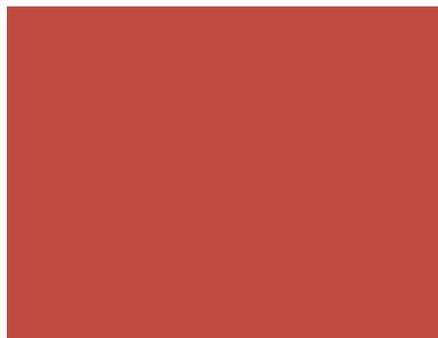


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# MEETING REPORT

## Nurturing human capital along the life course: Investing in early child development

World Health Organization, Geneva, Switzerland  
10-11 January 2013



**World Health  
Organization**



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# Contents

Acknowledgements	iv
Abbreviations	v
1 Introduction	1
2 Influences on early child development and the life course	3
3 Social determinants of early child development	6
4 Effective interventions to improve early child development outcomes	8
5 Measurement of early child development outcomes	10
6 Scaling-up effective early child development interventions	12
7 Key messages and the way forward	13
Selected references	15
<b>Annexes</b>	
1 Meeting agenda	17
2 Meeting participants	19

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# Acknowledgements

This document is the report of the meeting organized by the World Health Organization (WHO) on 'Nurturing human capital along the life course: Investing in early child development'. The meeting was organized by the WHO Departments of Maternal, Newborn, Child and Adolescent Health, Mental Health and Substance Abuse, and Reproductive Health and Research. Collaborating departments included the Departments of Chronic Diseases and Health Promotion, Nutrition for Health and Development, Ethics and Social Determinants of Health, Violence and Injury Prevention, Management of Non-communicable Diseases, and Prevention of Non-communicable Diseases.

WHO would like to thank Grand Challenges Canada for providing financial support to facilitate participation of some of the experts in the meeting. WHO also thanks Melissa Gladstone, Mark Hanson, Betty Kirkwood, Raghu Lingam, Betty Kirkwood, Atif Rahman and Linda Richter for developing the background papers for the meeting.

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# Abbreviations

CCT	Conditional Cash Transfers
ECD	Early Child Development
ECDI	Early Child Development Index
EDI	Early Development Instrument
ICF-CY	International Classification of Functioning, Disability and Health for Children and Youth
MICS	Multiple Indicator Cluster Surveys
UNICEF	United Nations Children’s Fund
WHO	World Health Organization



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# 1. Introduction

## Rationale for the meeting

There has been substantial progress in reducing global child mortality, with a 41% decline in the under-five mortality rate since 1990. However, for children that survive, exposure to the multiple risks that threaten their survival prevents them from meeting their development potential. It is estimated that annually over 200 million children have significantly impaired growth and development. Those who experience low birth-weight, poor nourishment, illness, disabilities or inadequate psychosocial care are at particular risk. These risks are compounded by social determinants like poverty, the absence of water and sanitation, environmental influences such as noise, stress and pollution, poor parental education, maternal depression, violence, and conflict. The long-term effects of these risks on adult health and human capital are profound. Interventions that optimize children's developmental trajectories not only enable young children to survive and thrive, but also benefit human capital formation by: (1) improvement of cognitive, social, emotional and behavioural development favouring creativity and productivity; (2) improvement of long term health outcomes and; (3) reduction of health and socio-economic inequalities.

The early childhood years provide an important window of opportunity to build a strong foundation for future development. Young children have maximum plasticity of neuronal systems; they are not only vulnerable to environmental influences, but also capable of benefitting from interventions that mitigate risk and promote capacity and resilience. Interventions to address health, nutrition and provision of safe physical, chemical and biological environments can be delivered alongside interventions that support caregivers to provide a stable, warm and engaged family environment for learning. Adopting a life course approach is essential to provide young children with the best start in life. Helping adolescents to adopt healthy lifestyles and prepare for parenthood, as well as ensuring that adolescents, women and men receive preconception and prenatal

care will also benefit healthy early development for the next generation.

Health services have an important contribution to make in promoting and supporting early child development (ECD). Contacts with health services offer opportunities to promote healthy development and identify children with developmental difficulties in order to provide them with appropriate services. However, implementation and the evaluation of ECD programmes at scale have been limited, especially in low- and middle-income countries.

The post-MDG agenda demands a place for ECD at the centre of the human development approach. Much more has yet to be learned in order to move forward the ECD agenda, and the World Health Organization (WHO) can help to identify a global agenda and contribute through its normative strengths. The purpose of this meeting was therefore to bring together experts in the field to identify research needs for evidence-based interventions, to standardize and develop consensus on methods of assessment of ECD, and to establish a collaborative commitment to promoting universal access to ECD interventions.

## Objectives

Four key objectives were identified for the meeting:

1. to describe the state-of-the-art evidence and promising ongoing research on pathways and factors that influence children's development;
2. to share evidence of effective interventions to promote development in early childhood using a life course approach;
3. to review indicators and tools for developmental assessment, and methods for improving the epidemiological information around ECD;
4. to learn from the experiences of implementing effective ECD programmes at scale, and to discuss translational issues for low- and middle-income countries to deliver integrated services at high levels of coverage.

The meeting set out to achieve three expected outcomes: (1) to identify priority actions for implementation and research in each of the four identified objectives; (2) to consider a way forward for harmonization of definitions around ECD; and (3) to follow up on the meeting recommendations and increase investment in ECD in partnership with stakeholders. The discussions were informed by four background papers, namely on influences on ECD and the life course, interventions to promote ECD, measurement of ECD, and a review of large scale implementation programmes in high-income countries that can inform scale up in low- and middle-income countries.

The meeting participants included representatives from WHO, international agencies, foundations and academia (see Annex 2 for the list of participants).

### **Declaration of interest**

All meeting participants were required to declare their potential conflicts of interests. Dr Mark Hanson declared he had a conflicting interest by having accepted research funding from private companies including the food industry. This was carefully considered by the Secretariat and it was decided that there was no conflict with regards to the scope and objectives of the meeting. All other meeting participants declared no conflict of interest.

### **Report content**

This report contains a synthesis of the issues raised in the presentations, discussions and working groups. It concludes with the key messages and future steps for the ECD strategy agenda for action by WHO in partnership with global stakeholders.

## 2. Influences on early child development and the life course

Early child development is influenced by factors across the life course. Our human biological capital is established early in life. The key biological systems (genetic, neural, endocrine, metabolic and immunological) are influenced by early experience and environment. Evidence from human observations and animal experiments demonstrates that pre- and postnatal experiences can influence human biological capital through a number of mechanisms including epigenetic processes.<sup>1</sup> Hence early exposures and experiences impact our developmental trajectories across the life course.

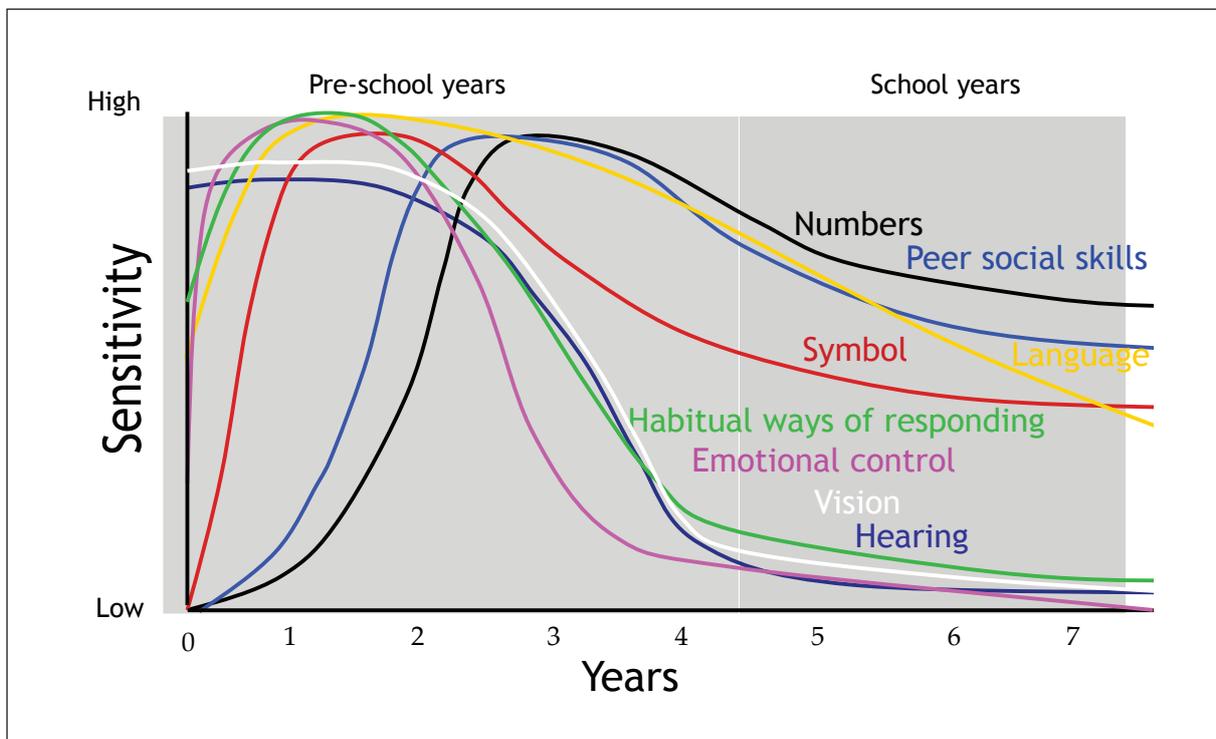
The early years of life, including the prenatal period, are a highly sensitive period for brain development with greater plasticity in the neuronal pathways. As shown in Figure 1, the first three years are especial-

ly important as this is the period of the most rapid growth for optimal learning and brain development. While the process of brain development is fairly robust, the quality of development is modifiable by both risk and protective factors in the early environment. Under-nutrition, environmental toxins, stress (for example as a result of maltreatment or severe maternal depression) can all influence the brain's structure and functioning, with long-term implications for a number of outcomes including health, stress reactivity and memory. At the same time, early preventive and protective interventions can mitigate these risks.

Figure 2 shows that with age, the plasticity of the brain is reduced; however, exposure to risks continues and disadvantages accumulate. Consequently, a

FIGURE 1

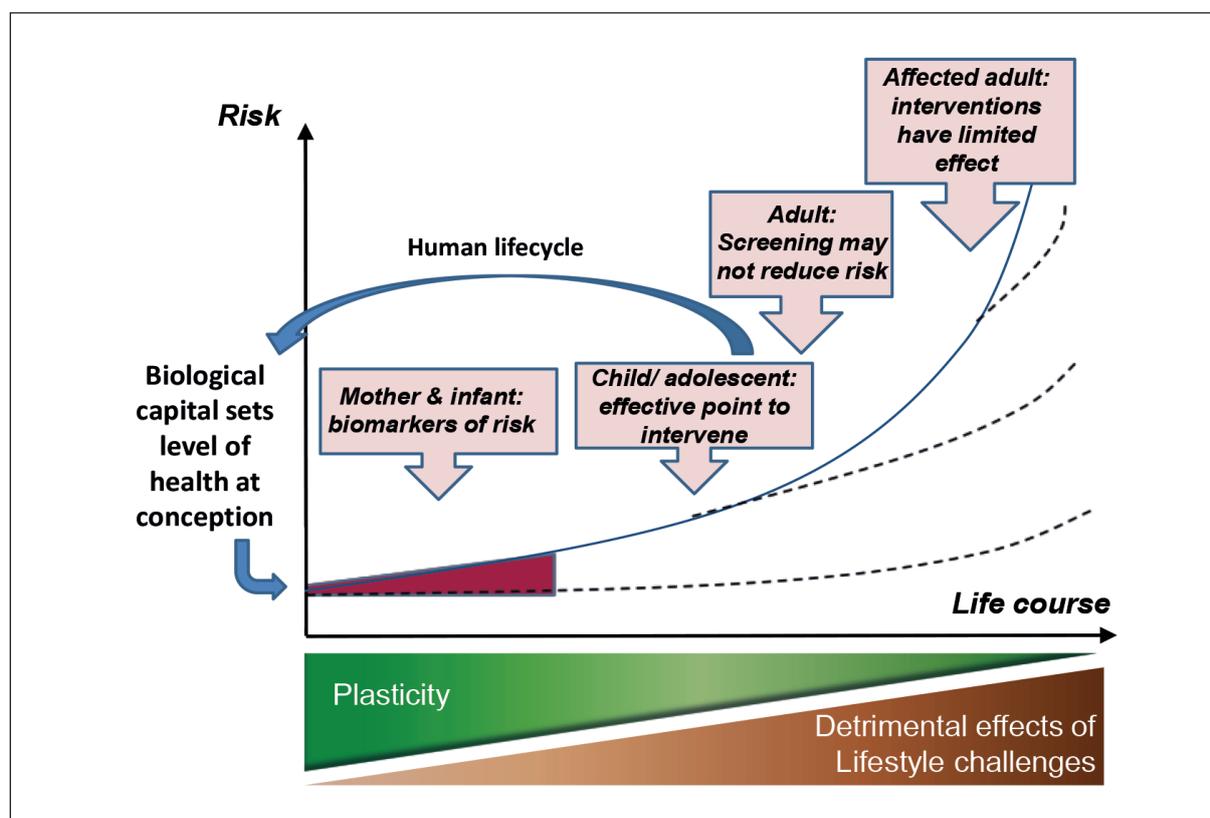
**Sensitive periods of brain development in the early years** (Source: Council for Early Child Development)



<sup>1</sup> The process whereby signals in the environment can lead to long-term changes in gene expression through modification of DNA or associated proteins, and transmission of this information during cell division.

FIGURE 2

**Life course perspective. The sensitive windows of opportunity for interventions to impact ECD are in the preconception period through to 3 years, and in adolescence** (Source: Hanson M, Meeting Presentation: Nurturing Human Capital along the Life Course: Investing in Early Childhood Development, World Health Organization, Geneva, 10-11 January 2013)



healthy developmental trajectory requires appropriately timed exposures in the life course, with particular emphasis on opportunities and protection in early life, to optimize outcomes. These mitigate risk and enhance resilience at the individual level, and consequently shift the curve to improve population health and development.

There are two important windows of opportunity in the life course that support development in the early period:

### 1. Pre-natal through the early years of life

Child development is a gradual unfolding of cognitive-language, social-emotional and sensory-motor capacities. The nurturing environment includes the physical health, mental health and nutritional well-being of the mother from preconception. This should be followed by a safe and stable environment, good health, adequate nutrition, responsive caregiving, opportunities for emotional connections and attachment, and stimulation (i.e. opportunities

to learn). A greater economic return on investment has been reported as a result of early interventions.

WHO and UNICEF have developed the *Care for Child Development* package, which is designed to integrate stimulation and quality caregiver-child interactions into existing health, nutrition, education and community services, including the Integrated Management of Childhood Illness.

### 2. Adolescence and preconception

Adolescence is a second sensitive developmental period in which puberty and brain maturation lead to a new set of behaviours and capacities. Furthermore, adolescents are potentially powerful agents of personal change and community action. In addition to basic health and nutrition care, interventions such as prevention of drug and alcohol abuse, life skills, vocational training, health literacy and preparedness for parenthood can also impact on the ECD of the next generation.

Preconception care and education should be given to both male and female adolescents – aimed at improving their health and also reducing the factors that can contribute to poor maternal and child health outcomes. WHO has developed a *package of preconception care interventions* covering a range of areas that can be addressed in this period, in order to improve maternal and child health outcomes in both the short- and long-term. The interventions address conditions such as vaccine preventable diseases, tobacco and alcohol use, violence, sex education and mental health.

#### KEY MESSAGES

##### **Early child development and the life course**

- **Our human biological capital is established early in life, and is influenced by the quality of the environment.**
- **ECD is influenced by factors across the life course and thus, intervention during sensitive developmental periods in the life course can impact on child, adolescent and adult outcomes by mitigating risks for poor development and enhancing resilience.**
- **Two important periods for interventions to overcome early adversity and to encourage human health and capital formation include: (1) prenatal to early years of life by ensuring the health and nutrition of mothers-to-be as well as the fetus, and by promoting good nutrition and nurturing care environments for young children; (2) adolescence and preconception by ensuring supportive transitions to adulthood and by preparing the next generation of parents.**

### 3. Social determinants of early child development

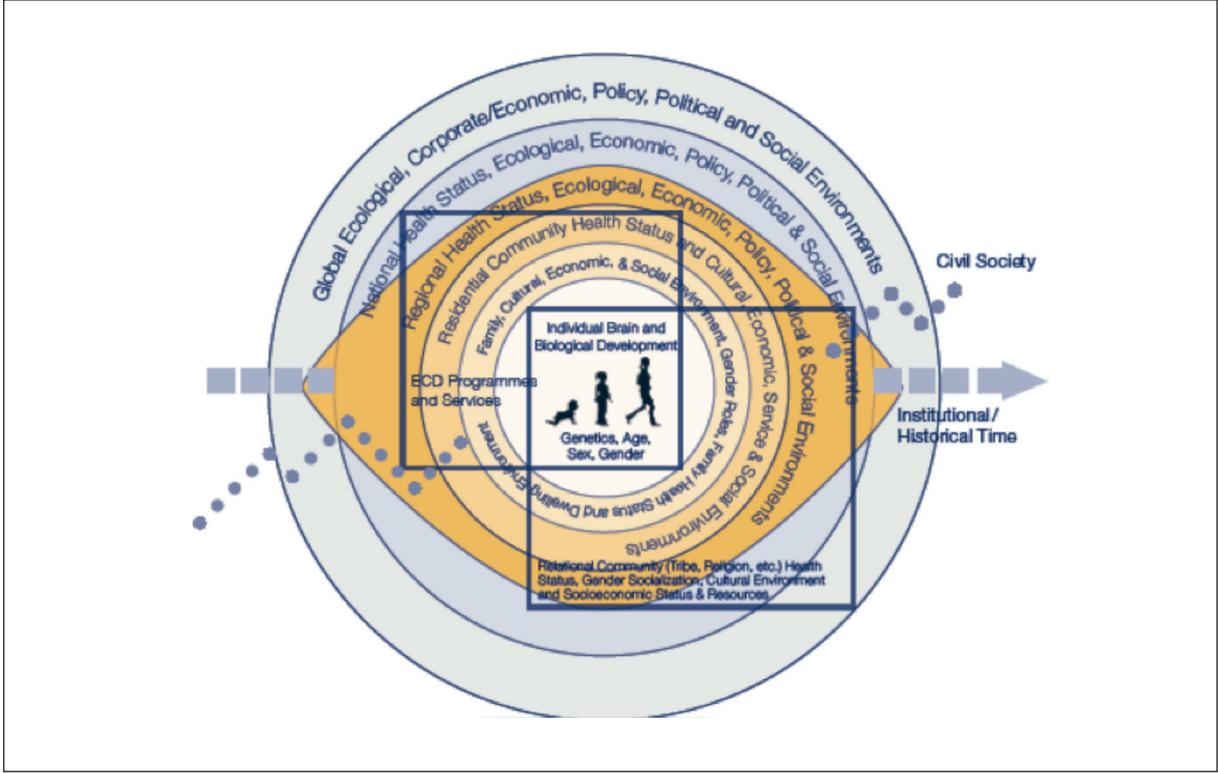
Early environments are powerful determinants of how well children develop and hence can influence their long-term health, learning and behavioural trajectories. As shown in Figure 3, the environmental factors that influence children’s development may be proximal (e.g. the quality of interaction between the parent and child, the opportunities for early stimulation), or they may be distal (e.g. national policy on early childhood care that will impact on the quality of day care services a child may receive).

Inequities in access to health, education and social welfare services can harm or threaten long-term human capital. These inequities are produced by the quality of the environment in which a young child is born, lives, grows and learns. There is a wealth of

data indicating that socio-economic status gradients emerge early and impact on long-term trajectories for health and human capital. For example, evidence from cortisol measurement studies shows that children of mothers with higher educational status experienced lower levels of stress than children of mothers with lower levels of education. In some contexts, gender-bias may create inequities in developmental opportunities (e.g. quality of diet given to girls and their access to school).

Given the layers of proximal and distal environments that will influence a child’s developmental trajectory, interventions can be made at multiple levels by multiple partners. The common goal is to ensure access to optimal environments and quality ECD services

FIGURE 3  
**Early environment matter: Multiple levels of determinants for child development**  
 (Source: Irwin LG, Siddiqi A&Hertzman C (2007). Early Child Development: A Powerful Equalizer, A Report for the WHO Commission on Social Determinants of Health. Geneva: WHO)



that can promote early health and nutrition, parenting capacity and equal opportunities to learn for girls and boys. This is underscored by the United Nation's Convention on the Rights of the Child, which emphasizes the need to render appropriate assistance to families and caregivers of young children to enable them to provide their children with safe and nurturing care.

#### **KEY MESSAGES**

##### **Social determinants of early child development**

- **Early environments matter and are influenced by a range of social determinants that act proximally and distally to impact early development.**
- **Environment ranges from family to communities to ECD services and is shaped by the socio-economic context. Inequities in these environments results in inequities in developmental outcomes.**
- **Families require assistance from society in order to provide supportive environments for their children's development. A framework for ECD intervention must address the multiple levels of determinants and include the multiple stakeholders from different sectors for action.**

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## 4. Effective interventions to improve early child development outcomes

Children require support for health, nutrition and stimulation. These interventions need to be delivered concurrently to promote good physical and mental health, adequate nutrition and growth, and healthy cognitive-language, social-emotional and motor development are all critical. These interventions generally fall into two categories: (1) child-focused interventions designed to enrich early stimulation opportunities through improved exposure to language, literacy, and learning materials; and (2) parent/caregiver focused interventions, including teachers and child care workers, designed to improve sensitivity, knowledge and skills in early responsive care and education, promote quality interactions and enable parents to provide more opportunities for children to learn and gain confidence. The common goal of both categories is to provide optimal stimulation for young children to develop in a safe, stable and nurturing environment. Strategies that support caregivers to provide these interventions are crucial.

A number of studies in low- and middle- income countries have demonstrated short- and longer-term developmental benefits of early intervention programmes delivered in the early years of life. The benefits have tended to be greater when early stimulation and parenting support components are integrated with health and nutrition interventions, when targeted at the very youngest children (i.e. the first three years of life), and when targeted at children with greater risks for poor development (e.g. malnourished children, those living in the poorest communities, children living in adverse environments). A body of research has emerged on integrated nutrition (improving availability of food, food or micronutrient supplementation and/or education) and stimulation interventions that have demonstrated independent and additive benefits to child development and growth. However, far more research is needed to understand how to integrate packages of early child care with respect to synergies, complementarities

### Intervention strategies at key time points in the life course

- **Adolescence and preconception:** Interventions to adopt healthy lifestyles and prepare for parenthood in adolescents; interventions to prevent maternal mortality and morbidity (e.g. pre-eclampsia, gestational diabetes) and prevent childhood mortality and morbidity (e.g. birth defects).
- **Prenatal and perinatal:** Interventions to support family planning, prevent poor pregnancy outcomes (e.g. preterm birth), optimise the course of pregnancy (e.g. management of anaemia, diet, weight gain), and promote maternal psychosocial well-being.
- **The early years:** In infancy through the first three years, important interventions are the promotion of infant-parent(s) bonding and attachment, responsive care and early stimulation, support optimal infant and young child feeding practices (including responsive feeding), prevention and timely management of illnesses, detection of developmental delays and early intervention, and support for maternal psychosocial well-being. As children transition to preschool and beyond, a continuity of good health, adequate nutrition, prevention and timely management of illnesses, detection of developmental delays, and early interventions and support for maternal psychosocial wellbeing are needed. Interventions to support transition to school (e.g. early school readiness programmes, caregiver support and engagement), and learning in safe and supportive preschools/primary schools are also needed.

and optimal timing of messages for health, nutrition and stimulation interventions.

Multiple platforms have been used to deliver ECD programmes (i.e. home visitation, community-based group sessions, clinic contacts and centre programmes); however, evaluations of implementation processes are limited. Some identified key features of success include programmes delivered with high intensity, which appear to be associated with better developmental outcomes. Programmes that provide parents/caregivers with skills and opportunities to try activities with their young child and receive feedback tend to yield greater benefits compared with programmes that impart parenting information only. Another key feature for successful programmes are those that build on what parents already do well by blending traditional non-harmful community practices with new messages. Further data are required to understand better under which conditions, and for which populations different interventions are most effective. Such knowledge coupled with programme innovations will help address taking services to scale and ensuring sustainability.

Scaling up holistic packages of early care (health, nutrition and stimulation) has critical implications for the health sector. Interventions to promote ECD should be universal, with additional interventions for children experiencing poor health, growth faltering or showing signs of delayed development. It is important to ensure these strategies are accessible by children and their families in especially high risk situations (e.g. humanitarian settings, children with developmental delay or disability), but less research is available for promoting developmental potential in these situations.

Children thrive when families thrive; therefore, to advance the state of ECD adequate support needs to be given to the caregivers and families. Support for maternal psychosocial wellbeing is critical for the care of the child. The prevalence of maternal depression is high in low- and middle-income countries, and

has been associated with poor child growth, health and development. Strategies to support mothers are beneficial for mother, child and family. For the poorest families, cash transfer or conditional cash transfer (CCT) programmes target the most economically disadvantaged families and may enable families to invest more in improved nutrition and in learning resources for their young children, and reduce household financial pressure and stress.

#### KEY MESSAGES

##### **Effective interventions to improve early child development interventions**

- **Interventions that impact the early years for greater potential returns on human capital formation include interventions targeting the prenatal period through the early years, and the adolescence and preconception period. The health sector can contribute in many ways.**
- **Interventions should be integrated, ensuring the holistic needs of children are met for health, growth and development.**
- **More research is required on: (1) reaching children at high risk of poor development; (2) integration of maternal psychosocial wellbeing; (3) interventions impacting broader social and economic determinants of ECD; (4) evaluation of what makes ECD programmes effective, under which conditions and for which populations; (5) longitudinal impact of early intervention on health and human capital formation; and (6) evaluation of cost, feasibility, effectiveness and sustainability of integrated early interventions delivered at scale.**

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## 5. Measurement 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 programmes, and increasing access to effective intervention programmes. At population level, two tools are available:

### 1. 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.

### 2. 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- 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.

A clear gap with regard to ECD population measures is the lack of indicators for children younger than three years of age that are holistic and adaptable for different settings. This is critical as universal developmental screening and monitoring during the 0–3 year period would provide information that

communities and decision making bodies could use to inform local, regional and national ECD strategies.

Developmental monitoring, or assessment at an individual level, is another key area of measurement in ECD that requires greater attention. Developmental monitoring should be universal and linked to ECD promotion and early intervention for those identified *at risk*. Examples of how ECD tools can be integrated into health services are in Turkey where a developmental monitoring tool as a set of open-ended interviews was used to monitor development and initiate a dialogue on care for development with the family. In India, *Mumta* cards have incorporated developmental milestones with growth and immunization monitoring as part of a health promotion strategy used by community health workers. A common best practice principle applied in both strategies is the initiation of dialogue on care for development with the family.

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 is 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 programmes and policies. Such a process should be dynamic and updated with emerging evidence.

Most child development assessment tools have been developed for North American or European populations, and require cultural adaptation and norms development if they are to be used reliably and be valid in low- and middle-income settings. It is critical to develop more robust tools for reliable measurement of ECD in international settings. Two global reviews, by the World Bank and Grand Challenges Canada, on the measurement of child development described the available tools for the measurement of different domains of development based on their psychometric properties (including predictive value)

**TERMINOLOGY****Can we reach a consensus?**

- Different organizations have used different age categories ranging from prenatal to eight years of age to define early child development. Reaching consensus is necessary given ECD policy and programme investment implications at country and regional level.
- Different terms are used among different stakeholders: Early Child Development (ECD), Early Childhood Development (ECD), Early Childhood Education (ECE), Early Childhood Care and Development (ECCD), Early Childhood Care and Education (ECCE).
- The domains of development are wide: Physical, Motor, Language, Perception, Temperamental, Cognitive, Social, Emotional, Moral, Psychosexual.
- Delays, Disorders and Disability: The WHO International Classification of Functioning Disability and Health for Children and Youth (ICF-CY) offers one set of guidelines around these terminologies. Are these a helpful starting point for the ECD community?

and the populations in which they have been used. Supplementing these reviews with information on newly developed, adapted and tested tools in the future is essential in order to support ECD research in a wider range of population settings.

**KEY MESSAGES****Measurement of early child development outcomes**

- Available population measures of ECD are (1) the UNICEF MICS Early Child Development Index; and (2) the Early Development Instrument. Both provide indicators on whether children's development is *on track*. Both apply to children three years and older.
- Effective use of population measures helps countries understand data and how these data may inform policy and programme development for early childhood.
- A clear gap is the lack of adaptable, holistic indicators for children younger than three years of age.
- Examples of developmental monitoring, linked to actions, are available. However, more support, advocacy and capacity building is required to help health service integrate routine monitoring of ECD with promotion of development and early intervention.
- 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 programmes and policies.

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## 6. Scaling up effective early child development interventions

Given the growing global attention on ECD as a pathway to improving future human health and capital formation, it is timely to understand the facilitators and barriers of going to scale. Thus far, only small-scale ECD programmes are in place in low- and middle-income countries. There are no examples of small-scale projects or pilot programmes (pre-conception, parenting or preschool programmes) expanding to the scale needed to reach the estimated 40–60% of children in low- and middle-income countries estimated to be growing up in adverse contexts. Several high-income countries have introduced nation-wide programmes to promote ECD. All of these programmes are directed to reach disadvantaged children. These programmes originate in government commitments to address the long-term

effects of poverty and inequality in early childhood, they have strong national and local accountability mechanisms, they involve parents and other stakeholders, and they promote local adaptation through community participation.

The lessons below were drawn from examples of scaled-up programmes in high-income countries including *Best Start* in Australia, *Healthy Child Manitoba* in Canada, *Sure Start Local* in the United Kingdom, and *Early Head Start* in the United States of America. The experience of established scaled-up programmes can provide the starting point for scaling up promising models of ECD interventions in low- and middle-income countries.

### KEY MESSAGES

#### Lessons learned from high-income countries on taking ECD programmes to scale

##### High level government commitment and leadership

- **High level leadership:** Leadership of senior lead government department or agency
- **Vision for welfare of children:** Political concerns about welfare of children and their families, social inequality and social exclusion.

##### Effective partnerships and coordination of service

- **Comprehensive approach:** Coordination and strengthening of existing services
- **Communication:** Major investment of time and resources for communication leading to active participation and sense of ownership among multiple stakeholders
- **Local partner led:** Implementation is often led by local partners including civil society groups
- **Coordination of funds:** Multiple donor funds from government, private sector and philanthropic organizations are coordinated
- **Accountability:** A framework of quality standards is often found to guide roles and responsibilities.

##### Quality services require multiple delivery platforms and approaches

- **Universal and targeted interventions:** Universal and targeted interventions are combined
- **Creation of awareness of ECD and demand for ECD services:** Mass communication is a key feature of all successful ECD programmes
- **Multiple delivery platforms:** Programmes are a combination of home visits, community, centre, and health facility contacts.
- **Social protection:** Financial assistance is a feature to support the economic stability of families.
- **A 2-generation approach:** Many programmes include targeted help to parents (e.g. vocational training) to build family capacity.

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## 7. Key messages and the way forward

The purpose of this meeting was to bring together organizations and experts in the field of ECD 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.

The early years are important because it is a period of rapid physical, mental, emotional, social and intellectual growth and development, and human development is sequential and cumulative. Considerable progress has been made in improving child survival. However, in order to help children reach their full development potential, to avoid later chronic disease and to move towards sustainable development and social equity, the child survival and child development agendas need to be intertwined.

Investment in the promotion of ECD has the potential to yield great returns for future health and human capital formation. In taking a life course approach, two sensitive windows of opportunity are highlighted for intervention: (1) prenatal through the early years of life; (2) adolescence and preconception care. However, continuity, stability, and support throughout development and especially during transitions are also important (e.g. a child's transition from home to preschool and the early years of formal education). The ecological framework of ECD identifies multiple social determinants that influence ECD. This means that interventions need to be delivered at multiple levels and through multiple partners in order to mitigate risk effectively and to build resilience through critical time periods in the life course.

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 pro-

grams 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:

### **Knowledge gaps about how to deliver interventions for ECD at scale?**

- **What are the effective interventions for children at high risk for poor development outcome?**
- **How to integrate optimally the maternal mental health agenda with the ECD agenda?**
- **What partnerships can effectively promote ECD given the broad range of economic and social determinants of ECD?**
- **How can partnership effectively leverage coordinated policy, programmes and investment in ECD?**
- **What lessons can be learned from programme evaluations, cost evaluations and longitudinal studies to inform programme quality for both short-term outcomes and predicting future human capital formation?**
- **How do we ensure appropriate adaptation of a successfully implemented programme in one context to another?**
- **What lessons can be learned from successfully implemented programmes, at scale, in high-income settings for low- and middle-income settings?**

Progress in ensuring universal reach of ECD programmes and in promoting effective programmes 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 programmes 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- and middle-income countries.

Lessons on how to take ECD interventions to scale can be learned from successful programmes 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 programmes (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.

### Post meeting note

Following the meeting held in January 2013, the WHO Director-General, Dr Margaret Chan, published a commentary in the *Lancet on Linking Child Survival and Child Development for Health, Equity and Sustainable Development* (*Lancet*, 2013, Vol 381: 1514-1515). This is a reflection of the commitment of WHO to work with partners to address ECD at the global level.

### Key actions for WHO in collaboration with partners to support the global early child development agenda

- Set up a **roadmap for action** - including identification of the role of WHO and various partners, with a focus on scale-up of effective interventions, identification of indicators and assessment tools, and stimulating research.
- Identify various opportunities in 2013-2014 to contribute to strengthening the health sector response to ECD, nurture partnership, participate in global forums, use opportunities for advocacy, and champion ECD.
- Within WHO, strengthen capacity for coordinated response within the Organization and provide leadership in agenda setting (globally and at country level).

### Specific activities

- Develop a set of clear appealing messages targeting policy makers and positioning ECD in the post 2015 agenda.
- Facilitate **standardization of terminology, definitions and concepts** pertinent to early child development.
- Prepare a **consensus/joint statement** on early child development considering the broader life course approach, social determinants of health, universal health coverage and sustainable development.
- Conduct a mapping exercise and develop a **framework for developmental monitoring and evaluation** including indicators and assessment tools (for population, individual and research settings).
- Develop a guidance document on the **role of the health sector in promoting and supporting early child development** specifying how services can be enhanced with developmental interventions (universal, and additional for groups at risk and with developmental delays).
- Conduct a **landscaping exercise of ongoing research**. Create a platform of scientists for dialogue. Bring together researchers involved in large cohort studies to assess opportunities for adding ECD related research questions.
- Facilitate the preparation of a **special series on the theme of ECD** and the role of the health sector for publication in the *Bulletin of the World Health Organization*.

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# Annex 1: Meeting agenda

## Thursday, 10 January 2013

Time	Session	Responsible
08.45-09.00	Registration	
09.00-09.45	<ul style="list-style-type: none"> <li>- Welcome and introduction</li> <li>- Declaration of interest</li> <li>- Opening remarks and objectives of the meeting</li> </ul>	<b>Meeting Chairs</b> Flavia Bustreo, Assistant Director-General, Family, Women's and Children's Health, WHO Linda Richer, Human Sciences, Research Council, South Africa
09.45-10.45	<b>Pathways, intergenerational and environmental influences on health</b> <ul style="list-style-type: none"> <li>- Presentation of the background paper (analytical review)</li> <li>- Fetal growth and adaptations</li> <li>- Maternal-placental-fetal interactions in development</li> <li>- Discussion</li> </ul>	Mark Hanson (20 min) Torvid Kiserud (10 min) Stephen Lye (10 min)
<b>10.45-11.00</b>	<b>Coffee</b>	
11.00-11.30	<b>Social determinants of early child development</b> Discussion	Ziba Vaghri (15 min)
11.30-12.30	<b>Effective interventions to promote development in early childhood</b> <ul style="list-style-type: none"> <li>- Presentation of the background paper (analytical review)</li> <li>- WHO/UNICEF Care for Development package</li> <li>- Management of children with developmental disorders - mhGAPpackage of interventions</li> <li>- Discussion</li> </ul>	Melissa Gladstone (20 min) Bernadette Daelmans (10 min) Atif Rahman (10 min)
<b>12.30-13.30</b>	<b>Lunch</b>	
13.30-14.30	<b>Measurement of developmental outcomes and assessment of developmental difficulties</b> <ul style="list-style-type: none"> <li>- Presentation of the background paper (analytical review)</li> <li>- Integrating development monitoring within health systems in LAMI countries</li> <li>- Population-level measurement of children's developmental outcomes</li> <li>- Discussion</li> </ul>	Raghu Lingam (20 min) Igi Ertem (10 min) Magdalena Janus (10 min)
14.30-15.30	<b>Scaling-up effective interventions: programmes and lessons learned</b> <ul style="list-style-type: none"> <li>- Presentation of the background paper (analytical review)</li> <li>- Nutritional programmes and child survival, growth and development</li> <li>- The Pakistan Early Childhood Development Scale Up Trial</li> <li>- Discussion</li> </ul>	Linda Richter (20 min) Betty Kirkwood (10 min) Aisha Yousafzai(10 min)
15.30-15.40	<b>Group work instructions</b>	
<b>15.40-16.00</b>	<b>Coffee</b>	

16.00-17.30	<p><b>Group work</b></p> <p>Group 1: Epidemiology, assessment and indicators of early child development and delays</p> <p>Group 2: Effective interventions and programmes to promote development in early childhood</p> <p>Group 3: Research to promote health and development along the life course</p>	
18.00	<b>Reception</b>	

### Friday, 11 January 2013

Time	Session	Responsible
08.30-10.00	<b>Group work continued</b>	
10.00-10.30	<b>Standardizing definitions in the area of child development - Discussion</b>	<b>Facilitator: Shekhar Saxena</b>
<b>10.30-11.00</b>	<b>Coffee</b>	
11.00-12.30	<b>Feedback from groups and discussion</b>	<b>Facilitator: Shekhar Saxena</b>
<b>12.30-13.30</b>	<b>Lunch</b>	
13.30-14.30	<p><b>Round table discussion on early child development: Activities in countries - lessons learnt</b></p> <ul style="list-style-type: none"> <li>- Hong Kong Child Development Programme</li> <li>- Building capacities to address the needs of children with developmental disorders in India</li> <li>- IPA and ICNA early child development programme</li> </ul>	<p><b>Facilitator: Elizabeth Mason</b></p> <p>Shirley Leung Vibha Krishnamurthy MohamadMikati</p>
14.30-15.30	<p><b>Panel Discussion on early child development: Action by partners</b></p> <ul style="list-style-type: none"> <li>- UNESCO</li> <li>- World Bank</li> <li>- Grand Challenges Canada</li> <li>- USAID</li> <li>- Aga Khan Foundation</li> <li>- International Federation of Gynecology and Obstetrics</li> </ul>	<p><b>Facilitator: Marleen Temmerman</b></p> <p>Abigail Raikes Leslie Elder Karlee Silver Gillian Huebner Sheila Manji Gian Carlo Di Renzo</p>
<b>15.30-16.00</b>	<b>Coffee</b>	
16.00-17.00	<p><b>Discussion: Outcomes and next steps</b></p> <ul style="list-style-type: none"> <li>- The process to develop a set of standard framework, indicators and assessment tools</li> <li>- The process to develop a core package of early child development interventions that can be feasibly mainstreamed in health systems in LAMIC and relevant tools needed</li> <li>- The process to map the research priorities to address gaps in available evidence</li> <li>- A common agenda for action</li> </ul>	<b>Facilitator: Elizabeth Mason</b>
	<b>Concluding remarks</b>	<b>Flavia Bustreo</b>

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