# United Nations Children's Fund Executive Board (UNICEF Executive Board)

## Topic: Effective Interventions to Early Child Development

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# WELCOME LETTER FROM THE CHAIR

Dear delegates,

Welcome to United Nations Children's Fund Executive Board, PKUNMUN 2015. We feel honored to be your Dais, and we are sincerely anticipating your outstanding performances during the sessions.

To make you get acquainted with us, let us make some self-introduction before we meet in person. Hope you feel accompanied during this tough but gainful journey.

This is the Director of this committee, Zhao Yingxi, a junior from Institute for Medical Humanities. I was the Assistant Director of UNICEF in PKUNMUN 2013 and it is so great to come back to this committee this year. UNICEF is not a committee in which heated debates are commonly seen, as some of you might have depicted, but it is where we hold hands and cooperate to create a better future for our children. Hope you can come up with some great solutions to this problem after several months of preparation and four days of sessions. Good luck to you all!

This is the Assistant Director of this committee, Han Mingyue, a junior from Institute for Medical Humanities. I feel much honored to make acquaintance with you lively youths, who have giant passion in MUN and own admirable skills in negotiation. Diplomacy is a complicated activity that requires both principle and flexibility. Hope all of you learn how to cooperate with others and fully enjoy yourself here.

This is the Assistant Director of this committee, Long Jingmiao, a sophomore from Institute for Medical Humanities. This is the first time I have been participated in PKUNMUN, so it is great honor for me to be in the Dais this year. PKUNMUN is a precious opportunity to develop our diplomatic skills, so I hope all of you will enjoy the sessions here.

This is the Assistant Director of this committee, Li Shuhui, a sophomore from School of Public Health. It is my great honor to participate in the committee related to my major, and it is really a pleasure to make acquaintance with you this year. MUN is a unique stage and it is waiting for your brilliant performance. Hope you enjoy your time in PKUNMUN!

The committee this year primarily concerns issues on early child development, which will be a little challenging as it covers many aspects. Hope you will understand this issue better after learning this background guide. Some useful literatures are listed at the end of this guide in bibliography. When you act as a representative of your country, do take into account of what the situation of early child development is like in your country, especially; what kind of ECD programmes and services is efficient in your country. As a representative of other institutes, it's recommended to study the mission and target of your institute. The observer's role is of vital importance in the sessions.

We understand that the upcoming days would be a tough period of time for you in terms of preparing for the conference. If you encounter any questions or problems, do not hesitate to consult any of us.

Hope you can enjoy your preparation and we are looking forward to meeting you in PKU.

**Sincerely yours, Dais at UNICEF Executive Board:**

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## ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| **BFCI** | Baby Friendly Community Initiative |
| **C-IMCI** | Community-Integrated Management of Childhood Illness |
| **CBR** | Community-Based Rehabilitation |
| **CCWC** | Commune Committee for Women and Children |
| **CFS** | Child Friendly Spaces |
| **CPS** | Community Preschool |
| **CRC** | Convention on the Right of Child |
| **D&D** | Decentralization and Deconcentration |
| **ECCD** | Early Child(hood) Care and Development |
| **ECD** | Early Child(hood) Development |
| **ECE** | Early Child(hood) Education |
| **ECOSOC** | Economic and Social Council |
| **ESP** | Education Sector Plan |
| **ESSP** | Education Strategic Support Plan |
| **FPWC** | Focal Point for Women and Children |
| **FTI** | Fast Track Initiative |
| **GA** | General Assesmbly |
| **HBP** | Home-Based Programme |
| **MOH** | Ministry of Health |
| **MOEYS** | Ministry of Education, Youth, and Sports |
| **MOI** | Ministry of the Interior |
| **MOSVY** | Ministry of Social Affairs, Veterans, and Youth Rehabilitation |
| **MOWA** | Ministry of Women's Affairs |
| **NGO** | Non-Governmental Organization |
| **OECD** | Oganization for Economic Cooperation and Development |
| **PS** | Parenting Support |
| **SD** | Standard deviation |
| **SES** | Socio-ecomomic Status |
| **UN** | United Nation |
| **UNESCO** | United Nations Educational, Scientific, and Cultural Organization |
| **UNICEF** | United Nation Children's Fund |
| **WHO** | World Health Organization |

# INTRODUCTION OF THE COMMITTEE

UNICEF (Figure 1) is an inter-governmental organization under the United Nations and focuses on the realization of children's rights. It seeks to offer children high quality nurturing and caring, and achieves its goals by means of influencing policy-makers and cultivating grassroots partners. UNICEF's work is carried out in 191 countries through country programmes and National Committees. Some 88 per cent of the organization's posts are located in the field. With its headquarters in New York,it operates through eight regional offices and country offices worldwide, as well as a research centre in Florence, a supply operation in Copenhagen, and offices in Tokyo and Brussels. In 1965, UNICEF was awarded Nobel Peace Prize "for the promotion of brotherhood among nations".


**Figure 1 UNICEF logo**

*Source: www.unicef.org*

## 1.1 History

In 1946, United Nations International Children's Emergency Fund, UNICEF as the acronym, was established in order to help European children facing famine and disease after World War II.

In 1950, UNICEF's mandate was broadened to address the long-term needs of children and women in developing countries everywhere.

In 1953, UNICEF became a permanent part of the United Nations, and altered its name to United Nations Children's Fund. However, UNICEF retained its original acronym.

In 1961, UNICEF expanded its interests to the educational issues of children. In this year it started to provide teacher training support and classroom equipment in newly independent countries.

In 1979, the International Year of the Child, disparate celebrations were held across the world, including the Music for UNICEF Concert, the celebratory festival "Kid's fair", and the film Every Child.

In 1990, the World Summit for Children took place at the United Nations in New York. The summit set 10-year goals for children's health, nutrition and education. It was the first time that governments had ever proposed a concrete and comprehensive plan to tackle the issues concerning children.

In 2002, the Special Session on Children (Figure 2) was held by the United Nations General Assembly in order to review the past progress and to renew global commitment since the World Summit for Children.

**Figure 2 Special Session in World Summit**

*Source:http://www.unicef.org/specialsession/documentation/020148.jpg*

## 1.2 Focus Area

According to *The UNICEF Strategic Plan, 2014–2017*, the focus area of UNICEF are:

- Health

Improved and equitable use of high-impact maternal, newborn and child health interventions from pregnancy to adolescence and promotion of healthy behaviours.

- HIV and AIDS

Improved and equitable use of proven HIV prevention and treatment interventions by children, pregnant women and adolescents.

- Water, sanitation and hygiene

Improved and equitable use of safe drinking water, sanitation and healthy environments, and improved hygiene practices.

- Nutrition

Improved and equitable use of nutritional support and improved nutrition and care practices.

- Education

Improved learning outcomes and equitable and inclusive education.

- Child protection

Improved and equitable prevention of and response to violence, abuse, exploitation and neglect of children.

- Social inclusion

Improved policy environment and systems for disadvantaged and excluded children, guided by improved knowledge and data.

## 1.3 Patterns of Work

### 1.3.1 Mapping and Research

To clarify the extent to which current issues concerning children are severe, UNICEF primarily applies statistical method. By means of Multiple Indicator Cluster Surveys (MICS), UNICEF assists countries in data collection and analysis to map the real situations of child mortality, low birth weight, vitamin deficiency and other issues. Moreover, via the UNICEF Innocent Research Center, systematic research can be conducted to address the real scenario, data and possible policies.

### 1.3.2 Action and Assistance

There is a variety of mechanisms which might help to relieve certain problems. Procurement Services assists partners, either technically or commercially, in acquiring reliable supplies from given manufacturers, building on national capacities. The Core Commitments for Children in Humanitarian Action (CCCs), UNICEF's central policy to protect children's rights, guide partnerships in humanitarian response and by emphasizing reliable preparedness and early discovery. Communication for Development (C4D) is a systematic, planned and evidence-based strategic process to promote developmental behavior and social changes, which applies complex approaches, including conversation with and participation of children and communities.

### 1.3.3 Evaluation and Examination

Five institutional levels are applied when UNICEF evaluates its behavior: local or project, country program of cooperation, regional, global strategic and institutional performance. More specifically, evaluation focuses on the justification and possible improvement of past actions, which increases UNICEF's sense of responsibility. In terms of technology, the UNICEF Evaluation Database, which contains thousands of abstract text as well as full reports, emerges. Moreover, publications covering innovations, learned lessons and country level partners have been issued. ("United Nations Children's Fund," n.d.)

## 1.4 UNICEF Executive Board

The Executive Board is the governing body of UNICEF, providing intergovernmental support and oversight to the organization, in accordance with the overall policy guidance of the United Nations General Assembly and the Economic and Social Council. The Executive Board reviews UNICEF activities and approves its policies, country programmes and budgets.

Since 1994, the Executive Board has been operating in its current structure, comprising 36 members, elected to three-year terms by the Economic and Social Council, with the following regional allocation of seats: 8 African States, 7 Asian States, 4 Eastern European States, 5 Latin American and Caribbean States and 12 Western European and other States (including Japan).

The Executive Board meets three times each calendar year, in a first regular session (January/February), annual session (May/June) and second regular session (September). The Board may invite Member

States and participants who manifest a special interest in the item or items under consideration to participate in the conferences without the right to vote.

The Executive Board provides intergovernmental support to the programmes of UNICEF, and supervises its activities, in accordance with the overall policy guidance of the General Assembly and the Economic and Social Council. The Board also makes sure that UNICEF is responsive to the needs and priorities of recipient countries. The function of the board are:

(a). Implement the policies formulated by the General Assembly and the coordination and guidance received from the Economic and Social Council;
(b). Receive information from the Executive Director and provide guidance on the work of UNICEF;
(c). Ensure that the activities and operational strategies of UNICEF are consistent with the overall policy guidance set forth by the Assembly and the Council, in accordance with their respective responsibility as set out in the United Nations Charter;
(d). Monitor the performance of UNICEF;
(e). Approve programmes, including country programmes, as appropriate;
(f). Decide on administrative and financial plans and budgets;
(g). Recommend new initiatives to the Council and, through the Council, to the Assembly, as necessary;
(h). Encourage and examine new programme initiatives;
(i). Submit annual reports to the Council at its substantive session; these could include recommendations, where appropriate, for improvement of field-level coordination. (Office of the Secretary of the UNICEF Executive Board, 2014)

# TOPIC: EARLY CHILD DEVELOPMENT

## SECTION 1 INSIGHT OF THE TOPIC

### 2.1 Introduction to the Topic

The early childhood period is considered to be the most important developmental phase throughout the life course. Healthy early child development (ECD) - which includes the physical, social-emotional, and language-cognitive domains of development, each equally important - strongly influences well-being, obesity/stunting, mental health, heart disease, competence in literacy and numeracy, criminality, and economic participation throughout the whole life. In keeping with the international policy standards, early childhood is defined as the period from prenatal development to eight years of age. What happens to the child in these early years is critical for the child's developmental trajectory and lifecourse.

The early years are marked by the most rapid development, especially if the brain system. The brain develops rapidly through neurogenesis, axonal and dendritic growth, synaptogenesis, cell death, synaptic pruning, myelination, and gliogenesis. These ontogenetic events happen at different times (Figure 3) and build on each other, such that small perturbations in these processes can have long-term effects on the brain's structural and functional capacity. Brain development is modified by the quality of the environment. Animal research shows that early under- nutrition, iron-deficiency, environmental toxins, stress, and poor stimulation and social interaction can affect brain structure and function, and have lasting cognitive and emotional effects (Rodier, cited in Grantham-McGregor et al., 2007). In humans and animals, variations in the quality of maternal care can produce lasting changes in stress reactivity, and generally the earlier the interventions anxiety, and memory function in the offspring (Grantham-McGregor et al., 2007).

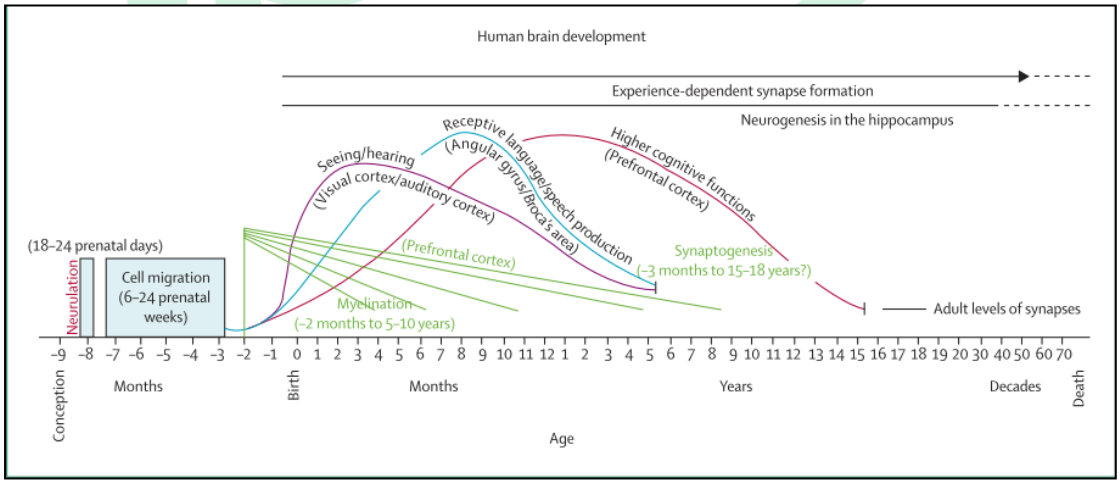


**Figure 3 Human brain development**

*Source: Thompson, R. A., & Nelson, C. A. (2001). Developmental science and the media: Early brain development. American Psychologist, 56(1), 5.*

Moreover, the seeds of adulte inequity are considered to be sewn in early childhood. In the early years, gender equity issues - in particular, gender socialization, access to school - are determinants of ECD. Early gender inequity, when reinfoced by power relations, biased norms, and day-to-day pratice in family, school, community and broader society, go on have a profound impact on adult gender inequity. Gender equity from early childhoos onwards influences human agency and enpowerment in adulthood (Lori G; Irwin, Siddiqi, & Hertzman, 2007).

ECD is important for all countries, resource-rich and poor alike, but special attention needs be paid to the potential benefits to the resource-poor, where a child has a four in ten chance of living in extreme poverty and 10.5 million children die before age 5 from preventable diseases. Such children are likely to suffer from poor nutrition and poor health. The recent Lancet series on ECD estimates that there are 559 million children under 5 in developing countries - including 155 million who are stunted and 62 million who are not stunted but are living in poverty - for a total of over 200 million children under five years of age who are at extreme risk of impaired cognitive and social-emotional development. Most of these children - 89 million - live in ten countries (India, Nigeria, China, Bangladesh, Ethiopia, Indonesia, Pakistan, Democratic Republic of Congo, Uganda, and Tanzania) that account for 145 million (66%) of the 219 million disadvantaged children in the developing world. Many are likely to do poorly in school and subsequently as adults will likely have low incomes, high fertility, and provide poor health care, nutrition, and stimulation to their own children, thus contributing to the intergenerational transmission of disadvantage (Grantham-McGregor et al., 2007). The loss of human potential that the above statistics represent is associated with more than "a 20% deficit in adult income and will have implications for national development" (Grantham-McGregor et al., 2007, p.67).

## 2.2 Influences on Early Child Development and the Life Course

Early child development is influenced by various factors in the life course. Human biological capital is established during our early life, while our key biological systems are also influenced by early experience and environment. Pre- and postnatal experiences can influence human biological capital - genetic, neural, endocrine, metabolic and immunological – through many mechanisms.

The early years of life, which is from the prenatal period to 8 years old, are a very important and sensitive period for development, especially biological development. The first three years are most important as it is the best period of learning and growing. The environmental factors, such as stress or toxins, can all influence health, stress reactivity and memory.

Healthy early child development, including the physical, social-emotional and language-cognitive domains of development, strongly influences personal well-being, physical health, mental health, competence in different fields throughout life. As a result, it is necessary to catch opportunity in the life course that support early child development. Three periods – pre-natal in the early years, adolescence and preconception – should be focused on. Adolescence is a second sensitive developmental period in which puberty and brain maturation lead to a new set of behaviours and capacities. Preconception is aimed to improve health and build good maternal, which can contribute to

the next generation outcomes.

### 2.3 Social Determinants of Early Child Development

Early enviornments are powerful determinants of how well children develop and hence will influence their long-term health. The Total Environment Assessment Model for Early Child Development (TEAM-ECD) has been developed by the World Health Organization's Commission on the Social Determinants of Health (WHO-CSDH) as a means of framing the types of environments (and therefore experiences) that are integral to healthy ECD, and linking these to the biological processes with which they interact to shape the children's outcome (Lori G; Irwin et al., 2007). The TEAM-ECD schematic builds on a diverse literature including previously descirbed frameworks and is a widely-recognized model to understand social determinants of ECD.

In the schematic (Figure 4), a variety of interacting and interdependent spheres of influence are instumental for development in early childhood. They include the individual, the family, residential and relational communities, ECD programmes and services, and regional, national and global enviornments. In each sphere of influence, social, economic, cultural and gender factors influence its nurturant qualities.

In this chapter, each sphere will be discussed in detail. For more detailed information, Siddiqi, Irwin & Hertzman's report on *The total environment assessment model of early child development* is recommended.

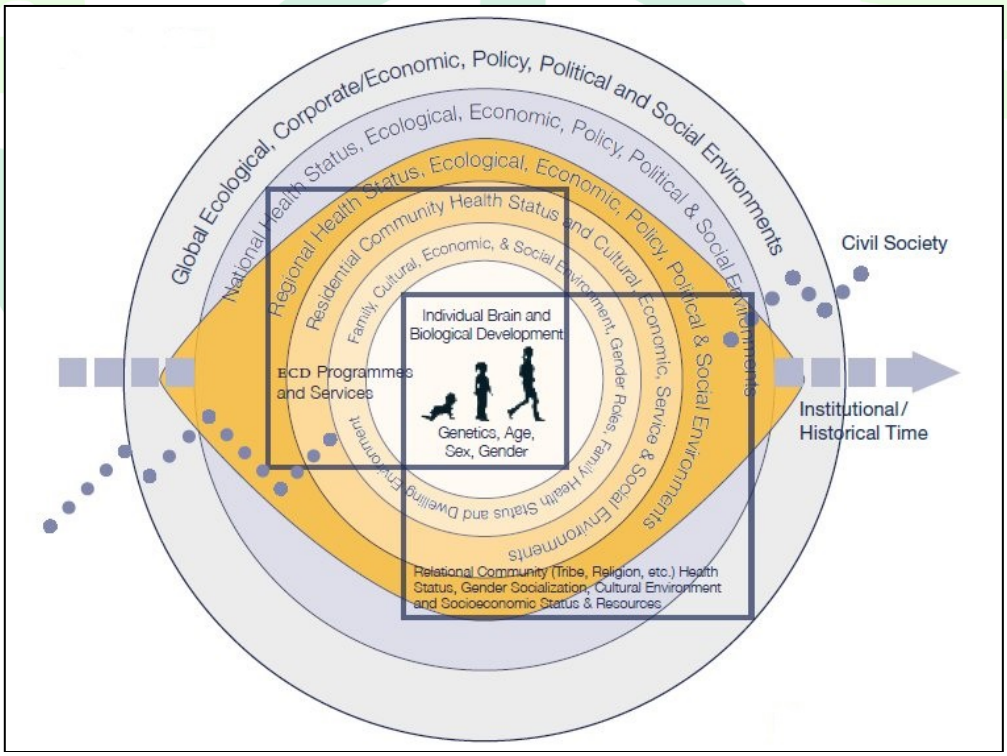


**Figure 4 Total Enviornmental Assessment Model for Early Child Development**

**(TEAM-ECD Schematic)**

*Source: Siddiqi, A., Irwin, L. G., & Hertzman, C. (2007). The total environment assessment model of early child development. Evidence Report for the World Health Organization's Commission on the Social Determinants of Health, OMS.*

### 2.3.1 The Individual Child

The earliest period of life is confirmed to be the most vital part in people's lifespan, highlighted by its rapid development. Central nervous system is typical and human brain meets its "critical period" during this time. Experience and environment contribute to children's development of early brain function. The child will be affected by these experiences physiologically and meanwhile affect these experiences. ECD in the individual child focuses on three areas: biological embedding, nutrition and game (Lori G; Irwin et al., 2007).

**Biological Embedding**

The interaction that occurs between individual characteristics (genetic and physiologic) and experiences and exposures drawn from the environment are basic to the development of the child. The human brain, in particular, is the "master organ" of development. Early in life, genetically programmed sensitive periods occur in the brain, during which time the developing child is disproportionately sensitive to the influences of the external environment (Wadsworth, 1997). The interplay of the developing brain with the environment is the driving force of development; its legacy is a unique configuration of synapses in the brain that influences cognitive, social and emotional functions thereafter. The process of early experience becoming solidified and influencing health and development over the long-term is known as biological embedding (Hertzman & Boyce, 2010).

**Nutrition**

During children's development, nutrition plays an important role. Adequate nutrition is regarded as a fundamental right of children, including maternal nutrition. "States Parties, in accordance with national conditions and within their means, shall take appropriate measures to assist parents and others responsible for the child to implement this right and shall in case of need provide material assistance and support programmes, particularly with regard to nutrition, clothing and housing." (Unicef, 1989)

A third of children younger than 5 years in developing countries have linear growth retardation or stunting. Stunting is a measure of chronic undernutrition and is caused by poor nutrition often compounded by infectious diseases. The Lancet series reviewed the association between stunting and development (Grantham-McGregor et al., 2007). Controlling for socio-economic covariates, prospective cohort studies consistently show signifi cant associations between stunting by age 2 or 3 years and later cognitive deficits, school achievement, and dropout. The figure below shows effects on IQ through to age 18 years in stunted Jamaican children. The presence of cognitive and educational deficits in stunted children is a consistent and robust finding, although the size of the deficit varies across studies (Walker et al., 2007).

In young children, underweight and stunting are also associated with apathy, less positive affect, lower levels of play, and more insecure attachment than in nongrowth-retarded children. Longitudinal studies reviewed in Walker et al. show more problems with conduct, poorer attention, and poorer social relationships at school age (2007).

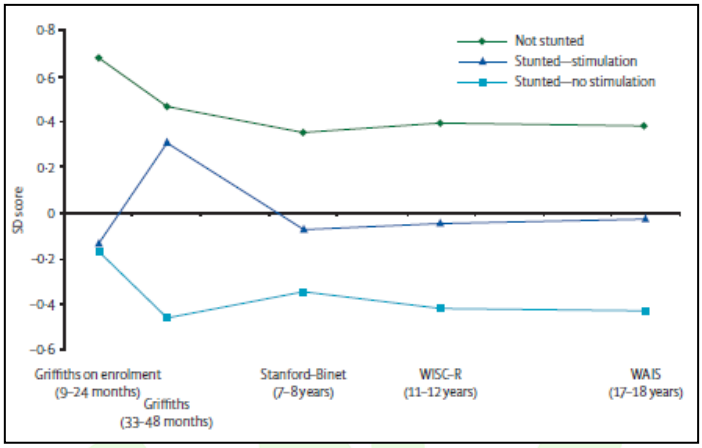


**Figure 5 DQ or IQ scores of stunted and non-stunted Jamaican children from age 9–24 months to 17–18 years**

Figure shows long-term deficits associated with stunting and the sustained benefits to stunted children who received a home-visiting programme providing early childhood stimulation.
WISC-R=Wechsler Intelligence Scale for Children—revised. WAIS=Wechsler Adult Intelligence Scale.
*Source: Walker SP, Chang SM, Powell CA, Grantham-McGregor SM. Eff ects of early childhood psychosocial stimulation and nutritional supplementation on cognition and education in growth-stunted Jamaican children: prospective cohort study. Lancet 2005; 366: 1804–07.*

The effects of maternal nutrition cannot be neglected. Factors as low birth weight and child's health condition are related to nutritional status of mothers in the form of intrauterine growth restriction, and the impact is sustaining from childhood to adulthood.

It is proved that breastfeeding is beneficial to child's development, during the first several months of life. Apart from influencing child's physical health, breastfeeding also contributes to protecting diarrheal disease which can cause the infant and child mortality. Meanwhile, breastfeeding provides children a sense of security towards caregivers with consistent consideration, support and love early in life. It is said that human milk is "species-specific" which facilitates other substitute feeding preparations to form. American Academy of Pediatrics offers various ways where pediatricians can promote, protect and support breastfeeding in its policy statement (Pediatrics, 2005).

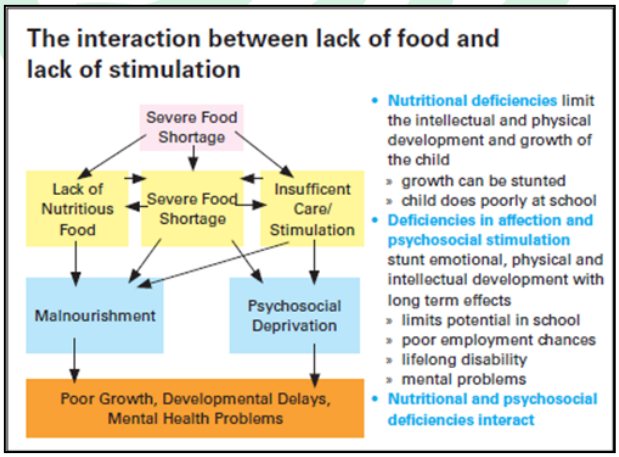


**Figure 6 the interaction between lack of food and lack of stimulation**

*Source: Unicef, & WHO. Integrating ECD activities into Nutrition Programmes in Emergencies.*

## Iodine & Iron Deficiency

Iodine is a constituent of thyroid hormones, which affect central nervous system development and regulate many physiological processes. Though a worldwide programme to reduce iodine deficiency through salt iodisation has produced substantial progress, the condition continues to threaten the development of many children. Several meta-analysis showed that IQ scores average lower in those with iodine deficiency.

The estimated prevalence of anaemia in children younger than 4 years in developing countries is 46–66%, half of which is thought to be iron deficiency anaemia (Walker et al., 2007). In animal (rodent) models, early iron deficiency anaemia - before and after iron repletion - alters brain metabolism and neurotransmission, myelination, and gene and protein profiles. Several double-blinded study showed the effect of iron supplementation.

| | Sample | Supplementation | Outcomes | Important benefits of iron | Comments |
|---|---|---|---|---|---|
| **Zanzibar** | High prevalence of stunting and anaemia6–59 months at enrolment, n=614.n=538 at study completion. | Daily iron (10 mg) or placebo,anthelmintic treatment every 3 monthsor placebo. Duration: 12 months. | Parent report of grossmotor and languagemilestones. | Improved language development(0.8 points on 20-point scale). Improved motor development in childrenwith low baseline haemoglobin(1.1 points on 18-point scale). | Large age range.Relatively crudeoutcome measure. |
| **Chile** | Full-term, healthy well-nourished infantsn=1798 at age 6 months at enrolment,n=1657 at study completion.High and low iron similar in 12-monthoutcomes, combined (n=1123) andcompared to no added iron (n=534). | Three treatments (daily): In first years ofstudy, high (12 mg/L) or low (2.3 mg/L)iron formula for infants on at least onebottle per day. In last years of study, highiron formula or no added iron (cow milk+vitamins) for infants on at least onebottle per day; exclusively breastfedinfants assigned to vitamins with orwithout iron (15 mg per day). Duration: 6 months. | Bayley mentaldevelopment index(MDI), psychomotorindex (PDI), andbehaviour ratingscales (BRS), Fagan at12 months,age of crawling. | Shorter looking times on Fagan. Crawledearlier.More positive aff ect, social referencing andsocial interaction, soothing by words orobjects when upset, resisting giving up toysand test materials; less tremulous. Effect size 0.32 SD for social-emotional. | Not a simpledouble blind RCTdue to changesmid-study. |
| **Bangladesh** | High prevalence of stunting and anaemia6 months at enrolment, n=346. n=221 at study completion. | Five treatments (weekly):iron (20mg), zinc (20 mg), iron plus zinc,multimicronutrients, or ribofl avin(placebo). Duration: 6 months. | Bayley MDI, PDI, BRSat 12 months. | Less decrease in PDI (iron and zinc ormulti-micronutrient vs ribofl avin)Effect sizes 0.35 and 0.39 SD.Better orientation-engagement (iron, zinc,or iron plus zinc vs ribofl avin). Effect sizes 0.30–0.41 SD. | Effect of iron per seclearest fororientationengagement. |
| **Indonesia** | High prevalence of stunting and anaemiaYounger than 6 months at enrolment,n=680. n=655 completing developmental study. | Four treatments (daily):iron (10 mg), zinc (10 mg), iron plus zinc,placebo. Duration: 6 months. | Bayley MDI, PDI, BRSat age 12 months. | Higher PDI (iron vs placebo). Effect size 0.27 SD. | |

| | | | | | |
|---|---|---|---|---|---|
| **India** | High prevalence of stunting and anaemia.Full-term small-for-gestational ageinfants. Enrolled at birth, subset at 15 months,n=439. | Four treatments, starting at age 1 month(daily):micronutrient mix containing iron;micronutrient mix without zinc;ribofl avin plus zinc; or ribofl avin only(placebo). Duration: 8 months. | Bayley MDI, PDI, BRSat 15 months. | Higher PDI (iron-containing micronutrientmix with or without zinc vs ribofl avin withor without zinc). Effect size 0·30 SD.Better motor quality and sociability. | Effects presumablydue to iron, sinceother micronutrientsnot linkedto behaviour,development, orboth. |

Table 1 Double-blind randomised controlled trials of iron supplementation (and other micronutrients) in developing countries

*Source: Black MM, Sazawal S, Black RE, et al. Micronutrient supplementation leads to improved development and behavior among infants born small-for-gestational-age. Pediatr Res 2002; 51: 2565.; Black MM, Baqui AH, Zaman K, et al. Iron and zinc supplementation promote motor development and exploratory behavior among Bangladeshi infants. Am J ClinNutr 2004; 80: 903–10.; Lind T, Lonnerdal B, Stenlund H, et al. A community-based randomized controlled trial of iron and zinc supplementation in Indonesian infants: interactions between iron and zinc. Am J ClinNutr 2003; 77: 883–90.;Stoltzfus RJ, Kvalsvig JD, Chwaya HM, et al. Effects of iron supplementation and anthelmintic treatment on motor and language development of preschool children in Zanzibar: double blind, placebo controlled study. BMJ 2001; 323: 1389–93.; Lozoff B, De Andraca I, Castillo M, Smith JB, Walter T, Pino P. Behavioral and developmental effects of preventing iron-deficiency anemia in healthy full-term infants. Pediatrics 2003; 112: 846–54.*

However, as more and more programmes are focused on reducing iodine and iron deficiency, concerns have been raised about giving supplements to iodine and iron replete infants, which may result in decreased linear growth, or increased hospitalizations and death in a malarial region. These issues should be studies further and needed to be considered in public health programming. (reviewed in Engle et al., 2007)

Several other nutritional factors are also considered to be influential to ECD, for example Zinc and Vitamins B12. However, studies on those factors are scare and more researches are needed.

**Infectious Diseases**

Infectious diseases are widespread among children under 5 years in developing countries and can affect development through direct and indirect pathways(J. A. Carter, Neville, & Newton, 2003). Direct pathways refer to the process that the organisms invade the brain parenchyma during a central nervous system infection or secondary pathophysiological events, hence resulting in focal or global damage, leading to neurological impairment. Indirect pathways include effects on nutritional status and decreased physical activity and play.

At least 2 million children younger than 14 years are estimated to be living with HIV/AIDS.9 Infection in infancy can lead to severe encephalopathy with catastrophic outcomes. Even in children without severe outcomes there is increased risk of delays in several developmental domains, especially language acquisition(Brown & Lourie, 2000).

Millions of people live without access to clean water or adequate sanitation, which puts them at high risk for diarrheal diseases. Diarrhea is particularly prevalent during the first 2 years of life. Two small Brazilian studies suggest an association between incidence of diarrhea in the first 2 years of life and

impaired cognitive performance in later childhood(Guerrant et al., 1999; Niehaus et al., 2002).

More than 40% of the world's population, in 90 countries, lives with the risk of malaria, with the overwhelming burden affecting children under 5 years in sub-Saharan Africa. There are 300–660 million clinical episodes of malaria every year, and severe malaria accounts for up to 40% of pediatric admissions in parts of sub-Saharan Africa. Neurological and cognitive impairments associated with severe or cerebral malaria have been reported in numerous studies(Walker et al., 2007).

**Play**

The central role of play in children's development is not always appreciated. Play processes influence synaptic formation and are linked to secure attachment with caregivers and relationships with other children Although it is still controversial that whether game plays a vital role in children's growing process, play is a central component of early childhood stimulation and has influence on children's development.

The effects of play not only refer to the security between children and their carers, but also exist in relationships with other children. Play requires attention and consideration, and undertakes a significant socializing function, except the benefits of being physical active, where children can learn to identify different social identities and subtleties of relationships. Play can also bring other benefits to children, including skills in solving problems, making decisions, cooperating, communicating, negotiating and improvement in the relationships between parents and children. As a kind of stimulation, play has an independent effect on perceptual motor development outcomes among stunted children, over and above nutritional supplementation(Siddiqi, Irwin, & Hertzman, 2007).

### 2.3.2 The Family

The family defined here, in broad terms, refers to any group of people who dwell together, eat together, and participate in other daily home-based activities together. The family therefore includes the nuclear family (composed of a mother and/or father, and their children), extended family (with also uncles, aunts, grandparents, etc) but also extended sets of relations, groups of orphans residing together, and the like.

Families are the primary source of experience for a child; family members (or primary caregivers) provide the largest share of human contact and experiences with children. Whether a child is provided with adequate nutrition, care, attention, and other conditions that he requires for well-being is related to the extent to which his family has access to the resources (e.g. financial, social networks) to do so. Families are also significant because they mediate a child's contact with the larger environment. For a child to be exposed to their community, a family-member generally must take the child into the community.

**Family Health**

A research shows that SES involves a wide range of health, cognitive and social-emotional outcomes in children, whose effects begins at birth and continues into adulthood. The concept of the process is called "gradient effect", and its family resources on ECD is the most powerful explanation for differences

in children's happiness in societies, profoundly affecting all other respects of the family environment. A study conducted by Houweling and Kunst shows that family socioeconomic status indeed has association with childhood mortality. It also indicates that over 9milion children die before their fifth birthday every year, and most of the deaths occur in low-and middle-income countries. The probability of dying in childhood is systematically higher for those born in poor households.

Family SES also influences the birth-weight, cognitive skills, level of education, behavior and socialization. Because of different social and economic resources, families which have lower SES cannot acquire adequate knowledge and skill-base of caring children. Apart from that, parents with lower income have higher possibility suffering from pressure and mental depression, including negative attitude towards self-evaluation.

Family health can also affect ECD. Family members with chronic diseases, either physical or mental, will have negative influence on children's development. For instance, if a mother has suffered from chronic diseases, the interactive relationship between parents and child will probably be destroyed, resulting in the lack of opportunity in acquiring growing experience.

Especially, HIV/AIDS is one of the main issues of health all over the world, which has already affected tremendously on children. For one aspect, children are possible to be infected (through transmission from mother to child). For another, children will shoulder the family responsibility if any of family members is infected by HIV, and take care of them. The second phenomenon has particular influence on girls' development, because they are more likely to undertake household matters and therefore give up going to school. That's why family health condition should be paid more attention to considering ECD.

**Family Dwelling and Family Relationship**

Family dwelling and family relationship are also factors that affect ECD. Housing conditions such as overcrowding, indoor air pollution and dampness and cold will affect children's development. Homeless families and children can suffer much higher rates of illness and worse growing consequences. Also, family relations are related to children's behavior. Based on a 1981 national sample of 1,400 children aged 12-16, a study shows that incomplete family is relative to behavior problems but the negative effects are "lower if the child lives with the same-sex parent following divorce or maintains a good relationship with one or both parents." What is more, continuous conflict in complete family will also result in behavior problems.

**Family Socio-economic Status**

Family socio-economic circumstances have been a major area of study in this regard. For instance, low levels of education and literacy affect the knowledge and skill-base of children's caregivers; feeding and breastfeeding practices (which in turn affect childhood stunting and wasting or obesity) vary by SES. There are two reasons to explain why it matters from an environmental perspective: first, children born poorer are more likely to be exposed to conditions that are adverse for development (e.g. crowded or slum living conditions, unsafe neighborhoods, etc). Second, studies have shown that poorer children are also more likely to be affected by adverse conditions, resulting in a 'double jeopardy' of sorts.

What is noteworthy here is that, though 'poverty' (as generally measured by some monetary threshold) poses a significant barrier to future development, healthy bonding, caregiving, and ultimately ECD outcomes, are not solely limited to those falling below the threshold. Rather, degrees of change in resources throughout the socioeconomic spectrum results in degrees of change in ECD(Siddiqi et al., 2007).

**Family Support**

Environment that a child is exposed to should be supported by a family, so that the more resources families have an access to, the better their children will develop. The quality of looking after children is important for families around the world. With different family background, children's language development is obviously influenced by how much their parents talk to them. As figure below shows, children in professional families learn more words that those in working class and welfare families, and the gap is widened when they grow up(Hart & Risley, 1995).

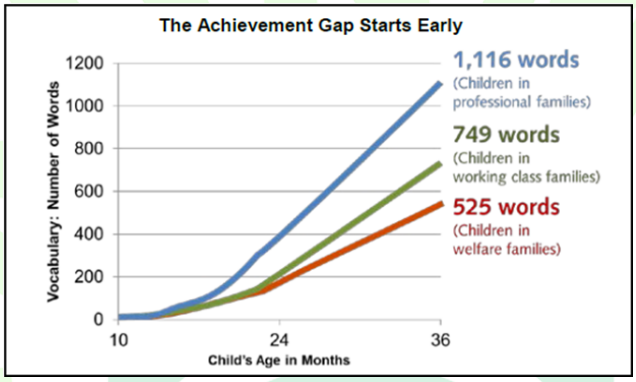


Figure 7 the Gap of language development in different family background

*Source: Hart, B., &Risley, T. R. (1995). Meaningful differences in the everyday experience of young American children.Paul H Brookes Publishing.*

**Gender Equality within the Family**

Inequities within families may be significant from the standpoint of the social determinants of health, especially with respect to gender. Female children are more likely to receive less food, and to be denied essential health services and education. Household chores and caregiving keep adult women out of the paid labour force and girls out of school. Moreover, when mothers do work, female children are more likely to be kept home from school to care for other siblings, especially when there is no option for substitute caregivers such as childcare. Gender inequity at the family level contributes to the intergenerational transmission of poverty through lack of development, education, and proper feeding(Siddiqi et al., 2007).

### 2.3.3 Residential & Relational Community

The child and family environment is formed under the residential community and the relational community environment, where parents and children live and share identity and information. The residential community referrs to where the child and family live, and the relational community referrs to the social ties among networks of people with a shared identity.

**Residential Community**

The pertinent features of a residential community for children include the economic environment, the physical environment, the service environment, and the social environment. Inequalities in these residential characteristics result in inequalities in health.

The socio-economic environment of residential communities can be defined according to average or median income level, the percentage of residents with a high school diploma, or the percentage of employed or unemployed individuals in the community. Socioeconomic aspects of neighborhoods are thought to affect well-being through their influence on the physical, service, and social environments. There is a clear inverse association between the ses of a community and the extent to which its residents will be exposed to toxic or otherwise hazardous exposures such as wastes, air pollutants, poor water quality, excessive noise, residential crowding, poor housing quality, and the like(Evans & Kantrowitz, 2002).

Physical and service characteristics are more flexible and complicated. The physical environment accessible to children create both the opportunities and the constrains for play-based learning and exploration, which are critical for motor, social/emotional, and cognitive development(Lori G Irwin, 2006). Similarly, the availability of high quality services will vary according to the socio-economic circumstances of communities, including institutions and facilities for learning and recreation, childcare, medical facilities, access to transportation, food markets, and opportunities for employment. In both resource-rich and resource-poor counties (regions, communities, etc.) physical and service characteristics are in important position of the early child development. Local access to these services for children should be used as a criterion for microscopical development.

**Relational Community**

The relational community is a primary influence on how children identify themselves and other, and how outsiders identify children. Therefore, it is a primary source of social inclusion and exclusion, sense of self and self-worth, self-esteem, and gender socialization. The extent to which adults and children in communities are linked to one another, whether there is reciprocated exchange (of information, in-kind services, and other forms of support), and whether there is informal social control and mutual support, are determined at this level. These characteristics, known variously as social capital or collective efficacy, have been shown to be nurturant for children and their families, both in the context of urban neighbourhoods in resource-rich nations (Sampson, Morenoff, & Earls, 1999)and in the village context in resource-poor nations(M. R. Carter & Maluccio, 2003). Essentially, child outcomes relate to the social ties between community residents that facilitate the collective monitoring of children related to shared community norms and practices, as well as positive role modelling(Putnam, 2000). Relational communities are often a main mechanism through which information regarding child-rearing practices, and child health and development are transmitted.

Noteably, as gender norms and roles are often rooted in the social beliefs of relational communities, addressing gender equity at this level is essential(Siddiqi et al., 2007).

### 2.3.4 ECD Programme & Services

Quality ECD programmes and services are those that nurture all aspects of children's development – physicial, social, emotional, language and cognitive. Governments need to integrate quality ECD programmes and services into social protection policies to imporve the effects of growing up in poverty for millions of children worldwide. The evidence is disturbing: 40% of children in resource-poor nations live in extreme poverty; 10.5 million children die from preventable diseases before they are 5 years old; many children never attend school; 20-25% of children in resource-poor countries suffer from malnutrition and poor health (Grantham-McGregor et al., 2007). Evidence suggests that conditions in resource-poor countries that foster illness, poverty, malnutrition, and lack of access to schooling lead to an intergenerational cycle of poverty, which disturb the productivity of future adults and also laid increased burden of cost on the economic resources of a country. In those resource-rich countries, the conditions are not as dramatic and the implications for human development are not as dire. However, the differences are really just a matter of degree. Across the resource-rich world, developmental vulnerability rises as one goes down the socioeconomic spectrum, such that, in most OECD countries, 25% or more of children reach adulthood without the basic literacy and numeracy skills required to cope in the modern world (Willms, cited in Irwin et al., 2007). Thus, ECD is an issue for all societies, not just the resource-poor countires. Study found that in OECD countries, policies that had a positive influence on outcomes for children included "increasing children's access to reasonable quality early childhood care and education". They also found that in countries where resources were limited, priorities must be set such that the most vulnerable are targeted, while universal coverage should remain the longer term goal (Lori G; Irwin et al., 2007).

Engle et al. remind us "to achieve the MDGs of reducing poverty and ensuring primary school completion for girls and boys, governments and civil society should consider expanding high quality, cost-effective ECD programmes" (2007, p. 229). Early interventions can alter the lifetime trajectories of children who are born poor or are deprived of the opportunities for growth, education and development. ECD programmes and services (e.g., childcare for working parents, preschool, access to primary school) have high rates of return, and are an effective route to reduce poverty, to foster health, productivity, and well-being. If governments in both resource-rich and poor countires were to act while children were young, by implementing quality ECD programmes and services as part of their broader social protection policies, they would each have a reasonable expectation that these investments would pay for themselves many times over. In resource-rich countries where the issue has been studied directly, savings come from reduced remedial education and criminal justice costs. Economic gains also come from improved access of mothers to the labour force and increased economic activity in adulthood among those whose developmental trajectories were improved through intervention (Cleveland & Krushinsky; Schweinhart, cited in Irwin et al., 2007). Though the economic benefits over the long term have not been directly studied in resource-poor countries, it is widely agreed that the transformation of the "Tiger Economies" of Southeast Asia from resource-poor, low life expectancy to resource-rich, high life expectancy societies was accomplished primarily through investment in children through various programmes.

From above analysis we can conclude that effective ECD programmes and services could contribute to the individual child's development and also economic growth. The detailed programme design,

implementation strategies and scaling up will be discussed in the next chapter *Effective interventions to improve early child development outcomes* (see next chapter).

### 2.3.5 Regional & National

The influence of the regional and national environments is fundamental in determining the extent of services and resources that are available to communities and to families. Many interrelated aspects of regional environments may be significant for early child development, including the physical, the social, the political, and the economic environments. These aspects of the regional environment affect ECD through their influence on the family, community, and ECD services.

**Regional**

"Region" is a loosely defined term that refers to various sub-national geopolitical entities such as urban versus rural areas, states, provinces, and the like. Regions may be very significant for child development, particularly their social, economic, political, ecological, and population health characteristics.

Economic and ecological characteristics of regions plays an important role in ECD. It is known that economic circumstances of areas (from smaller environment such as neighborhoods, to larger ones such as nations) are significant for child health and population health in general(Labonte, Polanyi, Muhajarine, Mcintosh, & Williams, 2005). It follows then that regional economic well-being might also be significant for children. Further, in many nations, there tends to be marked differences in income and wealth of regions within any given nation. In low- and middle-income countries, inequalities in child health outcomes—for example under-five mortality rates - vary according to geography, such as between rural and urban areas and between provinces. In regions where this is the case, the inequalities are often due to unequal allocation of resources(Houweling, Kunst, Looman, & Mackenbach, 2005).

In geographically larger nations weather conditions also may vary, which, in addition to affecting economic circumstances may also result in differences in ecology and thus types of disease exposures, especially infectious diseases(Thomson, Connor, Ward, & Molyneux, 2004). In Nigeria, a study found that the nutritional status of nursery children differed significantly between the southern region (Lagos State) and the northern region (Jos Plateau State). This study cited differences in the rate of parasitosis as a possible primarily explanatory factor(Abidoye & Pearce, 2000).

Socio-political characteristics is another influential factor. The income inequality (i.e. the distribution of income), social capital (inter-ethnic relationship) and many other complex factors all contribute to ECD outcomes.

**National**

The economic status of nations is well known to influence well-being. For most of the world, increases in national income are associated with increases in life expectancy and a host of other health outcomes for adults and children. Less formal evidence exists for other types of child development outcomes, however in studies of adolescent and adult literacy, there is also an apparent association between per

capita gross domestic product and levels of reading, math, and science literacy (Filmer & Pritchett, 1997). Policies that foster economic growth, therefore, are very relevant to ECD. Investing in ECD is an integral component of a nation's long-term economic and social strtegy, underinvestment in ECD undermines societal progress. Moreover, programmes or services at a national level are significant to improve ECD outcomes.

Requirements of international conventions, such as the CRC, International Labour Organization (ILO) Global Reports, and Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), can be used as levers for change at the national level(Siddiqi et al., 2007).

### 2.3.6 Global

The global environment is the overarching space that connects nations, and thus localities and people. There are several features of the global environment that are salient for early child development, including its social, economic, political, and ecological aspects. There are many different types of actors that fill the space of the global environment, including nation-states, multilateral economic organizations, multilateral development agencies, non-governmental development agencies, and civil society groups. All of these groups simultaneously contribute to and try to alleviate inequities in resources and in outcomes. There are two primary factors that serve as the impetus for a global lens of examination. First, that with greater links between societies comes better information about the state of people and their environments everywhere. Second, with increased complexity of the global economy, the policy decisions made in one nation or region have far reaching implications all over the world(Lori G; Irwin et al., 2007).

**The Role of Power in Global Environment**

A major feature of the global environment in relation to children's well-being is the element of power in economic, social, and political terms. There are well-known power inequities that exist between countries. A country's wealth and resources are a major determinant of its position in the global order. The factors that contribute to the wealth of some nations compared to others include whether each was/is a colonizing versus colonized nations, the availability of natural and human resources within one's own borders, and the effects of climatic conditions on agricultural productivity(Lori G; Irwin et al., 2007). The result is a world environment in which the majority of the world's power is concentrated in the resource-rich nations, and they in turn have substantial latitude in dictating the terms of global economic, social, and political arrangements. In other words,globalization is a process in which there are globalizers, and those whom are globalized.

**Structural Adjustment Programme (SAP) & ECD**

At the global level, not just programmes concerned about health care and children influence early children development, other policies can affect the condition of mothers and children as well.

One well-known set of policies that was introduced to many resource-poor nations in the 1980s and early 1990s was the Structural Adjustment Programme (SAP) of the World Bank and International Monetary Fund. The stated purpose of SAP was to increase the economic prosperity of resource-poor nations for

the purpose of paying debts to high-income nations. SAP involved increasing privatization and decreasing the role of the government in many aspects of national economic and social endeavors, including reducing investments in social welfare programmes (such as education, health care, and other services that benefit ect.) as a means to increase 'efficiency' and spur economic growth in the resource-poor nations.

One representative example is the SAP programme in Ghana. Ghana's SAP programme commenced in 1983 and involved reducing government expenditures by cutting social services, adjusting the exchange rate through devaluation of the national currency, abandoning price controls, privatizing state-owned enterprises, and increasing the export-based portion of the economy. On a macro-level, the GDP of Ghana has improved, inflation has dropped, and foreign investment has increased. However, beyond traditional economic indicators, SAP have not improved, and in many instances have worsened the social welfare of Ghana's citizens(Benhin& Barbier, 2001). A combination of the introduction of user fees and cutbacks in government spending on education and health care have resulted in compromised access to these basic services for many children and families. The devaluation of the currency has meant an increase in the cost of imported goods such as medicines, school supplies, and other necessities, thus thrusting Ghana into massive debt. It is evident that SAP, which evolves out of a global process, has had a significant and terrible impact on the population of Ghana, including and perhaps especially its children. Aggregate data from around the world demonstrates that SAP has influenced children (directly or indirectly) in the areas of survival, immunization, prevalence of health attendants, nutrition, and balanced urbanization. The experience of Ghana and other nations tells us that investments and universal, unrestricted access to the fundamental inputs for early child and human development must be reintroduced in these societies.

There are also other fundamental policy objectives that must be accomplished at the global level. One such area is the removal of debts of resource-poor nations. In fact, debt reduction is often considered to be the most important strategy for reducing poverty and improving the health of children. Another is the abolition of policies that sanction violence and wars. In Iraq, data corroborate the association between the introduction of sanctions there, and the incidence of disease in children. Further, children in many resource-poor nations are recruited as soldiers, which one can safely assert affects all aspects of their development and welfare. Finally, the selling of arms and landmines that allow people to engage in warfare must end. The market for these goods is global, and thus this issue falls not only in the realm of the nation, but of the entire world. The global economy can increase women's labor force participation. However, bundled with economic activity that provides jobs for women must be institutions for the care and education of young children(Lori G; Irwin et al., 2007).

**Global Declarations: the Convention on the Rights of the Child (CRC)**

The global environment is also characterized by important declarations that affirm the rights of children and of women – the latter of which, by extension influences the well-being of children. CRC is the first legally binding global declaration of children.

Some articles focus on the rights of the child when they pertain to ECD. For instance, Article 7 is about the child's rights to get own identity after birth. Actually, every section of the CRC has varying degrees of relevance to ECD. For example, Article 6 explicitly decrees that 'state parties' (which

primarily refers to nations) are responsible for ensuring "...to the maximum extent possible...the development of the child..."

In contrast to many other initiatives that attend to the well-being of children, the CRC puts considerable emphasis on the social behavioral domain of ECD. The preamble of the CRC particularly emphasizes the"...full and harmonious development of (the child's) personality...". Article 17 provides recognition of the importance of encouraging mass media to develop materials that foster children's social, spiritual, and moral areas of well-being (in addition to their physical and mental health). Article 29 discusses the need of education to foster many aspects of social development in children. In the physical domain, Article 24 concerns itself with the rights of children to "...the highest attainable standard of health..." Article 23 of the CRC also attends explicitly to the importance of supporting developmental capacities of children with mental or physical disability. Other articles address the responsibility of states to recognize that children need access to resources to fulfill their developmental potential(Unicef, 1989).

The CRC has 194 parties according to United Nations Treaty Collection retrieved 21 May 2009. However, how to supervise the implementation of CRC is still a problem.

**NGOs and Civil Society**

At the global level, the role of non-govern-mental international bodies and civil society organizations is critical in advocating for the economic, social, and political conditions that support ECD and children's welfare more broadly.

The Global environment in all its many forms is clearly of fundamental importance for ECD. One of the major issues on the global level is the power imbalances that drive policy formation and implementation, often resulting in circumstances (particularly in the resource-poor nations) that are not beneficial to children. Examples from nations that have been able to successfully contend with global forces are helpful in designing future policy directions. However, additional knowledge is required. One way to gain understandings of the effects on ECD of globalization is to use an 'impact assessment' framework, similar to those used to understand the roles of policy on the climate and physical environment. Key to the spreading of this knowledge, as well as other forms of advocacy and action, are the non-governmental international bodies and civil society groups that serve as a bridge between global institutions and the interests of local communities, children, and families(Siddiqi et al., 2007).

Current global momentum is creating new opportunities and convergence of disparate initiatives regarding ECD. Alliances should be encouraged between all individuals and organizations dedicated to child well-being and social welfare. Because of its global responsibility in population health, the w ho should strengthen its commitment to ECD as a key social determinant of health. The international community must establish a unified mechanism for monitoring child development between communities and societies and over time. The CRC creates a strong opportunity to hold state parties responsible for equity in ECD and social determinants of ECD.

### 2.4 Effective Interventions to Improve Early Child Development Outcomes

ECD interventions cut across all UNICEF programme areas. Ensuring that children develop to their full potential requires interventions in various aspects like child survival and development, education, HIV/AIDS, child protection, and social policy and partnerships. For example, UNICEF's work to support community and family care practices that impact the lives of young children not only use health and nutrition interventions but also involve early stimulation and interaction. Similarly, ensuring that young children are developmentally ready for school is an integral part of UNICEF's education priority.

UNICEF focuses on three areas of intervention for ECD:

- quality basic health, nutrition, HIV/AIDS, education and protection services;
- good care practices for children within the family and community;
- ECD policies; and peacebuilding in early childhood.

UNICEF works with governments, civil society, private sector, communities, inter-governmental agencies and other partners to achieve the following objectives:

- Improved service delivery capacity for early childhood development at the national, district and local levels;
- Improved family and community care practices for survival, growth and development;
- Develop policies and coordinating structures to include early childhood development into national development plans, funding and mechanisms;
- Increased ability to monitor child development and family care competencies for informed decision-making;
- Young children included in programming and policies in emergency response -providing play and learning to ensure their continued development.

By systematically and critically following a number of proven evidence-based strategies, working across different sectors and with partners, utilizing innovative communication channels, building on local strengths and needs, using scientific knowledge and linking services to existing interventions, UNICEF is able to reach communities, parents, families, caregivers and most of all, children("United Nations Children's Fund," n.d.).

#### 2.4.1 ECD Programmes & Services

As mentioned in the TEAM-ECD model, ECD programmes and services play an important role in improving ECD outcomes. ECD programmes and services usually address one or more of the following key issues: breastfeeding, childcare, early childhood education, nutrition, and other forms of family support. These include services directed to children, such as day cares, pre-schools, home and community-based child development centres, and other such programmes and services. There are also programmes and services that focus on children indirectly, through their support for parents and caregivers; these include parenting programs, home support or home visiting, and other family support programs. In addition, health care services are a very important point of contact for young children and

their families, especially for children under the age of three as the health system is usually the only infrastructure (among health, education, welfare) that reach them. When ECD programmes and services are added to the delivery of established health care services, they become a highly effective way of promoting ECD.

**Health care systems (HCSs)** are in a unique position to contribute to ecd at a population level, given that HCSs are already concerned with the health of individuals and communities, employ trained professionals, provide facilities and services, and are a primary contact for child-bearing mothers. In many instances, health care providers are the only health professionals whom families come into contact with in the early years of the child's life; they thus reach the majority of children in a community. When the HCS is used as a linkage point, health care professionals can be highly effective in promoting ECD.

The quality and appropriateness of programmes and services is a central consideration in determining whether such programmes lead to good outcomes for children. There are three aspects of quality in ECD programmes and services: structure, process, and nurturance. *Structure* includes such things as appropriate staff training and expertise, staff to child ratios, group size, and physical characteristics of the service that ensure safety. *Process* aspects include staff stability and continuity, and relationships between services providers, caregivers, and children. *Nurturant environments* include those where exploration is encouraged; mentoring in basic skills is provided; the child's developmental advances are celebrated; development of new skills is guided and extended; there is protection from inappropriate discipline; and the language environment is rich and responsive. Nurturant environments should also include equity in treatment of boys and girls: in opportunity, expectations, and aspirations. In addition to these fundamental aspects of quality, ECD programmes and services should be based on consensus as to the nature of successful child development and a set of valid, reliable indicators of ECD.(Siddiqi et al., 2007)

**Panel 1**
**Characteristics of successful early childdevelopment interventions**

- Integration of health, nutrition, education, social, and economic development, and collaboration between governmental agencies and civil society.
- A focus on disadvantaged children.
- Sufficient intensity and duration and include direct contact with children beginning early in life.
- Parents and families as partners with teachers or caregivers in supporting children's development.*
- Provide opportunities for children to initiate and instigate their own learning and exploration of their surroundings with age-appropriate activities.
- Blend traditional child-rearing practices and cultural beliefs with evidence-based approaches.*
- Provide early child development staff with systematic in service training, supportive and continuous supervision, observational methods to monitor children's development, practice, and good theoretical and learning material

Beyond the aspects of quality programs, a set of principles has been demonstrated to sustain ECD programmes worldwide. This includes cultural sensitivity and awareness; community ownership; a common purpose and consensus about outcomes related to the needs of the community; partnerships among community, providers, and parents; enhancing community capacity through active involvement of families and other stakeholders; and an appropriate management plan (which includes users) that facilitates the monitoring of quality and the assessment of program effectiveness(Kagan & Britto, 2005). With respect to ECD programmes and services, a number of studies have shown these quality principles

to enhance outcomes for young children(L. M. Anderson et al., 2003; Karoly, Kilburn, & Cannon, 2005). Furthermore, the ECD programmes most associated with positive outcomes for children are those that build on existing resources and networks and revolve around the creation and maintenance of collaborative relationships between multiple interest groups, such as families, communities, and services providers(Engle et al., 2007). Programmes that build on existing resources and networks often do so by encouraging the participation of parents, traditional caregivers, and older siblings. These types of programmes often include parent education, parent support groups, home visiting, and community-based and community-run childcare, and are strengthened by the co-ordinating support of several spheres of influence.

ECD services may be targeted to specific characteristics of children or families (e.g., low birth-weight babies or low-income families), may occur only in some communities and locales and not others, or may be more or less comprehensively provided. Each of these is also accompanied by their respective benefits and drawbacks; however, the overarching goal of the governments should be to find means of providing all children with effective ECD programmes and services(Kamerman & Gabel, 2006).

### *Implementation Strategies*

ECD programmes and services are delivered to children and families in several ways. They can both target specific populations, or seek more universal coverage. Furthermore, services may deal with one or more aspect of ECD and or may be coupled with other types of services.

ECD services may be administered and delivered at nearly all levels of governments and via Civil Society Organizations (this term encompasses Non-Governmental Organizations, Community-Based Organizations, as well as Faith-Based Organizations) as well as large international organizations and foundations. Integrated approaches adopt a holistic view of ecd and are based on the recognition that ecd does not belong uniquely in the domains of the health care or education system. Integrated approaches to ECD services rely on multiple government ministries and departments, including, but not limited to departments of health, education, social welfare, and children and families, for example.

### *Scaling-up ECD Programmes*

Scaling up is a process whereby as societies we go from pockets of children having access to nurturant conditions to universal access to nurturant conditions and environments. As evidence accumulates on the costs and benefits of model exemplary programs that have only limited implementation, more research on the process of bringing ecd programs to scale will be necessary. What is clear, however, is that the involvement of multiple layers of society is instrumental for the success of programs. The capacity of local knowledge and expertise are enhanced through the organizational infrastructure and financial resources of governments and other larger entities. As well, these linkages provide a means for scaling up the ecd services that are available in different localities, to move toward universal availability of these services for all young children. According to Barnett( cited in Siddiqi et al., 2007):

A small-scale program, however, can lose many of its benefits when expanded into a large-scale government program. At this time, research is unclear about why this frequently occurs. One reason may be that governments underestimate the costs and expand programs with much less funding for each child served than the model used. It is now being observed through pilot studies that some types of programs may expand easily into national programs, whereas other programs may encounter barriers, which greatly reduce the success of the expansion. Strategies for building infrastructure, including administration and training, may facilitate successful program expansion. Limiting program expansion to a manageable annual rate of growth may also be advantageous. A study of the issues involved in scaling up ECD programs could be instructive for the task of creating a global environment that is supportive of children's health and development.

Despite the gaps in knowledge, the results of several pilot studies have identified some of the conditions or requirements that are essential for successfully bringing programs to scale. The following list of the conditions/requirements needed for successfully bringing programs to scale is general and preliminary because the process of scaling-up ecd programs has yet to become a subject of systematic study.

In addition to the conditions that support the scaling-up process, pilot studies have identified a series of barriers, which undermine the success of the scaling-up process. The types of problems associated with bringing a small locally-conducted programme to a larger, national scale include, problems in co-ordination,

**Panel 2**
**Requirements for bringingprogrammes to scale**

- political commitment of the importantand involved parties
- local level ownership of and commitmentto the scaling-up process
- creation of scaled-up programme sustainabilitythrough policy and leadership changes
- creating sustainability through trainingprogrammes that train and empower trainersto be agents in change
- development of the capacity for trainingat the local level
- municipal level control and commitmentto local programmes
- attention, appreciation, and inclusion oflocal/municipal concerns, issues,attitudes, etc.
- creation of an enabling environment forsocial and professional change
- presence of or creation of a large scale andeffective communication/informationdistribution system
- reliance on public and private sector funding,i.e. combining funding from private foundations,and international development fundswith governmental funding
- political and financial support fromMinistries of Health, Education, etc. andState Governments
- working with a social, educational orhealth philosophy, such as health equity orpersonal empowerment through educationand engagement
- working with community-based andcommunity-engaged programmes
- having pilot studies, and evidence-basedresearch to validate and support scaling-up

**Panel 3**
**Barriers to successfully bringingprogrammes to scale**

- pace of expansion, especially in terms oftime need to create policy, resources, andstructures for scaling up
- lack of resources
- degree of change required by the servicedelivery system to accommodate thenew programme
- lack of political commitment at all levels
- policy/leadership changes
- time and resource investment
- long-term failure of training programmes
- lack of formalized agreements betweensectors of government
- lack of capacity to organize and managea scaled-up programme

management and decision making, problems in ensuring quality-control, problems with resources, problems with sustainability, and problems with commitment to and relevance of the program at all levels. Above is a summary of some of the potential barriers that make the scaling-up process difficult.

### *Evaluation and Assessment of ECD Programmes*

Assessing the quality of these ECD programs is an extremely challenging and complex issue. There are differing views regarding the metric(s) by which to assess quality, and often, programmes are not assessed at all due to budgetary and time constraints. As well, it is often difficult to judge those key attributes of ECD programmes that can be used in other settings, versus those whose value is idiosyncratic, and specific to the context in which they occur. Programme assessment, however, is now globally recognized as an important and essential part of making ecd both a national and a global development priority.

Programme evaluation and assessment can identify the efficacy of ecd programmes to achieve programme goals. Evaluation can monitor programme outcomes in order to chart the changes and progress being made. This evaluation data can then be used in several important ways. It can be used to reflect on programme design and make changes that will increase the efficacy of the programme. It can be used to advocate the expansion of a given programme. It can be used to obtain funding and gain political support for a programme; and it can be used generally to advocate for the establishment of comprehensive and permanent national ECD programmes.

While we are promoting the notion of ECD programme types and principles as well as the qualities of nurturant environments that matter for successful ecd programmes, the Knowledge Hub also acknowledges an important body of research involving successful ECD interventions and programmes.

> ***Critical Thinking***
> What kind of ECD programmes are there in your country? Is it a national or a regional programme? Is it suitable to scale up?

## CASE 1 Malawi: Early Child Development Virtual University (ECDVU)

### a) Overview

The Early Childhood Development Virtual University (ECDVU) was founded by Norwegian Education Trust Fund in the World Bank in early 2000, affiliated to a teaching program in University of Victoria in Canada and to the School of Child and Youth Care (SCYC) (Wan & Cao, 2013). ECDVU works with nominees of participating countries to improve the country's social and economic development through addressing the needs of their youngest citizens and the families and communities which nurture them (ECDVU, n.d.). The ECDVU brought together early childhood professionals from 10 African countries to address child well-being through ECD capacity building, leadership development, and enhanced networking within and across countries (A. R. Pence & Marfo, 2004).

The program, till 2011, has covered two regions: the Sub-Saharan Africa (SSA) and the Middle East-North Africa (MENA), and it might enlarge its scale later on. Malawi has participated in the ECDVU-SSA. When it comes to the practice of ECDVU-SSA, the ECDVU program in Sub-Saharan Africa has completed a three-year Master's degree delivery (SSA-1 2001-2004), a one-year Professional Specialization Certificate program (SSA-2 2006/07) in co-operation with African-based universities, and a one-year Graduate Diploma program (SSA-3 2009/10 and SSA-4 2010/11) (Wan & Cao, 2013).

### b) History

The ECDVU grew out of a series of ECD training seminars (Summer Institutes) initiated by UNICEF in 1994/95. Subsequent to the successful ECCD Institute/ Seminar was held in Namibia in 1997. From 1998 to 1999, further extensions were established.

Over the space of three years (August 2001 through August 2004) the first ECDVU cohort of learners had the opportunity to engage with each other and with African and international ECD specialists to learn together and to address a wide range of ECD challenges at the local, country, and continental levels (A. R. Pence & Marfo, 2004).

With the conclusion of the Uganda Conference and Seminar, the five year 1994-1999 ECCD Institutes Initiative was well-posed to undertake the next stage of its evolution: achievement of the ECCD University Without Walls vision first identified in 1994. As the conclusion of the Conference, the World Bank announced its commitment to realize the dream of the ECCD University Without Walls, through funding the development of the proposed ECD Virtual University (ECDVU) with funds available from the Norwegian Educational Trust Fund.

A special fundraising process was initiated in late 2003 to bring the full cohort together for a final face-to-face interaction in Accra, Ghana in June 2004. The purpose of this final meeting was multi-fold: 1) to work with proposed phase 2 University partners in Africa (Winneba in Ghana and Chancellor in Malawi) to develop a CIDA Tier 1 funding proposal to transition the program to African institutions, 2) to support those students seeking to complete their thesis or projects and to conduct defenses for the Ghanaian students, and 3) to engage in planning activities for mounting the Third African International ECD Conference. ADEA, UNICEF, the World Bank, UNESCO and some students' employers provided

funds for this last session (ECDVU, n.d.).

| Year | Events (Established Organizations) |
|---|---|
| 1994 | International Child, Youth and Family Conference (University of Victoria, Victoria, B.C.) |
| 1995 | First International ECD Seminar (University of Victoria, Victoria, B.C.) |
| 1997 | First African ECD Seminar (Windhoek, Namibia) |
| 1997 | First SE Asia/Pacific ECD Seminar (Singapore) |
| 1998 | Second African ECD Seminar (Banjul, The Gambia) |
| 1999 | First African International Conference on ECD (Kampala, Uganda) |
| 2000 | Development of ECDVU web-based, three year graduate level program |
| 2001 | Africa (SSA-1) ECDVU M.A. three year program delivery commences (30 participants) |
| 2002 | Second African International Conference on ECD (Asmara, Eritrea) |
| 2004 | Middle East and North Africa (MENA-1) one year program completion |
| 2004 | Africa (SSA-1) ECDVU M.A. completion (27 of 30 participants from 10 countries complete three year+ program) |
| 2005 | Third African International Conference on ECD (Accra, Ghana) |
| 2006 | MENA-2, Yemen one year program completion |
| 2007 | Africa (SSA-2) ECDVU Professional Specialization Certificate program completion (23 of 24 students completing) |
| 2008 | Marito Garcia, Alan Pence & Judith Evans publish *Africa's Future, Africa's Challenge - Early Childhood Care and Development in Sub-Saharan Africa* |
| 2009 | Society for Research in Child Development (SRCD) supported Symposium: 'Strengthening Africa's Contributions to Child Development Research' |
| 2009 | Fourth African International Conference on ECD (Dakar, Senegal) |
| 2010 | Africa (SSA-3) ECDVU Graduate Diploma/Professional Specialization Certificate program completion (27 of 27 students completing) |
| 2011 | Africa (SSA-4) ECDVU Graduate Diploma program completion (28 of 30 students completing) |

Table 2 ECDVU History

*Source: www.ecdvu.org*

**c) Program Design**

The ECDVU is an innovative and multi-faceted approach to addressing ECD leadership needs in Africa, and it is a multi-faceted training and capacity building program that uses both face-to-face and web-based methods of delivery. It is a training and capacity building program for ECD using face-to-face and distance learning methods including (ECDVU, n.d.):

- two to three-week seminars;
- web-based learning;
- video-conference;
- a "community of learners" strategy within cohort countries.

ECDVU has four main features. Firstly, students who participate in ECDVU can get a job and earn their life while learning in the virtual university, which not only can be beneficial for them to use the knowledge in daily life but also contributes to improving the ability of ECD in participating countries. Secondly, ECDVU aims to combine a variety of teaching ways, such as methods of face-to-face learning and distributed learning. These various methods enhance the interactivity between mentors and learners and help students to develop a better understanding of the theme in pre-school education. Thirdly, one basis of ECDVU is the cooperation among schools, governments, non-governmental organizations, learners and teachers. Fourthly, ECDVU adapts the mode of "Emergent Curriculum", which emphasize that the actual curriculums students are attending are formed by interaction of many kinds of knowledge (Wan & Cao, 2013).

Malawi had developed holistic approaches to ECD since 1997, with ECDVU as one of its efficient approaches. By 2000, Malawi incorporated many of these approaches into its Community Integrated Management of Childhood Illness (C-IMCI) Programs to reach 1,179 villages in the eleven of its poorest districts. During this time, community team from ECDVU came together to analyze their problems in terms of nutrition, and development, and decide on some solutions to deal with these problems. They address hygiene, latrines, breastfeeding and complementary feeding, and established community-based child care centers, run by trained community volunteers. When large projects such as roads were needed, communities were helped to request Government poverty reduction funds (ECDVU, n.d.).

**d) Evaluation**

***ECDVU Evaluation***

Capacity building is a term that is often used, but too seldom described. One facet of promoting capacity that is relevant to a program like the ECDVU is program completion rate (Figure 1). The three year Master's degree program in Africa had a 90% completion rate (27 of 30) - an exceptional figure for a web-based, distributed learning program. The other data reflect additional key aspects of capacity growth and development such as improved leadership (Figure 2), programming ability (Figure 3), ICT skills, and partnering activity.

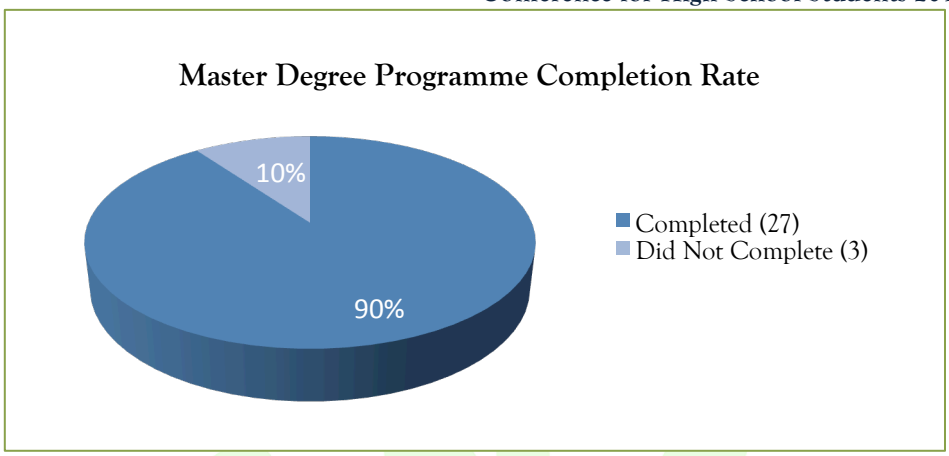


Figure 8 Master Degree Programme Completion Rate of ECDVU SSA-1

*Source: ECDVU Internal Evaluation Report. Available from www.ecdvu.org*

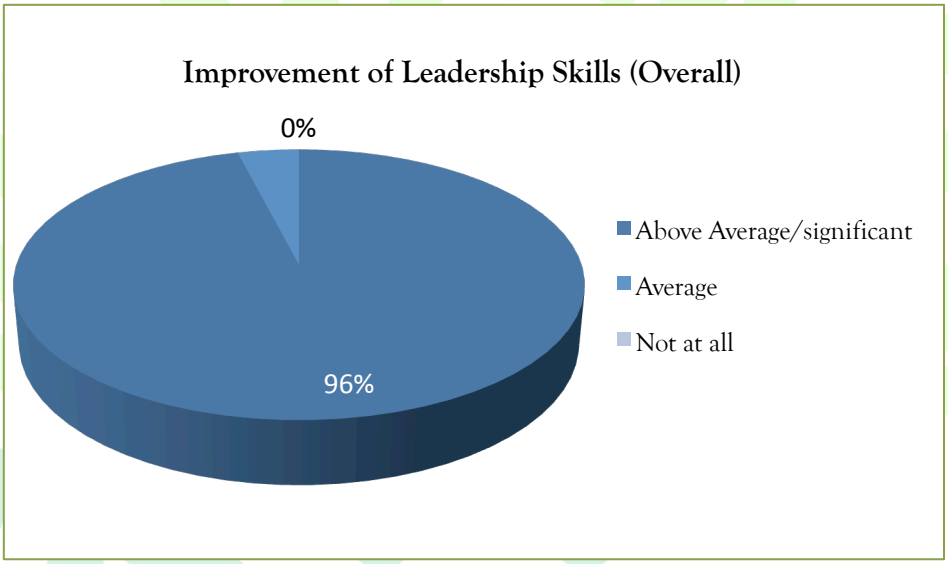


Figure 9 Improvement of Leadership Skills (Overall)

*Source: ECDVU Internal Evaluation Report. Available from www.ecdvu.org*

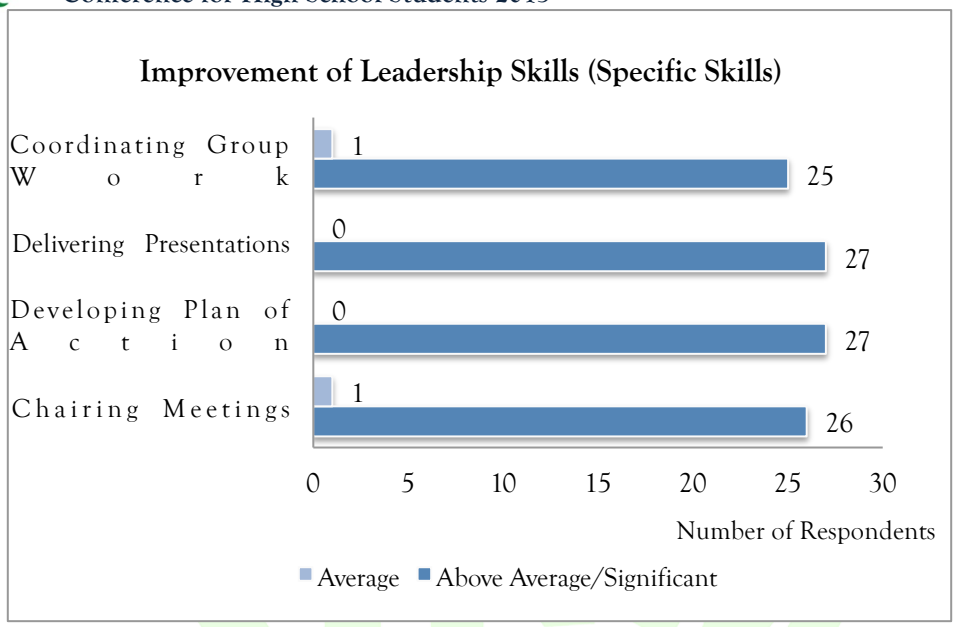


Figure 10Improvement of Leadership Skills (Specific Skills)

*Source: ECDVU Internal Evaluation Report. Available from www.ecdvu.org*

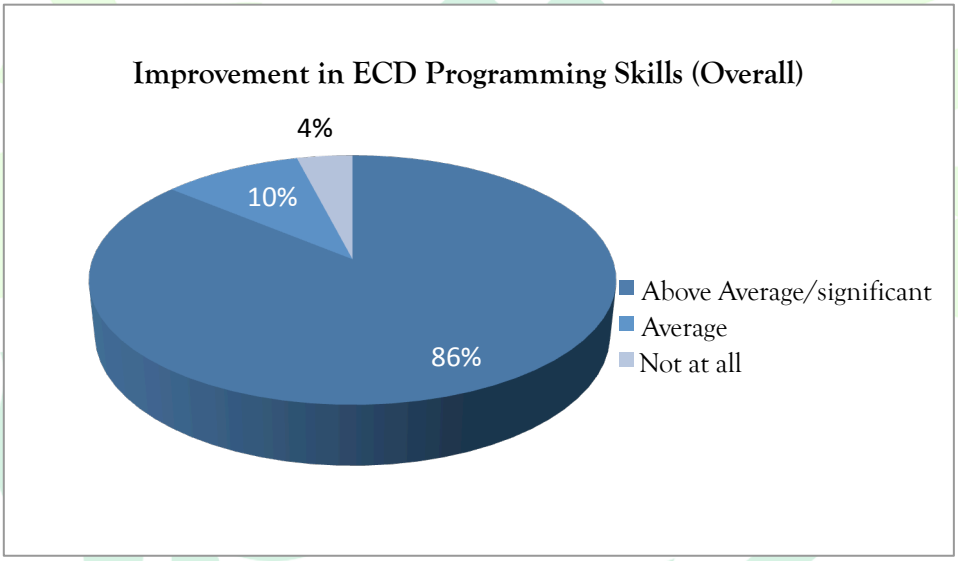


Figure 11Improvement of ECD Programming Skills (Overall)

*Source: ECDVU Internal Evaluation Report. Available from www.ecdvu.org*

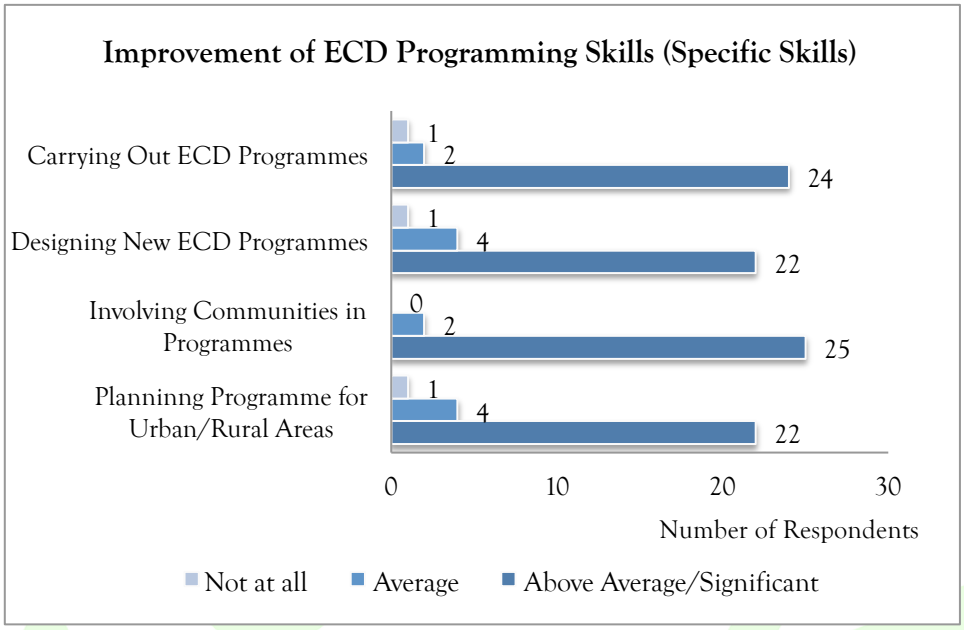


Figure 12Improvement of ECD Programming Skills (Specific Skills)

*Source: ECDVU Internal Evaluation Report. Available from www.ecdvu.org*

ECDVU is a unique approach to supporting child and family well-being in the context of broader social and economic development. ECDVU's three year, part-time Master's degree program was piloted in ten Sub-Saharan African countries between August 2001 and July 2004. Evaluation material was collected from diverse sources. The following information is based on questionnaires completed by colleagues of the ECDVU participants both within and outside their organizations. Responses were anonymous and confidential, with an option to self-identify if preferred. The return rate was 71% (48/67) with at least one respondent per country and at least one respondent per participant(ECDVU, n.d.).

### *Malawi Evaluation*

The training of four ECDVU participants has resulted in a number of successes in Malawi, including the subsequent training of 245 social welfare officers in ECD and about 1,800 caregivers as well as an increase in the number of ECD centers from 1,155 in 2000 to 5,899 in 2005. The ECDVU graduates are taking the lead in running the National ECD Network, strongly supported by government and development partners.

In addition, child participation has become not just ceremonial but practical; issues are dealt with hands-together with the children. The ECDVU has encouraged Chancellor College to emphasize ECD as a main topic, and Mzuzu University has started teaching ECD(A. Pence, Habtom, & Chalamanda, 2007).

A participant named ChalizamudziMatola, from Malawi said after his participation, "I have already started seeing the impact that the ECDVU course will have on Malawi. I am using the knowledge and skills that I am gaining from the course in my work with colleagues as well as with communities in my work area."(ECDVU, n.d.)

**e) Funding**

The ECDVU was made possible through support received from The World Bank, UNICEF, UNESCO, the Bernard van Leer Foundation (BVLF), CIDA, a host of local organizations in a dozen ECDVU-participating countries in SSA, and four countries in MENA. International and local partner funds have allowed the delivery of combination web- and face-to-face leadership course designed to advance country-identified, inter-sectorial early childhood initiatives(Lori G; Irwin et al., 2007).International organizations, the donor community and African governments are part of a worldwide movement to increase the profile and priority of ECD as essential to healthy social and economic development. Since 1990, for example, the World Bank has established ECD credits in excess of 1.4 billion US. In this environment the partnership approach envisioned by the ECDVU becomes all the more essential if non-productive, competitive and "silo" mentalities are to be overcome(A. R. Pence & Marfo, 2004).

Expenditure of ECDVU can be classified into two categories: developmental fund and deliver fund. Developmental fund are mainly used for the project and curriculum designing, the primal project activity, network supporting system selection and equipment, teaching consulting, etc. In early 2000, ECDVU developed with the donation of 330 thousand dollars from Norwegian Education Trust Fund in the World Bank (use up in February, 2003). What is more, UVIC has donated 1,050 dollars for salary subsidies and offer other supports, with the University of British Columbia in Canada, by assistance in kind. Until December 31st, 2004, the source and the amount of the deliver fund was approximately 597,000 dollars: about 150,000 dollars from Canadian International Development Agency, 100,000 from UNICEF, 60,000 from the Bernard van Leer Foundation (BVLF), 44,000 from UNESCO, 31,000 from University of British Columbia (including donation and cost of reduction), 213,000 in scholarship. These funds were mainly used for: the cost of a small amount of residual project development and preparation, personnel expenses, activity of peer mutuality, the cost of material, computer supporting in Africa, Evaluation fee, and communication cost, etc(Wan & Cao, 2013).

## CASE 2 USA: Reach Out and Read

### a) Overview

Reach Out and Read (ROR) is an American nonprofit organization that trains and supports medical providers who give books to children and advice to parents about the importance of reading aloud. It is the first pediatric, evidence-based strategy to prevent problems of early childhood development and learning. With a start in a single clinic in Boston City Hospital in 1989, doctors working in4000 clinics and practices gave ~5.7 million new books to 3.5 million children in all 50 states in 2008. ROR also has become a model for a different way of thinking about parent education during primary care encounters, based less on telling and more on creating real-time learning experiences. (Zuckerman, 2009)

The first five years of life offer a critical window for learning, with rapid brain development that does not occur at any other time. Many children, especially from low-income families, are not read to from birth. Children who grow up without sufficient exposure to language arrive at school without asic literacy skills, and often struggle with reading in early grades.

During regular pediatric checkups, ROR pediatricians, family physicians, and nurse practitioners give new, developmentally-appropriate books to children from low income families, ages 6 months through 5 years, and advise parents about the importance of reading aloud. As a result of the evidence-based interventing, parents learn new ways to stimulate their children's literacy development, have more books in their home, and read to their children more. Parents are supported as their children's first and most important teachers, and children grow up to become readers. ("Reach Out and Read," n.d.)

### b) History & Programme Design

The American Academy of Pediatrics Health Supervision Guidelines, which were first published in 1987, were the first to support monitoring and promotion of children's development. In the 1980s, many parents in the primary care clinic at Boston City Hospital reported not reading to their young children and also not having children's books at home. They gave multiple reasons, including a lack of children's bookstores in the inner city, no experience (their parents did not read to them, especially those raised in other countries), the high cost of books, and reading not being a pleasurable experience for parents. This was despite research information on the importance of reading aloud for school readiness and growing understanding and policy efforts to promote school readiness (R. C. Anderson, 1985). Four years after a grant proposal for a program similar to ROR was turned down by the Robert Wood Johnson Foundation because it was not related to "health," Robert Needlman, MD, a child development fellow, had a similar idea, which was later developed and implemented in our clinics without grant support.

Through a process of informed trial and error, ROR developed key components, that is, (1) training pediatricians to give developmentally appropriate advice, (2) giving books at each visit from 6 month to 5 years of age, and (3) having volunteer readers in the waiting room to model reading aloud for the parents. The last part has been altered over time to include a literacy-rich waiting room, because volunteer readers are not always available. The distinction between a bookgiveaway program ("take a book on the way

out") and a clinical intervention with modeling and advice from the physician is emphasized to physicians receiving training in ROR. Although it is brief (30 seconds to 2 minutes), engaging a parent and child with a book is reported by pediatricians to be a pleasurable, important, teachable moment. (Zuckerman, 2009)

It has been proved that giving books to children changed the whole pediatric visit experience for young children from one of fear to one of pleasurable anticipation. Similarly, pediatricians reported that observing different capacities of children with books at different ages stimulates them to think in a more-developmental framework (eg, when do children recognize letters or hold a book right side up, how many objects or animals can they point to or name, and when do they do so?). Unlike advice to prevent injuries or to promote good nutrition, advice to parents to read to their children does not depend on parents remembering to do something; if a book is in the home, then children will initiate a request or demand that parents read to them. Even parents who are illiterate can and do point to and name pictures in books, thus creating the same language and positive emotional environment as literate parents.

Bulk purchasing of books decreases the price of books to approximately $2 per book; another $2 covers infrastructure costs. Because there are 10 pediatric visits between 6 months and 5 years of age, children start school with10 books in their home, at a cost of $40. This amounts to approximately $8 per child per year, which compares favorably with many other early-childhood enrichment programs whose costs are significantly more (up to $2000–6000 per child per year). A key implementation strategy involved a decision that the ROR National Center would cover the costs of all books for 6 months and then local funding needed to share the cost of books. The hope was that, once pediatricians started giving out books, they would see the pleasure and value, would want to continue giving books as part of pediatric care, and therefore would be motivated to help raise public and private support locally. ("Reach Out and Read," n.d.; Zuckerman, 2009)

Besides its relatively low cost, another characteristic embodies ROR's superiority. When other organizations spend most of their time operating institutions, ROR also devotes itself to the research related to children and knowledge, which makes the devotion more specific and efficient.

The first study of ROR showed that, among mothers receiving welfare, there was actually an eightfold increase in the number of parents reporting reading aloud as a favorite activity (Needlman, Fried, Morley, Taylor, & Zuckerman, 1991). This information and the acceptability of ROR in 2 community health centers led to further dissemination in Boston and then nationally. With the interest and support of First Lady Hillary Clinton, Senator Edward Kennedy championed approval of federal funds to set up the ROR National Center for further expansion through training and funds for books. Support from Senator Kennedy continued and, after the Clintons left office, First Lady Laura Bush expanded her support from Texas to the nation; the program also had bipartisan support in Congress. Of interest, Republican lawmakers' strong support was based on the focus of ROR on parents and their responsibility to their children and not out-of-home efforts to educate young children. The growth of ROR, as a public-private partnership, also has been supported by funding from 10 states.

With it scaling up, ROR is no longer a programme only in the US, it is now operating in about 8

countries, including several in the developing world.

| Date | Events |
|---|---|
| Jun. 24, 2014 | **ROR** Among National Partners Launched New Collaboration to Close the Word Gap at the Clinton Global Initiative Meeting |
| May 9, 2014 | **ROR** Received Award from Eric Carle Museum of Picture Book Art |
| Apr. 29, 2014 | **ROR** Selected to Join Prestigious Aspen Institute Ascend Network to Combat Poverty and Increase Opportunity for Families |
| Apr. 28, 2014 | **ROR** Received Grant from Heising-Simons Foundation to Pilot Early Math Initiative |
| Jan. 27, 2014 | **ROR** Announced Leadership Transition at National Center |
| Nov. 27, 2013 | The Community Foundation for Greater New Haven Funded **ROR** Connecticut |
| Nov. 21, 2013 | Project Runway's Tim Gunn and Scholastic Inc. Donated Books to **ROR** |
| Sept. 26, 2013 | **ROR** Received 1 Million Book Donation from Scholastic |

Table 3 ROR Recent Events

*Source: www.reachoutandread.org*

**c) Evaluation**

Studies evaluating ROR reported that parents who participated in ROR, compared with parents who did not, were more likely to report reading aloud as a favorite activity, increased centered literacy orientation, frequent reading aloud, and, most importantly, increased language development (Mendelsohn et al., 2001; Weitzman, Roy, Walls, & Tomlin, 2004; Zuckerman & Khandekar, 2010). In one of the studies, with controlling for confounding variables, children in the ROR group scored 8.6 points higher in receptive language and 4.3 points higher in expressive language, compared with non–ROR groups (Mendelsohn et al., 2001). These results also showed a dose-dependent effect (ie, higher language scores with more ROR visits). This finding is important, because the vocabulary of children entering first grade predicts their reading ability at the end of first grade and also subsequent reading comprehension (Graves, Juel, & Graves, 1998). The homes of children who participated in ROR demonstrated higher scores for directly observed child home literacy and Home Observation for Measurement of the Environment assessments, a widely used research measure of the home environment that is associated with early childhood development. The findings are consistent; all studies showed positive responses to ROR. Unlike non-doctor-focused book-giveaway programs that do not have the evidence base of ROR, the effectiveness of ROR is attributable in part to the trusting relationships that parents have with their child's doctor, although this has not been proved (Zuckerman, 2009).

| Year | No. of Programmes | States Participated (in US) | Books Distributed | Children Participated |
|---|---|---|---|---|
| 1989 | 1 | - | 1,000 | - |
| 1991 | 1 | - | 1,000 | - |
| 1994 | 34 | 9 | 19,607 | - |
| 1995 | 45 | 12 | 103,937 | - |
| 1996 | 107 | 28 | 265,861 | - |
| 1997 | 261 | 39+ DC | 579,480 | - |
| 1998 | 556 | 47+ DC | 797,048 | - |
| 1999 | 795 | 49+ DC | 1,027,798 | - |
| 2000 | 795 | 49 States + DC | 1.3 Million | - |
| 2001 | 1,456 | all States + DC + Puerto Rico | 1.6 Million | - |
| 2002 | 1,728 | U.S. | 1.9 Million | 1.2 Million |
| 2003 | 2,083 | U.S. | 3.1 Million | 2.0 Million |
| 2004 | 2,379 | U.S. | 3.2 Million | 2.1 Million |
| 2005 | 2,826 | U.S. | 3.8 Million | 2.3 Million |
| 2006 | 3,300 | U.S. | 4.6 Million | 2.8 Million |
| 2007 | 3,714 | U.S. | 5.4 Million | 3.3 Million |
| 2008 | 4,226 | U.S. | 5.8 Million | 3.7 Million |
| 2009 | 4,431 | U.S. | 6.0 Million | 3.8 Million |
| 2010 | 4,654 | U.S. | 6.4 Million | 3.9 Million |
| 2011 | 4,779 | U.S. | 6.4 Million | 3.9 Million |
| 2012 | 4,946 | U.S. | 6.5 Million | 4 Million |
| 2013 | 5,000 | U.S. | 6.5 Million | 4 Million |

Table 4 ROR Scale (Number of States, Children Participated, Books Attributed)

*Source: www.reachoutandread.org*

**d) Funding**

> ***Critical Thinking***
> Why ROR is a successful programme? Is it suitable to introduce this programme to your country?

Even with exact data unavailable, it is self-explanatory that ROR is a programme with low cost, as it is is fully based on the pediatric system. Funding of the programme, besides the money parents pay for the books they bought,

come from several stakeholders including federal funds, states funds, foundations like Heising-Simons Foundation, and private donors.

# CASE 3 Moldova: Integrated Management of Childhood Illness (IMCI)

## a) Introduction of IMCI

Every year, nearly 11 million children die before reaching their fifth birthday. 70% of these deaths are caused by five common preventable or easily treatable childhood disorders: pneumonia, diarrhea, measles, malaria, and malnutrition(Costello, 1997). In response to this challenge, WHO and UNICEF in the early 1990s developed Integrated Management of Childhood Illness (IMCI), a strategy designed to reduce child mortality and morbidity in developing countries. The approach focuses on the major causes of deaths in children through improving case management skills of health workers, strengthening the health system, and addressing family and community practices(Ketsela et al., n.d.).

### IMCI in the Republic of Moldova

The Republic of Moldova, a country of Eastern Europe, was among the first countries in the WHO European Region to implement the Integrated Management of Childhood Illness (IMCI) with initiative starting in 1998 as the most cost-efficient strategies of improvement of mother and child care. The IMCI Program in the Republic of Moldova aimed to address leading causes of childhood deaths through improving case management skills of health care staff; strengthening health system performance and improving care giving practices in families and at the community level. The project goal came to support the realization of Moldova's Millennium Development Goals of reducing infant and under-five mortality rates(Unicef, 2012a).

## b) Program Design

The implementation of the program has evolved in three phases:
Phase 1: Program adaptation and introduction (1998-2000)
Phase 2: Program piloting (2000-2002)
Phase 3: Program scale-up (2003-2010) (Unicef, 2012a)

During phase 1, a national working group oversaw and adapted IMCI training curriculum and training materials, developed job aids and mother's agenda, reviewed and included the list of IMCI drugs in the List of Essential Medicines. The adapted IMCI package was reviewed and received approval from WHO Euro office.

Phase 2 included training of the national team of trainers and initial training of PHC workers in the pilot district, national supervisors, and adaptation of training curriculum to add the module Care for Development, revision and printing of Mother's Agenda and Parents' Guide.

During phase 3, the training of family physicians, nurses, and physicians in hospital has received the IMCI course, and it can cover over 90% of region in Moldova. As for informational support, the job support for health providers included 9 item-packages for health personnel that included training modules and job aids, including patient assessment guideline and timers for counting breathing frequency. The other aspect is about supervision. The supervision is a well-coordinated process of regular visits, when the supervisor observes the practice of the FPs in following IMCI standards and producing quarterly reports.

| Goal | | | | |
|---|---|---|---|---|
| To decrease infant and child under 5 years old mortality and to improve the child health and development in Republic of Moldova by ensuring improved health care services and improving family and community practices. | | | | |
| **Inputs** | **Activities** | **Outputs** | **Outcomes** | **Impact** |
| • Staff time<br>• Materials<br>• Trainings<br>• Partnerships<br>• National Leadership | • Development of IMCI training curriculum<br>• Trainings<br>• IEC distribution<br>• M&E system<br>• IMCI clinical implementation<br>• Reporting | • 60% of PHC workers with correct knowledge and skills<br>• Health managers with supervision skills<br>• 50% of PHC systematically supervised<br>• 60% families receiving Mother's agenda | • 80% PHC provide quality IMCI<br>• 20% increase in care providers applying positive care practices<br>• Maintain vaccination rate>95% | • Reduced IMR<br>• Reduced USMR<br>• Improved child health |
| **Enabling Factors**<br>• MoH Leadership and coordination of the IMCI<br>• National ownership of the IMCI initiative (integration within national standards and requirements)<br>• Universal Access to IMCI basic benefits package under health insurance | | | | |

Table 5 Logical framework of the IMCI program in the Republic of Moldova

*Source: Unicef. (2012). Evaluation of Integrated Management of Childhood Illnesses Initiative in the Republic of Moldova Years 2000-2010 Final Report.*

### 3. Evaluation

The evaluation revolves around the evaluation criteria stipulated above: (i) relevance, (ii) efficiency, (iii) effectiveness, (iv) impact, (v) equity and (vi) sustainability.

- The inputs of the IMCI program in Moldova (training and supervision components) were well-designed, high quality and high-coverage. Some 90% of family physicians (FPs) on the Right Bank 95% on the Left Bank were covered with standard training. For nurses, the coverage is lower at 41% on the Right Bank and 71% on the Left Bank. Physicians acknowledged a high level of satisfaction with the quality and relevance of training and coverage with continuous supervision system.
- Both physicians and caregivers expressed a high level of awareness and use of Mother's agenda, a tool used for increasing caregivers knowledge about child feeding and development, knowledge of danger signs, immunizations and trauma prevention, but noted its limited supply at present. The total number of 200,000 copies of Mother's Agenda printed with UNICEF support throughout the ten years period, seems to be highly insufficient, since the current total number of children of 0-5 years on the Right Bank is 191,000.
- The expected program outputs have been achieved and exceeded. Higher proportion of PHC workers were covered with training (90% compared to original 60%), and higher proportion of caregivers received Mother's Agenda (72% compared to original 60%).

- Knowledge of IMCI content by physicians is good: 90% of them were able to name 3-4 out of 4 listed danger signs; 94% have mentioned IMCI signs for pneumonia and 95% the correct antibiotic of choice in treating pneumonia; 95% named at least 3 signs of diarrhea, 99% screening for anemia based on palm paleness and 61% named 3 or more early stimulation techniques.
- High proportions of caregivers have mentioned that FPs have counseled them for immunizations (85.3%), child feeding (82%) and danger signs (77%), and lower proportion have talked to their doctor about child development (57%) and trauma prevention (60%). Over two-thirds (72%) have received mother's agenda.
- IMCI process indicators as reported by the national M&E system in 2010 include:
  - 80% of children assessed through IMCI patient evaluation tool
  - 8% of children identified with danger signs
  - 24% of children hospitalized (declining from 33% in 2008)
  - 17% of children identified with anemia based on palm paleness
  - 92% of children receiving Vitamin D until the age of 2 years
- Nationwide outcomes have shown mixed results:
  - Immunization coverage went up until 2007 and then declined to a decade low 93% for diphtheria, tetanus, pertussis (DTP), but is still over 90% for all immunizations, despite an increasing caregiver active opposition to immunizations.
  - Malnutrition rate for under-one-year has significantly declined from 80 to 28 per 1,000 children under one year and for under-5 from 23 to 11 per 1,000 children under 5 years (comparison years 2000, 2010).
  - Anemia rates have increased from 74.1 per 1,000 children of 0-5 years to 116.2 in 2010, possibly due to better screening as well, but the proportion of children receiving iron supplement is low (20% average based on six selected sites reporting correctly in 2010).
- Practices of caregivers who are in contact with PHC physicians have shown good levels:
  - Some 95% mothers breastfed their children since birth, with an average length of breastfeeding of 11 months. The majority (87%) were breastfed at least 6 months and 36.3% over 12 months. The average age of introducing solid foods was 5.5 months.
  - Some 88% were able to mention at least two danger signs (compared to 73.0% in MICS 2000 and 81.0% in ECD 2009).(Unicef, 2012a)

**4. Funding**

The total amount of funds disbursed by UNICEF and its implementing partners for the IMCI program for the years 2000-2010 was US$ 1,038,720, with most intense spending occurring in years 2005-2008.

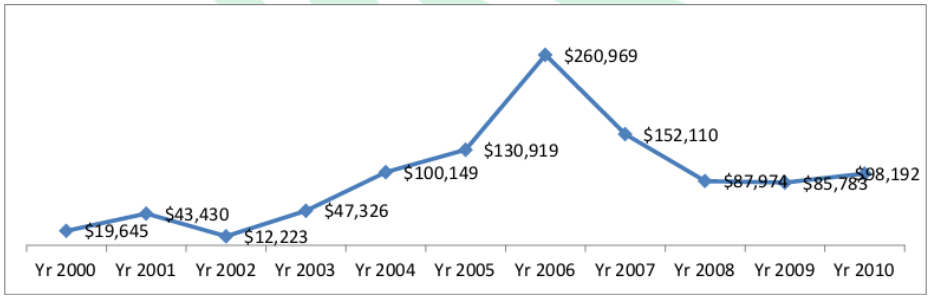


Figure 13 IMCI program costs, as registered by UNICEF Moldova, years 2000-2010

*Source: Unicef. (2012). Evaluation of Integrated Management of Childhood Illnesses Initiative in the Republic of Moldova Years 2000-2010 Final Report.*

No details were available regarding types of expenditures and other in-kind contributions in order to be able to analyze cost-effectiveness of the program. The in-kind contributions of the national counterparts are not possible to be assessed, as there was no monitoring in place of any IMCI-related expenditures, staff time and logistic support. Yet, the qualitative interviews revealed that key informants perceived the IMCI program to operate at a high cost-effectiveness rate and yielded important return of investments: "All the financial inputs have been fully recovered, we have saved many lives of children, this is my personal opinion, I work with children on a daily basis and I see the effect".

**Other Cases Recommended to Study:**

The cases listed below are also typical and innovative ECD intervations, with focus on different aspects of ECD. If time and energy permits, it's recommended that these cases be studied.

- Nepal: **Kheldai Sikdai ("Learning while Playing")** - Using Communications to Reach Parents and Communities on ECD
- Maldives: **First StepsProgramme**
- Kenya: **Speak for the ChildProgramme**
- Indonesia: **Posyandu Integrated Service Posts**
- Lao PDR: **Village-Based ECD Curriculum Development**
- WHO: **Expanded Programme on Immunization (EPI)**

### 2.4.2 ECD in Social Policies

UNICEF has been advocating for ECD policies at the global as well as at country level. General Comment #7 on Implementing Rights in Early Childhood of the CRC (2005) creates an opportunity to hold "state parties" responsible for the physical, social-emotional, and language-cognitive development of young children, as well as eradicating child labour.

Some of the recent developments in advocacy efforts for ECD at the global level include the Secretary General's Report on *the Status of the Convention on the Rights of the Child*, which was developed in 2010. This report calls on governments, international actors, civil society, communities and families to strengthen their efforts to ensure the full realization of children's rights in early childhood. The report triggered a positive reaction and consequently, UN General Assembly adopted the *Omnibus Resolution on CRC in early years* during its 65th Session. These high level policy documents represent a new call for action to invest adequate resources in the provision of required services for young children.

Creation and implementation of ECD national policies or mainstreaming of ECD into social policies in programme countries is critical in setting-up a broader range of integrated ECD programmes and family support initiatives. Governments are increasingly acknowledging the need for social policies that support the development of the young generation. Increased research is leading to new evidence and more stakeholders advocating for effective support are behind this emerging pattern.

UNICEF, in collaboration with other international agencies, governments, civil society and NGOs, advocates for National Early Childhood Development policies that lay out concrete commitments and guidelines for young children's survival, development and protection. Its ability to support linkages between broad social policies and specific results-based interventions gives UNICEF a comparative advantage.

Close to 70 UNICEF-supported countries either have stand-alone ECD policies or ECD mainstreamed into their social policies, which is a great achievement. However, less than one fifth of those countries have allocated budget for implementation of ECD policies, which is the next step of advocacy for UNICEF and partners. UNICEF is also working with governments, civil society and other partners to bridge the gap in providing access to ECD services for the most marginalized children.

> *Critical Thinking*
> What kind of ECD-related policies are there in your country? How are they implemented?

Policy development or change does not have to be a top-down process, resting solely in the hands of lawmakers and ministry officials. Most importantly, policy is not created in a vacuum. Every local solution, successful research project, or advocacy effort has the potential to influence the thinking of decision-makers about what best supports young children and their families. As parents, teachers, community leaders or concerned citizens, we can all impact on robust and effective policy formation.

### 2.4.3 ECD in Emergencies

Very young children are particularly vulnerable in situations of crisis, instability and violence. The formative years from birth to age eight (particularly in the 0-2 year age group) play a vital role in the formation of intelligence, personality and social behavior. The greatest risk for young children is a repressive environment that blocks creativity and lacks conditions for healthy physical and mental development. Natural disasters and armed conflict can severely impact the healthy physical, mental and emotional development of young children.

In the immediate stage of an emergency, UNICEF assesses the status of young children and gathers information to determine which needs are most pertinent. The restoration of primary health care services, mother-and-child and nutrition services, as well as access to clean water and a hygienic environment are key parts of an integrated early childhood development response in emergencies. Reaching parents and caregivers and working with them is vital for ensuring stability for young children in emergency situations. To this end, UNICEF trains and supports caregivers.

**Nutrition Programmes**

It is estimated that over 200 million children under 5 years of age in the developing world have significantly impaired growth. The long term effects on human capital are profound. In famine situations children under five are particularly vulnerable.

Emergency nutrition programmes provide an ideal opportunity to feed the body and to feed the mind.

They are already widely recognized as an entry point for integrated, holistic care. When a mother or another caregiver brings the child for nutritional supplements they usually receive education in multiple related domains: such as breastfeeding, good nutrition, weaning, hygiene promotion, looking after a sick child, HIV prevention, family planning and the importance of proper spacing between children. This is also the best time to teach the importance of early childhood stimulation, responsive parenting and to improve maternal knowledge of early child development.

Emergency feeding programmes in famine affected countries take a variety of forms. Methods of delivery differ according to the political and geographical context, but contain many of the same core components. These include Supplementary Feeding Programmes (SFP) for undernourished children where families usually attend fortnightly to collect rations to supplement the child's diet; Outreach Therapeutic Programmes (OTP) that support both acutely and moderately malnourished children on an outpatient basis; and stabilization centers or therapeutic feeding programmes where more severely malnourished children, or children who are both malnourished and sick, are admitted with their caregivers to receive intensive care. Children's needs should be addressed through the provision of child friendly spaces and early child development centers which often incorporate nutritional programmes.(Unicef & World Health Organization, n.d.)

**Child Friendly Spaces**

Child Friendly Spaces provide children with essential health services in emergency situations. Just as important, they offer stability in the midst of chaos and allow children to continue schooling, receive psychosocial support and play with other children. A focus on young children's development is a cornerstone to these spaces. Similarly, continuation of young children's early education during a crisis situation is also another priority of UNICEF's ECD programmes.

Child Friendly Spaces (CFSs) are widely used in emergencies as a first response to children's needs and an entry point for working with affected communities. Because CFSs can be established quickly and respond to children's rights to protection, psychosocial well-being, and non-formal education, CFSs are typically used as temporary supports that contribute to the care and protection of children in emergencies. However, they are used also as transitional structures that serve as a bridge to early recovery and long-term supports for vulnerable children. Although different agencies call CFSs different things-safe spaces, child centered spaces, child protection centers or emergency spaces for children- the interventions are all part of a common family of supports for children and young people.

**Early Childhood Development Kit**

The Early Childhood Development Kit was created to strengthen the response for young children caught in conflict or emergencies. In complement to basic services related to young children's hygiene and sanitation, health and nutrition, protection and education, the Kit offers young children access to play, stimulation and early learning opportunities and permits them to retrieve a sense of normalcy. Through this process, young children are in a protective and developmental environment for physical and mental health, optimal growth, lifelong learning, social and emotional competencies and productivity.

The Kit contains materials to help caregivers create a safe learning environment for up to 50 young children ages 0-8. Each item was carefully selected to help develop skills for thinking, speaking, feeling

and interacting with others. Contents include: puzzles and games; counting circle and boxes to stack and sort; board books and puppets for storytelling; art supplies; soaps and water containers for promoting hygiene.("United Nations Children's Fund," n.d.)

Inside the kit, caregivers will also find an easy-to-use Activity Guide filled with suggestions on how to use each item based on children's age and interest. Additional web based supportive materials include a Trainer's Guide and a Coordinator's Guide. Together these provide programmers detailed guidance on all aspects of planning, implementing and evaluating the ECD Kit.

## 2.5 Special Considerations in Early Child Development - Disability & ECD

Experiences in early childhood have obvious impacts on the entire process of an individual's life. What is more, ECD provides a significant window of chance to prepare the foundation of life-long learning and participation, while preventing potential delays in development and disabilities. It is vital to guarantee access to interventions that is helpful for children who suffer disability to find their full potential.

Disabled children differ from other wholesome children not only in their disabled function part, but also in their life circumstances. Disabled children are more vulnerable, exposed to more risks during their development. They are also frequently ignored in mainstream programmes and services designed to enhance child development. Furthermore, disabled children do not receive the specific supports that are necessary to meet their rights and needs. Compared with wholesome children, disabled children and their families meet more obstacles including inadequate legislation and policies, unjust treatment, and lack of accessible environments as well. They are more likely to experience social isolation and exclusion. What is more, a number of weak and small-scale studies found that children with all types of disabilities are abused more often than children without disabilities (Davis & MSSW, 2004). Children with any kind of disabilities have a greater risk of developing mental health problems than children without disabilities (Dix, Shearer, Slee, Butcher, & Australia, 2010).

Children's difficulties will be more serious is their developmental delays or disabilities and families' problem fail to receive timely and proper intervention, and the severe consequences usually lead to increased poverty and further exclusion (Unicef, 2012b).

The CRC states that children who suffer from disabilities have the same rights as other children, including health care, nutrition, dignity, education, protection, and equality, etc. What is more, disabled child should receive effective assistance education and vocational services (Unicef, 1989). Fundamental to effort is between UN agencies and related stakeholders to identify sustainable strategies which build on exiting efforts, and enlarge multisectoral approaches to guarantee the rights of young children with disabilities and their families.

**Related Programmes**

The case for early childhood intervention to promote development and prevent disability is supported by ethical principles as well as practical considerations. From an ethical standpoint, a fundamental

responsibility of parents and caregivers in every society is to nurture its youngest for full membership in that society. (Simeonsson, 1991)

**Disability and Inclusive Education**

Inclusive educational practices are being endorsed internationally. The UNESCO sponsored 'Education for All' initiative, states that all children, including those with disabilities and other special needs, are entitled to equity of educational opportunity. UNESCO and the OECD have also determined that inclusion is the preferred approach to providing schooling for students with special needs. It is widely accepted that the conditions required to allow for successful inclusion are also those that contribute to overall school improvement and high levels of achievement for all children.

As a result, inclusive education has received more attention throughout the region in the last few years. There is movement toward more inclusive schooling in almost every country (Porter, 2001).

**HI HOPES in South Africa**

The importance of the young child in South African policy has been recognized through the inclusion of ECD planning in documents relating to the National Departments of Health, Education and Social Development. Although South Africa is recognized as having progressive and comprehensive policies in place to ensure the rights of people with disabilities, it is also acknowledged that not having a specific budget for children with disabilities means that the needs of these children may be neglected (Department of Social Development, 2009). Due to this gap in service provision HI HOPES (which stands for Home Intervention Hearing and language Opportunities Parent Education Services), a non-governmental, non-profit programme providing free support services to families of infants with a hearing loss, was launched (Storbeck & Moodley, 2010).

## 2.6 Measurements of Early Child Development Outcomes

The measurement of ECD, both at individual and population level, from a 'whole child' perspective is critical to improving the evidence to indicate how well children are developing, improving the effectiveness of intervention programs, and increasing access to effective intervention programs. At population level, two tools are available:

**The UNICEF multiple indicator cluster surveys (MICS)**

The ECD module of the UNICEF MICS includes a multi-faceted early child development index (ECDI) designed to assess by caregiver report whether children (36–59 months of age) are 'on track' in domains of literacy-numeracy, motor skills, approaches to learning, and social-emotional development. Importantly, additional information is also collected on caregiving practices, early learning opportunities and the home environment(UNICEF, 1995).

**The early development instrument (EDI)**

The EDI is a questionnaire, on which kindergarten teachers rate the children's developmental outcomes (4–7 years of age) with respect to physical health and wellbeing, social competencies, emotional maturity, language and cognitive skills, and communication skills and general knowledge. EDI data are routinely

collected at a population level in a few high-income countries as a way to evaluate progress in ECD, and the instrument is currently being piloted in a number of low-income and middle-income countries. In order for the EDI or other ECD population tools to be used effectively, coordination at the national and regional level is required providing clear roles and responsibilities, and accountability(Janus & Offord, 2007)

.

EDI items within these five domains are further divided into subdomains, described in the table below. It can be used for children from the ages of 4 to 7 and includes 104 core items, with several additional questions available as appropriate to local or community needs.

| EDI Domains | Subdomains | Example items |
|---|---|---|
| **Physical Health & Well-being** | Physical readiness for school day | arrives at school hungry |
| | Physical independence | has well-coordinated movements |
| | Gross and fine motor skills | is able to manipulate objects |
| **Social Competence** | Overall social competence | is able to get along with other children |
| | Responsibility and respect | accepts responsibility for actions |
| | Approaches to learning | works independently |
| | Readiness to explore new things | is eager to explore new items |
| **Emotional Maturity** | Prosocial and helping behavior | helps other children in distress |
| | Anxious and fearful behavior | appears unhappy or sad |
| | Appears unhappy or sad | gets into physical fights |
| | Hyperactivity and inattention | is restless |
| **Language & Cognitive Development** | Basic literacy | is able to write own name |
| | Interest in literacy/numeracy, and uses memory | is interested in games involving numbers |
| | Advanced literacy | is able to read sentences |
| | Basic numeracy | is able to count to 20 |
| **Communication Skills and General Knowledge** | (No subdomains) | is able to clearly communicate one's own needs and understand others;<br>shows interest in general knowledge about the world |

Table 6 the early development instrument (EDI) domains

*Source: Janus, M., &Offord, D. R. (2007). Development and psychometric properties of the Early Development Instrument (EDI): A measure of children's school readiness. Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement, 39(1), 1.*

The EDI is a useful population health tool, allowing aggregation and comparison of data from uniform, consistent indicators of children's status at a broad level such as the neighborhood, or the larger community level. Results can be used to identify the need for community resources that can contribute to school readiness.

On analyzing and interpreting results, there are several steps(Janus & Offord, 2007):

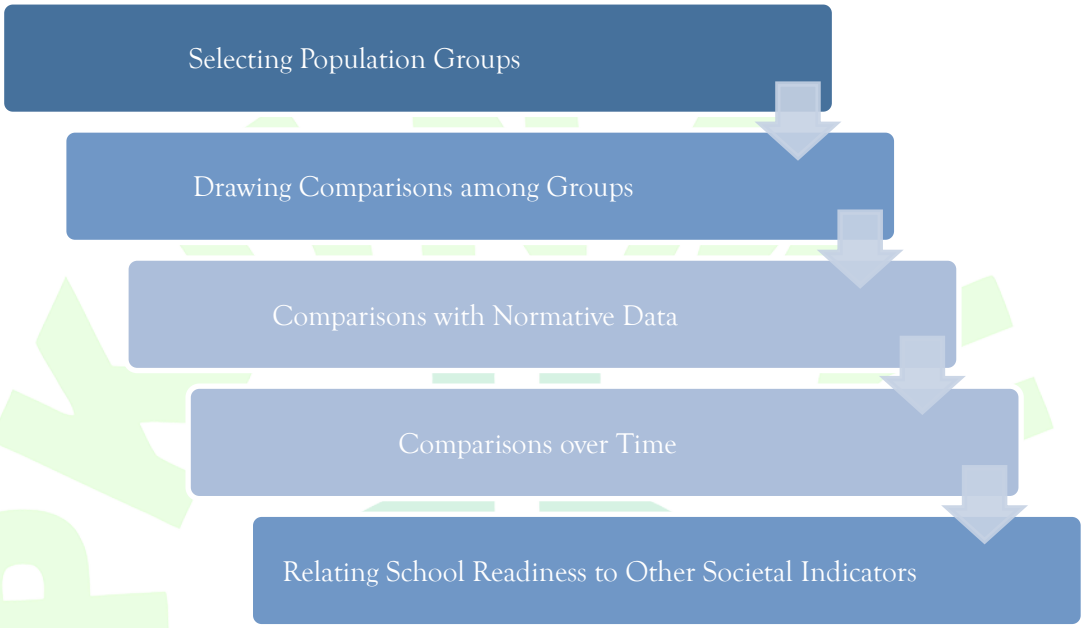


Figure 14 Steps on analyzing and interpreting EDI results

However, there are a number of challenges in presenting accurate data on ECD outcomes.

First, there is no consensus on the definitions, terminology and scope of ECD (e.g. what age group in encompassed in the early childhood period? Or what is the agreed definition for ECD and developmental delay?). Therefore, consensus on a framework for identifying what should be measured, when, and for what purpose is needed to enable the ECD community to provide clear messages on the holistic nature of ECD and the implications for programs and policies. Such a process should be dynamic and updated with emerging evidence.

Second, should we have global indicators? There are two reasons that we may need a global indicator of child development: preparing children for universal schooling and fulfilling children's rights. How can countries be encouraged to invest in preparing children for school success, rather than only focusing changing schools to ensure access? If we had an indicator such as "% children below normal development for 3 years of age" across the countries, then countries could evaluate how they stand compared to others, and track the quality of the environment that is being provided to children. The barriers to having

> ***Critical Thinking***
> Do you think a global indicator is needed? Why and why not?

such an indicator are formidable, including how to define an indicator that is applicable across countries, how to respect local differences in child development, deciding how and who will be able to access this information and how it should be used.

As for drawbacks, a major difficulty in defining a global standard is that it defines the achievement of all children in term of one standard. Values for a child's development differ by culture, which can be at national, class, caste, or local level. Thus it is difficult to have a universal definition of child development since we must accept and preserve differences in cultural definitions of ECD. A second problem is to decide which skills are to be measured. The age of the child at assessment will determine what is assessed; prior to age one, both motor and cognitive functions tend to be assessed. Before three, language and cognitive skills are emerging, but until two years of age they are not generally very predictive of later development. By age three, verbal and cognitive skills are fairly well developed, so a more consistent set of measures can be assessed. Pre-reading and pre-writing skills can be assessed in a child at four or five, but these tend not to emerge earlier(Kolsteren, Hoerée, & Perez-Cueto E, 2001).

### 2.7 Early Child Development & Post-2015 Agenda

The Millennium Development Goals (MDGs) are a framework containing 8 Goals, 18 Targets and 48 Indicators which were chosen in 2001 to highlight key commitments in the Millennium Declaration that could be quantified, and for which there were established indicators for which reasonable data existed. The MDGs are set to expire in 2015 and the conventional wisdom is that, at a global level, indicators for the first seven MDGs (income poverty, primary completion, gender equality in education, nutrition, child mortality, maternal mortality, and water) have all improved since 1990. At a global level three of these seven are 'on-track' (income poverty, gender and water) and three are 'off- track' but not too much so (nutrition, primary completion and child mortality) and one is very 'off-track' (maternal mortality) (Melamed, Claire & Sumner, Andy, cited in The Consultative Group on Early Childhood Care and Development, 2012).

ECD is not one of the issues under current consideration for inclusion in the post-2015 development framework - neither as a goal, and indicator, a target, nor a subject for consideration as part of the framework in any form.

Whether ECD appears in the post-2015 agenda or not, it is obvious that having been the subject of UN Conferences and resolutions throughout the years, ECD is germane to the achievement of many of the priority outcomes that will feature on the post-2015 agenda - poverty reduction, primary education, child survival, nutrition.

Several papers have beening working on positioning ECD in the post-2015 agenda, and they provided some measures to get ECD more focused. (The Consultative Group on Early Childhood Care and Development, 2012, 2013a, 2013b)

## 2.8 Early Child Development: the Way Forward

To push ECD keep developing forward, IOs, governments and experts should do something to identify research needs for evidence-based interventions, to standardize and develop methods of assessment in ECD, and to establish collaborative commitment to promoting universal access to ECD interventions.

In the early years, the primary healthcare system has a pivotal role to play, as it is the point of first contact with the youngest children and their caregiver. The healthcare sector must assume responsibility for ensuring interventions to strengthen ECD outcomes are effectively integrated with existing health and nutrition services. These interventions can serve as a gateway to other early childhood services. Intersectoral collaboration, across primary health care, social sectors, nutrition, education and environmental programs is crucial to ensure a holistic package of care and continuity of support.

In order to move the ECD agenda forward, several knowledge gaps in intervention implementation research were identified. Progress in ensuring universal reach of ECD programs and in promoting effective programs is critically dependent on measurement of ECD outcomes. Consensus is required on a framework for identifying what should be measured, when, and for what purpose in order to enable the ECD community to provide clear messages on the holistic nature of ECD and the implications for programs and policies. This includes having a common understanding of the scope of ECD definitions. Research is urgently required to develop population-based developmental monitoring tools that can inform on ECD progress for children less than three years of age, which would be easily adaptable for use in low-income and middle-income countries.

Lessons on how to take ECD interventions to scale can be learned from successful programs in high-income countries. This requires global leadership, advocacy, investment, partnerships and clarity of messages on what ECD is and why governments should invest in ECD programs (from a child rights perspective, for prevention of later chronic disease and as an approach integral to increasing human capital and sustainable development). It is now recognized that economic development alone is insufficient without investment in human capital formation which begins in building strong foundations from before conception through the early years. In order to advance the ECD agenda, there is a need to strengthen a common discourse, develop simple messages, define the key deliverables and agree a set of indicators to measure progress.

# SECTION 2 COUNTRY CASE STUDY: CAMBODIA

*This country case study describes the condition of ECD in Cambodia. It will help you understand how ECD is implemented in a country, from different aspects like policy, programmes, etc. It is strongly recommended to study the situation of your country like this process.*

In step with its economic expansion, Cambodia has in recent years experienced improvements in some indicators of health, nutrition, and education for infants and children. However, many risks to young children remain. Malnutrition remains a widespread problem, for instance, and a minority of children under 5 currently has access to pre-primary education.Children who are particularly disadvantaged in terms of school access and other factors include those from the poorest families, members of minority ethnic groups, and those who are disabled.

The Royal Government of Cambodia (RGC) has declared its commitment to addressing early childhood development (ECD) in national policies and plans, including the National Policy on Early Childhood Care and Development (ECCD), adopted in February 2010; the National Strategic Development Plan Update for 2009-2013; the Education for All National Plan for 2003-2015; and others. Cambodia's National Policy on ECCD, in particular, articulates a vision that - all Cambodian children, from conception to age six, especially disadvantaged, vulnerable and poor children, shall be provided with care and development services (Council of Ministers 2010). The policy also specifies strategies for achieving this vision, including, for example, establishment of legal frameworks and mechanisms for specifying the duties of key stakeholders and implementing the policy; improvement of monitoring and coordination mechanisms; capacity building for programme practitioners, parents, and guardians; and expansion of access to key health care and education services among pregnant women, infants, and young children.

This case study includes strategies and activities to promote ECD in Cambodia. Most of the study is based on *Evaluation of the UNICEF's Early Childhood Development Programme with Focus on the Government of Netherlands Funding (2008-2010): Cambodia Country Case Study Report*.(Unicef, 2012c)

**Policy, Governace, and Parternship for ECD**

Efforts to promote ECD in Cambodia are governed and implemented through a variety of policies and institutions in multiple sectors. This section summarizes key policies and institutions that provide a framework for ECD advancement and service delivery in Cambodia. It then reviews donor and NGO partners engaged in resource provision and programming for ECD in Cambodia.

***Relavant Policies***

Policies and plans that address aspects of ECD in Cambodia have been established in the education, health, and social protection sectors. In addition, the National Programme on Sub-National Democratic Development, which focuses on decentralization and deconcentration (D&D) of administrative functions, has important implications for oversight and delivery of social services to children and families. The table below presents key policies and plans that address ECD in each sector, along with national and local institutions involved in implementing policy. We describe the relevance of key policies to ECD briefly below.

| Sector/Policy Area | | | | |
|---|---|---|---|---|
| | **Education** | **Health** | **Social Protection** | **Decentralization and Deconcentration** |
| **Policies and Plans** | Law on Education (2007)<br><br>Education Sector Plan and Strategic Support Plan (2006-2010)<br><br>Education for All National Plan (2003-2015)<br><br>Policy on Education of Children with Disabilities (2008) and Master Plan (2009-2011) | National Policy on Infant and Young Child Feeding (updated 2008)<br><br>National Nutrition Strategy (2009-2015) | Law on Protection and Promotion of the Rights of Persons with Disabilities (2009)<br><br>National Plan of Action for Persons with Disabilities (2009-2011) | Law on Administrative Management of Communes/ Sangkats (2001)<br><br>Strategic Framework on D&D Reforms (2005)<br><br>Law on Administrative Management of the Capital, Province, Municipality, District, and Khan (Organic Law, 2008) |
| National Strategic Development Plan, 2006-2010 (intersectoral)<br>National Policy on ECCD, 2010 (intersectoral) | | | | |
| **National-Level Institutions** | Ministry of Education, Youth and Sports | Ministry of Health | Ministry of Social Affairs, Veterans, and Youth Rehabilitation<br>Ministry of Women's Affairs | Ministry of Interior<br>National Committee for Sub-National Democratic Development (NCDD) |
| | **Education** | **Health** | **Social Protection** | **Decentralization and Deconcentration** |
| **Provincial and Local-Level Institutions** | Provincial and District Offices of Education | Provincial Health Departments<br>Operational Districts<br>Local Health Centers | Provincial and District Offices of Social Affairs, Veterans, and Youth<br>Provincial and District Offices of Women's Affairs | Provincial and District Local Administrative Units<br>Communes/ Commune Committees on Women and Children |

Table 7 Policies and Governance for ECD in Cambodia

*Sources: UNICEF Cambodia, Cambodia country visit and document review.*

### *Education*

Laws and strategic plans for education in Cambodia reveal an increasing emphasis on expanding access to pre-primary education through low-cost, community- and home-based services, rather than by expanding formal, state-funded preschools. Cambodia's 2007 Education Law delineates the scope of the education system and declares that the state will support early childcare and education for children from birth though kindergarten, primarily through community-based centers or at home. Commitments to expand early childhood education appear in the Education for All National Plan for 2003-2015, which highlights priorities including increased overall enrollment in pre-primary education, community-supported services, and access among the poorest families. The Education Sector Plan (ESP) and Education Strategic Support Plan (ESSP) for 2006-2010 establish strategies and targets for MOEYS, including its efforts in pre-primary education, and specify ministry funding levels for pre-primary education services. ESP and ESSP detail two national enrollment targets for pre-primary education: (1) increasing enrollment among 5-year-old children to 50 percent by 2010, and (2) increasing enrollment of 3-to-5-year-olds to 30 percent. Education sector policies also are in place to address inclusion for children with disabilities. The National Policy on Education of Children with Disabilities, adopted in 2008, outlines strategies and an implementation plan for increasing awareness and acceptance of children with disabilities, providing early identification and intervention services, and facilitating enrollment.

### *Nutrition and Health*

ECD-related goals in nutrition and health policies and plans include improving the nutritional status of women and young children, increasing access to maternal and newborn health services, and enhancing family practices related to child health. Cambodia's first National Nutrition Strategy, covering 2008-2015, specifies among its objectives increased rates of early and exclusive breastfeeding, increased complementary feeding, and increased rates of appropriate care for and feeding of sick children. Accordingly, the strategy stresses expanded coverage of interventions in these areas, including BFCI to promote breastfeeding and C-IMCI to promote positive care practices for sick children. The National Policy on Infant and Young Child Feeding, updated in 2008, also focuses on promotion of exclusive breastfeeding during a child's first six months and appropriate complementary feeding thereafter. The Health Strategic Plan for 2008-2015 addresses ECD-related issues in discussion of the reproductive, maternal, neonatal, and child health programme area, which includes objectives related to the nutritional status of women and children, as well as access to child health services and better family practices for health.

### *Social Protection and Inclusion*

Policies and plans addressing the rights of people with disabilities are emerging. The Law on Protection and Promotion of the Rights of Persons with Disabilities, passed in 2009, is intended to protect the interests of the disabled, prevent discrimination, and promote full participation in society. It includes provisions requiring the expansion of community-based rehabilitation services and the development of plans and strategies to promote inclusive education and make educational facilities accessible. The National Plan of Action for Persons with Disabilities, covering 2008-2011, lays out goals, objectives, and actions for addressing the rights and needs of the disabled. Its agenda addresses psychological support and education inclusion for all children with disabilities.

### *Decentralization and Deconcentration*

The Organic Laws of 2001 and 2008 and the Strategic Framework on Decentralization and Deconcentration Reforms, issued in 2005, are key elements of efforts to promote good governance and to devolve government functions, thereby increasing efficiency, accountability, and responsiveness. These policies have relevance for ECD in that they establish and define the functions of commune councils (local elected governing bodies that work with village chiefs and other community stakeholders to administer services and address issues across villages within their boundaries). Communes are responsible for ensuring the delivery of some social services, including pre-primary education, although they are not direct service providers. Commune councils are also responsible for monitoring and responding to issues and concerns aired through Commune Committees for Women and Children (CCWCs), which are advisory committees focusing on issues related to women and children.

### *Inter-sectoral Policy*

The National Policy on ECCD, endorsed in February 2010, establishes a vision, goals, and objectives with respect to care and development of young children. The policy stresses the provision of integrated, holistic ECCD services for all children from conception to age 6. It designates MOEYS as the coordinating agency for the policy and specifies roles and responsibilities for ECD across 11 ministries, parents and families, and development partners and civil society.

### *Governance Structures for ECD*

At the national level, ministries including MOEYS; the Ministry of Health (MOH); the Ministry of Women's Affairs (MOWA); and the Ministry of Social Affairs, Veterans, and Youth Rehabilitation (MOSVY) take lead roles in developing policy and overseeing services related to ECD. The MOI provides guidance for local governing bodies (communes) that fund and implement certain social services. Provincial- and district-level offices linked to each ministry implement monitoring and technical assistance functions at sub-national levels. Key ECD services overseen by these agencies include pre-primary education (state preschool [SPS], CPS, HBP), PS, breastfeeding promotion and community-based promotion of child health (BFCI and C-IMCI), and community-based rehabilitation (CBR) for children with disabilities.

Ministries and other agencies collaborate on the provision of some ECD-related services. For instance, MOEYS and MOWA both have roles and responsibilities in community-based early childhood and PS initiatives. For the PS initiative, MOWA is primarily responsible for planning programme implementation, training facilitators in organizing sessions, and conducting some monitoring, while MOEYS administers training on parenting skills and provides inputs to the content of education sessions.

The D&D process of government reform and subnational administration has established new governance structures relevant to early childhood services at the local level-specifically, commune councils-as described above. Commune councils are responsible for budgets related to infrastructure projects and some social services, including CPS. The councils oversee CPS budgets and contracting with CPS teachers. In addition, each council is expected to designate a Focal Point for Women and Children (FPWC), who advises and supports the council on projects benefiting women and children and serves as a link to CCWCs. Among the duties of the FPWC are monitoring attendance at CPS and HBP sites in

the commune and mobilizing resources for CPS.

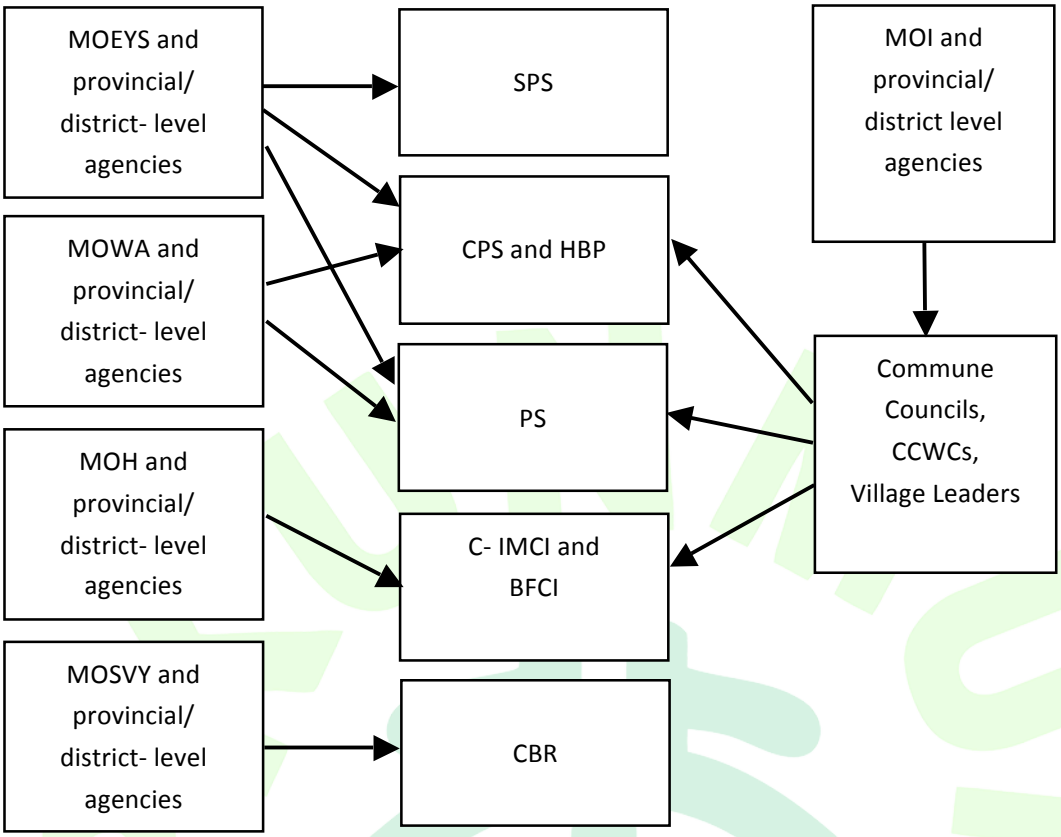


Figure 15 Links Among Ministries/Local Agencies and Services and Initiatives for ECD

*Source: UNICEF Cambodia and document review.*

### *Key Partnerships*

Multilateral agencies, donors, and NGOs that espouse an explicit focus on ECD or pre-primary educationin Cambodia make up a small group. Multilateral agencies and donors who have incorporated ECD intoprogramming and plans include UNICEF, UNESCO, the World Bank, and the Fast Track Initiative (FTI).These agencies have engaged in technical assistance to build national and local capacity andcoordination for ECD, and, in the case of FTI, provided resources for expanding pre-primary educationcoverage substantially. International NGOs including Save the Children Norway, Plan International,Handicap International, and CARE International have taken roles in supporting ECD services incommunities and developing models of ECD service delivery. Local NGOs, such as KroesurYoengandNew Humanity, also advocate and provide community services for ECD. The ECCD TechnicalCoordinating Committee has been a forum for communication among development partners addressingECD and contributed to development of the national policy on ECCD. In contrast to the relatively smallnumber of agencies and organizations focused on ECD per se or pre-primary education, developmentpartners working in Cambodia's health and nutrition sector are numerous and include bilateral and globaldonors, NGOs, and educational institutions.

### ECD Programmes & Design

This section describes key ECD services and initiatives that have been a focus of UNICEF's efforts in

collaboration with its partners. It then presents a logical framework for ECD programming in the UNICEF-Government of Cambodia Cooperation Programme, which we based on data collected and reviewed for the case study. This framework provides a means for documenting and understanding the strategies adopted and outcomes anticipated for ECD programming. Finally, we describe the positioning of ECD within the UNICEF Cambodia country office, provisions for collaboration on ECD across sections, and financial resources allocated to ECD strategies.

### *Overview of ECD Services and Initiatives*

A variety of services and initiatives support ECD in Cambodia by addressing the education, health, and nutrition needs of young children and their families. This section describes key services related to pre-primary education, community-based health and nutrition promotion, parenting support, and inclusion and rehabilitation for children with disabilities-areas related to ECD that have been emphasized in the UNICEF-RGC Programme of Cooperation.

### *Pre-Primary Education*

Three publicly supported models of pre-primary education exist in Cambodia: (1) state preschools, (2) community preschools, and (3) HBP. MOEYS establishes curricula for all three models. SPS and CPS are intended to serve children ages 3 to 5, while HBP serves children from birth up to age 5. Key characteristics of each model are as follows:

- **SPS**. SPS have been in operation at least since the year 2000, and possibly earlier. (The exact year of their establishment is unknown.) These schools are usually attached to primary schools and provide a three-hour-per-day session, five days per week during the school year (38 weeks per year). SPS teachers must have 12 years of basic education (9 years for those working in disadvantaged areas) and two years of training at the national teacher training institute. (We did not find information regarding ongoing training requirements for SPS teachers.) Teachers are government employees, receiving a monthly salary of approximately US$20.

- **CPS**. The CPS model, started in 2004, targets children ages 3 to 5 in rural villages or communities. Communes are responsible for identifying locations and mobilizing resources for the preschool, as well as contracting with teachers. Classes are held five days a week for two hours each day, 24 to 36 weeks per year. They may take place under the teacher's home, in a community shelter, or in an open area in a village. CPS teachers in UNICEF-supported provinces receive a small stipend of about US$8 per month, which can be supplemented by the commune. They are required to have at least six years of basic education and are expected to receive 8 to 10 days of initial training and 5 to 8 days of annual in-service training.

- **HBP**. The HBP model, a two-generational approach initiated in 2004, serves parents and children ages 0 to 5 together. Core mothers, who are volunteers, facilitate groups of mothers and children that generally meet once a week or once a month at the time and location of their choice. The core mother may oversee multiple mother team leaders who facilitate separate groups. The content of HBP sessions follows a calendar provided by MOEYS. Sessions focus on educating parents about stages of development, encouraging child-friendly caregiving, and demonstrating techniques and activities that promote children's competencies and skills using readily available materials. The

programme also addresses sanitation and nutrition issues. Core mothers receive approximately six days of pre-service training and are expected to have refresher training each year.

Of the three preschool models, SPS currently serves the largest percentage of children (see Figure 16). Approximately 156,000 children ages 3 to 5 attended one of the three types of preschool during the 2009-2010 school year. Of this total, 64 percent attended SPS, 21 percent attended CPS, and 15 percent attended HBP.

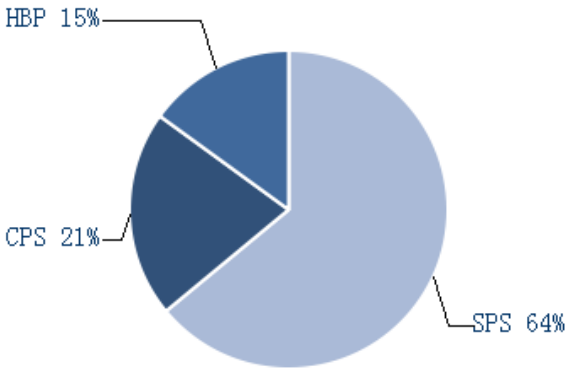


Figure 162009-2010 Enrollment of Children Ages 3 to 5 in SPS, CPS, and HBP, as a Percentage of All Children Enrolled

*Source:* MOEYS 2010b.