

# G20 DEVELOPMENT WORKING GROUP: INVESTING IN EARLY CHILDHOOD DEVELOPMENT

March 2018

This discussion document was created in support of the Presidency of the Argentine Government for the 2018 G20. It was co-authored by the World Bank Group, the Inter-American Development Bank, and UNICEF for the G20 Development Working Group (DWG).

The opinions expressed and arguments employed herein do not necessarily reflect the official views of the G20 DWG.



## *1. INTRODUCTION*

Today’s policymakers face a challenge: how best to invest in all children so they are equipped to meet the future as healthy, independent, and skilled adults in a world whose demands are rapidly changing. The power of investing in early childhood development (ECD) has only recently become clear, backed up by rigorous studies of sustained programs in early childhood health, nutrition, parenting, and learning.

It is estimated that 250 million children under age five in low- and middle-income countries today risk failing to meet their basic developmental potential. This is especially tragic because, due to the nature of brain development, early childhood deficits can cause long-lasting harm to a wide array of outcomes, from physical health to learning and from chronic unemployment to criminal involvement. Moreover, the world’s increasingly digital economy means there is a growing need for workers to enter adulthood with cognitive skills founded on the habits of problem-solving and independence that must be acquired in childhood. The aging of populations also demands that tomorrow’s workforce be capable of multiplying today’s productivity levels.

As this report illustrates, significant research has been conducted in a wide range of countries and settings that demonstrates how investing in ECD can yield measurable improvements not only in children’s short-term health and learning but in long-term outcomes. Indeed, the types of ECD interventions described here—which range from community health home visitation aimed at building caregivers’ skills in responsive, positive parenting to the expansion and quality improvement of childcare centers—can contribute directly to the achievement of at least nine of the 2030 Agenda’s SDG goals and, indirectly, to all the goals. This means they can also help narrow the wide gaps in outcomes and opportunities we still see between children from higher and lower socioeconomic backgrounds and, equally, between boys and girls. ECD interventions can help to reduce the gender gap among caregivers too, empowering women to take on formal, paid work by offering the support and flexibility of quality childcare and family-friendly policies. Remedying these existing divides would expand the pools of talent that future employers could draw from as well as ameliorate the stress of poverty.

Currently, investments in early childhood are extremely low. Many countries, when they invest in children, continue to invest disproportionately more in children when they are older than during this earlier, crucial life stage. Yet a growing body of literature demonstrates that the returns on investment in young children are substantial, particularly when compared to investments made during later stages in life. The fiscal cost of many of these investments can be as little as an additional 50 cents per person per year when ECD interventions are integrated into existing services. This report also lays out a variety of strategies and financing options that governments, from the national to the municipal level, have begun to employ in order to generate impact at scale.

## *2. WHAT “EARLY CHILDHOOD DEVELOPMENT” MEANS*

Early childhood is a critical time for individual growth. This short period is unique because of the unparalleled speed at which brain architecture develops. The experiences in the first few years of life have serious, long-lasting consequences for every child’s future health, learning, and earnings

potential, thus laying the foundation not only for human capital development but, indirectly, for societies and their sustainable development.

**The three elements of ECD.** ECD can be described as having three mutually necessary elements, as follows.

- *Early childhood:* The period itself is critical to understand, since so much development is age-determined. In the broadest definition, early childhood runs from before birth until the age of eight, but science is pointing to the primary importance of the *first 1,000 days*, also beginning at conception. This is when brain architecture is built from the bottom up at a lightning speed, with neural connections forming rapidly.
- *Development:* By this term, what is meant is the continuous acquisition of skills and abilities across the domains of cognition, language, motor, social and emotional development—in short, what we need to think, solve problems, communicate, express our emotions, build resilience, and form relationships. Because of the prolific neural growth that occurs during this period, the development that occurs is also considered the foundation of learning and earning, health, productivity, and well-being—the building blocks of human capital.
- *Environment:* Because the brain is shaped by experiences, the child’s development results from interactions with the environment. The brain is like a sponge that soaks up positive and negative experiences, which in turn influence the blueprint of its architecture. Consequently, negative experiences have potential lifelong impacts.

**Nurturing Care framework.** By the time a baby is born, the brain has almost all the neurons it will ever have, and during the first two years it develops a massive number of neural connections. The brain “expects”—is designed to acquire—specific experiences so it can develop fully. Ensuring this optimal environment is the basis for a framework known as Nurturing Care. The framework provides the ideal care for young children through five interrelated components:

- Nutrition
- Health
- Early learning
- Responsive caregiving, and
- Security and safety.

All of this is created by parents and caregivers, with support from evidence-based policies, quality services, and informed communities.

The Nurturing Care framework understands that to achieve and sustain responsive care and a nurturing environment, diverse sectors need to work together. The five components listed above must interact in mutually supportive ways to effectively and equitably improve ECD, and this in turn means it is essential to integrate programs across sectors.

### ***3. WHY INVESTING IN EARLY CHILDHOOD MATTERS***

As previously mentioned, brain development is shaped by the child’s environment. Research has established that children who receive good nutrition, quality health services, clean and safe water,

adequate sanitation and hygiene, enriched learning opportunities, and stimulating and nurturing interactions with caregivers are more likely to become productive members of society than children who lack these essentials. Conversely, children who experience intense stress during infancy, including chronic poverty, nutritional deprivation, or exposure to violence, can suffer from reduced brain cell connections, for example in areas involved in learning and emotional development.

For society at large, and ultimately for an entire country, the failure to ensure that children start life with essential positive experiences can translate into an unhealthy and ill-prepared workforce, poor economic growth, and strained education, health, and social protection systems. These outcomes drain the economy, and the harm they cause can perpetuate intergenerational disadvantage.

Those facts alone are enough to justify greater investment in early childhood, but one can add to them the pressures now facing nations due to demographic, migratory, and technological changes. For example, due to the current refugee crisis, millions of young children are spending these most critical developmental years in environments that expose them to trauma, multiple deprivations, and *toxic stress*, a condition that significantly inhibits brain cell connections and the achievement of their developmental potential. Failure to intervene on their behalf and provide the necessary ECD services will undoubtedly create negative consequences for the global community.<sup>1</sup>

Moreover, with the future bringing an increasingly digital economy, there is a growing need for people possessing the kind of flexible learning abilities and skills that cannot be automated by new technologies. Extraordinary technological changes have led to the development of new forms of work. In short, the future requires a trained workforce equipped with the knowledge and skills needed to face the challenges of the 21<sup>st</sup> century.<sup>2</sup>

Finally, by investing in early childhood, governments would be able to meet their international commitments to the Convention on the Rights of the Child, ratified by 194 countries. In this convention, governments expressed their commitment to adopt all measures to ensure the protection and care that is necessary for children's well-being.

### 3.1 Economic Rationale

Investing in early childhood development is widely recognized as a cost-effective strategy for fair and sustainable development. A growing body of literature demonstrates that the returns on investment in young children are substantial, particularly when compared to investments made at later stages in life. Analyses by Nobel Prize-winning economist James Heckman, for example, show that investments in a child's earliest years—through prenatal programs, programs targeting children from birth to age three, and preschool—yield the highest economic return in human capital when compared with investments made later in life.<sup>3</sup>

The economic benefits of investing in at-risk young children arise in two ways. First, the learning and future earnings potential of the child are amplified, along with resulting effects on the future worker's surrounding economy. Second, government and society are spared the social costs, which can recur for many years, of responding to the health, crime, and other emergencies and deficits that early-childhood neglect leads to. Furthermore, making quality childcare available—which is often an element in ECD intervention—allows more parents to work and be more productive to society.

In short, the same effective intervention can help prevent the kinds of skill deficits that drive down productivity and increase social costs, interrupt family cycles of poverty, underemployment, and joblessness, and set children on a path to better health, education, and personal economic outcomes.

Evidence suggests that measurable returns to investment in ECD are high. On average each additional dollar invested in quality ECD programs is estimated to yield a return of between US\$6 and US\$17. Looking at nutrition interventions alone, the estimated returns to society are US\$16 for every US\$1 invested. Quality ECD programs can increase future earnings for participating children by 25 percent.<sup>4</sup> The fiscal cost of these investments is surprisingly affordable. In many countries, existing services can be expanded to deliver ECD interventions for as little as an additional 50 cents per capita per year.<sup>5</sup>

The cost of inaction is significant. The future costs of sub-optimal development can be two to three times higher than the costs of initial investment in ECD programs. Short-term costs are more than offset by reduced long-term needs for special education, remediation, and social services; lower criminal justice costs; better health outcomes; and increased productivity.

### 3.2 Meeting Demographic Challenges

Investing in ECD offers an opportunity to address some of the consequences of demographic transition. In countries with low rates of population growth, the ratio of elderly people to active workers is rising, so workers may soon be in a situation where they must be more productive to support the economy. Nepal, for instance, is expected to transition into an “aging” society by 2028 and an “aged” society by 2054.<sup>6</sup> Nepal has a window of opportunity now to address the upcoming productivity challenge, if it takes advantage of its demographic challenge by investing in ECD.

In other parts of the world—especially in low-income countries where ECD services and education lag—the demographic trends are the reverse of Nepal’s and the biggest challenge is a youth bulge. In Africa, for example, the under-five population is expected to grow by 51 percent from 2015 to 2050.<sup>7</sup> This population boom offers an economic opportunity, a demographic dividend, for many countries, but only if they invest early in children’s lives to build a skilled and knowledgeable workforce.

### 3.3 Contribution to Women’s Empowerment

By helping to reduce gender gaps, investing in ECD has a positive impact on women’s economic empowerment. In turn, increasing women’s economic empowerment is key to reducing child poverty, and that strengthens the early childhood experience in a host of ways.

Deep gender inequalities persist around the world. Globally, while three-quarters of working-age men are in the labor force, just half of working-age women are, and women earn on average 24 percent less than men and are less likely to receive pensions, all of which translates into large income inequalities throughout their lives.<sup>8</sup> Cultural attitudes often define child-rearing and housekeeping as a woman’s responsibility, and indeed the time spent on unpaid domestic work is more than three times higher for women than men.<sup>9</sup>

Access to quality childcare and family-friendly ECD policies are key to reducing this gender imbalance and to promoting greater co-responsibility between mothers and fathers. By offering women more opportunities to complete their education and have access to stable, formal paid

employment, this aspect of ECD investment uplifts women as well as the chances for their children to thrive.<sup>10</sup>

Finally, by supporting women's economic empowerment, ECD programs contribute to world economic growth. It is estimated that the world economy could gain up to US\$12 trillion in annual GDP by 2025 by narrowing the global gap between men and women.<sup>11</sup>

### 3.4 Relationship with the 2030 Agenda

In 2016, the G20 reinforced its commitment to aligning its work with the 2030 Agenda for Sustainable Development (SDGs) through the *G20 Action Plan on the 2030 Agenda for Sustainable Development*. The Action Plan aims to ensure that no one is left behind in the efforts to eradicate poverty, achieve sustainable development and build an inclusive and sustainable future for all.<sup>12</sup>

As explained above, the linkages between early childhood and sustainable development for all are indisputable. The SDGs capitalize on the powerful links between early childhood development and equity, productivity, wealth creation, and sustainable growth for the future. On the eve of the launch of these goals, UN Secretary-General Ban Ki-moon asserted that the SDGs “recognize that early childhood development can help drive the transformation we hope to achieve over the next 15 years.”<sup>13</sup>

Indeed, ECD interventions contribute to the achievement of many of the SDGs and can have a multiplier effect to enhance outcomes. For example:

- *Goal 1: Eradicate poverty.* ECD contributes to poverty alleviation through the development of human capital and skills that will allow children to flourish in the 21<sup>st</sup> century economy.
- *Goal 2: End hunger and improve nutrition.* Early stimulation enhances the impact of nutrition interventions.
- *Goal 3: Ensure healthy lives.* Early childhood interventions lay a foundation for lifelong health and can reduce the incidence of non-communicable diseases and lower health costs over time.
- *Goal 4: Ensure lifelong learning.* Early learning opportunities pave the way for optimal learning and productivity later in life. Investing in quality child care and pre-primary education also strengthens education systems by reducing dropout rates and repetition and improving learning outcomes.
- *Goal 5: Achieve gender equity.* Investing in ECD has a positive impact on women's employment opportunities, and young women's access to and completion of education, helping to reduce gender gaps.
- *Goal 6: Clean water and sanitation.* ECD programs can provide young children access to clean water and adequate sanitation services, as well as help them to develop lifelong hygiene habits.
- *Goal 8: Promote decent work for all.* Availability of adequate childcare is a critical element of a decent work agenda.
- *Goal 10: Reduce inequality within and among countries.* ECD is a powerful equalizer, reducing inequalities that can begin at birth.

- *Goal 16: Promote peaceful societies.* ECD interventions have been shown to lead to lower rates of violence in the home and greater social cohesion in communities.

### 3.5 The Status and Needs of Children Today

The state of the world’s children shows a clear need for better ECD. In total, 43 percent of children under age five are not reaching their full developmental potential.<sup>14</sup> This puts them at risk of poor health and learning outcomes, greater likelihood of resorting to crime and violence, and lower earning potential. Consider these daunting global numbers:

- Nearly 385 million children are living in extreme poverty.<sup>15</sup>
- 155 million children under five have stunted growth.<sup>16</sup>
- Over 240 million live in countries affected by conflict.<sup>17</sup>
- Close to 300 million children between ages two and four are regularly subjected to violent discipline, including physical punishment and psychological aggression.<sup>18</sup>

Disparities across socioeconomic backgrounds are, unsurprisingly, stark both across regions and within countries, and they have grave consequences. For example, compared to economically privileged children, children living in poverty are 1.9 times more likely to die before age five<sup>19</sup> and twice as likely to be stunted.<sup>20</sup> And attendance rates for pre-primary education are lowest in low-income countries with the highest levels of child poverty.

Good quality and equitable ECD services can unlock opportunity, reverse intergenerational cycles of poverty and inequality, and improve the efficiency of schooling systems.<sup>21</sup> For example, eliminating malnutrition in young children can improve school attainment by at least one year. In turn, each additional year of education increases a child’s adult earnings by 8 to 10 percent.<sup>22</sup>

### 3.6 Investment: Actual vs. What Is Needed

Despite all the evidence of its benefits, overall investment in early childhood is extremely low, and many countries continue to invest disproportionately more in children when they are older than during this crucial life stage.

Tracking investment in early childhood interventions is admittedly challenging. Early childhood services often cross sectoral boundaries and are delivered by multiple ministries and at different administrative levels, from the national to the local. Funding often comes from multiple sources—not only governments but international donors, local non-governmental organizations (NGOs), local communities, and families—making it difficult to tally total expenditures. Still, while there is no comprehensive system for identifying ECD expenditures across countries, their sources, and what they are spent on, a few alarming trends have been observed.

*For nutrition investment:* Low- and middle-income countries spend an estimated US\$2.9 billion annually to tackle risks including stunting and wasting and to support exclusive breastfeeding.<sup>23</sup> This represents a mere 1 percent of these same countries’ overall health spending. To compensate for this paltry amount, donors provide approximately US\$1 billion annually.

*For early education investment:* Low-income countries spend an average of less than US\$8 a year, or about two cents a day, for each child on preschool. This represents about 2.9 percent of the total

these countries spend on education, as compared with the 9 percent expenditure in high-income countries.<sup>24</sup>

Most early childhood investments favor physical infrastructure, such as the expansion of childcare or preschool facilities, rather than training and quality assurance. However, evidence shows that some of the biggest returns on investment can result from simple interventions that aim to improve critical early interactions between young children and their caregivers, such as parenting interventions that teach parents to play, sing, and talk with their young children.

**What is needed:** How much would it cost to adequately invest in ECD? A study that looked at 73 countries with a high burden of children at risk of falling behind in early childhood indicated that US\$34 billion would be needed in the next 15 years to incorporate comprehensive ECD interventions into health and nutrition services.<sup>25</sup> Scaling up universal and free pre-primary education in low- and lower-middle-income countries is estimated to cost US\$44 billion per year, which is four times the current government and donor spending in these countries of just over US\$11 billion.<sup>26</sup> Looking more narrowly at health interventions, to reach global targets on stunting, breastfeeding, severe acute malnutrition, and anemia, governments will need to spend US\$3.7 billion more every year and donors US\$2.6 billion more.<sup>27</sup>

While these figures may seem high, such investments would reap monumental benefits for children, families, and societies for years to come.

## *4. ACHIEVING IMPACT AT SCALE*

As has been established, the cost of inaction is too high,<sup>28, 29</sup> making it a clear and urgent priority to achieve impact at scale. The Nurturing Care framework teaches us that interventions must be multisectoral to have the greatest positive impact on a child and on families. Accordingly, the key challenge is investing in implementing a comprehensive ECD policy at scale.

### *4.1 Potential Roles for Public Policy*

Experiences, across settings and contexts, in the early years shape development. These include the interactions a child has within the family and with key caregivers and other service providers across clinic, child care, community and preschools. Designing, implementing, monitoring, and evaluating a comprehensive ECD policy requires addressing coordination and governance across sectors with other key actors: private companies, communities, and civil society. Policy makers can use a wide range of policy instruments and tools to create an enabling environment for ECD (eg. laws, regulations, financial transfers, fixed pricing and subsidies, etc.).

These policies should address services presented in Box 4.1. These services would allow governments to achieve their objectives and address all the dimensions involved in ECD from a Nurturing Care perspective: nutrition, health, early learning, responsive caregiving, and security and safety. Figure 4.1 identifies the types of evidence-based interventions that affect nurturing care, from a life-course perspective.



#### Box 4.1. ENABLING POLICIES AND NURTURING CARE SERVICES

##### **Nutrition**

- Antenatal nutrition
- Early initiation and promotion of breastfeeding
- Complementary and responsive feeding
- Micronutrient and iodine supplementation
- Marketing regulations for baby formula\*
- Mandatory food and beverage labelling\*

##### **Health**

- Provision of routine antenatal care and health checkups
- Skilled birth attendants
- Immunizations and well-baby visits
- Prevention and treatment of maternal stress and depression
- WASH (water, sanitation and hygiene) interventions
- Price subsidies for health care (e.g., free vaccinations)\*

##### **Early learning**

- Awareness campaigns on the importance of stimulation and early learning
- Coaching of parents on psychosocial stimulation
- Age-defined free and/or compulsory preschool law
- Regulation of childcare center quality (e.g., child-to-staff ratios, defined standards)
- Price subsidies for childcare\*
- Preschool and pre-primary

##### **Responsive caregiving**

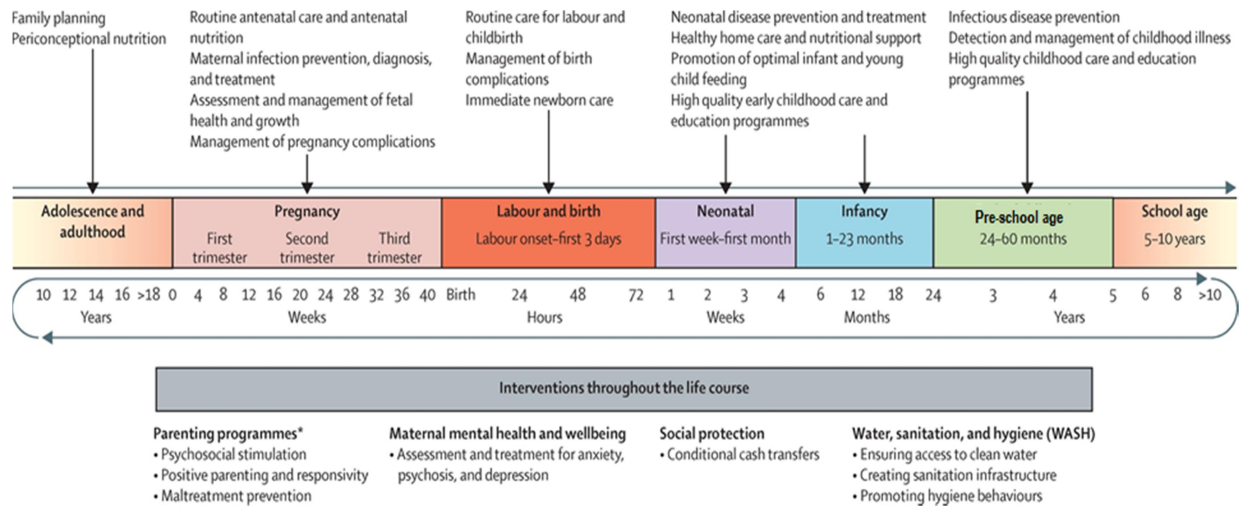
- Promotion of co-responsibility in childcare between men and women
- Family friendly policies(e.g., parental leave, sick child leave, breastfeeding breaks)\*
- Skills-building in positive discipline and responsive parenting

##### **Security and safety**

- Assurance of proper housing
- Social protection and safety networks/programs (e.g., universal child transfers, tax credits, cash transfers)
- Prevention of child maltreatment and gender-based violence
- Birth registration

\* These are examples of enabling policies for ECD.

**Figure 4.1. How Evidence-based ECD Interventions Fit into the Mother’s and Child’s Life Cycles**



Source: Adapted from P. Britto et al., “Nurturing Care: Promoting Early Childhood Development,” *The Lancet* 389 (10064): 91–102. [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(16\)31390-3](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)31390-3)

Some of these services are described in greater detail below. These programs focus on adequate psychosocial stimulation, drawing on public advocacy combined with behavior-change strategies.

- **The Reach Up and Learn package**, which consists of parenting interventions that have proven to benefit children’s cognitive and social-emotional development. It was developed by the University of the West Indies’ (UWI) Child Development Research Group in the early 1980s to improve disadvantaged children’s development by working directly with parents and their children. The Reach Up materials include curricula, training and adaptation manuals, and films for the parenting intervention delivered to families in their homes.

The program has been shown to yield benefits through adulthood. A long-term evaluation of a sample of Jamaican children who participated in it found positive effects on IQ, educational attainment, mental health, social behavior, and increased income as adults. A group model of the program, suitable for delivery in child health clinics or other group settings, has also proven successful in three Caribbean countries.

This intervention package is now informing international ECD policy, and some version of it is being implemented in 10 countries, including Bolivia, Brazil, Colombia, Guatemala, and Peru in Latin America as well as Bangladesh, India, Turkey, and Zimbabwe.<sup>30,31</sup>

- **The Care for Child Development (CCD) package**, developed by UNICEF and WHO, is also a program that provides the opportunity to use multiple strategies to strengthen nurturing care by parents. It is based on an evidence-based framework designed to promote the early learning and responsive caregiving domains of nurturing care by integrating services and knowledge-sharing into existing services, particularly health services. It consists of a set of recommendations for health workers to share with families to improve

children's development; training materials for health workers and community providers; support for families to solve common problems in providing good care for young children; and advocacy materials and a monitoring and evaluation framework.

The CCD package has already been implemented in various forms in more than 50 countries.

Many partners have navigated the integration of CCD into health and child protection systems. Findings from several trials have shown that the CCD package results in improvements in home environment and children's development. Research also suggests that the program can be incorporated into existing health services at relatively low cost.<sup>32,33</sup>

- Other successful approaches being adopted by low-and middle income countries to promote holistic development of young children include **community-based childcare (CBCC)**. CBCC comprises *center-based models*, where community facilities are designated as childcare and early learning centers for young children, as well as *outreach/mobile models*, where child care is provided through non-fixed locations such as homes, mobile tents or open spaces (e.g., under a tree). The mobile approaches are particularly effective in reaching vulnerable, hard-to-reach groups such as nomadic or indigenous children. Key features of CBCC include a high level of community participation and ownership, including voluntary contributions, and the recruitment and training of local community members as caregivers. A 2013 UNICEF review<sup>34</sup> of CBCC models concluded that these services can improve young children's cognitive, motor, and socio-emotional development and school readiness and positively influence caregiver behaviors, while at the same time enhancing community trust and relationship building.
- Finally, Box 4.3 provides examples of holistic ECD programs implemented in Chile and Uruguay.

#### BOX 4.3 CHILE AND URUGUAY CASE STUDIES

*“It is our hope that all children in Chile reach their maximum potential, regardless of their socio-economic status or place of birth.”- President Michelle Bachelet*

**Chile Crece Contigo (ChCC)** was established in 2007. It is a rights-based national child-protection system build on a coordinated, multi-sectoral strategy that originally included ECD interventions from conception age four, and recently expanded to age nine. This system includes a broad range of essential services with universal coverage, providing additional interventions for the most vulnerable children and families to reduce the impact of existing risks and to guarantee equity.

National coordination is under the responsibility of the Ministry of Social Development. At the municipal level, local governments are responsible for coordinating and implementing corresponding services for young children and families. Services build on a life-course approach and are delivered through existing Health, Social Development and Education Ministry programs and actions, with a complementary approach, including such initiatives as:

- Public and Family Education Program, to increase awareness and knowledge of child care and early stimulation;
- Biopsychosocial Support Program, including antenatal care, young child health check-ups, etc.;
- Newborn Support Program, with caregiver focused educational activities, and an essential care/stimulation kit;
- Early intervention actions for vulnerable children and families

So far, ChCC has reached more than 1.6 million children, and it is estimated that 42 percent of children identified with developmental delays were able to overcome their delays. Based on the use of existing services and evidence-based, affordable interventions, ChCC expenditures represent only 2 per cent of total investments in early childhood. The Chilean experience has provided important inputs to influence and assist ECD policy and program development in the Latin America and Caribbean region and globally. More information on ChCC: <http://www.crececontigo.gob.cl/>

Uruguay is one of the countries which has built on the learnings from the ChCC program. The **Uruguay Crece Contigo (UCC)** was launched in 2012 and illustrates current efforts to provide holistic ECD services to young children. The goal of UCC, as a national directorate of the Ministry of Social Development in Uruguay, is to build a comprehensive protection system for early childhood. To achieve its goals, UCC develops universal and targeted actions to guarantee the adequate care and protection of pregnant women and the comprehensive development of children under four years old. The targeted intervention is a home visit model aimed at vulnerable families with children and pregnant women. An experimental design has been used to evaluate this program, and it has shown improvements in the nutritional status of children, and in their eating habits, as well as improvements in child development, attendance at early education centers, positive parenting practices, the psychosocial well-being of mothers, and access to social benefit. More information at: <http://crececontigo.ann.mub.uv/>

To make services successful, sustainable, and cost effective, they can be bundled/ combined through the following criteria:

- i) Should be applied at developmentally appropriate times during the life course;
- ii) Target multiple risks;
- iii) Build on existing delivery platforms for feasibility of scale-up.<sup>35</sup>;

Ideally, policymakers could consider employing a high-quality cost-benefit analysis to review intervention options before any major decisions are made, as explored further in Box 4.2. This is especially important in the ECD field, where high rates of return only occur when interventions are high-quality.<sup>36</sup>

#### Box 4.2. SELECTING PROGRAMS: THE VALUE OF COST-BENEFIT ANALYSES

Early childhood programs differ in their costs, and because government resources are limited programs should be selected based on what will reap the greatest benefit for a given cost.

To apply cost-benefit analysis the benefits and costs of programs must be monetized. This is not a trivial task as it requires assigning a price to every resource used and monetizing all present and future costs and benefits. The advantage of making some of these (sometimes heroic) assumptions is that this methodology produces a clear ranking of projects. The shortcoming is that this kind of ranking can become unreliable if certain costs or benefits are omitted or if they are valued incorrectly.

Of course, efficiency is not the only metric by which governments may want to allocate resources to programs. In fact, redistribution of access to services is a key concern for government policy, in terms of equity. The crowding-out effect of private expenditure in response to public policy is another key area of concern.

## 4.2. Investing in the Least Developed and Fragile Contexts

Very young children are particularly vulnerable in situations of crisis, fragility, or deprivation. These circumstances often expose them to malnourishment, poor health conditions diarrhea and its attendant consequences due to poor WASH, prolonged or acute trauma, or other forms of deprivation that can put them in a state of toxic stress. It is estimated that today, 70 million children ages zero to six have spent their entire lives in conflict zones.<sup>37</sup>

Least developed and fragile contexts are also characterized by several conditions that make it difficult to meet the population's basic needs and expectations, including weak governance and accountability, insufficient fiscal resources, and limited data and understanding of early childhood development. Investments in early childhood in these contexts can yield enormous dividends, not only helping to realize human rights but also helping to eliminate conditions of inequality and deprivation.

**Priority of families and front-line workers.** In fragile contexts, it is vital that initiatives reach parents and caregivers and work with them directly, through culturally relevant approaches. Priority elements of an integrated ECD response in these cases include the restoration of primary health care services, mother-and-child stimulation and nutrition services, and access to clean water and a hygienic environment. Accomplishing this means delivering essential services to young children and families by building capacity in both the delivery system and front-line workers.

For example, the Early Childhood Development Kit (Box 4.4) is designed to complement basic services related to young children's hygiene and sanitation, health and nutrition, protection, and education. It offers families and young children access to play, stimulation, and early learning opportunities and permits them to retrieve a sense of normalcy, which is important for positive human development. The kit has reached over 4 million young children with beneficial outcomes.<sup>38</sup>

**Scaling up.** Newer approaches to service delivery that combine mass media with direct services are setting a new standard for humanitarian assistance. For example, the *Sesame Seeds* initiative aims to reach 9.4 million young children in Iraq, Jordan, Lebanon and Syria through quality interventions delivered through television, mobile phone, home services, and early childhood centers.<sup>39</sup>

In least-developed contexts, the focus on building systems for better workforce, data, financial inclusion, and governance will promote the scaling up of early childhood services.<sup>40</sup> However, as indicated earlier, while the needs are the greatest in these countries—where, for example, one finds the highest levels of low birthweight and stunting<sup>41</sup>—investments in early childhood services there are still negligible. Given this reality, international cooperation mechanisms that support early childhood development could play a significant role in bringing together key stakeholders and partners to invest in programs that bring results.

#### Box 4.4. ECD KITS FOR FRAGILE ENVIRONMENTS

The *Early Childhood Development Kit* was created by UNICEF to strengthen the response for young children caught in conflict or emergencies, including children in refugee camps. Since 2009, these kits have been distributed and used through UNICEF programs in 86 countries.

Each 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; boxes to stack and sort; board books and puppets for storytelling; art supplies; and soaps and water containers for promoting hygiene.

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 with detailed guidance on all aspects of planning, implementing, and evaluating the ECD Kit.

## 5. PRIORITY STRATEGIES

To take interventions to scale and expand beyond the project approach, implementation strategies need to be prioritized. This section reviews examples of successful strategies of work necessary to scaling ECD.

### 5.1 Equitable and Sustainable Financing

The main sources of financing for ECD are public, private, and donor/aid.<sup>42</sup> Public funding predominates, yet it remains low, as previously described. It generally originates in the Education, Health, and Social Welfare ministries.<sup>43</sup> Legal mandates and strong political leadership can go far toward strengthening this allocation of resources, as has been done through comprehensive intersectoral strategies in Chile, Colombia, Jamaica, India, and Peru and through compulsory pre-primary mandates, as in Argentina.<sup>44</sup> The trend of the last decade in devolving a broad range of services to subnational governments has included ECD services, and it is important to note that ECD provision under such devolved schemes can only be sufficient if it is adequately funded.<sup>45</sup>

Private funding is quite significant in ECD, particularly from household contributions, which has strong implications for equity.<sup>46,47</sup> Private funding also derives from foundations, community groups and cooperatives, non-governmental organizations, and even corporations that provide ECD services for their employees.

Governments at all levels have explored innovative financing for ECD. Most of the innovation has been in finding earmarked sources of revenue, although innovative allocation and delivery

mechanisms also have been explored. Effective innovative finance mechanisms have required strong legal, policy, and implementation frameworks.<sup>48</sup>

Innovative financing could be central to sustainably funding long-term ECD growth, but only to the extent that it is easy to administer. Smaller innovations in funding can be catalytic to specific ECD initiatives or to strengthening systemic capacity and supporting quality improvements.<sup>49</sup> Earmarked funding, investments in institutional capacity, and blending of public, private and/or community provision have shown capacity to support growth in quality ECD in low-resource settings.<sup>50</sup>

Governments have sometimes partnered with other stakeholders to generate or disburse funding, from local community organizations, to private providers, to NGOs, to donors. Private-public partnerships and partnerships with social franchises can also play an important role in increasing access and quality to ECD services. Peru's Social Development Cooperation Fund (FONCODES) is an example of using public-private partnerships and innovative finance for ECD; by combining a cooperative fund with private sector partnerships *Cuna Mas* has been effective in expanding its program coverage; and aeioTU, a social franchise in Colombia, scaled ECD services to more than 13,000 children in partnership with the government.<sup>51</sup>

ECD funding has also drawn from earmarked taxation, including increases in a specific percentage in sales taxes, sin taxes, lottery or gaming revenues, and payroll taxes. Earmarked sources of revenue have the advantage of reducing risk to funding stability from political fluctuations, but they bring the disadvantage of increasing risk from economic fluctuations.<sup>62</sup> Sin taxes have the disadvantage of being fiscally regressive; because they represent a higher portion of the incomes of lower-income households, they have negative implications for equity.<sup>63</sup> Indeed, in the United States courts in New Jersey and North Carolina have prevailed over state governments to mandate that funding be made available for preschool to increase children's educational opportunities.<sup>64</sup>

Private funding has in a few cases come from corporations investing in social impact bonds (the corporations assume all the risk, but if the proposed outcomes are achieved a high return is paid by the government), but only a few successfully implemented examples of such bonds exist for ECD. These offer low government risk yet require high implementation capacity, and evidence on them is just emerging.<sup>65</sup> In addition, other funding models are emerging. For example, the Hult Prize Foundation has looked at a form of innovative crowd-sourced finance for the provision of ECD in low-income communities.<sup>66</sup>

Building on the above-mentioned initiatives, additional efforts are needed to help institutionalize budget priority to ECD in all countries, ensuring that sufficient resources are allocated for full implementation of multi-sectoral policies and interventions. To mobilize the public investment, there is a need for a global catalytic fund that would incentivize governments to make public investments against a set of programmatic benchmarks and results targets. It is also important to enhance institutional implementation capacity and support the measurement and tracking of all ECD related public spending, in order to identify gaps and foster coordinated, quality and equitable investment.

**BOX 5.1 MAPPING AND TRACKING ECD INVESTMENTS IN LATIN AMERICA AND THE CARIBBEAN**<sup>65, 66</sup>

In the region, early childhood has achieved increased government attention. However, limited funding and coverage levels remain challenges, along with the quality and sustainability of ECD programs. To better analyze the level of priority given by governments to ECD services and support budgeting analysis and planning processes, UNICEF and regional partners collaborated on a study methodology to analyze this public spending in nine countries: Argentina, Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Paraguay and Peru. The results show that spending on policies aimed at early childhood development fall between 2.1 and 9.1 percent of each country's total public expenditure. Three of the study countries—Argentina, Colombia, and Peru—initiated an in-depth analysis to determine the budget required to provide quality services and expand current coverage levels.

The results of this initiative have also influenced further baseline assessments of ECD-related spending in other countries, such as Chile, which is strongly committed to ECD as demonstrated by the recent expansion of its National ECD Program (*Chile Crece Contigo*), which now covers children from birth to age nine and whose cost represented 3.66 percent of its GDP in 2015.

## 5.2 Monitoring Results

It is important for countries to monitor and measure the results of their ECD investments carefully, for several reasons. Broadly speaking, measurement can help identify where additional resources are needed to inform policy decisions and program improvements (such as focus areas for teacher or caregiver training). It can also help governments increase their ability to learn what works and what does not in terms of reaching the most marginalized populations.

Over the last decade, significant efforts have been made nationally and globally to fill the data gap by developing measurement instruments for ECD. At the global level, UNICEF developed in 2010 a new data collection module and an index (the Early Childhood Development Index) aimed at capturing ECD outcomes in population-based surveys. The module was incorporated into UNICEF-supported Multiple Indicator Cluster Surveys (MICS) and used in a number of other surveys, including in some Demographic and Health Surveys (DHS). To date, more than 60 countries have collected data on ECD using the MICS module. The module is currently under revision, and a new measure is expected to be released in late 2018 as the new global measurement tool for monitoring SDG 4.2 on child development (for children ages 24 to 59 months). Additionally, MICS surveys capture data on the youngest children (including ages 0-5 months) in areas such as: attendance to early childhood care centers and preschools; access to health services and insurance; birth registration; upbringing practices; prevalence of violent discipline; disabilities; breastfeeding and young child feeding practices; undernutrition and obesity; immunization coverage; and prevalence of diarrhea and acute respiratory infections.

Other initiatives are also underway to create and validate additional tools that could be used to measure the developmental status of children from birth to age five, and complement the ECDI.<sup>67</sup> For example, the World Health Organization's 0-3 Indicators initiative (led by the Global Child Development Group and the Caregiver-Reported Early Development Index) is developing new measures of ECD outcomes for the youngest children (aged 0 to 24 months), for whom there has



been limited attention to measurement. UNICEF and WHO are working closely in order to strengthen synergies between the above-mentioned measures.

At the national level, countries have also advanced in the collection of administrative data in distinct sectors (such as health, nutrition, and education), utilizing different data collection systems. However, even though it is essential to generate and collect data in each sector, the many locations and sources of data pose challenges in producing coherent and coordinated information. Moreover, specific sectoral data systems, such as the Education Management Information System (EMIS) and Health Management Information System (HMIS)—which are the main sources of education and health data nationally—often lack meaningful ECD indicators that can in turn support better programming for young children.

Consequently, there is a clear need for creating multi-level measurement frameworks that generate robust data on a coordinated set of ECD related indicators across sectors, through various data sources (e.g. administrative data, household surveys, population data, research studies, and specialized surveys). These frameworks would not only inform national ECD plans and improve accountability at all levels but would also play a critical role in monitoring the multisectoral ECD agenda. Finally, it is important to support and consolidate ongoing efforts to design measurement instruments aimed at filling the gap in the globally comparable data, fostering synergies and complementarity among the different measures being designed and tested.

#### Box 5.2. SABER-ECD: A POLICY DIAGNOSTIC TOOL

The World Bank's *Systems Approach for Better Education Results (SABER)* is a tool designed to help countries systematically examine their education policies. SABER-Early Childhood Development (SABER-ECD), one of the domains within this initiative, undertakes a holistic multisectoral assessment of early childhood programs and policies.

SABER-ECD presents three core policy goals: (1) Establishing an enabling environment, (2) Implementing widely, and (3) Monitoring and assuring quality. A set of policy levers for each policy goal—based on evidence from impact evaluations and a benchmarking exercise of top-performing systems—provide decision-makers with options to strengthen ECD programs and services in their country.

Since SABER-ECD was launched in 2010, more than 35 countries have participated in the initiative. As a result, they have been able to identify policy options to strengthen ECD at the national and subnational level.

For more details, go to <http://saber.worldbank.org/index.cfm?indx=5&sub=1>

### 5.3 Strengthening Systems through Quality Improvements

Despite a growing understanding of the importance of the early years in building human capital, limited attention has been paid to the status and skills of the early childhood workforce. Given that the essence of early childhood interventions rests in the interaction between service providers and families, the capacity of this workforce is central to delivering quality services. The early childhood workforce is vast and diverse, spanning a range of roles including both professionals and paraprofessionals, both paid and unpaid workers, as well as frontline workers, trainers, supervisors, and managers in many sectors, including education, health and nutrition, social protection, and child protection.<sup>68</sup> Despite this diversity, the ECD workforce has many shared objectives around the delivery of ECD services, and these are best met when systems ensure that the workforce is

adequately trained in the essential aspects of nurturing care and is provided with adequate working conditions.

Training and professional development programs offer an opportunity to impart a core set of knowledge and skills to members of the early childhood workforce across sectors, which is particularly important as programs scale up. These training programs draw on the programmatic packages described earlier in the report. Evidence indicates that supporting individuals with such opportunities positively influences child development outcomes. For example, training offered through the CCD package to improve care quality, including adaptations to address the identification and care of young children with disabilities, has been valuable for frontline staff such as health workers, nutrition counsellors, and social workers. For instance, in Pakistan, Lady Health Workers were able to modify activities for the inclusion of children with mild impairments.<sup>69</sup> In Malawi, specific adaptations have been made for children with visual impairments.<sup>70</sup>

It is also important to use community based-training approaches to sustain worker capacity and ensure accessibility to target populations, through local community members equipped with ECD knowledge and skills. Communities that are enabled, supported, and empowered can better deliver appropriate information to caregivers and a range of essential services of good quality to children. Frontline workers drawn from the community have had a special relevance in the face of disaster preparedness and response to humanitarian needs, especially when access is a challenge or even impossible. To address reductions in violence, it has been valuable for community-based frontline service providers to be trained both in detecting risk among young children and in using inter-sectoral referral mechanisms so frontline workers can activate response systems.

Therefore, it is crucial to support countries in their efforts to strengthen the capacity and working conditions of the ECD workforce, which in a majority of countries is women, building on existing community structures and relevant sectoral platforms. In doing so, a double dividend is gained – improved child outcomes and women’s economic empowerment. Furthermore, to achieve scale, system strengthening also requires strong leadership and capacity among policy makers and managers, so they can achieve improved ECD-enabling legislation and integrated policies and design and implement planning and quality assurance processes.

## 5.4 Creating Partnerships and Strengthening Knowledge Exchange

We must work together to achieve results for young children at scale, drawing on the strengths and complementary assets of all stakeholders at the local, regional, national, and global levels. Partnerships with national and subnational governments, civil society, and communities are essential to strengthen national systems and enhance accountability mechanisms. Likewise, multi-stakeholder partnerships are needed to mobilize resources, share lessons and models, foster innovation, and improve mutual accountability for the results that we want to achieve.

The ECD Action Network (ECDAN), is a good example of an action-oriented multi-stakeholder partnership platform. ECDAN is the first global network committed to comprehensive ECD action. It engages stakeholders across constituencies, sectors and countries to accelerate progress toward achieving the SDG targets for young children (see Box 5.3). Moreover, existing networks and global funds managed by development partners, such as the Global Partnership for Education (GPE) and the Global Financing Facility (GFF), can be leveraged toward the programming of ECD intervention packages that can be delivered by education and health systems, respectively.

It is also important to expand collaboration with the private sector and business community in order both to leverage their core assets on behalf of children and to enlist their support in the creation of family-friendly policies such as parental leave and breastfeeding breaks. Since the private sector is growing as a provider of services for young children (including health and child care), improved partnership models would also allow us to strengthen the quality of the services provided by this sector. ECDAN could be leveraged to make progress on the ECD agenda, as it convenes stakeholders from all relevant constituency groups, while ensuring that countries drive their own process and agenda.

Moreover, ECDAN provides clear opportunities for G20 countries to share their experiences with other nations interested in implementing quality ECD programs at scale. Coordination, knowledge exchange, and shared vision at all levels are needed for effective advocacy and action on behalf of *all* young children. ECDAN could also serve as a platform to set technical standards for program quality against which investments could be made for services for young children and families.

#### Box 5.3 ECDAN: A GLOBAL MULTI-STAKEHOLDER PARTNERSHIP

UNICEF and the World Bank Group launched the ECD Action Network (ECDAN) in 2016, together with more than 80 organizations. These 80 partners include UN agencies (ILO, UNESCO, UNICEF, and WHO), international finance institutions (World Bank Group, Inter-American Development Bank), civil society organizations, non-governmental organizations, foundations, private sector entities, ECD regional networks, academics, think tanks, and related global initiatives.

ECDAN seeks to complement and work closely with related global partnerships and strategies such as Scaling Up Nutrition (SUN), Global Partnership for Education (GPE), End Violence against Children Partnership (EVP), Every Woman Every Child (EWEC), and Sanitation and Water for All (SWA), which are already effectively coordinating action to promote different aspects of early childhood development.

To achieve its vision of all young children reaching their potential, ECDAN:

- Coordinates action among diverse actors working to support young children at all levels
- Shares knowledge across countries and communities, including technical tools, resources, and advocacy materials
- Raises demand for services for young children and families through expanded and coordinated advocacy initiatives, and
- Intensifies, improves, and scales up multi-sectoral ECD action at the country level.

In 2017, a small group of countries (First Wave) started to create, test, and refine planning for action at scale, providing the building blocks for ECDAN's approach to engaging with other interested countries in subsequent years. The First Wave countries will be announced in the coming weeks, upon formal government endorsement.

## 5.5 Harnessing Demand

Traditionally, early childhood development has been a supply-driven field. Yet families and communities, who make up the demand side of this equation, are the strongest advocates for their children. Recent evidence indicates that there has been insufficient involvement and mobilization for ECD services by parents, families, and communities, even though they are an important driver for access and quality to services.<sup>71</sup> A systematic approach to scaling up access will therefore require raising community demand for services.

Demand needs to be shaped for desired outcomes to be achieved, and parents, caregivers, and communities need to know “what good looks like.” Although private-sector provision of ECD is growing globally,<sup>72</sup> it is often of low quality.

Across several countries, social mobilization through a range of catalytic, interconnected, interpersonal, and multi-media platforms—such as public service announcement (PSA) broadcasts and mobile-phone parenting apps—have been used to drive demand for ECD within families and communities. For example, one of the largest online parenting portals in China reaches 93 percent of target caregivers with key messages on early stimulation and care.<sup>73</sup>

Harnessing demand also helps amplify community voices, especially the voices of marginalized and excluded groups, and connects them to upstream policy-advocacy efforts through strengthened social accountability mechanisms that prioritize ECD. In Peru, for example, a public expenditure tracking system on ECD, called *inforbarometro*, supported a citizen’s movement for young children. Another example of a social accountability mechanism is the *Tostan* approach of community dialogue, used in Senegal, which has generated a demand for positive parenting.

As illustrated above, parents and caregivers are the key to ensuring a child receives adequate nutrition, stimulation and protection from violence and neglect. Hence, advocacy and communication strategies need to be expanded for innovative engagement with communities and families aimed at shaping demand and changing social norms to affect personal behavior and drive policy change. Furthermore, social accountability mechanisms that prioritize ECD, such as local monitoring of coverage and expenditure linked to quality outcomes, needs to be prioritized.

## Concluding Thoughts

Early childhood is the most crucial period for children’s holistic development, and early experiences have a profound lifelong impact on children’s future learning, health and earning potential. Missing the opportunity to maximize young children’s development results in a huge loss in human capital caused by a weaker future workforce and skills deficits. Profound and fast moving technological innovations across industries will require a highly skilled workforce. The latest neuroscience research indicates that the foundation for the skills required to face the challenges of the 21<sup>st</sup> century is laid during early childhood, when the brain is developing rapidly.

Despite existing evidence, and political momentum, investments in early childhood remain low. The justification and proven tools for achieving impact at scale are currently available and represent a clear and urgent priority. The features established in the nurturing care framework (nutrition, health, early learning, security and safety and responsive caregiving) are inseparable and multi-dimensional, hence the need for integrated approaches that build on existing delivery platforms, prioritize marginalized populations, and emphasize families and parenting support. Moreover, to generate impact as scale, it is essential to implement core priority strategies, which include financing sustainably, monitoring results, strengthening systems through quality improvements, creating partnerships, and harnessing local demand.

There is a strong need for political championship and commitment to achieve equity in results for young children, and in doing so support the fair and sustainable development agenda. We must change the investment paradigm and support quality implementation of ECD programs at scale, if

we want to give all children the opportunity to develop to their full potential, and achieve inclusive development, equitable growth and competitive economies.

## ANNEX 1: COUNTRIES' BEST PRACTICES

\*\*Please note that additional case studies in this annex are forthcoming in the following weeks\*\*

### NOTES

<sup>1</sup> FAWCO, NGO Committee on Migration, and OMEP, *Positive Effects of Innovative Early Childhood Development Programs on Refugee Youth Resilience* (undated). <http://www.unhcr.org/584696994.pdf>

<sup>2</sup> For more information about “The Future of Work” in the G20, see the “Priorities” web page on the G20 website at <https://www.g20.org/en/g20-argentina/priorities>

<sup>3</sup> A wealth of detail on the research underlying this finding may be found at the web page maintained by Professor Heckman at <https://heckmanequation.org/resource/the-heckman-curve/>

<sup>4</sup> UNICEF, *Early Moments Matter, for Every Child* (New York: 2017).

<sup>5</sup> L.M. Richter, B. Daelmans, J. Lombardi, et al., “Investing in the Foundation of Sustainable Development: Pathways to Scale Up for Early Childhood Development,” *The Lancet* 389(10064): 103–118 (first published Oct. 2016). [http://thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(16\)31698-1.pdf](http://thelancet.com/pdfs/journals/lancet/PIIS0140-6736(16)31698-1.pdf)

<sup>6</sup> UNICEF, *Early Moments Matter, for Every Child*.

<sup>7</sup> Ibid.

<sup>8</sup> UN Women, *Progress of the World's Women 2015-2016: Transforming Economies, Realizing Rights* (2015). [http://progress.unwomen.org/en/2015/pdf/UNW\\_progressreport.pdf](http://progress.unwomen.org/en/2015/pdf/UNW_progressreport.pdf)

<sup>9</sup> UN Economic and Social Council, “Progress Towards the Sustainable Development Goals: Report of the Secretary General,” dated 11 May 2017. Available at [E/2017/66](http://www.un.org/News/Press/docs/2017/201705/20170511.ecosoc.srsg.sdg.html).

<sup>10</sup> UNICEF, *Achieving Women's Economic Empowerment and Early Childhood Care and Development as Mutually Reinforcing Objectives: Toward an Integrated Vision of Early Childcare Programming*, Technical Note. [https://www.unicef.org/earlychildhood/files/Technical\\_NoteAchieving\\_Womens\\_Economic\\_and\\_ECD.pdf](https://www.unicef.org/earlychildhood/files/Technical_NoteAchieving_Womens_Economic_and_ECD.pdf)

<sup>11</sup> Estimation made by The McKinsey Global Institute, cited in *Return to Equality: Investment Opportunities That Help Close the Global Gender Gap* (New York: BYY Mellon and United Nations Foundation, 2017).

<sup>12</sup> *G20 Action Plan on the 2030 Agenda for Sustainable Development* (2016). [https://www.b20germany.org/fileadmin/user\\_upload/G20\\_Action\\_Plan\\_on\\_the\\_2030\\_Agenda\\_for\\_Sustainable\\_Development.pdf](https://www.b20germany.org/fileadmin/user_upload/G20_Action_Plan_on_the_2030_Agenda_for_Sustainable_Development.pdf)

<sup>13</sup> Ban Ki-Moon, “Remarks at event on Investing in Early Childhood Development as the Foundation for Sustainable Development,” September 22, 2015, United Nations Headquarters, New York. <https://www.un.org/sg/en/content/sg/speeches/2015-09-22/remarks-event-investing-early-childhood-development-foundation>

<sup>14</sup> M.M. Black, S.P. Walker, L.C.H. Fernald, et al., “Early Childhood Development Coming of Age: Science Through the Life Course,” *The Lancet* 389(10064): 77–90. [http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(16\)31389-7.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(16)31389-7.pdf)

- 
- <sup>15</sup> UNICEF and the World Bank Group, “Ending Extreme Poverty: A Focus on Children” (October 2016). [https://www.unicef.org/publications/files/Ending\\_Extreme\\_Poverty\\_A\\_Focus\\_on\\_Children\\_Oct\\_2016.pdf](https://www.unicef.org/publications/files/Ending_Extreme_Poverty_A_Focus_on_Children_Oct_2016.pdf)
- <sup>16</sup> UNICEF, World Health Organization, and the World Bank Group, “Levels and Trends in Child Malnutrition: Joint child malnutrition estimates – Key findings of the 2017 edition” (New York, Geneva, Washington, DC, March 2017). <http://data.unicef.org/wp-content/uploads/2017/05/JME-2017-brochure-1.pdf>
- <sup>17</sup> UNICEF, *Early Moments Matter, for Every Child*, p. iv.
- <sup>18</sup> UNICEF, *A Familiar Face: Violence in the Lives of Children and Adolescents* (New York: 2017). p. 7.
- <sup>19</sup> UNICEF, *For Every Child, a Fair Chance: The Promise of Equity* (New York: November 2015). p. 11. [https://www.unicef.org/publications/files/For\\_every\\_child\\_a\\_fair\\_chance.pdf](https://www.unicef.org/publications/files/For_every_child_a_fair_chance.pdf)
- <sup>20</sup> *Ibid.*, p. 16.
- <sup>21</sup> *The Importance of Early Childhood Development to Education*, prepared for the Global Meeting of the Thematic Consultation on Education in the Post-2015 Development Agenda Dakar, March 18-19, 2013
- <sup>22</sup> World Bank Group, *Development Report 2018: Learning to Realize Education’s Promise* (Washington, DC: 2018). p. 39.
- <sup>23</sup> UNICEF, *Early Moments Matter, for Every Child*, p. 53.
- <sup>24</sup> *Ibid.*, pp. 51–53.
- <sup>25</sup> Richter et al., “Investing in the Foundation of Sustainable Development.”
- <sup>26</sup> UNICEF, *Early Moments Matter, for Every Child*, p. 51.
- <sup>27</sup> *Ibid.*, p. 52.
- <sup>28</sup> S. Maccini, and D. Yang, “Under the Weather: Health, Schooling, and Economic Consequences of Early-Life Rainfall,” *American Economic Review* 99(3)(June): 1006–26.
- <sup>29</sup> R. Akresh, S. Bhalotra, M. Leone, and U.O. Osili, “War and Stature: Growing Up during the Nigerian Civil War,” *American Economic Review* 102(3)(May 2012): 273–77.
- <sup>30</sup> Richter et al., “Investing in the Foundation of Sustainable Development,” p. 105.
- <sup>31</sup> Full details on the Reach Up and Learn package may be found at <http://www.reachupandlearn.com/>
- <sup>32</sup> O. Petrovic and A.K. Yousafzai, “Promoting Care for Child Development in Community Health Services: A Summary of the Pakistan Early Child Development Scale-up (PEDS) Trial” (New York: September 2013).
- <sup>33</sup> Full details on CCD may be found at: [https://www.unicef.org/earlychildhood/index\\_68195.html](https://www.unicef.org/earlychildhood/index_68195.html)
- <sup>34</sup> UNICEF. 2013. “Effective Community-Based Childcare Approaches. Providing Holistic Support for the Most Vulnerable Young Children in Developing Countries. Findings from a Review of Evidence”
- <sup>35</sup> P.R. Britto, S.J. Lye, K. Proulx, et al., “Nurturing Care: Promoting Early Childhood Development,” *The Lancet* 389 (10064): 91–102 ([http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(16\)31390-3](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)31390-3)), p. 91.
- <sup>36</sup> S. Berlinski and N. Schady, *The Early Years: Child Well-Being and the Role of Public Policy* (New York, NY, and Washington, DC: MacMillan and Inter-American Development Bank, 2015).
- <sup>37</sup> UNICEF, *Cognitive Capital: Investing in Children to Generate Sustainable Growth* (UNICEF East Asia and the Pacific: 2016).
- <sup>38</sup> UNICEF, *Annex B: Global Assessment of UNICEF’s Early Childhood Development Kit* (New York: 2009). [https://www.unicef.org/evaluation/files/Annex\\_B\\_Global\\_Assessment\\_UNICEFs\\_ECD\\_Kit\\_2009-2015\\_FINAL7.29.16.pdf](https://www.unicef.org/evaluation/files/Annex_B_Global_Assessment_UNICEFs_ECD_Kit_2009-2015_FINAL7.29.16.pdf)
- <sup>39</sup> Sesame Street Workshop and International Rescue Committee, *Sesame Seeds: Restoring Hope and Opportunity to a Generation of Refugee Children* (2018).

- 
- <sup>40</sup> P.R. Britto, H. Yoshikawa, J. Van Ravens, et al., *Understanding Governance of Early Childhood Development and Education Systems and Services in Low-Income Countries* (UNICEF Office of Research: 2013).
- <sup>41</sup> UNICEF, *Early Childhood Development, A Statistical Snapshot: Building Better Brains and Sustainable Outcomes for Children* (New York: 2015).
- <sup>42</sup> A. Valerio and M. Garcia, "Effective Financing," in *Handbook of Early Childhood Development Research and its Impact on Global Policy*, edited by R. Britto, P. Engle, and C. Super (New York: Oxford University Press, 2013).
- <sup>43</sup> C. Belfield, *Financing Early Childhood Care and Education: An International Review*, paper commissioned for the *Education for All Global Monitoring Report* (Paris: UNESCO, 2006).
- <sup>44</sup> M. Nores and C. Fernandez (under review) *Building Capacity in Health and Education Systems to Deliver Interventions That Strengthen Early Child Development* (New Brunswick, NJ: National Institute for Early Education Research).
- <sup>45</sup> V. Putcha, A. Upadhyay, M. Neuman, et al., *Financing Early Childhood Development: An Analyses of International and Domestic Sources on Low- and Middle- Income Countries* (Washington, D.C.: Results for Development, 2016).
- <sup>46</sup> S. Naudeau, N. Kataoka, A. Valerio, M. Neuman, and L. Elder, *Investing in Young Children: An Early Childhood Development Guide for Policy Dialogue and Project Preparation* (Washington, D.C.: The World Bank, 2010).
- <sup>47</sup> Putcha et al., *Financing Early Childhood Development*.
- <sup>48</sup> Putcha et al., *Financing Early Childhood Development*; M. Neuman, "Doing More with Less: Innovations in Early Childhood Development from Low-resource Contexts," in *The SAGE Handbook of Early Childhood Policy*, edited by L. Miller, C. Cameron, C. Dall, and N. Barbour (SAGE, 2017).
- <sup>49</sup> Valerio and Garcia, "Effective Financing."
- <sup>50</sup> Neuman, "Doing More with Less."
- <sup>51</sup> Ibid.
- <sup>52</sup> Law 27 of 1974 established a 2% payroll tax, and in 1988 Law 89 raised the tax to 3% (UNESCO, *Payroll Taxes for Child Development: Lessons from Colombia*, Policy Brief on Early Childhood N° 35 [November 2006]).
- <sup>53</sup> Emiliana Vegas and Lucrecia Santibáñez, *The Promise of Early Childhood Development in Latin America and the Caribbean* (Washington: The World Bank, 2010); Putcha et al., *Financing Early Childhood Development*.
- <sup>54</sup> Big Lottery Funds, *Annual Report and Accounts 2016/17* ([https://www.biglotteryfund.org.uk/-/media/Files/Corporate%20documents/Annual%20Reports/pub\\_annual\\_report\\_big\\_2017.pdf](https://www.biglotteryfund.org.uk/-/media/Files/Corporate%20documents/Annual%20Reports/pub_annual_report_big_2017.pdf))
- <sup>55</sup> Save the Children, *Innovative Financing for Early Childhood Education State and Local Options* (Fairfield, CT: Save the Children Action Network, 2015); A. Raden, *Universal Pre-kindergarten in Georgia: A Case Study of Georgia's Lottery-Funded Pre-K Program* (New York: Foundation for Child Development, 1999).
- <sup>56</sup> First 5 in California is a voter-approved tobacco tax passed in 1998 through Proposition 10 (Children and Families Initiative) to fund ECD activities for children from birth through age 5 ("Proposition 10 Statutes / Includes Amendments to the California Children and Families Act California Codes as of March 24, 2011 / Health and Safety Code Section 130100-130155" [<http://first5association.org/wp-content/uploads/2013/07/Proposition-10-Updated-0311.pdf>]).
- <sup>57</sup> Mayor's Office of Education, Philadelphia, *Quality Pre-K* (<http://www.phlprek.org/phlprek>). Note that this taxation method is currently being reviewed by the state supreme court since it has been contested by various industries.
- <sup>58</sup> In 2006, Denver voters approved a 0.12% sales tax to be set aside for the Denver Preschool Program (Augenblick, Palaich and Associates, Inc., *An Evaluation of the Denver Preschool Program 2012-2013* [Denver: 2013]).
- <sup>59</sup> In 2012, voters in San Antonio, Texas, approved a one-eighth cent sales tax increase to fund the Pre-K 4 SA program (<http://www.sanantonio.gov/Pre-K-4-San-Antonio/about>).
- <sup>60</sup> In 2011, voters in Seattle, Washington, approved the Families and Education Levy, which includes \$61 million for early childhood programs (Department of Education and Early Learning, Seattle, *About the Families and Education Levy 2* [2015] <http://www.seattle.gov/education/about-us/about-the-levy>).
- <sup>61</sup> S. Gardiner and E. Gustafsson-Wright, *South Africa Is the First Middle-Income Country to Fund Impact Bonds for Early Childhood Development* (Washington, DC: Brookings Institution, 2016).

- 
- <sup>62</sup> C. Belfield, *Financing Early Childhood Care and Education: An International Review*, paper commissioned for the *Education for All Global Monitoring Report* (Paris: UNESCO, 2006).
- <sup>63</sup> Ibid; Putcha et al., *Financing Early Childhood Development*.
- <sup>64</sup> North Carolina Bar Association Foundation for Continuing Legal Education, *The Constitutional Right to a Sound Basic Education* (NC: undated) (<https://www.ncbar.org/media/558491/gsa15-preview.pdf>); Education Law Center, *The History of Abbott v. Burke* (Newark, NJ) (<http://www.edlawcenter.org/cases/abbott-v-burke/abbott-history.html>)
- <sup>65</sup> S. Gardiner and E. Gustafsson-Wright, “South Africa is the first middle-income country to fund impact bonds for early childhood development.” blog posting, Brookings Institution (<https://www.brookings.edu/blog/education-plusdevelopment/2016/04/06/south-africa-is-the-first-middle-income-country-to-fund-impact-bonds-for-early-childhood-development>).
- <sup>66</sup> Hult Prize, *2015 Challenge: Early Childhood Education* <http://www.hultprize.org/past/2015-challenge/>
- <sup>67</sup> Additional initiatives include the *Measuring Early Learning Quality and Outcomes (MELQO)* developed by a consortium led by the Brookings Institution, UNESCO, UNICEF, and the World Bank; the Inter-American Development Bank *Regional Project on Child Development Indicators (PRIDI)*; and Save the Children’s *International Development and Early Learning Assessment (IDELA)*.
- <sup>68</sup> R. Mitter and V. Putcha, *Strengthening and Supporting the Early Childhood Workforce: Training and Professional Development* (Washington, D.C.: Results for Development, 2018).
- <sup>69</sup> A.K. Yousafzai, M.A. Rasheed and S. Siyal. *Annals of the New York Academy of Sciences*. In press
- <sup>70</sup> M. Gladstone and P. Lynch, *When the Child Cannot See There Is No Stimulus to Play: A Study of Care of Children with Visual Impairment in Community Settings in Malawi*. Conference presentation at the International Paediatrics Association Congress, Istanbul, December 3, 2015.
- <sup>71</sup> Richter et al., “Investing in the Foundation of Sustainable Development.”
- <sup>72</sup> *Exploring Early Education Programs in Peri-urban Settings in Africa: Final Report Summary*, Optimus Impact Research Paper (UBS Optimus Foundation: March 2014, Issue 5) [http://www.educationinnovations.org/sites/default/files/10712\\_Optimus\\_Impact\\_Final%20report\\_5.pdf](http://www.educationinnovations.org/sites/default/files/10712_Optimus_Impact_Final%20report_5.pdf)
- <sup>73</sup> UNICEF, *Early Moments Matter, for Every Child*, p. 55.
- <sup>74</sup> UNICEF, *Cognitive Capital*.