organizations, etc.</td>
</tr>
<tr>
<td>2.2 Plan for training</td>
<td>2.2.1 Discuss with RCP Coordinator re. RCP curriculum</td>
</tr>
<tr>
<td></td>
<td>2.2.2 Develop training tools and education programmes for ECHO programme</td>
</tr>
<tr>
<td></td>
<td>2.2.3 Develop monitoring and evaluation tools</td>
</tr>
<tr>
<td>3. Train and assign CHA with families</td>
<td>3.1 Select and assign CHA to participating families and children</td>
</tr>
</tbody>
</table>
### Table 2: ECHO Pilot Project Work Plan (continued)

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Tasks</th>
<th>Time frame</th>
<th>Responsible person(s)</th>
<th>Result indicators/success criteria</th>
<th>Monitoring party</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2 Resource persons contacted to train CHA; staff nurse; health nursing supervisor; family nurse practitioner in the pilot district</td>
<td></td>
<td>Coordinator</td>
<td>❖ CHA assigned&lt;br&gt;❖ Cadre of 16 workers trained to provide home-based stimulation for 0–3-year-olds&lt;br&gt;(1) 8 weeks training course and practical conducted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.3 Conduct practical field work</td>
<td>Ongoing</td>
<td>Consultant/Coordinator</td>
<td>(2) Fortnightly peer sharing of experiences&lt;br&gt;Mass media utilized, community awareness and active support given to the programme</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.4 Utilize media to ensure community involvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Assess programme</td>
<td>4.1 First 6 months assessment of the ECHO programme</td>
<td>August 2010</td>
<td>Consultant/Coordinator</td>
<td>Data collated and analysed</td>
<td>Administrative Committee</td>
</tr>
<tr>
<td>5. Present findings</td>
<td>5.1 Presentation of findings and suggestions for programmatic changes noted</td>
<td>September–October 2010</td>
<td>Consultant/Coordinator</td>
<td>Consultation conducted and necessary changes made to the programme&lt;br&gt;Changes established</td>
<td>Administrative Committee</td>
</tr>
<tr>
<td></td>
<td>5.2 Programme changes implemented</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Select additional families</td>
<td>6.1 Selection of additional families to make a total of 200</td>
<td>November 2010</td>
<td>Coordinator</td>
<td>Families selected and consulted</td>
<td>Administrative Committee</td>
</tr>
<tr>
<td>7. Train staff</td>
<td>7.1 Training of new staff about ECHO programme</td>
<td>January – February 2011</td>
<td>Coordinator</td>
<td>New staff trained to provide home-based stimulation to 0–3-year-olds</td>
<td>Administrative Committee</td>
</tr>
<tr>
<td>Objectives</td>
<td>Tasks</td>
<td>Time frame</td>
<td>Responsible person(s)</td>
<td>Result indicators/success criteria</td>
<td>Monitoring party</td>
</tr>
<tr>
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<td>------------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>8. Assess ECHO pilot project</td>
<td>8.1 One year assessment and presentation of ECHO pilot project</td>
<td>March – April 2010</td>
<td>Coordinator/Consultant</td>
<td>Project analysed and findings presented</td>
<td>Administrative Committee</td>
</tr>
<tr>
<td></td>
<td>8.2 Commence discussion to institutionalize the ECHO programme</td>
<td>April – June 2011</td>
<td></td>
<td>Programme accepted and included in the advance proposal of the CNS for 2011</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.1 Propose ECHO programme</td>
<td>9.1 Proposal of the ECHO programme to policy makers</td>
<td>April – June 2011</td>
<td>Consultant/Coordinator</td>
<td>Policy makers have indicated their commitment</td>
<td>Administrative Committee</td>
</tr>
<tr>
<td></td>
<td>9.2 Train and assign CHA to families</td>
<td>July – August 2011</td>
<td>Coordinator/Consultant</td>
<td>10 families in each H/D selected and consulted</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Home-based stimulation provided from birth to 3 years</td>
<td></td>
</tr>
<tr>
<td>10. Assess the ECHO programme</td>
<td>10.1 Collaborate with field workers to compile data for the assessment of the ECHO programme</td>
<td>September – December 2011</td>
<td>Coordinator</td>
<td>Programme assessed, documentation and presented</td>
<td>Administrative Committee</td>
</tr>
<tr>
<td></td>
<td>10.2 Presentation of findings; discussions and suggestions prior the implementation of ECHO programme</td>
<td></td>
<td>Consultant/Coordinator</td>
<td>Consultation conducted and necessary changes made to the programme</td>
<td>Administrative Committee</td>
</tr>
<tr>
<td>11. Institutionalize the ECHO programme</td>
<td>11.1 Institutionalize the ECHO programme</td>
<td>January – April 2011</td>
<td>Coordinator</td>
<td>ECHO programme integrated into the primary health-care system</td>
<td>Administrative Committee</td>
</tr>
</tbody>
</table>
Administrative Committee: The Administrative Committee was responsible for monitoring all the activities of the Pilot Coordinator.

Pilot Coordinator: The Pilot Coordinator had a number of roles:

- Establish the administrative component of the ECHO project (identify office space, employ consultant and administrative assistant, and purchase equipment and supplies)

- Facilitate and encourage community involvement in promoting and supporting the ECHO pilot

- Plan and oversee training programme for CHAs

- Assign families to CHAs in pilot

- Periodic programme assessment at six months, one year and end

- Periodic presentation of programme assessment to Administrative Committee at six months and one year and implement changes as recommended

- Propose institutionalization of programme to policy makers

- Oversee institutionalization of programme

Staff/ community nurse: The staff/ community nurse was responsible for supervising CHAs and also assisted in identifying families for the pilot programme.

Community health aide: The main role and responsibility of the CHA, as part of the community health team, is to bridge the gap between the health centre and the community. CHAs visit homes to provide basic health support to those in need. Specific to the ECHO programme, the CHA was responsible for stimulating the children, monitoring and tracking their developmental status, educating parents about raising healthy children and teaching parents about backyard gardening.

Involvement of other government ministries, departments or agencies

The parental financial independence aspect of the programme was focused on the development of backyard gardens. The Ministry of Agriculture supported this by providing seeds.

PROGRAMME INITIATION AND ENROLMENT

There were two phases of the ECHO pilot programme, the first in 2010 and the second in 2011. Once children and families were enrolled in the pilot, they were expected to stay in the programme for a one-year period. A total of 182 children and families were enrolled, 84 in year one and 98 in year two.

Selection of region for piloting

SVG has a total of nine health districts. The health district of Calliaqua, located at the southern tip of the island of St. Vincent, was selected to pilot the ECHO programme due to its identification as the district with the greatest proportion of disadvantaged citizens and an expected high proportion of children at risk. The SVG Poverty Assessment identified Calliaqua as accounting for 19.9 per cent of the total amount of poverty in the country. Additional reasons for its selection were the absence of any previous or current services for children under the age of 3, the lack of day-care services and the fact that the RCP programme had never been offered there.

Selection of child and family participants

During the first phase of the programme, there were no individual eligibility criteria. CHAs and nursing supervisors at community clinics identified families with the greatest need, as indicated by absence of enrolment in pre-school and assessment of disadvantage. At the second phase of enrolment, eligibility criteria were developed to improve targeting. These criteria included demographic characteristics (e.g., age, poverty), health characteristics (e.g., nutritional status, low birth weight) and developmental characteristics (e.g., minor developmental delay) as indicated in Table 3. Project documents did not indicate how the criteria were defined.
Table 3: Eligibility criteria for ECHO enrolment (phase 2)

<table>
<thead>
<tr>
<th>Category</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic</td>
<td>Child age 0–3 years</td>
</tr>
<tr>
<td></td>
<td>Low parental educational level</td>
</tr>
<tr>
<td></td>
<td>Living in poverty</td>
</tr>
<tr>
<td>Health</td>
<td>Babies born to mothers with little or no prenatal care</td>
</tr>
<tr>
<td></td>
<td>Babies born to mothers with prenatal complications</td>
</tr>
<tr>
<td></td>
<td>Babies born with perinatal complications</td>
</tr>
<tr>
<td></td>
<td>Low birth weight or premature babies</td>
</tr>
<tr>
<td></td>
<td>Poor nutritional status</td>
</tr>
<tr>
<td>Developmental/educational</td>
<td>Not attending pre-school</td>
</tr>
<tr>
<td></td>
<td>Minor developmental delay</td>
</tr>
</tbody>
</table>

**TRAINING**

*Training of CHAs*

Project documents indicate that the Project Coordinator had major responsibility for designing the CHA training programme (Year 2 M&E Report 2012). There was no curriculum document available for the first and second phases of the training programme. CHAs were required to complete 150 hours of training full time over a 6–8 week period.

The training programme included instructional, classroom and practical sessions. The instructional and classroom sessions included 22 topics delivered over 41 sessions, as indicated in Table 4. While highly trained facilitators delivered the theoretical (classroom) aspects of the training programme – discussed in the next sub-section – CHAs were grouped with rovers from the RCP to obtain practical work experience in disadvantaged communities.
Table 4: CHA instructional programme topics

<table>
<thead>
<tr>
<th>Topics for instructional sessions</th>
<th>No. of sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Growth and development at various stages of the life cycle 0–3 years</td>
<td>4</td>
</tr>
<tr>
<td>2 Early childhood stimulation</td>
<td>2</td>
</tr>
<tr>
<td>3 Home visiting</td>
<td>1</td>
</tr>
<tr>
<td>4 Respect for self, others and the environment</td>
<td>2</td>
</tr>
<tr>
<td>5 Developmental assessment in children 0–3 years</td>
<td>2</td>
</tr>
<tr>
<td>6 Active participatory learning from infants and toddlers</td>
<td>2</td>
</tr>
<tr>
<td>7 Developmental assessment in children 0–3 years</td>
<td>2</td>
</tr>
<tr>
<td>8 Effective communication</td>
<td>2</td>
</tr>
<tr>
<td>9 Developing and maintaining therapeutic relationships</td>
<td>2</td>
</tr>
<tr>
<td>10 Supportive adult-child interaction</td>
<td>2</td>
</tr>
<tr>
<td>11 Support skills necessary for families</td>
<td>1</td>
</tr>
<tr>
<td>12 Facilitating parental learning</td>
<td>1</td>
</tr>
<tr>
<td>13 Intellectual empowerment</td>
<td>2</td>
</tr>
<tr>
<td>14 Community health aides–family partnership</td>
<td>1</td>
</tr>
<tr>
<td>15 Professionalism</td>
<td>1</td>
</tr>
<tr>
<td>16 Child abuse 0–3 years</td>
<td>1</td>
</tr>
<tr>
<td>17 Nutrition 0–3 years</td>
<td>2</td>
</tr>
<tr>
<td>18 Ages and stages of development</td>
<td>4</td>
</tr>
<tr>
<td>19 Making inexpensive toys for stimulation purposes</td>
<td>3</td>
</tr>
<tr>
<td>20 Principles of teaching and learning</td>
<td>1</td>
</tr>
<tr>
<td>21 Principles of child development and learning (neuro-developmental principles)</td>
<td>2</td>
</tr>
<tr>
<td>22 Job description of community health aides</td>
<td>1</td>
</tr>
</tbody>
</table>

Of the total complement of 43 CHAs, 41 completed theoretical and practical training in two phases, consistent with the phases of the pilot: 19 in June–July 2010 and 22 in January–March 2011. This number included all CHAs and not just those who would deliver the pilot programme.

Evaluation forms were administered after each session and at the end of the theoretical and practical training. These forms were analysed and the results presented to stakeholders as part of the pilot project activities. Overall, CHAs from both phases reported positively on the training programme. The majority of trainees gave high appraisals of facilitators and indicated that the training had been organized and appropriate and that the content and presentation of training material were good. Excellent rapport between CHAs and rovers during the practical session was also reported. Most of the unsatisfactory comments related to the training facility and meals. However, both groups reported that the session on ‘CHA job description’ needed review and that there needed to be more consultation with CHAs regarding changes to their roles.

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4 The Early Childhood Outreach Programme Curriculum, p. 7.
In addition, 80 per cent of CHAs from the first training group stated that there were inadequate materials for training. This may have been addressed for the second phase of training as it was not a recurring concern.

Overall, all the CHAs indicated that they had gained valuable skills and knowledge from the training programme and many believed that ECHO would benefit families in the poorest areas of SVG.

**CHA training programme curriculum development**

After the two training periods, an education consultant was engaged to formalize the curriculum. This entailed compiling a curriculum guide that described the goals and objectives of the training programme (Table 5) and provided outlines for each instructional session listed in Table 4. The final ECHO curriculum was strongly influenced by both the RCP curriculum and the HighScope 0–3 manual.

According to the guide, although the curriculum can be adapted to suit a number of different groups, it was specifically designed for the training of CHAs in SVG. Facilitators using the curriculum guide are urged to exercise flexibility in delivering their sessions by adjusting the methods, materials and activities based on the needs and composition of their trainees. The curriculum guide also included copies of checklists, evaluation forms and questionnaires to be used in both the ECHO training (evaluation form for each instructional session; evaluation form for the training programme; fieldwork evaluation form) and in the delivery of the ECHO programme (survey questions on parent’s knowledge, attitude, behaviour and practice; parent’s consent form to participate in the ECHO programme; evaluation satisfaction form for parenting workshop; parent satisfaction checklist on CHA field work).
Table 5: ECHO final curriculum training programme goals and objectives

<table>
<thead>
<tr>
<th>ECHO training programme goals</th>
<th>ECHO training programme objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitators and participants will help to create a congenial, classroom atmosphere in which the sharing and discussing of experiences will thrive.</td>
<td>Within a congenial, classroom atmosphere, facilitators and participants will share and discuss ideas and experiences, identify pop-up setbacks and appropriately deal with them, in order to sustain effectiveness.</td>
</tr>
<tr>
<td>Participants will be well informed with the overall growth and development in children from birth to 3 years.</td>
<td>Facilitators will construct objectives for their individual sessions, share the objectives with the participants at appropriate times during the sessions and fashion sessions to achieve the objectives.</td>
</tr>
<tr>
<td>Participants will be better able to assist parents/guardians in promoting good health among their children from birth to three years, thereby resulting in a healthier nation.</td>
<td>Participants will gain new knowledge or expand on previous knowledge concerning the nutrition, growth and development of children at different ages and stages of the life cycle from birth to 3 years.</td>
</tr>
<tr>
<td>Participants will know what is expected of them – what they should do and how they should act – when they go out into the communities on their visits.</td>
<td>Participants will learn and practise the skills that are necessary to instruct/teach/show families how to produce inexpensive toys and stimulation materials, which will promote healthy growth in children birth to three years.</td>
</tr>
<tr>
<td>In the communities, the roving caregivers and community health aides will work compatibly to ensure that the children and the parents benefit from the exercise.</td>
<td>While employing the knowledge and skills learnt in the classroom, participants, on their visits to the communities, will interact with children, parents/guardians and the roving caregivers by demonstrating all-round professionalism and competence.</td>
</tr>
<tr>
<td>Parents will co-operate with all the stakeholders of the programme who will visit their homes to carry out prescribed duties.</td>
<td></td>
</tr>
<tr>
<td>Participants will be enriched personally through the knowledge and leadership skills acquired in the classroom, which should positively influence their daily lives.</td>
<td></td>
</tr>
</tbody>
</table>

**Training of nursing staff**

A one-day ECHO seminar was held in April 2011 for nursing supervisors and other nursing staff, at which 16 participants were exposed to ECHO objectives and procedures.

In August 2011, a meeting was held at the Division on Nursing Education (St. Vincent and the Grenadines Community College) to discuss the integration of ECHO programme content into the nursing curricula. This meeting included presentations on the ECHO programme and a detailed review of nursing curricula. ECHO programme content was then compared with the Division on Nursing Education (DONE) curricula for registered nurses and nursing assistants to determine overlap. Based on this process, the ECHO content areas that were missing from the DONE curricula were added to two courses (Fundamentals of Nursing and
Nursing 1) that were deemed suitable for the integration of key concepts. These content areas were:

- Early childhood stimulation
- Active participatory learning for infants and toddlers/play therapy
- Making inexpensive toys for stimulation purposes
- Supportive adult-child interaction
- Detection of abnormalities

In addition, the community nursing objectives were updated to integrate developmental assessment of young children (0–3 years) using the Ages & Stages Questionnaire (ASQ). A case study focused on the developmental assessment of children 0–3 years was also added to the course outlines of the Fundamentals of Nursing and Nursing 1.

From this meeting, several recommendations were made to ensure that the ECHO training programme could be adequately integrated into the DONE programmes. First, some recommendations related to ensuring that the lecturers who would be delivering the additional ECHO content had adequate training and support. Suggestions were made to provide additional training in specific areas such as play therapy and toy making. This is an area in which it was suggested that the ECHO programme staff could be actively involved. Second, there were concerns regarding oversight of the integration process (monitoring and evaluation of integration) and the supervision of lecturers, as well as students’ field practice. In some cases, individuals/committees were identified to carry out these functions. Finally, concerns were raised regarding the allocation of resources for some of the new content areas (e.g., making toys) and for additional teaching materials for course lecturers. It was determined that these items should be budgeted by DONE to ensure the successful delivery of the ECHO programme content.

**PROGRAMME DELIVERY**

**Resources**

Each CHA was provided with a kit to support programme delivery. This contained printed material for parent information and support, items to facilitate appropriate stimulation and items to promote making of toys for simulation (see Table 6).

<table>
<thead>
<tr>
<th>Table 6: Programme delivery resources provided to CHAs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Item category</strong></td>
</tr>
<tr>
<td>Parent support/ educational material</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Material facilitating child interaction</td>
</tr>
<tr>
<td>Material to make toys</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

5. The ASQ is described under ‘Qualitative data sources’ in section 6 Evaluation Methodology.
**Table 7: ECHO programme visitation schedule**

<table>
<thead>
<tr>
<th>Professional responsible</th>
<th>Description</th>
<th>Time allotted</th>
<th>Frequency</th>
<th>Documents completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAs</td>
<td>Initial visit and assessment</td>
<td>-</td>
<td>Within 14 days of enrolment</td>
<td>Ages &amp; Stages Questionnaire (ASQ-3)</td>
</tr>
<tr>
<td>CHAs</td>
<td>Home visits for stimulation</td>
<td>45–60 mins</td>
<td>2 times/month</td>
<td>ECHO visitation checklist</td>
</tr>
<tr>
<td>CHAs</td>
<td>Follow-up assessment visits to document progress</td>
<td></td>
<td>Once/ three months</td>
<td>Ages &amp; Stages Questionnaire (ASQ-3)</td>
</tr>
<tr>
<td>Health nursing supervisor/ supervisory nurse</td>
<td>Supervisory visits</td>
<td>-</td>
<td>Once/ three months 4 conducted by health nursing supervisor, 4 by supervisory nurse</td>
<td>CHA home visiting checklist</td>
</tr>
</tbody>
</table>

**Procedure**

Programme delivery at the community level included both home visits and parent workshops.

**Home visits**

Once children and families were identified, CHAs were responsible for scheduling appointments with the ECHO families. Following enrolment, a specific protocol of visits was to be followed. These included an initial visit and assessment, home visits, follow-up visits and assessments and supervisory visits (Table 7).

At the initial visit, the CHA was expected to introduce the ECHO programme to the family and conduct an initial child development screening, using the Ages & Stages Questionnaire-3 (ASQ-3). If at the initial visit, a child was identified as performing below the expected developmental level, s/he was to be provided with an increased number of follow-up visits to optimize development in the specified domain. It was expected that any child who did not show the expected improvement after the increased number of visit would be referred for further evaluation.

The main focus of the home visits was to guide parents through stimulation activities with children and demonstrate toy making. Each CHA was expected to first spread the McIntosh on the floor, put out a few of the toys to be used for stimulation, sit on the mat and encourage the child to play with the toys. In doing this, the CHA role-played stimulating activities for the parents such as reading books, playing with a puppet or rattle and encouraging the child to colour, draw or write. The CHA was then expected to encourage and guide parents on participating in stimulating activities.

At follow-up assessment visits, the ASQ was completed to document progress. Supervisory visits were also to be conducted by nursing staff from the community clinics. ASQ screening forms were to be submitted on a quarterly basis to nursing supervisors for their review. These forms were to be used to monitor developmental progress of children and identify those who needed additional specialist intervention.

**Parent workshops**

Parent workshops, where groups of beneficiary parents in a community meet for support and education, were also the responsibility of CHAs. A needs assessment questionnaire was designed for completion at parent workshops. This focused on identifying areas for skill development of parents.

**MONITORING AND EVALUATION**

There was no theory of change or logical framework articulated for the ECHO pilot prior to or at the start of project implementation. However, a monitoring and evaluation (M&E) framework was considered from the outset as the minutes of an Administrative Committee meeting dated 20 August 2010 stated that the Project Coordinator was awaiting a template for an M&E form to be provided by UNICEF.
**Project work plan**

In the absence of a logical framework, project implementation was initially guided by an approved work plan, developed by the Project Coordinator and approved by the Administrative Committee. The plan identified objectives, sub-objectives (tasks), time frame, responsible party, result indicator/ success criteria and the monitoring party, but primarily focused on the activities to be undertaken by the Project Coordinator (See Table 2). As such, the Project Coordinator was responsible for the execution of the majority of the activities included in the plan while the Administrative Committee provided oversight.

**Logical framework**

A logical framework was developed towards the end of the first year of the pilot. This identified an overall goal of ‘Quality early childhood health stimulation readily accessible to “at-risk” children and parents ’, and six objectives:

1. **To offer early stimulation to young children**
2. **To improve parenting practices in ‘at-risk’ communities**

There were also four outputs/ results: stimulating children 0–3 years; trained and skilled parents/ caregivers in parenting practices; trained and skilled CHAs; and pilot objectives achieved in preparation of mainstreaming. The goal, objective and output were included in a table with headings of narrative summary of objectives, objectively verifiable indicators, means of verification and assumptions (Table 8). The implementation date of this logical framework is unclear.

### Table 8: ECHO programme logical framework

<table>
<thead>
<tr>
<th>Narrative summary of objectives</th>
<th>Objectively verifiable indicators</th>
<th>Means of verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall goal:</strong> Quality early childhood health stimulation readily accessible to ‘at-risk’ children and parents</td>
<td>At least 90% of the 182 children enrolled in the programme reach their milestone by January 2012</td>
<td>✦ Collection of data from CHA on ASQ ✦ Parents feedback forms ✦ Knowledge, attitude and practice survey</td>
<td>✦ CHA will demonstrate acceptance and a positive attitudinal shift to new roles and responsibilities ✦ CHA will be consistency in the delivery of the stimulation techniques ✦ Parents will embrace the programme and concepts ✦ Financial resources disbursed on time and appropriately ✦ Parents empowered to apply information learned</td>
</tr>
</tbody>
</table>
## Table 8: ECHO programme logical framework (continued)

<table>
<thead>
<tr>
<th>Narrative summary of objectives</th>
<th>Objectively verifiable indicators</th>
<th>Means of verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objectives/purpose</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. To offer early stimulation to young children</td>
<td>90% of ECHO children assessed to determine their milestones according to age</td>
<td>◆ Aggregate results of district and ASQ</td>
<td>◆Timely execution of training curriculum. ◆ Training fully absorbed by CHA. ◆ CHA, parents and children will complete required number of stimulation exercises. ◆ Maintenance of records of development milestones will be adequate and accurate.</td>
</tr>
<tr>
<td></td>
<td>Noticeable developments seen in the children who are in the programme</td>
<td>◆ ASQ ◆ Child health records</td>
<td>Parents will continue the exercises in between CHA visits</td>
</tr>
<tr>
<td>2. To improve parenting practices in ‘at-risk’ communities</td>
<td>90% of selected families execute the ECHO activities in health, education and social development as measured in the ASQ by January 2012</td>
<td>◆ Training plan ◆ Parent knowledge, attitude and practice survey ◆ ASQ report ◆ Parent feedback ◆ Supervisor’s checklist</td>
<td>◆ Data collection and analysis will be timely and accurate ◆ Follow up plans/ remedial actions will be timely and appropriate</td>
</tr>
<tr>
<td>3. To promote and monitor good health and early development of young children</td>
<td>90% of ECHO children worked with by CHA attained their milestones by January 2012</td>
<td>◆ Training results and feedback reports ◆ Parents feedback ◆ Supervisor’s checklist</td>
<td>◆ Timely execution of training curriculum ◆ Training fully absorbed by CHAs</td>
</tr>
<tr>
<td>4. To train CHA from the communities in the pilot district to assist in the delivery of parent support services</td>
<td>Parents are able to demonstrate the skills taught</td>
<td>◆ Planned parent workshops ◆ Attendance records ◆ Direct observation of parents demonstrating learned techniques ◆ Survey questionnaires</td>
<td>◆ Workshops will be structured and relevant to the needs of stakeholders ◆ Facilitators and materials will be prepared and available ◆ Parents will attend capacity building sessions</td>
</tr>
</tbody>
</table>

5. To transfer knowledge and skills to parents and communities
Table 8: ECHO programme logical framework (continued)

<table>
<thead>
<tr>
<th>Narrative summary of objectives</th>
<th>Objectively verifiable indicators</th>
<th>Means of verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. To promote healthy relationships between parent and child</td>
<td>♦ Parents are able to make the toys, other homemade props and prepare meals ♦ Other soft skill and resources provided in collaboration with other partners</td>
<td>♦ CHA: Observation of toys, props and other skills in use in the home.</td>
<td></td>
</tr>
<tr>
<td>Outputs/ results</td>
<td>90% of children meet the milestones by January 2012</td>
<td>♦ Participation levels tracking sheets ♦ Attendance records ♦ ASQ reports</td>
<td>♦ Selection process adequately identifies the vulnerable across the pilot area (CHA) ♦ Consistency in curriculum delivery, so that minimum training/exposure requirements are achieved</td>
</tr>
<tr>
<td>Trained and skilled parents/caregivers in parenting practices</td>
<td>♦ Parents mimic techniques demonstrated by CHA in health, education and social developments ♦ Changes evident in response and health of children</td>
<td>♦ Parental attitude survey. ♦ ASQ ♦ CHA observations and records. ♦ Attendance at parent workshops.</td>
<td>♦ Parental readiness and acceptance ♦ Follow-through on training exercises</td>
</tr>
<tr>
<td>Trained and skilled CHA</td>
<td>♦ Demonstrated understanding of role ♦ Consistent delivery of techniques</td>
<td>♦ Curriculum developed and executed ♦ Training plan implemented ♦ CHA attendance ♦ Supervisor’s Checklist ♦ Parent feedback forms ♦ Direct interviews ♦ Tracking sheet of number of visits per child</td>
<td>♦ CHA availability adherence to concepts and methodologies learned and execution</td>
</tr>
<tr>
<td>Pilot objectives achieved in preparation of mainstreaming</td>
<td>♦ Clear progressive linkages established among the activities, outputs, objectives and overall goal ♦ Mainstream test framework</td>
<td>♦ Project evaluation ♦ Monitoring reports ♦ Survey results ♦ Log frame review ♦ Evaluation reports ♦ Field observation ♦ Test mainstream application</td>
<td>♦ Records/documents of programme activities are retained and updated</td>
</tr>
</tbody>
</table>

**Data collection**

Six different data collection forms were identified. The CHA training evaluation form was completed prior to programme delivery, while the other five addressed different aspects of programme delivery at the community level. Table 9 provides a description of each of the data forms collected and their intended use. Of these, only that used by the CHAs to monitor child development status (ASQ) was included in the M&E framework.
**Monitoring and evaluation personnel**
A Monitoring and Evaluation Officer commenced duties one year after the start of the pilot and was engaged for a five-month period.

**Programme report**
A report on the institutionalization of the ECHO programme was completed in 2011, prior to evaluation of the pilot programme (Charles & Associates Inc. 2011). This recommended immediate institutionalization of the programme in a phased manner, commencing January 2012, and provided an implementation plan. It was felt that the additional annual costs of EC$561,015 were justifiable in the context of the national benefits from this investment.

The report also indicated the institutional adjustments that were required for national implementation, which included:

- Adjustment to the job description of CHAs and a commensurate salary increase
- Creation of a new position of health care assistants and hiring the existing 18 rovers in this post, as well as 38 additional staff to serve the vulnerable children in the 11 census areas
- Provision of budgetary allocation for programme materials
- Development of training programmes for CHAs and health care assistants
- Incorporation of record keeping on children’s progress into the MHWE as a monitoring and evaluation mechanism

### Table 9: Data collection measures

<table>
<thead>
<tr>
<th>Data collection tool</th>
<th>Description</th>
<th>Person administering</th>
<th>Frequency of collection</th>
<th>Utilization of data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CHA training programme evaluation tool</td>
<td>Questionnaire to evaluate theoretical and practical aspects of CHA training programme</td>
<td>ECHO Project Coordinator</td>
<td>Once, at end of CHA training programme</td>
<td>Summary shared with Administrative Committee</td>
</tr>
<tr>
<td>2. Ages &amp; Stages Questionnaire (ASQ)</td>
<td>Standardized questionnaire used to screen children’s development in areas of communication, gross motor, fine motor, problem solving and personal-social skills</td>
<td>CHA</td>
<td>Baseline assessment at initial home visit; follow-up assessments once every three months</td>
<td>Forms submitted to community nurse for review and identification of children who require additional intervention</td>
</tr>
<tr>
<td>3. Parent baseline questionnaire</td>
<td>Questionnaire on parent knowledge, attitude and practice completed by parent beneficiaries</td>
<td>CHA</td>
<td>Once, prior to the start of the second phase of the programme</td>
<td>Report completed and presented to Administrative Committee</td>
</tr>
<tr>
<td>4. Parent satisfaction form</td>
<td>Questionnaire on parent perception of the ECHO programme and the work of the CHA completed by parent beneficiaries</td>
<td>CHA</td>
<td>Not known; data collection forms reviewed were not dated</td>
<td>Not known; no evidence of data summarized or presented in a report</td>
</tr>
<tr>
<td>5. Parent needs assessment questionnaire</td>
<td>Questionnaire administered to parents at workshops to identify areas for skills development</td>
<td>CHA</td>
<td>Per workshop schedule</td>
<td>Not known; no evidence of data summarized or presented in a report</td>
</tr>
<tr>
<td>6. CHA home visiting checklist</td>
<td>Questionnaire used to assess the quality of the CHAs work in the field</td>
<td>Nursing supervisor</td>
<td>Not known</td>
<td>Not known; no evidence of data summarized or presented in a report</td>
</tr>
</tbody>
</table>
5. OBJECTIVES OF THE EVALUATION

This evaluation has been conducted based on the need of government partners in the MHWE in SVG to determine programme effectiveness and output in order to guide scaling up and as an organizational requirement for UNICEF, which invested in the pilot programme.

SPECIFIC OBJECTIVES

The specific objectives of this evaluation are:

1. To assess how far the ECHO pilot programme has achieved its objectives, the results that have been achieved to date and any unintended results from the programme, as well as outputs at the individual, household and community levels

2. To identify the opportunities and constraints the programme has faced and draw lessons and good practices from them

3. To evaluate the operational effectiveness of the pilot and to cost its scale-up in the current and projected national fiscal situation

4. To identify the extent to which cross-cutting strategies/ issues such as human rights-based approaches, results-based planning and gender equality/ mainstreaming have been adopted in the planning and implementation of the programme

5. To ascertain the requirements and implications (institutional capacity, financial implications, etc.) of implementing the ECHO programme on a national scale in the model countries, especially SVG

PRIMARY REASONS FOR EVALUATION

This evaluation has been conducted based on the need of government partners in the MHWE in SVG to determine programme effectiveness and output in order to guide scaling up and as an organizational requirement for UNICEF, which invested in the pilot programme.

ADDED VALUE OF EVALUATION

The added value of the evaluation will be in the use of the findings and recommendations for:

A. **Documentation of the viability of the ECHO programme as a means of providing ECD services to the most-disadvantaged in a cost-efficient manner**

B. **Documentation of the Caribbean experience in the adoption and modification of the RCP methodology into a country-specific variant that can meet the early childhood stimulation needs of children aged 0–3.**
The evaluation was designed to examine the ECHO programme in light of criteria related to its relevance, effectiveness, efficiency, impact and sustainability.

6. EVALUATION METHODOLOGY

EVALUATION PRINCIPLES

This evaluation was guided by two main documents:

1. The Program Evaluation Standards developed by the Joint Committee on Standards for Education Evaluation (Yardborough et al. 2011), which are designed to help guide the development, implementation and evaluation of programmes as well as to provide evaluators and evaluation users with a blueprint for quality evaluations.

2. UNICEF’s Evaluation Report Standards (UNICEF 2004), which were created as a transparent tool for quality assessment of evaluation reports. This document outlines what the standards are, the rationale for each standard and how they are applied. The Standards are used by the UNICEF Evaluation Office to assess evaluations for inclusion in the organization’s Evaluation and Research Database to strengthen this as a learning tool. The Standards are also intended for use by UNICEF offices and partners commissioning evaluations to establish the criteria against which the final report will be assessed. They draw from and are complementary to key references on standards in evaluation design and process increasingly adopted in the international evaluation community.

EVALUATION DESIGN

The evaluation was designed to examine the ECHO programme in light of criteria related to its relevance, effectiveness, efficiency, impact and sustainability.

Relevance is defined as the extent to which the ECHO programme is aligned with national priorities and policies related to early childhood development (ECD). Under effectiveness, the evaluation team explored the stated objectives of the pilot and the extent to which these were attained. The evaluation team also looked at the major factors that influenced the achievement or non-achievement of these objectives. To determine efficiency, programme outputs were measured in relation to the inputs. This involved the use of a cost analysis to determine whether the project was implemented in the most efficient way compared to alternatives (i.e., the Roving Caregiver Programme). The evaluation also sought to examine (where possible) the positive and negative, direct and indirect and intended and unintended changes produced by the ECHO pilot programme. This relates to the impact that the programme had on beneficiaries and key stakeholders (rights-holders and duty-bearers). Finally, the evaluation team considered issues of sustainability (i.e., factors that would impact the continuity and national-scale up of the programme in the absence of structures, systems and funding similar to the pilot project).

Human rights-based approach

In addition, in keeping with UNICEF’s commitment to a human rights-based approach to programming, the
The evaluation team considered some of the human and child rights issues related to the design, implementation and administration of the ECHO pilot programme.

**Results-based management**
The evaluation also includes an analysis of the ECHO pilot programme’s use of results-based management. Specifically, the evaluation team considered the contributions of all key stakeholders (duty-bearers and rights-holders) to the desired outputs, outcomes and impact of the pilot. In addition, the team constructed (from project documentation) a results matrix – outlining the chain from inputs to impact – so that a critical assessment of the linkages between planning, monitoring and evaluation could be determined.

The evaluation process was designed to be consultative and participatory, taking into account the views of all stakeholders. In light of this, a consultation was held with key stakeholders at the end of the evaluation process to give them an opportunity to review and provide feedback on the evaluation’s findings and recommendations.

**Consultation**
The evaluation process was designed to be consultative and participatory, taking into account the views of all stakeholders. In light of this, a consultation was held with key stakeholders at the end of the evaluation process to give them an opportunity to review and provide feedback on the evaluation’s findings and recommendations.

**Methodological approach**
A mixed method approach was employed to examine the ECHO pilot based on the evaluation criteria. This approach involves the collection and analysis of both qualitative and quantitative data in a single study to examine a research problem (Creswell 2012). It was selected because it enables a comprehensive overview of the processes, experiences and outcomes of the ECHO pilot project while capturing the unique perspective of each of the main stakeholders.

The collection of data through both qualitative and quantitative methods was utilized by the Bernard van Leer Foundation to conduct an impact evaluation and cost analysis of a similar home visiting programme: the RCP in Saint Lucia (Wint and Janssens 2008). The Saint Lucia study included in-depth interviews, focus groups and a quasi-experiment (comparison of treatment and non-treatment groups).

The qualitative methodology utilized a number of common forms of qualitative data collection. These included:

- Desk review of project documents
- In-depth or elite Interviews
- Focus groups

In quantitative methodology, the current gold standard for evaluation is the randomized controlled trial (RCT). When RCTs are well executed, they provide the strongest form of evidence for the impact of an intervention. This is largely due to their ability to solve the problem of selection bias through random assignment of the intervention. After the intervention has occurred, differences in outcome between the intervention and control groups provide a measure of its impact. As the pilot did not utilize this type of study design, this programme evaluation will not be able to make any causal attributions of programme implementation.

Because there was an indication that baseline data was collected, the evaluation team selected a quasi-experimental design for the assessment of parent and child beneficiary outcomes. In this approach, self-reported parenting practices and child development outcomes are assessed as a function of whether participants were part of the ECHO programme (treatment group) or not (non-treatment group), controlling for variables such as age, gender and socio-economic status.

A parent beneficiary survey on programme characteristics was also undertaken.

The final quantitative methods utilized were as follows:

- Parent beneficiary survey on programme characteristics (post-programme completion)
Quasi-experiment: Comparison of socio-demographic and parenting characteristics of ECHO and non-ECHO parent beneficiaries (controls), post-programme completion

Quasi-experiment: Comparison of child development and educational status of ECHO and non-ECHO child beneficiaries (controls), post-programme completion

IDENTIFICATION AND RECRUITMENT OF PARTICIPANTS

Key informants and focus group participants
For the qualitative aspects of the analysis, informants were purposefully selected for participation based on the roles that they played in the pilot of the ECHO programme. The ECHO Project Coordinator was particularly helpful in identifying and contacting personnel for focus groups.

Parent and child beneficiaries
For the quantitative aspects of the analysis, 50 parent and child beneficiaries of the ECHO programme were randomly selected from the complete listing of ECHO families. The random selection process meant that each family had an equal chance of being invited to be a part of the evaluation exercise. This minimizes bias in the research process and also ensures that there are fair procedures and outcomes in the selection of participants.

CHAs from the four participating health centres were requested to contact families and invite them to participate in the evaluation process. Because of limited success, a second wave of recruitment of the originally selected ECHO parents was conducted by the evaluation team with the help of the community nursing service. Some interviews were conducted by telephone to facilitate parent participation.

Parent and child controls (non-ECHO beneficiaries)
Two schools were identified in the Calliaqua district for the selection of controls, based on a school population of children of similar age, gender and socio-economic status, who were not exposed to the ECHO programme. The first school was selected through the Ministry of Education and was a public primary school. The second was a private preschool that was identified through an educator in the district. At each school, control children were selected as matches for the ECHO children on the basis of age and gender.

Parents were then contacted by telephone and invited to participate. Parent questionnaires were conducted by telephone to facilitate parent participation.

The desk review involved an intensive search, review and synthesis of project proposals, programme implementation documents, minutes of meetings, presentations, promotional materials, monitoring and evaluation reports, government policy documents, NGO reports and financial documents related to the ECHO pilot project.

QUALITATIVE DATA SOURCES

Desk review of project documents
Desk review allowed for the orientation of the evaluation team to the discussions surrounding ECD and early stimulation in SVG. It also allowed for the determination of government policy regarding the programme, programme philosophy, expected implementation steps, challenges and changes in implementation, progress rates and attainment of targets. Desk review also allowed access to financial records for determination of implementation costs.

The desk review involved an intensive search, review and synthesis of project proposals, programme implementation documents, minutes of meetings, presentations, promotional materials, monitoring and evaluation reports, government policy documents, NGO reports and financial documents related to the ECHO pilot project.
(FDCC) (formerly CCSI). In addition, the team located a number of useful records in the ECHO pilot project office at the Sion Hill Health Centre. Information on the ECHO programme was also obtained through an Internet search. Each document was reviewed by at least two members of the evaluation team to ensure that the original material was being described accurately and adequately.

**In-depth interviews with senior government officials and operational project staff helped to contextualize the ECHO pilot project, including the policy decisions that led to its implementation and maintenance.**

**In-depth interviews (government and project staff)**

In-depth interviews with senior government officials and operational project staff helped to contextualize the ECHO pilot project, including the policy decisions that led to its implementation and maintenance. These interviews were also used to determine policy and programme delivery level successes and challenges. Additionally, the interviews explored the political will of key stakeholders and examined the presence of the required physical, human and financial resources for sustaining the programme.

After a review of project documents and initial meetings with staff in the MHWE, a list of key stakeholders was compiled. This included individuals at the policy and senior administrative level (staff at the Ministry and the UNICEF Eastern Caribbean Office) and those at the operational or community level (Community Nursing Service staff, ECHO pilot project staff and parents who participated in the pilot project).

Individual interviews were then scheduled with each of these stakeholders. The evaluation team developed a general list of interview questions; these were further adjusted during interviews based on a better understanding of the roles interviewees played in the ECHO pilot. The interview schedule included specific probing questions and follow-up prompts to ensure that critical information was captured. Following receipt of consent, the interview was tape-recorded to allow for further analysis. Interviews were of 40–90 minutes duration. While most interviews were conducted face-to-face in SVG, two were conducted via Skype to facilitate the interviewees.

**Focus groups**

The focus groups allowed for participation of a greater number of key stakeholders in the evaluation process. These discussions explored the groups’ views on programme goals, implementation, outputs, outcomes, best practices and challenges.

Findings from the desk review and initial discussions with UNICEF and MHWE staff informed the selection of various groups for this aspect of the evaluation. Focus group discussions were held with CHAs who delivered the pilot programme, roving caregivers who assisted in training CHAs for the pilot project, curriculum writers and trainers for the CHA training programme, district nursing supervisors and the ECHO pilot Administrative Committee. All focus groups were held at a government building in Kingstown and were facilitated by a member of the evaluation team.

At each focus group, the facilitator opened and guided discussions using the same semi-structured schedule used at the in-depth interviews. In some cases, additional questions were asked based on the characteristics of the group or their specific role in the ECHO pilot. Each focus group was of 60–90 minutes duration and was tape-recorded with permission.

Details of each focus group, including recruitment process and main issues discussed, are outlined below.

**CHAs:** A focus group was held with six of the seven CHAs assigned to the Calliaqua Health District at the time of the ECHO pilot. One CHA who participated in the pilot, now retired, was not at the meeting. Another CHA, present at the meeting, was trained in the ECHO methodologies/ research protocol but did not participate in the pilot due to illness. The main aim of the focus group was to learn about the CHAs’ experiences during the ECHO pilot. This included discussions on ECHO objectives, perceptions of the ECHO programme, training, their daily activities, strengths and weaknesses of the programme and current challenges. This was a very productive focus group that laid the groundwork for the

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6. All members of the evaluation team have previous experience in focus group facilitation
other phases of data collection. Importantly, the CHAs were asked to further assist by recruiting families that participated in the ECHO pilot for the evaluation.

2 Rovers, RCP: Evaluation team members met with five rovers who, at the time of the pilot, were all working in communities in the Barrouallie district of SVG. In this focus group, the evaluation team gathered information on the operation of the RCP in the country, the rovers’ perceptions of the ECHO programme and their involvement in training the CHAs for the ECHO pilot. The rovers who participated in this focus group were recruited through the ECHO Project Coordinator.

3 ECHO pilot Administrative Committee: A focus group meeting was held with five members of the Administrative Committee, who discussed their role in overseeing the administration of the ECHO programme pilot as well as the challenges in mounting the pilot. They also had an opportunity to comment on the roles, responsibilities and performance of key administrators of the pilot.

4 Curriculum writers and trainers: Eight individuals who wrote aspects of the curriculum and/or lectured in the CHA ECHO training programme for the pilot participated in this focus group. The group was comprised of tutors from the Division of Nursing Education (DONE), other government ministries and the Community College. The discussion centred on the experience of lecturers in the pilot project training and their general perceptions of the ECHO programme.

5 District nursing supervisors: An evaluation team member met with five district nursing supervisors to discuss the national scale-up of the ECHO programme. All seven supervisors were invited to participate, but two were unable to attend due to prior engagements. The session was very helpful in terms of outlining some of the challenges facing the programme and the strategies needed to make the programme more efficient and effective.

7. These two administrators were also a part of the Administrative Committee and were asked to leave the room at this point to allow for a more objective, unbiased discussion.

QUANTITATIVE DATA SOURCES

Primary data collection was utilized for this aspect of the evaluation. Parent surveys and child assessments were designed to assess programme outcomes relative to parent knowledge, competencies, beliefs and practices and child health and development and so on. By comparing ECHO beneficiary families with control families, the team expected to gain insight into the potential benefits of enrolment in the ECHO programme.

Parent and child assessment of ECHO beneficiaries took place at one of two health centres (Stubbs and Enhams), selected because they had suitable areas were interviews and assessments could be conducted.

Process of data collection

Parent and child assessment of ECHO beneficiaries took place at one of two health centres (Stubbs and Enhams), selected because they had suitable areas were interviews and assessments could be conducted. All assessments of control children took place at their schools in a quiet area designated by the school administration. All phone interviews were conducted in private at the evaluation team’s research offices.

Instruments

Parent beneficiary survey

The ECHO parent experience questionnaire was developed specifically for this evaluation. The 38 questions elicit information focused on parents’ experience in the ECHO pilot programme. The questionnaire gathered data on parents’ perceptions of ECHO, eligibility criteria, duration of enrolment, frequency of home visits, parent training and level of participation in ECHO activities.

Comparison of socio-demographic and parenting characteristics

The 58-item ECHO evaluation parent questionnaire included questions on child health and nutrition, parent-child interactions, household and caregiver...
characteristics and household resources. The majority of questions were adapted from parent surveys that have been extensively tested and used in a large birth cohort study in Jamaica (Department of Child Health 2011).

Comparison of child development and education outcomes

Three instruments were used to assess child outcomes

1 **Ages & Stages Questionnaire – 3rd edition (ASQ–3)**

The Ages & Stages Questionnaire (ASQ) is a widely used child screening and monitoring system designed to monitor a child's developmental progress and identify children with potential developmental delays. Each questionnaire contains simple questions for parents or professionals to answer about tasks their child can do. Questionnaires are designed to assess development in five domains: communication, personal-social, problem solving, fine motor and gross motor skills. The ASQ includes a series of 20 questionnaires, each designed for administration at a specific age band between birth and 6 years. For this evaluation the 36-, 48-, 54- and 60-month questionnaires were used.

2 **Peabody Picture Vocabulary Test, 4th Edition (PPVT–4)**

The PPVT-4 is a norm-referenced untimed measure of the receptive language and verbal intelligence of English-speaking children and adults. It consists of 228 pictures designed for use from 2.5 to 90 years old. The examiner presents a series of numbered pictures and asks the individual to say or point to the pictures that best describes the word.

3 **Wide Range Achievement Test (WRAT4)**

The WRAT4 is a norm-referenced test that measures an individual's ability to compute arithmetic problems, read and spell words. It WRAT-4 can be administered to children and adults; it has been normed for the age range 5–94 years. Administration varies depending on the individual's age, behaviour and abilities; however, it generally takes between 15–25 minutes to administer to children 5–7 years and between 35–45 minutes for individuals older than 8 years. The four WRAT subtests assess reading (ability to identify letters and words), sentence comprehension (ability to understand information used in sentences), spelling (ability to decipher sounds) and mathematical computation (ability to count, problem solve, identify numbers and use computation to solve problems).

DATA ANALYSES

Qualitative analysis

Data (field notes and recordings) from focus groups and in-depth interviews were analysed using content analysis. All recordings from interviews and focus groups were transcribed by a member of the evaluation team. Field notes and transcriptions were then examined to identify common themes and patterns. The data were grouped into categories and then used to answer key questions from each of the evaluation objectives. This process was completed independently by two evaluation team members and then compared.

Quantitative analysis

Data from questionnaires and standardized tests were entered into an electronic database and then verified. The Statistical Package for the Social Sciences (SPSS) was used to generate uni-variate statistics (frequencies and measures of central tendency) and bi-variate statistics (cross tabs). For continuous variables, mean scores were compared using the student's t-test.

ETHICAL CONSIDERATIONS AND RESPONSIBILITIES

Guiding documents

The evaluation team took several steps to ensure that the evaluation exercise was in keeping with the ethical principles outlined in the Belmont Report (National Commission 1979). The Belmont Report provides guidelines for research with human participants and mandates that participants enter into research activities voluntarily and with good information about the objectives and processes. It also emphasizes the responsibility of researchers and research institutions to minimize risks to participants and maximize benefits.

As this evaluation also involved children, the evaluation team reviewed the Ethical Research Involving Children (ERIC) guide (Graham et al. 2013), which outlines principles for conducting ethical research with children. The guide focuses on children's rights as set out in the Convention of the Rights of the Child (CRC) and provides best practice and key considerations for each of the highlighted ethical principles.
The evaluation team took into account common ethical considerations as well as the particular social and cultural contexts of the evaluation.

**Training in research ethics**
All evaluation team members have completed training and certification in research ethics.

**Voluntary participation and informed consent**
All participation in this evaluation was voluntary and involved informed consent. Consent forms clearly stated that participation was completely voluntary and that participants might withdraw their consent at any time, without penalty. Where there were concerns about literacy levels, consent forms were read to participants and each individual had the opportunity to ask questions related to any aspect of the evaluation.

Consent was also obtained for each child from their parent/ guardian before any assessments were conducted. In recognition of the rights of children, the procedure of the evaluation was explained to children in language suitable for their age and their verbal consent obtained.

Contact information was provided for individuals who wished to contact the principal investigator at a later date to ask questions about the study. Also, all participants were provided with a copy of the consent form.

**Risks and benefits**
This study was considered to have only minimal risks for participants. It was anticipated that some adult participants could experience slight emotional discomfort when being interviewed or participating in focus group sessions. Similarly, children may have felt emotional discomfort when completing standardized assessments. These risks were clearly specified on all consent forms.

**Privacy and confidentiality**
All data collected in the evaluation were kept confidential by the following measures:

1. A code number was assigned to each individual's interview or assessment. Only a single file contained information linking names to code numbers. This file was kept on a separate, highly secured computer that only the evaluation team had access to.

2. Pseudonyms were used in all transcriptions of interviews and focus groups.

3. Research records were kept in a locked file and access was limited to authorized members of the evaluation team.

4. In terms of reporting results, the evaluation team will not publish the names or any other potentially identifying information on study families.

**Ethical responsibilities**
The evaluation team had two main strategies for ensuring that ethical responsibilities to children and families involved in the study were met. First, study children who were identified with clinically significant developmentally delay or behaviour problems were referred for further evaluation and intervention. There was only one child who fit these criteria. When the child was identified by the principal investigator, discussions were held with both his parent and the CHA to facilitate referral and intervention. Second, all parents (ECHO and control) were provided with reports on their children's developmental status. These reports also included tips for supporting each child's areas of strength as well as strategies for improving weaker developmental domains.

**Payment and compensation**
All families who participated in the evaluation received reimbursement for travel to the health centres where the research took place. They were also provided with light refreshments while at the research site. Each child participant received a developmentally appropriate book at the end of the assessment. The rovers who participated in a focus group session in Kingstown were also reimbursed for their travel expenses.

**IDENTIFIED BIASES AND MITIGATION STRATEGIES**
Inherent in all self-report methodologies is the potential for participants to underreport, exaggerate and misrepresent information. This may especially be the case in an evaluation setting where individuals feel that they are being ‘judged’. The evaluation team tried to limit
some of this potential bias by building rapport with participants before conducting interviews and focus groups, making the evaluation process open and transparent and conducting checks to clarify matters post-interview/focus groups. In addition, all evaluation team members have many years of experience with conducting interviews and focus groups and are able to use their judgment and skill to moderate these processes effectively. Methods used included refocusing discussions, validating all views and opinions, including quieter members of the group, and limiting their own biases.

LIMITATIONS TO EVALUATION METHODOLOGY

There are limitations in all research studies and evaluations. Here we summarize the constraints of the evaluation and mitigation strategies where relevant.

Timing of evaluation

A major limitation of the evaluation was its timing, which affected both qualitative and quantitative data collection. The evaluation took place two years after the pilot project ended. This had a number of negative consequences. First, many participants had difficulty remembering the specifics of programme design, implementation and participation. The information from key stakeholders at in-depth interviews and some focus groups was often vague and difficult to interpret. This was particularly true of ECHO parent beneficiaries. Some who participated in the programme were uncertain about the details regarding ECHO visits and workshops, and a few did not seem to remember enrolment in the programme at all.

Second, the time lag made it difficult to locate important documents, files and items related to the pilot. For example:

- It took several days for the key to the ECHO office to be located. Once it was found, there was limited time for evaluation team members to access the wealth of information housed in that office (which is not currently in use).

- The team could not locate reports related to key aspects of the programme such as training, parent workshops and M&E.

- The database that housed the raw data related to baseline developmental scores for ECHO participants could not be located, despite discussions with the IT Department at the MHWE. This created a significant methodological challenge for the evaluation team as an analysis of changes in developmental status could not be conducted as a result.

Quality and availability of documents and reports

There were a number of challenges with the review of the available documents and reports on the ECHO programme.

- Some reports were not dated or had conflicting information, making it difficult to determine important aspects of programme design and implementation timeline.

- There was no available single, comprehensive final report that provided details on programme philosophy, development, design, implementation, training, administration, strengths and challenges, outcome and costs covering both points of enrolment. The evaluation team spent inordinate amounts of time locating and linking information sources together. The Project Coordinator provided useful guidance where possible.

Participation in post-programme evaluation

Only a fraction of the participants who were invited for participation in the evaluation attended on the appointed day. The CHAs indicated that it was difficult to locate some families as they had moved out of the area or were uninterested in participating. Comprehensive analyses of child and parent outcomes using the quasi-experimental method were therefore not feasible.
PROGRAMME CONCEPTUALIZATION AND CHILD RIGHTS

The ECHO pilot programme documents do not specifically articulate a human or child rights-based approach or specifically address gender equity. However, programme implementation and procedures ensured that a number of child rights, as indicated in the Convention on the Rights of the Child (CRC), were attained. The Committee on the Rights of the Child’s General Comment no. 7 on implementing child rights in early childhood emphasizes the need for all countries to construct a “positive agenda” to ensure that the rights of young children become a reality. This requires the development of a framework of laws, policies and programmes with an implementation plan and monitoring strategy. The ECHO programme can be considered to be in support of this General Comment.

**CRC categories of child rights**
Specifically the following recognized groups of rights were met:

1. **Survival rights**: include the child’s right to life and the needs that are most basic to existence, such as nutrition, shelter, an adequate living standard and access to medical services.

   The ECHO programme with its focus on health and nutrition and an objective to improve the relationship between the health centre and the community ensured that survival rights were attained.

2. **Development rights**: Include the right to education, play, leisure, cultural activities, access to information and freedom of thought, conscience and religion.

   The ECHO programme aimed to provide parents with the knowledge to support children’s education in the home through play, leisure and culturally relevant activities.

3. **Protection rights**: Ensure children are safeguarded against all forms of abuse, neglect and exploitation, including special care for refugee children; safeguards for children in the criminal justice system; protection for children in employment; and protection and rehabilitation for children who have suffered exploitation or abuse of any kind.

   The CHAs were specifically trained in the area of child abuse and neglect, allowing them through their interaction and support of families in parenting and child development to reduce the levels of parental stress that promote child abuse.

4. **Participation rights**: Encompass children’s freedom to express opinions, to have a say in matters affecting their own lives, to join associations and to assemble peacefully. As their capacities develop, children should have increas-
The ECHO programme encouraged parents to interact with their children and improve their vocabulary, both of which promote the right of young children to express their opinion.

**General principles of the CRC**

Specifically, the ECHO programme allowed for the attainment of the four articles identified in 2003 as general principles for the implementation of the CRC:

- **Article 6: Right to life, survival and development**: As indicated above, the ECHO programme focused on improving children’s health and development.

- **Article 2: Right to non-discrimination**: The ECHO programme aimed to target the most vulnerable to provide services that were expected to reduce inequality.

- **Article 3: The best interests of the child**: Improved health and access to stimulation are aspects of ECD that are in the best interests of the young child.

- **Article 12: Right to express their opinion**: As noted above, the ECHO programme encouraged parents to interact with their children and improve their vocabulary, both of which promote the right of young children to express their opinion.

**Additional rights**

Additionally, the ECHO programme allowed for the attainment of the following rights:

- **Article 4: Implementation of child rights**: The ECHO programme can be considered a State party programme to implement child rights.

- **Article 5: Parental guidance and evolving capacities**: The programme respected parental rights in the upbringing of their child and supported parents in understanding children’s evolving capacities.

- **Article 18: Parental responsibilities**: The programme supported parents in meeting their responsibilities to provide an appropriate environment for very young children.

- **Article 19: Protection from child abuse**: The programme allowed for reduction of parental stress and therefore the likelihood of child abuse, as well as early identification through the presence of the CHAs, as indicated above.

- **Article 23: Children with a disability**: The programme allowed for early identification and intervention for children with developmental delay.

- **Article 27: Standard of living**: The programme supported parents in improving their financial status and that of their children through a new skill of backyard gardening.

- **Articles 28 and 29: Education and aims of education**: The programme assisted parents in educating their children under 3 years at a suitable level.

- **Article 31: Leisure, recreation and cultural activities**: The programme encouraged parents to participate in and enjoy play and leisure activities with their young children.

**OBJECTIVES**

The original objectives of the ECHO programme, stated in narrative form in the programme proposal, were expanded to include an overarching goal and six objectives within a logical framework (see section 9 on ECHO effectiveness for further analysis).

**DESIGN**

The programme design was based on two existing programmes, the RCP and HighScope Programme, which had been evaluated as being of benefit to young children and families. Additionally, a pilot programme that trained CHAs to provide stimulation for young children in Jamaica was highly successful in improving child development outcomes, with greater effect sizes than that of a similar programme undertaken through the RCP (Engle et al. 2007).

**SUPPORT AND CONTRIBUTION**

The pilot had the strong support of the Government, and particularly the MHWE, through the Community Nursing Service of the Maternal and Child Health
Division. Additionally, there was in-kind support for the backyard gardening aspect from the Ministry of Agriculture and financial support and/or technical assistance from a number of local and international development partners.

**ADMINISTRATION AND MANAGEMENT**

A comprehensive administrative and management structure was established. At the senior management level, the Minister and the Permanent Secretary readily embraced the programme located at the MHWE. The latter took responsibility for the Administrative Committee. This monitoring committee engaged all relevant stakeholders including MHWE senior management and community-based staff, the Department of Nursing Education, paediatric staff and the RCP. In the second year, the Committee further expanded to become cross-ministerial and cross-sectoral with the addition of the Ministries of Education and Mobilization.

At the community level, however, there were challenges in the management of the programme. Nursing supervisors indicated in focus groups that they were often unable to cope with the additional work of supervising CHA home visits.

CHAs indicated in the evaluation of their training programme that there was limited consultation with them on the change to their job description. At focus group meetings, they reported initial resistance to the introduction of the ECHO programme but also understanding of its importance and full acceptance following their training. However, they had difficulty implementing the programme due to their already strenuous work schedule. In particular, they reported being unable to visit families with the expected frequency.

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### Table 10: Weekly work plan of a community health aide

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician-led clinic day</td>
<td>Child Health Clinic</td>
<td>Hypertensive and Diabetic Clinic day</td>
<td>Community adult home visits</td>
<td>Physician-led clinic day</td>
</tr>
<tr>
<td>CHA assists with patient registration, anthropometry and vital signs</td>
<td>CHA assists with patient registration, anthropometry and child care</td>
<td>CHA assists with vital sign and blood sugar monitoring</td>
<td>CHA undertakes counselling, meal preparation, bathing, turning, pressure point care, foot care and family planning</td>
<td>CHA assists with patient registration, anthropometry and vital signs</td>
</tr>
<tr>
<td>Family planning sessions</td>
<td>Community adult home visits</td>
<td>Community adult home visits</td>
<td>ECHO home visits</td>
<td>Family home visits</td>
</tr>
<tr>
<td></td>
<td>CHA undertakes counselling, meal preparation, bathing, turning, pressure point care, foot care and family planning</td>
<td>CHA undertakes counselling, meal preparation, bathing, turning, pressure point care, foot care and family planning</td>
<td>CHA undertakes child stimulation, parent support and education, monitoring of children’s development and backyard gardening</td>
<td></td>
</tr>
<tr>
<td>ECHO follow-up visits</td>
<td>Family planning</td>
<td>ECHO home visits</td>
<td>Dressing of wounds in clinic</td>
<td>ECHO follow-up visits</td>
</tr>
</tbody>
</table>

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8. Work plan constructed based on consultations with CHAs in SVG.
Only four of 20 sessions (20% of time) is dedicated to the ECHO programme. As a result, follow-up visits were focused on children who need further intervention.

At their focus group, roving caregivers reported feeling disenfranchised, having been highly trained and effective at their jobs of providing stimulation to vulnerable children. Many were unemployed or under-employed. They also expressed concern at the limited number of home visits to vulnerable children that could be provided by CHAs due to their other workload. Despite this, they supported the programme through the training of the CHAs in practical experience in home visiting.

ENROLMENT AND RECIPIENTS

Of the anticipated 200 children to be enrolled in the programme, based on the Project Coordinator’s work plan, 182 (91 per cent) were actually enrolled.

Selection of region for piloting
There were clearly identified and relevant criteria indicating the reasons for selection of the Calliaqua region for the pilot project.

Selection of child and family recipients
The first phase of the pilot project commenced without individual eligibility criteria, resulting in a subjective process of identification of participants. At the second phase of enrolment, eligibility criteria based on demographic, health and educational/developmental characteristics were developed to improve targeting. However, no clear definitions for the criteria or how they were to be used were identified. For example, it was not clear whether a single criterion, a summation score or multiple criteria were required for eligibility.

An M&E report written at the end of the first phase of the pilot project, stated that “On average, children did not fall into the at-risk category at either measurement point” (i.e., baseline or end of the first year). This is consistent with findings obtained by parental interview during this evaluation.

TRAINING

Training of CHAs
High-quality training is essential to the achievement of a programme’s goals and objectives. The review of training evaluation forms indicated strong participant satisfaction with the CHA training programme. Additionally, throughout this evaluation exercise, the training programme was consistently lauded as one of the major successes of the pilot project. Almost every focus group and interviewee identified it as an important accomplishment of the ECHO pilot.

There are several positive aspects of the training programme:

- The content was extensive and covered a wide range of topics related to child development, adult and child teaching and learning skills and professionalism.
- It had both theoretical and practical aspects. In a programme such as ECHO, it is important for practitioners to get both a foundation in the theory of child development as well as practical, hands-on experience with programme delivery.

Table 10: Weekly work plan of a community health aide (Continued)

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA visits children with an identified problem and facilitates referral</td>
<td></td>
<td>CHA undertakes child stimulation, parent support and education, monitoring of children’s development and backyard gardening</td>
<td></td>
<td>CHA visits children with an identified problem and facilitates referral</td>
</tr>
<tr>
<td>Pressure point care</td>
<td>Dressing of wounds in clinic</td>
<td>Dressing of wounds in clinic</td>
<td></td>
<td>Pressure point care in clinic</td>
</tr>
</tbody>
</table>
The hours were adequate, with the time allotted allowing for exposure to a number of relevant topics. It was also offered full time, which would assist in keeping CHAs focused, allow for scaffolded learning (i.e., incrementally building on prior knowledge) and reinforce the information being taught.

It utilized well-trained facilitators who each had several years of experience in their relevant fields.

The curricula for both the theoretical and practical aspects were based on well-established programmes for early childhood intervention (RCP and HighScope).

It provided an opportunity for the professional development of CHAs. From all accounts, the CHAs derived tremendous benefits from completing this training programme including learning new concepts/skills and increased self-confidence.

Although the CHAs were all trained health workers who would have completed the CHA curriculum at DONE, many would have received their certification several years previously.

Training of nursing staff
Supervisory nursing staff received only a one-day training seminar on the ECHO programme. In their focus group session during the evaluation they reported that this was insufficient to provide adequate support to CHAs in the field. The inadequacy of this training is supported by the subsequent analysis of the nursing curriculum and identification of modules for inclusion.

The integration of aspects of the ECHO programme in the nursing curriculum can have a number of positive and long-lasting effects. Early stimulation will be learnt by all the nurses in training, improving their own individual knowledge and practice. Nurses, particularly community nurses, have frequent contact with children and families in their professional duties. They are respected professionals whose opinions are influential in any setting. This will facilitate widespread transfer of the importance of early stimulation and the knowledge of how to interact positively with young children.

DELIVERY RESOURCES AND PROCEDURE

In focus groups, CHAs reported that the resources provided in their kits were appropriate for programme delivery and were provided in adequate quantities throughout the pilot.

As mentioned earlier, both supervisory nursing staff and CHAs indicated their inability to undertake the programme visitation and supervisory visits with the frequency established for the programme. Project reports did not contain detailed recording and reporting of data on frequency of visits. The total visits per child can therefore not be compared with the expected number. Eight parent workshops were held during the pilot, which focused on backyard gardening, child nutrition and making toys to stimulate children.

MONITORING AND EVALUATION

Delayed implementation of the logical framework, gaps in the framework and inadequate data collection have the potential to negatively impact programme operations.

However, there were some deficiencies in the training during the pilot programme.

A curriculum document was not available at the start of the programme, though this was addressed at the end of the programme.

The mechanisms for assessing CHAs’ acquisition of knowledge and skills are unclear. There was no formal evaluation exercise to determine whether they had assimilated the information presented. There was no evidence of an in-take examination or collection of baseline data on their knowledge of child development, home visiting techniques, early stimulation or parent education. This, in addition to a post-training assessment, would have been helpful in determining how much knowledge/skill was gained through the training programme. An evaluation exercise would have been especially important for determining a CHA’s ability to accurately use the ASQ, which was not a part of their previous training and was the main tool for tracking development in the ECHO programme.
Delayed implementation of logical framework
The monitoring of the ECHO pilot was hindered by the absence of a logical or M&E framework during the first year of implementation. This means that the theory of change of the project was not clearly articulated and resulted in the absence of clarity about the inputs required and the potential pitfalls that could inhibit successful implementation of the pilot project. There was no clear roadmap to guide project implementation at all levels, but most critically for the staff actively involved in project implementation. The absence of the results framework also means that critical project personnel were not clear about how their roles were linked to project outputs and outcomes. This could have a negative impact of project buy-in. Additionally, expected actions and timelines were not articulated, which could have resulted in sub-optimal implementation of pilot activities. The lack of an initial framework also meant that critical baseline data were not identified/collected, which makes analysis of the effectiveness of the pilot more challenging.

Gaps in the M&E framework
A log frame was developed towards the end of the first year of the project, but this had various gaps. These were noted in a report by the M&E Officer for the ECHO programme, which stated that “the log frame was static in its presentation in that the degree of progression from inputs to objectives could not be smoothly ascertained”.

The framework also had additional challenges:

- It was not well structured, and while objectives were adequately articulated, the inputs, activities and outputs linked to these activities were not clearly identified.
- There was not a clear progression of activities.
- Indicators were not clearly defined at each point along the results chain (input, activity, output, outcome, impact).
- None of the indicators had baseline data that helped to clarify the intended targets.

Table 11 analyses the recommended indicators with regard to indicator descriptions of type (output or outcome), whether baseline data were obtained or not, frequency of collection, target date for expected achievement and means of verification. An important general concern was that identified indicators were often not aligned to programme objectives.

Inadequate data collection
- The data collection system to support the ECHO project was not defined.
- There were significant gaps related to the frequency of collection and data collection sources.
- There were no interim achievement dates or targets. Targets, when specified, were all set for the end of the pilot period.
- The party/agency responsible for data collection was also not specified.
- Means of verification were not identified.
- Of all data collected in the pilot programme, only data from the ASQ were included as indicators in the M&E framework.
Table 11: Analysis of indicators of project objectives

<table>
<thead>
<tr>
<th>Objective</th>
<th>Indicator</th>
<th>Type/ level</th>
<th>Baseline Yes/No</th>
<th>Frequency specified (Yes/ No)</th>
<th>Target date specified (Yes/ No)</th>
<th>Means of verification</th>
</tr>
</thead>
</table>
| **Overall objective:** Quality early childhood health stimulation readily accessible to ‘at-risk’ children and parents | At least 90% of the 183 children enrolled in the programme reached their milestone by January 2012 | Outcome | No | No | Yes | ◆ Not clearly specified  
◆ Milestone domains not specified  
◆ Data collection/ measurement tool not identified |
| **Objective 1:** To offer early stimulation to young children | 90% of ECHO children assessed to determine their milestones according to age | Output | No | No | No | ◆ Not clearly specified  
◆ Data collection/ measurement tool not identified  
◆ Collection data for achievement not specified |
| **Objective 2:** To improve parenting practices in ‘at-risk’ communities | Noticeable developments seen in the children who are in the programme | Outcome | No | No | No | Not specified; ASQ changes reported on in M&E report, but details of ASQ use not indicated. |
| **Objective 3:** Promote and monitor good health and early development of young children | 90% of selected families execute ECHO activities in health, education and social development as measured in the ASQ by January 2012 | Output | No | No | Yes | Not specified; ASQ suggested in indicator narrative but details of how ASQ is to be used not indicated |
### Table 11: Analysis of indicators of project objectives (Continued)

<table>
<thead>
<tr>
<th>Objective</th>
<th>Indicator</th>
<th>Type/level</th>
<th>Baseline</th>
<th>Frequency specified (Yes/No)</th>
<th>Target date specified (Yes/No)</th>
<th>Means of verification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 4:</strong> To train CHA from the communities in the pilot district to assist in the delivery of parent support services</td>
<td>90% of ECHO children worked with by CHA attained their milestones by January 2012</td>
<td>Outcome</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Not specified</td>
</tr>
<tr>
<td><strong>Objective 5:</strong> To transfer knowledge and skills to parents and communities</td>
<td>Parents are able to demonstrate the skills taught</td>
<td>Output</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Not specified</td>
</tr>
<tr>
<td><strong>Objective 6:</strong> To promote healthy relationships between parent and child</td>
<td>Parents are able to make the toys, other homemade props and prepare meals. Other soft skill and resources provided in collaboration with other partners</td>
<td>Output</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Not specified</td>
</tr>
</tbody>
</table>
8. ECHO RELEVANCE

The Convention on the Rights of the Child (CRC) recognizes that every young child has rights that should be respected. Similarly, the Vincentian Government recognized the importance of child rights and made them an integral part of their Strategic Plans for Health and Education (2007–2012).

<table>
<thead>
<tr>
<th>Table 12: ECHO relevance: Detailed evaluation questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How relevant is the ECHO programme to the goals or objectives of the national strategic or development plan in the health sector? How does it contribute to government actions to ensure access to and quality ECD services for the most disadvantaged communities in SVG?</td>
</tr>
<tr>
<td>2. Does the ECHO programme promote the development of the child’s personality, talents and mental and physical abilities to their fullest potential, as specified in the CRC?</td>
</tr>
<tr>
<td>3. What concerns do the stakeholders, especially the CHAs, have about the ECHO programme? How is this being dealt with? Are there any anecdotal or observable changes in the opinion or views of the stakeholders about the relevance of the ECHO programme, etc.?</td>
</tr>
<tr>
<td>4. How has ECHO been relevant in terms of promoting gender equity (access/ outcomes for girls and boys, etc.)?</td>
</tr>
</tbody>
</table>

STRATEGIC RELEVANCE

The Convention on the Rights of the Child (CRC) recognizes that every young child has rights that should be respected. Similarly, the Vincentian Government recognized the importance of child rights and made them an integral part of their Strategic Plans for Health and Education (2007–2012). Through these plans, the Government aimed to improve the quality of life for Vincentians with economic growth, job creation, social cohesion and poverty reduction. A crucial part of these plans was increased human and social development, and they highlighted the following factors:

- Universal access to quality education
- Universal completion of quality education
- Early childhood education for all children
- Better overall performance in the Common Entrance Examination
- Poverty reduction
While these plans did not explicitly include the ECHO programme, the programme addresses several of these critical targets.

The Government ensured that the ECHO programme was strategically piloted in one of the most disadvantaged communities in SVG. There were no user fees attached to the programme and it was targeted at the most at-risk members of that community. This provided these children and their families with opportunities for exposure to early stimulation and positive parent-child interactions.

The ECHO programme provided opportunities for the promotion and development of a child’s personality, talents and mental and physical abilities as specified by the CRC.

RELEVANCE TO CHILD RIGHTS

The ECHO programme provided opportunities for the promotion and development of a child’s personality, talents and mental and physical abilities as specified by the CRC. However, the programme promoted the development of some abilities more than others as there were more activities related to enhancing talents and mental and physical abilities than to the development of a child’s personality. The programme used stimulation and toys (multi-coloured ball, rattles, sock puppet and pillow) to enhance mental and physical abilities. The mental abilities targeted were cognitive and developmental skills (vocabulary, hearing and speech, problem solving, personal-social skills and hand and eye coordination). Physical abilities were enhanced through activities that encouraged the use of gross and fine motor skills. Talents were developed by enhancing creativity and using the sock puppets to encourage storytelling. Another key component of the programme was the promotion of good parenting practices through parent support and training. This had the potential to not only increase parental knowledge but also help parents promote and encourage positive personality traits in their children.

STAKEHOLDER RELEVANCE

The stakeholders, especially the CHAs, thought the ECHO programme was a necessity. During their focus group, a number of CHAs commented that the programme was a good initiative that was quite relevant to the growth and development of the society at the time of its introduction. They greatly appreciated the extensive training received at the inception of the programme as it encouraged professional development and built self-esteem. However, because of their already extensive job description, ECHO duties became burdensome and time consuming. Many of the CHAs suggested using the rovers to carry out the ECHO duties since they were already familiar with the families and the early stimulation process.

Mothers were overwhelmingly positive about the value of the programme, with 81.8 per cent (18 of the 22 interviewed as part of this evaluation) rating it as excellent or very good. Seventeen mothers (77.3 per cent) reported that children were very engaged or engaged whenever the CHA came to visit. A large majority of parents interviewed (18/22 or 81.8 per cent) indicated that the programme helped them to monitor/track their child’s development. This was reported to be a result of the guidance and advice on developmental milestones received from the CHAs. Additionally, all mothers reported that they would re-enrol in the ECHO programme, if given the opportunity.

EQUITY FOCUS

There are several key elements in the design of the ECHO pilot programme that promote and address equity issues:

**Focus on 0–3 years**

The ECHO programme focuses on the birth to age 3 group and on women during the antenatal period. Research has consistently shown that investment in the early years can be a powerful equalizer between disadvantaged children and their more advantaged peers (Irwin et al. 2007). In addition, a focus on providing equitable access to high quality early childhood services can have tremendous benefits for a country (e.g., more productive citizens, lower crimes rates, etc.) and play a critical role in nation building.

The ECHO programme was designed to enhance children’s growth and development through stimulation, play, good nutrition and parent support/education. This focus is an important step in addressing the root causes of inequality and providing opportunities for the most deprived children. Specifically, the programme was aimed at improving health, development and academic outcomes for the most
at-risk children and at assisting families to become more self-sufficient (through parent training).

**Selection of pilot site and pilot families**
The ECHO programme was piloted in the most economically disadvantaged district in SVG. It was also designed to target the most disadvantaged children and families within that district. It sought to identify and enrol those children and families most at risk for poor developmental outcomes due to health characteristics, disability, poverty and poor access to ECD services. By targeting the most deprived families, the programme sought to ensure that all children had the opportunity to survive, develop and reach their full potential. Additionally, it was not gender specific, with both girls and boys allowed to enrol and encouraged to do the same activities.

**Programme elements**
Several features of the ECHO programme supported an equity approach. First, it was offered free of cost to families. Second, it utilized a home visiting model and as a result did not prevent participation of families based on their geographic location, resources or lack of ability to travel to a particular location. Also, the programme curriculum and delivery model were based on the RCP, which had been shown to have some benefits for young children. The ECHO pilot was also designed to make the most of available resources by utilizing CHAs who were already working in the community.

**Training**
During the ECHO pilot all CHAs received training in child development and in recognizing warning signs for developmental concerns. These skills are now transferrable to other families and communities who do not have access to these types of services. Overall, the pilot allowed for the development of a cadre of health workers who are better able to identify children with potential delays and disabilities. This will improve the early identification, assessment and intervention of children with disabilities.
# 9. Echo Effectiveness

The primary goal of ECHO was to provide a high quality programme of early childhood stimulation to children and parents at risk in SVG.

<table>
<thead>
<tr>
<th>Table 13: ECHO effectiveness detailed evaluation questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> What is the progress made so far towards achieving the planned outputs and outcomes? When measured against the baseline situation, how are the children who have passed through the programme since 2010 doing in terms of performance in five areas of development: communication, gross motor skills, fine motor skills, problem solving and personal-social skills?</td>
</tr>
<tr>
<td>See section 11 ECHO Impact and Outcomes</td>
</tr>
<tr>
<td><strong>2.</strong> Were the activities planned under the ECHO programme necessary and sufficient (in quantity and quality) to achieve the outputs?</td>
</tr>
<tr>
<td>See sub-section on ‘Gaps in the M&amp;E framework’ in section 7 Programme and Evaluation Process</td>
</tr>
<tr>
<td><strong>3.</strong> How do the stakeholders (both duty-bearers and rights-holders) perceive or appreciate the results of the ECHO programme? What do they like or dislike about it? What do they want to change? What are the CHAs, parents and health officials saying about the ECHO programme?</td>
</tr>
<tr>
<td>See below</td>
</tr>
<tr>
<td><strong>4.</strong> How have the ECHO programme implementation mechanisms (coordination, management, etc.) affected the current results/outputs of the programme?</td>
</tr>
<tr>
<td>See below</td>
</tr>
<tr>
<td><strong>5.</strong> What partnerships have been developed to support the pilot ECHO programme in achieving its objectives?</td>
</tr>
<tr>
<td>See section 4 The ECHO Pilot Programme</td>
</tr>
<tr>
<td><strong>6.</strong> How has the external environment (political, economic, cultural etc.) affected the internal management of the ECHO programme?</td>
</tr>
<tr>
<td>See section 11 ECHO Impacts and Outcomes</td>
</tr>
<tr>
<td><strong>7.</strong> Are the originally identified assumptions still valid? Has the programme included strategies to reduce the impact of identified risks? Are there any one or two killer assumptions that could ‘kill’ the programme?</td>
</tr>
<tr>
<td>See below</td>
</tr>
<tr>
<td><strong>8.</strong> How successful was the programme in targeting, reaching and addressing the specific needs of the most disadvantaged/at-risk communities, families and children?</td>
</tr>
<tr>
<td>See below</td>
</tr>
<tr>
<td><strong>9.</strong> How appropriate has resource allocation been? How adequate is the monitoring system established to support the ECHO programme?</td>
</tr>
<tr>
<td>See section 11 ECHO Impacts and Outcomes</td>
</tr>
</tbody>
</table>
The absence of an M&E framework, with well-defined indicators that were measured and reported on, made the analysis of project outcomes against objectives difficult. The approach utilized was to identify from all available data any evidence to support that objectives were met and/or indicators were attained. The analysis was also limited because the objectives and indicators were not well aligned. (See sub-section on 'Gaps in the M&E framework' in section 7 for a detailed analysis.)

### PROVIDING EARLY CHILDHOOD STIMULATION TO CHILDREN AND FAMILIES AT RISK

**Identification of at-risk children and families**
The primary goal of ECHO was to provide a high quality programme of early childhood stimulation to children and parents at risk in SVG. This was partially achieved through establishing the pilot in the Calliaqua health district, which was chosen because of its relatively high rate of poverty. At a national level, therefore, the ECHO pilot served the families that were at greatest risk. At the operational level, however, a targeting mechanism to identify the children at greatest risk was not developed until the second year of the pilot. These risk criteria included demographic characteristics such as poverty, health risks for developmental delay, minor developmental delay and non-attendance at pre-school. The fact that families were enrolled in year one based on subjective identification of need by the CHAs makes it difficult to ascertain whether the ECHO pilot served the children and families at greatest risk within the Calliaqua district. The survey of parents conducted as part of this evaluation found that 68 per cent of mothers interviewed did not meet any of the eligibility criteria. These issues with targeting at the household level emerged because the ECHO pilot team lacked technical expertise in identifying risk factors that could be used to develop eligibility criteria.

**The ECHO stimulation programme delivery**
The delivery of the programme of stimulation was not fully achieved as prescribed by the ECHO guidelines. According to reports by CHAs and parents, the prescribed rate of two visits per month was not met. This was partially due to lack of buy-in by the CHAs who were responsible for programme implementation. The bigger challenge, however, was that the CHAs had to add the ECHO duties to their existing busy workload (see Table 10 for a description of the CHAs weekly work schedule). There was

### Table 14: Summary of outcome of goal objectives and results/outputs

<table>
<thead>
<tr>
<th>Item of measurement</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal</td>
<td>Quality early childhood health stimulation readily accessible to at-risk children and parents</td>
<td>Partially achieved</td>
</tr>
<tr>
<td>Objective 1</td>
<td>To offer early stimulation to young children</td>
<td>Achieved</td>
</tr>
<tr>
<td>Objective 2</td>
<td>To improve parenting practices in at-risk communities</td>
<td>Partially achieved</td>
</tr>
<tr>
<td>Objective 3</td>
<td>To train CHAs from the communities in the pilot district to assist in the delivery of parent support services</td>
<td>Achieved</td>
</tr>
<tr>
<td>Objective 4</td>
<td>To promote good health and early development of young children</td>
<td>Partially achieved</td>
</tr>
<tr>
<td>Objective 5</td>
<td>To transfer knowledge and skills to parents and communities</td>
<td>Partially achieved</td>
</tr>
<tr>
<td>Objective 6</td>
<td>To promote healthy relationships between parent and child</td>
<td>Unable to be assessed</td>
</tr>
<tr>
<td>Output/ result 1</td>
<td>Stimulated children 0–3 years</td>
<td>Achieved</td>
</tr>
<tr>
<td>Output/ result 2</td>
<td>Trained and skilled parents/ caregivers in parenting practices</td>
<td>Unable to be assessed</td>
</tr>
<tr>
<td>Output/ result 3</td>
<td>Trained and skilled CHAs</td>
<td>Unable to be assessed</td>
</tr>
<tr>
<td>Output/ result 4</td>
<td>Pilot objectives achieved in preparation for mainstreaming</td>
<td>Partially achieved</td>
</tr>
</tbody>
</table>
also inadequate training and supervision on the part of nursing supervisors. The structure of ECHO with a distinct project office, while useful for project execution at an administrative level, proved to be an inhibiting factor in the day-to-day supervision of pilot activities. This may have given the impression that ECHO activities were the primary responsibility of the project staff and did not require significant inputs from the senior nurses in the Community Nursing Service (CNS).

As a result of the poor supervisory structure and the lack of adequate documentation, it was difficult for the evaluation team to assess the quality of the stimulation programme delivered. Parents surveyed for this evaluation revealed that there were variations in the number and frequency of stimulation visits, with only 22.7 per cent of the 22 mothers interviewed reporting that they received visits twice monthly as required. In fact, 40.9 per cent of mothers interviewed reported they received visits every two months or even less frequently. The mothers also reported, however, that regardless of the frequency of the visits, stimulation was the primary focus. The perceived ease of incorporation of the ECHO activities into the CHAs’ work schedule and the CNS proved to be a ‘killer assumption’ during the pilot phase.

**IMPROVEMENT OF PARENTING PRACTICES**

There was no evidence available to assess whether the ECHO pilot had any effect on parenting practices. No data on parenting practices were collected at baseline during the first phase of the project. A baseline survey on parenting knowledge, attitude and practice was conducted during the second phase of the project. However, there were no end-of-project data collected in this phase. It is also unclear how data from the parenting knowledge and attitude survey were utilized. Improvement in parenting knowledge and attitude, which precedes improvement in parenting practice, is often used as a proxy measure for parenting practice. Improvement in this area would have been more accurately determined by comparing parenting knowledge and attitude of ECHO and control children pre- and post-programme implementation. Further, the evaluation was conducted more than two years after the completion of the pilot, making it challenging to assess the effectiveness of the pilot in this area. The gap in data to evaluate this objective is a result of the absence of a comprehensive M&E system and adequate staff to collect and process data as required.

**MONITORING OF CHILD DEVELOPMENT STATUS**

The ECHO pilot was able to partially implement monitoring of child development status via the use of the ASQ. These tools were used at the primary level by the CHAs to ascertain whether there were any concerns regarding the child and to guide the programme of stimulation. There was no evidence that showed how these developmental screens were used. Also, there was no evidence to suggest that nursing supervisors or the Project Coordinator reviewed these tools. This is linked to the relatively undefined role of the nursing supervisors in the ECHO protocols and procedures. Parents reported in interviews, however, that they were more aware of child development as a result of the ECHO pilot. Use of the data related to child development for planning and analysis was not systematic throughout the pilot. The data from the ASQs were used to inform the report on child development at baseline and exist in year two of the project. This was too late to make any meaningful changes during the pilot. The absence of an M&E officer for most of the project resulted in the underutilization of various potential data sources, including those related to child development status.

**TRAINING OF COMMUNITY HEALTH AIDES**

Forty-three CHAs successfully completed a training programme that had both theoretical and practical aspects related to ECD and stimulation in the early years. This training, a collaborative effort of the ECHO pilot, Community Nursing Service and Ministry of Education, provided a good refresher for the CHAs but lacked focus on a developmentally appropriate curriculum that should be followed with the participants. The training programme also lacked any kind of formal assessment.
process; this makes it difficult to assess how well trainees mastered the material that was presented.

**TRANSFERENCE OF KNOWLEDGE AND SKILLS TO PARENTS AND COMMUNITIES AND PROMOTION OF HEALTHY RELATIONSHIPS**

During the pilot there was no assessment of how skills and knowledge were transferred to parents through the project or how healthy relationships were promoted. As such, the performance of these objectives cannot be fully assessed. It was noted in the project documents that there were eight parent workshops that focused on equipping them with skills in backyard gardening (through a partnership with the Ministry of Agriculture) and nutrition. Parents reported that they viewed these workshops as positive and that they had incorporated the meal preparation techniques into their daily life. Parents also reported, however, that they had limited interest in making toys as a result of the availability of relatively inexpensive toys that could be readily purchased. The making of toys such as the ball and pillow required the use of skills such as sewing, which some mothers found burdensome.
The review of project documents has revealed that the total cost of the ECHO pilot can be estimated at $452,674 (Table 16).

<table>
<thead>
<tr>
<th>Table 15: ECHO efficiency: Detailed evaluation questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) What, if any, has been the difference between the allocation of funds at the planning/budgeting stage and the use of funds during the implementation stage?</td>
</tr>
<tr>
<td>b) Are there any inefficiency issues with regards to how the programme is conceptualized, implemented or managed?</td>
</tr>
<tr>
<td>c) How can one compare the relationship between project costs and the results achieved? Justifiable?</td>
</tr>
<tr>
<td>d) How have the duty-bearers and rights-holders been interacting in the planning and implementation of the ECHO programme? Is there any potential efficiency gain to be made?</td>
</tr>
</tbody>
</table>

**COSTS OF ECHO PROGRAMME**

The review of project documents has revealed that the total cost of the ECHO pilot can be estimated at $452,674 (Table 16). As the pilot served 182 children, the cost per child comes to $2,487.20. These figures were estimated from the final project report that detailed expenditure for the two years of the pilot as well as from expenditure reports from UNICEF.

The pilot project records indicate that the project was funded through a combination of local and international development partner support and government funding. The majority of the donor support was reported to be obtained from CCSI through funding obtained from the Bernard van Leer Foundation. However, these contributions could not be determined from project reports. The cost of CHA time (estimated at 20 per cent of the total) was included to account for the contribution by the Government.

9. All costs are in EC dollars.
Table 16: Estimated cost of ECHO programme

<table>
<thead>
<tr>
<th>PILOT</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human resources</strong></td>
<td></td>
</tr>
<tr>
<td>Project coordination and admin</td>
<td>$166,175.00</td>
</tr>
<tr>
<td>CHA cost @ 20% time</td>
<td>$71,332.80</td>
</tr>
<tr>
<td><strong>Project administration</strong></td>
<td></td>
</tr>
<tr>
<td>Utilities, etc.</td>
<td>$51,949.58</td>
</tr>
<tr>
<td>Travelling and meeting stipends</td>
<td>$16,584.00</td>
</tr>
<tr>
<td><strong>Training</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$108,221.48</td>
</tr>
<tr>
<td>Parent workshops</td>
<td>$11,741.28</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>$26,670.50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$452,674.64</td>
</tr>
</tbody>
</table>

Table 17: Cost and operational comparisons of the ECHO and RCP programmes

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>ECHO PILOT</th>
<th>RCP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost per child</td>
<td>$2,487.22</td>
<td>$1,110.72</td>
</tr>
<tr>
<td>Offered by</td>
<td>CHAs</td>
<td>Rovers</td>
</tr>
<tr>
<td>Full time versus part time</td>
<td>Part time</td>
<td>Full time</td>
</tr>
<tr>
<td>Training</td>
<td>CHA programme plus ECHO training</td>
<td>NCTVET Level 1 or 2</td>
</tr>
<tr>
<td>Supervision</td>
<td>Community nurse (with other responsibilities)</td>
<td>Community supervisor (full time)</td>
</tr>
<tr>
<td>Number of home visits per annum per child (projected)</td>
<td>24</td>
<td>104</td>
</tr>
<tr>
<td>Number of children per professional</td>
<td>14</td>
<td>19</td>
</tr>
<tr>
<td>Parent meetings/ workshops</td>
<td>Yes – frequency unknown</td>
<td>Monthly</td>
</tr>
<tr>
<td>Community meetings</td>
<td>Not known</td>
<td>12 per annum</td>
</tr>
<tr>
<td>Assessment of children’s progress</td>
<td>Yes (ASQ)</td>
<td>No</td>
</tr>
<tr>
<td>Monitoring and evaluation framework</td>
<td>Somewhat</td>
<td>No</td>
</tr>
<tr>
<td>Eligibility criteria</td>
<td>Yes – social, health, educational/ developmental criteria</td>
<td>Yes – children in disadvantaged communities</td>
</tr>
<tr>
<td>Improvement in child development status</td>
<td>Not known</td>
<td>Short-term improvement in fine motor function Improvement in visual reception (Saint Lucia)</td>
</tr>
</tbody>
</table>

COMPARISON OF ECHO AND RCP PROGRAMMES

**Cost comparison**

Table 17 compares the cost of the RCP (Amsterdam Institute for International Development 2010) with that of the ECHO programme. The total cost for the RCP programme was estimated at $399,760 with 19 roving caregivers serving 360 children. The cost per child can therefore be estimated at $1,110.72 per child. The cost of implementation of the ECHO programme is estimated to be 2.2 times that of the RCP.
**Operational comparisons**

Table 17 also compares operational aspects of the programmes. Comparisons between RCP and ECHO illustrate some of the greater operational efficiency offered by the RCP. First, the rovers and their supervisors were able to provide full-time attention to the execution of the stimulation programme. This meant that they were able to serve a larger number of poor children as well as provide more contact hours. The competing responsibilities of the CHAs and other stakeholders within the Community Nursing Service made it difficult for them to offer stimulation to young children in SVG at the same frequency. While it would seem logical that greater contact hours will result in greater improvement in children’s development, the minimum number of contact hours required for home visiting programmes to be effective has not yet been accurately determined, though a study in Jamaica suggested twice per week.

The parent and community meetings also seemed to be offered on a more regular schedule in the RCP delivery.

**Outcome comparisons**

The most important point of comparison of these two programmes – that of improvement in children’s developmental status – could not be analysed because of an absence of outcome data for the ECHO programme.

**HUMAN RESOURCE REQUIREMENTS AND OTHER COSTS FOR SCALE-UP OF ECHO PROGRAMME**

Should the Government of SVG make the decision to scale up the ECHO programme, there are a number of human resource matters that will need to be addressed.

**Community health aides**

Based on estimates of the number of hours required to deliver the ECHO programme, delivering it to all children in the target age group would be impossible for the current cadre of 43 CHAs. Universal delivery would require 3,166 hours per person per year. The typical CHA work year is comprised of 22 days per month or 264 days for the year; this amounts to a maximum of 1,848 working hours including vacation days. Even if the current cadre of CHAs were to serve the estimated 90 per cent of children who are not accessing any day-care services, it would require 2,849 hours per person per annum.

If the programme focused exclusively on children in poverty, it would require more than 60 per cent of CHAs’ available work hours. Based on their current workload, only one of the five work days each week would be available to focus on ECHO activities (Table 1). A CHA would be able to see a maximum of seven families per day, taking into consideration lunch and travel time. They are required to see families twice per month so this would result in each CHA being assigned 14 children per year. With the current staff complement, this would result in a maximum of 602 children being served each year.

Another option would be to have CHAs, or some other health professional grouping, deliver the ECHO programme on a full-time basis. This would require recruitment of staff.

**Supervisors**

Effective delivery of the ECHO programme requires adequate supervision. The options are increasing the cadre of nursing staff at clinics or engaging nursing staff or other supervisory staff who are dedicated to supervision of the programme.

**Administrative support**

An administrative team is required to facilitate the smooth running of the operational aspects of the ECHO programme.

**Monitoring and evaluation**

An M&E team would be required in order to ensure that the ECHO programme is collecting data required to adequately assess performance. It is proposed that this team be comprised of an M&E officer, research assistant and two clerical/data entry staff members. It is critical that this team be in place prior to the commencement of ECHO activities so that an M&E plan can be developed that has clear targets and a data collection plan. One gap during the pilot phase was the ad hoc nature of data collection and processing. Some data were collected, but this did not appear to be systematic and nor was the data used in a meaningful manner. A full M&E team would also better facilitate the tracing or tracking of programme beneficiaries over time to allow for the evaluation of the programme’s impact.

Tables 18 and 19 show the estimated human resource cost for programme delivery, while Table 20 shows the estimated programme administration costs.
### Table 18: Estimation of human resource costs for ECHO programme
@ 70 families each per CHA (CHAs and supervisors)

<table>
<thead>
<tr>
<th>Service provision type</th>
<th>Number of CHAs</th>
<th>Cost at $25,476 per annum</th>
<th>Supervisors (1 per 20 CHAs)</th>
<th>Cost at $68,784 per annum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal service [5,674 children]</td>
<td>81</td>
<td>$2,063,556.00</td>
<td>4</td>
<td>$275,136.00</td>
</tr>
<tr>
<td>Service for children with no access to day care [5,107 children]</td>
<td>73</td>
<td>$1,859,748.00</td>
<td>4</td>
<td>$275,136.00</td>
</tr>
<tr>
<td>Service for children in poverty only (36% of population) [2,099 children]</td>
<td>30</td>
<td>$764,280.00</td>
<td>2</td>
<td>$275,136.00</td>
</tr>
</tbody>
</table>

### Table 19: Estimation of human resource costs for ECHO programme
@ 70 families each per CHA (administrative, M&E, clerical and total costs)

<table>
<thead>
<tr>
<th>Service provision type</th>
<th>No. of admin. staff</th>
<th>Cost @ $40,000.00 per annum</th>
<th>No. of M&amp;E staff</th>
<th>Cost at $60,000.00 per annum</th>
<th>No. of clerical/data entry staff</th>
<th>Cost at $22,000.00 per annum</th>
<th>Total human resource costs (including CHAs and supervisors)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal service [5,674 children]</td>
<td>2</td>
<td>$80,000.00</td>
<td>2</td>
<td>$120,000.00</td>
<td>3</td>
<td>$66,000.00</td>
<td>$2,604,692.00</td>
</tr>
<tr>
<td>Service for children with no access to day care [5,107 children]</td>
<td>2</td>
<td>$80,000.00</td>
<td>2</td>
<td>$120,000.00</td>
<td>3</td>
<td>$66,000.00</td>
<td>$2,400,884.00</td>
</tr>
<tr>
<td>Service for children in poverty only (36% of population) [2,099 children]</td>
<td>1</td>
<td>$40,000.00</td>
<td>1</td>
<td>$60,000.00</td>
<td>2</td>
<td>$44,000.00</td>
<td>$1,183,416.00</td>
</tr>
</tbody>
</table>

### Table 20: Estimation of administration costs for ECHO programme
@ 70 families each per CHA

<table>
<thead>
<tr>
<th>Item</th>
<th>Universal service [5,674 children]</th>
<th>No access to day care [5,107 children]</th>
<th>Poor children (36%) [2,099 children]</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECHO administration costs (stationery and supplies, standardized tests, printing)</td>
<td>$80,000.00</td>
<td>$80,000.00</td>
<td>$32,000.00</td>
</tr>
<tr>
<td>M&amp;E activities (family eligibility activities, parent surveys, child assessments, CHA evaluations)</td>
<td>$150,000.00</td>
<td>$150,000.00</td>
<td>$60,000.00</td>
</tr>
<tr>
<td>CHA training programme for new recruits*</td>
<td>$108,221.00</td>
<td>$108,211.00</td>
<td>-</td>
</tr>
<tr>
<td>Annual training days @100 per CHA</td>
<td>$8,100.00</td>
<td>$7,300.00</td>
<td>$3,000.00</td>
</tr>
<tr>
<td>Parent workshops @ $30 per parent (once per year)</td>
<td>$170,220.00</td>
<td>$153,210.00</td>
<td>$62,970.00</td>
</tr>
<tr>
<td>ECHO materials @ $40 per family</td>
<td>$226,960.00</td>
<td>$204,280.00</td>
<td>$83,960.00</td>
</tr>
<tr>
<td>Total</td>
<td>$743,501.00</td>
<td>$703,011.00</td>
<td>$241,930.00</td>
</tr>
</tbody>
</table>

*Additional training required only for services needing more than existing 43 CHAs
The combined cost for the annual implementation of the ECHO programme is indicated in Table 21. There is only $350,000.00 difference in cost between a universal service and one that targets children who have no access to day care. These universal or near universal programmes targeted at all or most children would require the Ministry of Health’s budget to be increased by 4 per cent, while a programme targeted at poor children would require an increase of 2 per cent.

It should be noted that the salary costs are based on additional CHAs required for scaling up the programme and not the introduction of rovers as health-care assistants within the Ministry. This costing does not take into account the request by CHAs for a revised job description and additional compensation for the execution of ECHO activities.

**OPTIONS FOR MORE LIMITED BUDGETS**

Development of a more accurate system of targeting children who have the greatest need would reduce the absolute number of programme recipients and therefore programme costs. Salary costs for CHAs account for 61.6 per cent, 62.1 per cent and 53.6 per cent of the total ECHO programme budget for universal service, service to children without access to day care and poor children, respectively. Engagement of other professional groups, such as roving caregivers, would reduce this component of the budget, with additional operational efficiencies as described earlier.

**LIMITATIONS TO COST ANALYSIS**

Cost analysis was limited to estimation of programme costs, comparison with similar programmes and estimation of costs of the scale-up of the programme. More extensive cost effectiveness, cost benefit and cost efficiency analyses could not be undertaken because of the absence of data on impacts, outcomes or output.

A post-programme analysis of outcomes was attempted during this evaluation, but the small sample size obtained did not allow for this analysis.

<table>
<thead>
<tr>
<th>Service type</th>
<th>Human resource costs</th>
<th>Programme administration costs</th>
<th>Total ECHO programme delivery costs</th>
<th>Estimated health budget</th>
<th>Percentage increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal service</td>
<td>$2,604,692.00</td>
<td>$743,501.00</td>
<td>$3,348,193.00</td>
<td>$81,500,000.00</td>
<td>4%</td>
</tr>
<tr>
<td>Service to children with no access to day care</td>
<td>$2,400,884.00</td>
<td>$703,011.00</td>
<td>$2,995,674.00</td>
<td>$81,500,000.00</td>
<td>4%</td>
</tr>
<tr>
<td>Service to poor children</td>
<td>$1,183,416.00</td>
<td>$241,930.00</td>
<td>$1,425,346.00</td>
<td>$81,500,000.00</td>
<td>2%</td>
</tr>
</tbody>
</table>
A review of M&E reports identified an analysis of the developmental progress children made in relation to their baseline scores in the five domains assessed by the ASQ (Figure 2).

Table 22: ECHO impact and outcomes: Detailed evaluation questions

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Were the indicators selected to monitor the programme specific, measurable, achievable and relevant enough to determine the outputs and outcomes?</td>
<td>See sub-section on ‘Gaps in the M&amp;E framework’ in section 7 Programme and Evaluation Process</td>
</tr>
<tr>
<td></td>
<td>Do the indicators need to be revised? Are the indicators disaggregated by, for example, gender, age group and geographic location?</td>
<td>See sub-section on ‘Gaps in the M&amp;E framework’ in section 7 Programme and Evaluation Process</td>
</tr>
<tr>
<td>2.</td>
<td>Has it been feasible to collect data on selected indicators? Were clear baseline data collected on the children in the target communities? Was a logical framework developed to explain how the ECHO programme was expected to work? How frequently was monitoring data collected?</td>
<td>See sub-section on ‘Gaps in the M&amp;E framework’ in section 7 Programme and Evaluation Process</td>
</tr>
<tr>
<td>3.</td>
<td>Are there any observed unintended direct or indirect results at the household level (children, parents, caregivers)?</td>
<td>None to report</td>
</tr>
<tr>
<td>4.</td>
<td>Is there any observable evidence of the contribution of the ECHO programme to short- or medium-term improvements in the selected children, communities etc.? In what ways are the programme staff benefiting?</td>
<td>See below</td>
</tr>
<tr>
<td>5.</td>
<td>Is there any difference in the way the programme affects girls compared to boys? Based on socio-economic status, who is benefiting more? The wealthiest? The poorest?</td>
<td>See below</td>
</tr>
</tbody>
</table>

There were a number of limitations to the interpretation of this data. First, there was no information available on children in the second phase of the pilot project. Second, the raw data was not available for further exploration and analysis of the findings. It would have been useful to know the sample size, and to disaggregate data by age of children, by gender and by score (at or near cut-off scores). The absence of the raw data also meant that the analysis could not be replicated. Additionally, the scores of children who participated in the current evaluation were unable to be tracked and compared with current scores.
RESULTS OF ASSESSMENTS CONDUCTED DURING THIS EVALUATION

A randomly selected sample of ECHO parent and child beneficiaries was invited to participate in developmental assessments. Age- and sex-matched controls were also invited to participate. A total of 17 ECHO child beneficiaries and 15 control children participated.

The Jamaican ASQ is designed to be administered to children up to 60 months of age; children above 5 years were not assessed on this instrument. The WRAT was administered to children four years and older only. Children's mean scores were compared using the student's t-test. The sample size was too small to allow for disaggregation by gender. Table 23 shows that ECHO child beneficiaries had higher mean scores than control children in the gross motor and problem solving domains of the ASQ and reading and arithmetic on the WRAT4. However, none of the comparisons were statistically significant.

This analysis was limited by a number of factors. First, it was conducted many years after the pilot programme had ended, and other factors that could potentially impact children's performance positively or negatively since the end of the pilot were not able to be included in the analysis. Second, the sample size is small, and does not have the necessary power to demonstrate programme effects. It is therefore unclear from this analysis whether the ECHO programme impacted children's developmental outcomes or not.

Table 23: Comparison of cognitive, developmental and academic scores of ECHO child beneficiaries and controls

<table>
<thead>
<tr>
<th>Test</th>
<th>Domain measured</th>
<th>ECHO child beneficiaries</th>
<th>Control children</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>Mean score</td>
<td>No.</td>
<td>Mean score</td>
</tr>
<tr>
<td>Peabody Picture Vocabulary Test (PPVT)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jamaican Ages and Stages Questionnaire (ASQ-J)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wide Range Achievement Test (WRAT4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NS – Not significant
A review of M&E reports identified an analysis of the developmental progress children made in relation to their baseline scores in the five domains assessed by the ASQ (Figure 2).

Table 24: ECHO sustainability: Detailed evaluation questions

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>See below</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What are the strengths and weaknesses (design, coordination, management and monitoring) of the ECHO programme? How can these contribute to or hinder the overall sustainability of the pilot programme or other ECD programmes with a similar design?</td>
<td>See below</td>
</tr>
<tr>
<td>2</td>
<td>What has been the buy-in from the duty-bearers and rights-holders and what leadership or supportive roles have they played? What has been the financial and non-financial contribution of Government?</td>
<td>See below</td>
</tr>
<tr>
<td>3</td>
<td>What are the institutional capacity development actions required to ensure effective and efficient management, monitoring and evaluation of the ECHO programme?</td>
<td>See below</td>
</tr>
<tr>
<td>4</td>
<td>What type of M&amp;E systems were set up to facilitate the rollout of the ECHO programme on a national basis – e.g., required tools, training of staff, processes and procedures?</td>
<td>See sub-section on ‘Gaps in M&amp;E framework’ in in section 7 Programme and Evaluation Process</td>
</tr>
</tbody>
</table>

The strengths, challenges, opportunities and constraints of the ECHO pilot programme were analysed at the policy and administrative levels as well as the operational levels.

**STRENGTHS**

**Policy and administrative level**

Stable political environment:

There were no major political upheavals in SVG that affected the implementation of the pilot.

**Political support:**

There have been changes in the policy directorate, with the MHWE having had three different permanent secretaries since the ECHO pilot. In addition, the Director of CNS changed during this evaluation process. Support for the programme has persisted despite the changes.
**Administrative structure:**
There is an identified monitoring committee, the Administrative Committee, with broad and inclusive membership of key stakeholders. This further evolved to become a cross-sectoral committee. A cross-sectoral approach has been identified as an important feature of ECD administration. The Ministry of Agriculture, though not represented on the Committee, partnered with the MHWE in providing materials and supporting training in backyard gardening.

**External partnerships:**
The project benefited from technical support from regional development partners, such as the Caribbean Child Support Initiative (CCSI), and international development partners, such as the Bernard van Leer Foundation and UNICEF.

**Financial support:**
The pilot programme was adequately funded by Bernard van Leer Foundation and UNICEF. The donors provided funding for all project staff, as well as all equipment, supplies and materials. Interviews with the Project Coordinator indicated that although there were delays with payments on some occasions, the budget for the pilot was sufficient. Similarly, the CHAs in their focus group explained that they had adequate materials to conduct home visits with parents.

**Comprehensive training programme for CHAs:**
The training programme was identified as a strength of the pilot programme by multiple informants. The curriculum was comprehensive, used a mixed theoretical and practical approach and was delivered full time. Topics were appropriate and ranged from child health and development to communication and professionalism. The training programme utilized the experience of professionals for theoretical aspects and the experience of rovers for practical aspects.

**Capacity building of CHAs in identification of developmental delay:**
Another important function of the ECHO programme for key stakeholders was the identification of children with developmental delays and disabilities. The CHAs believed that they were better equipped following the training programme to recognize deviations in child development. The nursing supervisors also said that the CHAs’ new skills would lead to better coordination and collaboration in the health sector as it relates to child health.

**Utilization of opportunities for capacity building in early stimulation:**
The programme made good use of all potential opportunities to expand training in early stimulation. First, all CHAs were trained rather than just those in the Calliaqua district who would be involved in the pilot programme. Early stimulation principles and practice were incorporated into nursing curricula by the Department of Nursing Education (DONE), with all nurses in training now learning this. Together, these actions will lead to an expansion of knowledge across SVG about the importance of ECD. Additionally, they will reduce the costs of scaling up the ECHO programme at a later date.

**Operational level**

**Delivery model:**
The programme was delivered by CHAs who were already familiar with the communities and families where the programme was being offered. This made it easier for them to identify and enrol families in need of the programme. It also meant that families would be open to having the CHAs in their homes.

**Challenges**

**Policy and administrative level**

**Pilot study design:**
There were a few challenges with the design of the ECHO pilot programme. First, a human rights-based approach, in this instance focusing on the principles of the CRC and gender equity, was not utilized throughout the programme. Second, the programme’s targeting methods did not appear to identify the most vulnerable.

The third challenge is the many concerns related to M&E. The M&E elements of the programme were not in place at the beginning of the pilot. For example, baseline data on children enrolled in the programme were limited to those from the ASQ developmental screen. No data were collected on the children’s physical health and well-being. This makes it hard to determine how much improvement (if any) each child made as a result of participation in ECHO. Similarly, the establishment of a matched control group at the
beginning of the study would have been useful for comparative purposes. In addition, the M&E log frame that was developed was inadequate. For example, objectives and indicators were not aligned and nor were means of verification. Indicators were not written in SMART format – specific, measurable, achievable, relevant and time-bound – and were often vague.

**Absence of curriculum to guide implementation of the home visiting programme:**
One aim of the ECHO programme was to provide services to children who were unable to access preschool services. Most preschools are, however, following some sort of established curriculum or programme. Additionally, many established home visiting programmes (e.g., Home Head Start in the United States) are guided by established curricula. This ensures the delivery of a standard programme by age group. A curriculum with specific guides for parents would also provide more opportunities for parents to work on their own after the CHAs’ visit.

**Training:**
Although the training programme was considered comprehensive and was rated as excellent by multiple stakeholders, there was no objective evaluation of the skills and competencies gained by the CHAs. This was particularly important for the use of the ASQ. Project records indicate that this tool was not administered as indicated by the protocol. Moreover, nursing supervisors did not receive adequate training in ECHO protocols, instruments and methods, or in supervisory activities to monitor programme effectiveness and outcome.

**Disenfranchisement of a trained para-professional group:**
The rovers, though integral to the training programme of the CHAs, were not employed to support the ECHO programme. They not only felt personally disenfranchised but also had concerns about programme delivery, particularly the limited frequency of home visits received by at-risk families. Rovers, who are a professional group highly skilled in early stimulation, are currently unemployed or under-employed.

**Operational level**

**Buy-in/engagement by staff at the operational level:**
There was limited staff engagement in the ECHO pilot at the operational level. While most stakeholders agreed that the objectives of the programme were important for national development, there were challenges in its administration due to human resource constraints, ambiguity about roles and responsibilities and resistance to additional duties without additional compensation. The overwhelming view was that while the project was good in theory, it should have been operationalized by another group, not CHAs.

Many of the CHAs complained about tasks typical of an early stimulation programme such as going on the floor in some homes and carrying large bags with toy materials around. They expressed concern about the level of supervision that they received in the field. While the design of the ECHO pilot called for a district nursing supervisor to supervise at least two home visits for each CHA, the CHAs reported that this did not happen in practice.

**ECHO activities were merged with the existing tasks of the CHAs. Although a good idea in theory, in practice the CHAs found it difficult to manage their various roles, especially if there were multiple clients to serve in one household. As such, the intended total of 24 visits per year was generally not achieved.**

There was also a perception that roving caregivers would be incorporated into the health-care system to execute the ECHO programme. As a result of this perception, the tasks related to ECHO were not fully incorporated into the work of the CHAs and nursing staff.

**Delivery modality:**
ECHO activities were merged with the existing tasks of the CHAs. Although a good idea in theory, in practice the CHAs found it difficult to manage their various roles, especially if there were multiple clients to serve in one household. As such, the intended total of 24 visits per year was generally not achieved. Developmental assessments using the ASQ were supposed to be useful guides for the CHAs, but the tools were not used in the field according to the standardized protocol.

**Buy-In by parents to aspects of the programme:**
Focus groups found parental resistance to the toy-making aspect of the programme. Some parents felt that it
was simply easier to buy inexpensive toys, and a few admitted that they did not have the time or skill to make any of the toys that were demonstrated during the home visiting sessions. As toy-making relates to one of the key objectives of the ECHO programme, new strategies may need to be developed to demonstrate the value of using toys to stimulate young children and of making them from items commonly thrown away if they are not affordable.

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All stakeholders:
All stakeholders agreed that the ECHO programme was necessary to help families most at risk. Both the CHAs and district nursing supervisors singled out young mothers as a group that needed intervention. Parent support/education was seen as the main role of the programme by both operational staff and parent beneficiaries.

The strong belief in the value of the programme to families and to the nation by all professional groups involved, even after initial resistance by some groups, should result in easier implementation at the national level.

Absence of socio-cultural barriers to home visiting
There do not seem to be any major societal or cultural barriers to the implementation of the ECHO programme. Both CHAs and rovers who participated in the focus group sessions indicated that parents were very willing to welcome them into their homes and reported good relationships with families. In addition, most Vincentian parents were keen to learn more about their children's growth and development. Parents gave CHAs high scores for their knowledge, method and attitude during home visiting sessions. This bodes well for national implementation.

ECHO programme and national development
Several stakeholders also spoke of the importance of the ECHO programme in strengthening families and improving national development. They therefore saw it as having a bigger role to play in propelling the country forward.

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CONSTRATNTS
The main threat to the ECHO programme is sustainability. The pilot programme was almost fully funded by external partners. Operationalizing the programme in an effective manner will require an increase in allocation to the health budget of 2 per cent using a targeted approach or 4 per cent using a universal approach (see section 10 on ECHO Efficiency).

Considerations for national implementation
Prior to national implementation, there are a number of considerations to be taken into account by the Government of SVG. The strengths and opportunities of the ECHO pilot programme can be built on, while strategies can also be included to address the challenges.

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Financing and sustainability

...after completing the training and the pilot, the CHAs stated that they had a deeper appreciation for the programme.
The ECHO pilot programme was almost fully supported by a grant from the Bernard van Leer Foundation. This grant allowed for the establishment of a project office, employment of project administrative staff and the procurement of public education and public relations activities. For national implementation, financial support will need to be obtained within the government budget. Programme implementation will increase the health budget by 2 per cent for a targeted programme and 4 per cent for a universal programme. The major cost to be incurred would be remuneration for additional staff members.

2 Administrative structure for monitoring

The existence of a cross-sectoral monitoring body – the Administrative Committee – is a mechanism to promote buy-in and support for the programme. Inclusion of other existing partners, such as the Ministry of Agriculture, as well as the private sector (often a strong supporter of ECD) will promote further buy-in.

3 Administrative support

During the pilot there was strong administrative support to the project with an established project office, Project Coordinator and Monitoring Officer. The Project Coordinator functioned external to the MHWE. The Community Nursing Supervisors office will be required to incorporate the overall management of ECHO into their regular duties. This may require the hiring of additional support staff dedicated to this activity.

4 Programme design

A human rights-based approach, and one that ensures gender equity, was not fully utilized. This is important to ensure that children’s rights are upheld in programme delivery. The mechanism for targeting did not always identify the most vulnerable. Research should be undertaken of similar programmes and targeting mechanisms that are used internationally, regionally and locally to identify more relevant targeting criteria.

The M&E component of the pilot programme was weak. This prevented objective analysis of programme impact. Objectives and indicators were unclear. Data collection procedures were also weak, though many appropriate data collection forms were to be utilized. Therefore, an M&E specialist should be engaged as an integral member of the programme. Also, a comprehensive results framework should be developed that articulates the objectives of the programme and the intended pathways to achievement. The M&E indicators should be clearly defined, using the SMART approach, with data collection procedures and frequency of collection stipulated. It is imperative to determine programme outcome when national implementation is being considered.

5 Training and curriculum development

A significant gap in the home visiting service provision during the pilot was the absence of a relevant curriculum that standardizes the ECHO intervention. The focus was primarily on making specific toys and general stimulation with no mechanism to ensure that children had similar effective experiences. Although CHAs were exposed to an excellently rated comprehensive training programme, there was no objective assessment of their training. Nursing supervisors were not adequately trained. The inclusion of early stimulation principles in the nursing curricula means that in-service training will be required only for currently employed existing nursing supervisors. An objective evaluation, combining both theory and practical aspects, should be designed and included in the training programme for the professionals who will deliver the ECHO programme. A home visiting intervention curriculum is required to guide home visiting procedures and ensure that all children have a similar experience when enrolled. The curriculum, like all others for young children, should be child-centred, play-based and designed to be structured but flexible. Additionally, nursing supervisors will require an in-service training programme.

6 Human resource challenges at the operational level

Effective programme delivery was hindered by the decision to incorporate ECHO activities into the existing work schedule of CHAs without increased remuneration or more staff to ensure that programme delivery was sustained at the required level. A similar concern occurred at the nursing supervisory level, resulting in inadequate programme supervision. Yet, highly trained staff in early stimulation are currently unemployed or under-employed. A policy decision needs to be made regarding increasing the number of CHAs or incorporating a new professional group (rovers) in the health sector, whose sole responsibility will be early stimulation. Only through these mechanisms will it be possible to offer a quality programme. Cost and operational analysis suggests that the latter option is more efficient and more financially feasible.
13. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The objectives of this evaluation were to assess the status of achievement of the objectives of the Early Childhood Health Outreach (ECHO) pilot programme and outputs at the individual, household and community level; identify opportunities and constraints for learning good practice; determine the inclusion of human rights approaches, gender equity and results-based monitoring in implementation; and ascertain the requirements and implications for scaling up to national level. In addition, the evaluation could inform the viability of the ECHO programme as a cost-effective early childhood development (ECD) intervention for the vulnerable and document the Caribbean experience of modification of the Roving Caregivers Programme (RCP) into a country-specific variant.

Project evaluation was limited by a number of factors: delayed timing of the evaluation with resultant difficulty locating documents and impaired memory recall; poor quality of documents and reports when located (undated, conflicting information); and limited parental participation. The very few families participating in the programme resulted in an inability to compare parenting knowledge, attitude and practice of ECHO and non-ECHO beneficiaries and child development and educational outcomes of ECHO and non-ECHO child beneficiaries. In the absence of objective evaluation of programme outcomes, parental interviews rated the programme highly. However, home visits were less frequent and often shorter than indicated by the protocol.

Primarily qualitative analysis of programme objectives, in the absence of an appropriate results-based framework, indicate that the overall goal was partially achieved, two of six objectives were fully achieved (early stimulation offered to young children and training of CHAs) and three were partially achieved (improving parenting practices in at-risk communities, promoting and monitoring good health and early development and transferring knowledge and skills to parents and communities). The objective of promoting healthy relationships between parents and children could not be assessed.

Programme recurrent cost was calculated at EC$2,487 (US$931.46), just over twice the cost of the RCP programme. Programme costs were primarily due to human resources. Analysis showed greater efficiency of the RCP model, but child development outcomes of the two programmes could not be assessed and compared as a result of lack of data collected during the programmes. Using the current ECHO mechanism, a targeted implementation to young children in poverty (estimated at 36 per cent) would require an increase in the health budget of 2 per cent (EC$1.4million, US$500,000), while a universal programme would require an increase of 4 per cent (EC$3.5 million, US$1.31million).

Identified ECHO programme strengths included a stable political environment; political support for the programme despite changing personnel; a cross-sectoral, inclusive monitoring body; engagement of external partners; adequate financial support provided primarily by donors; development and execution of a
comprehensive training programme for CHAs; capacity building of CHAs; and utilization of opportunities for further capacity building in early stimulation by incorporating this in the training curricula of nurses. Programme challenges were identified in programme design, where there was a weak human rights framework, inadequate targeting of services and an inadequate results-based framework. Additional challenges included the absence of a curriculum to guide home visits, as now occurs in many similar programmes; the absence of an assessment component in the training programme for those who deliver early stimulation services; and the disenfranchisement of rovers, personnel highly trained in and passionate about early stimulation. At the operational level, there was initial limited buy-in of CHAs to the programme, but this changed after they completed the training programme. A main concern at the operational level was the inability of CHAs to deliver the programme with the frequency and intensity required and stated in the protocol due to it adding duties to an already full-time workload without an increase in staff. This also affected supervision of the programme by nurses, who had responsibilities to the community clinics.

Recommendations for scaling up of the programme, based on this evaluation, are outlined below. They include addressing sustainability through adequate financing; maintaining and expanding the Administrative Committee to include other government partners and the private sector; addressing programme design challenges by including a human rights-based approach, improving targeting of vulnerable children and families; developing a results-based framework; and addressing training and curriculum deficiencies by developing a home visiting curriculum, adding assessment into the training programme and developing a comprehensive in-service training programme for nursing supervisors. Probably most important, however, is the need to address the human resource issue of determining the professional who will deliver the programme at the community level. The RCP rovers model is more cost and operationally efficient. However, the training and engagement of CHAs has also yielded benefits for children. A design that incorporates both the CHAs and the rovers may be the best option.

RECOMMENDATIONS

The following recommendations for scaling up the programme based on the evaluation of the pilot programme are listed in order of priority.

1. **ECHO strategic and financial planning**

   - The relevant stakeholders within the Government of SVG (Ministry of Finance, MHWE and Ministry of Education) need to conduct a comprehensive review of the aims and objectives of the ECHO programme and identify the scale and scope of the national programme to be introduced. An initial five-year plan for ECHO needs to be devised that takes into account the following elements:
     - **Human resources**
     - **Universal or targeted programme delivery**
     - **M&E**
     - **Programme costs (universal or targeted)**

   Once a determination of the type of programme to be delivered is done, a review of the likely budgetary allocation for national implementation should be undertaken and a decision made on the nature of the programme to be implemented, whether targeted or universal. Additionally, efforts should be made to involve key stakeholders (rights-holders and duty-bearers) in the process of developing goals and strategies that include a clear focus on equity.

2. **Human resources**

   C. **Review of the operations of the Community Nursing Service by the MHWE to fully facilitate the incorporation of ECHO activities**

   - The Community Nursing Service (CNS) will be required to incorporate the overall management of ECHO into its regular duties. As such, an objective review of the operations of the CNS should be conducted to determine the impact of the additional duties on the department. A job evaluation should also be conducted by the human resource department (for relevant personnel within the CNS) to ascertain the impact of the additional duties on their jobs. The addition of ECHO will also require more administrative support.

3. **Policy decision re: professional group to deliver ECHO**

   - Once the scope of the national programme has been determined, the MHWE and the Ministry of Finance need to make a policy decision regarding increasing the number of CHAs or
incorporating a new professional group (similar to the rovers) in the health sector whose sole responsibility will be early stimulation. As noted in the section on efficiency, CHAs are currently unable to deliver the ECHO programme as prescribed due to their workload. Cost and operational analysis suggests that the engagement of a new professional group would be more efficient and more financially feasible.

3 Identifying at-risk families

- Regardless of the nature of national implementation, the MHWE must place special focus on identifying and serving families at greatest risk. The criteria for targeting and enrolling at-risk families into the ECHO programme should be refined to ensure that the families most in need of the programme are actually benefitting from it. Greater public and private sector partnerships should be forged to assist in obtaining necessary resources for the programme, especially related to materials for the toy-making and parent workshops. In order to improve the equity focus of ECHO, a human rights-based approach should be included in the philosophy of the programme. Strategies aimed at increasing the participation of fathers in the programme should be explored and implemented by the Administrative Committee.

4 Home visiting curriculum

- The MHWE and DONE in conjunction with the Ministry of Education should develop a home visiting intervention curriculum to guide home visiting procedures and ensure that all children have a similar experience when enrolled. The curriculum, like all others for young children, should be child-centred, play-based and designed to be structured but flexible. Efforts should be made to involve key stakeholders (rights-holders and duty-bearers) in the process of developing this curriculum.

5 M&E system

A. M&E specialist

- An M&E specialist should be engaged as an integral member of the programme. Also, a comprehensive results framework should be developed that articulates the objectives of the programme and the intended pathways to achievement. The M&E indicators should be clearly defined, using the SMART approach, with data collection procedures and frequency of collection stipulated. It is imperative to determine programme outcomes when national implementation is being considered. This specialist needs to be engaged prior to the start of national implementation so that the necessary planning and data collection activities can occur.

B. M&E framework – equity focus

- The M&E framework for the programme should ensure that there is balanced representation of vulnerable or marginalized groups in data collection, analysis and reporting. The M&E system should also ensure that the stakeholders (rights-holders and duty-bearers) have opportunities to provide feedback on the design and administration of the ECHO programme. Measurement systems that directly assess equity outcomes should be incorporated into the M&E framework.

6 Training

- DONE should develop an in-service training programme for nursing supervisors. Additionally, the training curriculum related to monitoring child development (e.g., using the ASQ) and the identification and referral of children with developmental disabilities and delays should be strengthened to promote early intervention for this group of children and their families. This would enhance the overall equity focus of the programme. An objective evaluation, combining both theory and practical aspects, should be designed and included in the training programme for the professionals who will deliver the ECHO programme.

7 Expand the Administrative Committee

- The Ministry of Agriculture and private sector representatives should be invited to join the Administrative Committee. This would help to maintain and expand the Committee and promote a stronger ECD sector and better buy-in from all.
REFERENCES

Amaral et al. 2004


Daro 2006

Department of Child Health, “JA KIDS: The Jamaican Birth Cohort Study”, University of the West Indies, Mona, Jamaica, 2011.


Geeraert et al. 2004


Gomby 2005


10. See also Appendix D List of Documents Reviewed.


Karoly et al. 2005


Sweet and Appelbaum 2004


World Bank 2013

## ECHO programme documents

<table>
<thead>
<tr>
<th>Document reviewed</th>
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<th>Author/ source</th>
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<tr>
<td>The St. Vincent and the Grenadines Early Childhood Health Outreach Programme Information and Guidelines 2010–2012</td>
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<td>ECHO Staff</td>
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<td>St. Vincent Applauded for its Efforts in Child Health Care: The Early Childhood Health Outreach (ECHO) Pilot Programme</td>
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<td>The Early Childhood Health Outreach Programme Curriculum, St. Vincent and the Grenadines 2011</td>
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