Early Childhood Development in the SDGs

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Agreement on the Sustainable Development Goals signals that early childhood development (ECD) will be a priority focus for the twenty-first century. Explicit mention is made in Target 4.2 which states that by 2030 countries should: 'ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education'. But SDG commitments to ECD are much broader than this education-focused target. This Policy Brief offers five key messages that can underpin delivery of the SDGs through the transformative potential of accessible, inclusive, quality ECD – for all young girls and boys, and for their families.

Quality early childhood development is crucial to the SDGs

Strengthening early childhood development is key to achieving at least seven of the Sustainable Development Goals goals, on poverty, hunger, health (including child mortality), education, gender, water and sanitation, and inequality. In the words of UN Secretary-General Ban Ki-moon:

"… early childhood development can help drive the transformation we hope to achieve over the next 15 years. This is a pivotal time. … Too many countries have yet to make early childhood development a priority. We need to invest more, not just in education, but in health and protection. We need to target our investments and interventions to reach children at greatest risk of being left behind. The Sustainable Development Goals recognise that early childhood development can help drive the transformation we hope to achieve over the next 15 years." (Statement on 22 September 2015)

Harnessing the transformative power of ECD builds on a growing body of international research evidence, indicating that:

…. investing in ECD leads to gender equality and empowerment, better health and education outcomes, improved skills, abilities and productivity, narrows the income, ethnic, and geographic inequality gaps, provides timely intervention for persons with disabilities, and is a cost effective strategy for eliminating disadvantage." (Consultative Group 2012: 19)

This Policy Brief draws on this growing body of evidence, a recently prepared Topic Guide on early child development commissioned by DFID, as well as evidence from Young Lives four-country longitudinal research. We offer five key messages that can underpin delivery of the SDGs through the transformative potential of accessible, inclusive, quality ECD – for all young girls and boys, and for their families.

Greatest attention is being paid to Target 4.2 as the most explicit reference to ECD. The emphasis on 'quality' in Target 4.2 is crucial. The strongest evidence demonstrating the potential of ECD comes from well-planned and well-resourced programmes that:

- are 'developmentally appropriate' respecting children's rights, needs, capacities, interests and ways of learning at each stage of their early lives;
- recognise the interdependencies between nutrition, health, care and education, from the 'first 1000 days' onwards;
- build on and support children's key relationships, especially with their mother, father and wider family in the specific physical, social, cultural and language contexts that are the foundation for well-being.

These general principles apply equally to a parenting programme focused on mothers and infants as to a centre-based pre-school. Of course, operationalised quality indicators will be more specific to the age and sectoral focus, as well as the goals and delivery of ECD. For example, scaling-up pre-primary education should give attention to six quality dimensions: equitable and inclusive access; well-designed curriculum, teaching and learning materials; effective teachers and school leaders; ongoing parental and community support and engagement; attention to standards, monitoring and learning; and system financing, management and leadership (Rossiter 2016). Prioritising quality also applies to the primary school grades to which children progress and which reinforce the positive outcomes of investing in quality ECD.

Five key findings

1. **Early deprivation affects the growth and changing structure and function of the brain**: Research from neuroscience helps explain why experiences during infancy and early childhood, are so critical for health, social adjustment and well-being. Neuroscience renews the imperative to ensure high-quality ECD for every child, from before birth onwards.
2. **Inequalities emerge – and are best prevented – early in life**: The link between poverty, child development outcomes and widening inequalities is well known. Early deprivations impact cumulatively on children's long-term outcomes. For example, one multi-country study showed that for every 10% increase in levels of stunting among children, the proportion of children reaching the final grade of school dropped by almost 8%.
3. **Early child development programmes are cost-effective**: Economic analysis adds to the weight of evidence that ECD is not only critical but also cost-effective. Life-course evidence demonstrates the returns to children and society through, for example, reduced costs of special education, reduced social protection costs, higher earnings, etc.
4. **The first three years matter too**: The investment potential of ECD is not just about 'pre-primary' and school readiness. Systematic studies across diverse contexts, sectors and delivery platforms show that the biggest returns may come from programmes targeted towards the very youngest children and parents.
5. **The importance of ensuring programmes are targeted, equitable and inclusive**: One of the biggest challenges for scale-up is to reach the poorest, most remote and marginalised children. Indeed, one of the reasons poorer children lose out in their later learning outcomes may be because they are attending poorer quality pre-primary and primary schools than their better-off peers.

Key finding 1. Early deprivations affect the growth and changing structure and function of the brain

Goals 1, 2 and 3 of the SDGs (about ending poverty, ending hunger, ensuring healthy lives) can only be delivered through improvements to early child development. Decades of research demonstrates the many ways that poverty, under-nutrition, unhealthy environments, deprivations and trauma, undermine children's current and future well-being, with the youngest at greatest risk of harm. Research has also identified protective factors shaping children's relative vulnerability or resilience, and the potential for reversibility and remediation.

More recently, our understanding about why early childhood is a 'critical period' is being revolutionised by new evidence from neuroscience. Tangible, physical expression of the impact of early deprivations is being revealed in studies of the growing and changing structure and function of the brain. Toxic stress from early childhood adversity can lead to changes in learning, behaviour and physiology, which in turn increase the chance of stress-related chronic disease which can further widen health disparities (Shonkoff et al. 2012).

Neuroscience renews the imperative to ensure high-quality ECD for every child, from before birth onwards:

"…The growth and then environmentally based pruning of neuronal systems in the first years support a range of early skills, including cognitive (early language, literacy, math), social (empathy, prosocial behaviors), persistence, attention, self-regulation and executive function skills (the voluntary control of attention and behavior). Each of these skills, measured in early childhood, are predictive of school success and completion; higher earnings; active participation in communities and society; and reduced odds of delinquency, crime, and chronic and non- communicable disease. Later skills – in schooling; in employment; in family life – build cumulatively upon these early skills." (Sustainable Solutions Development Network 2014)

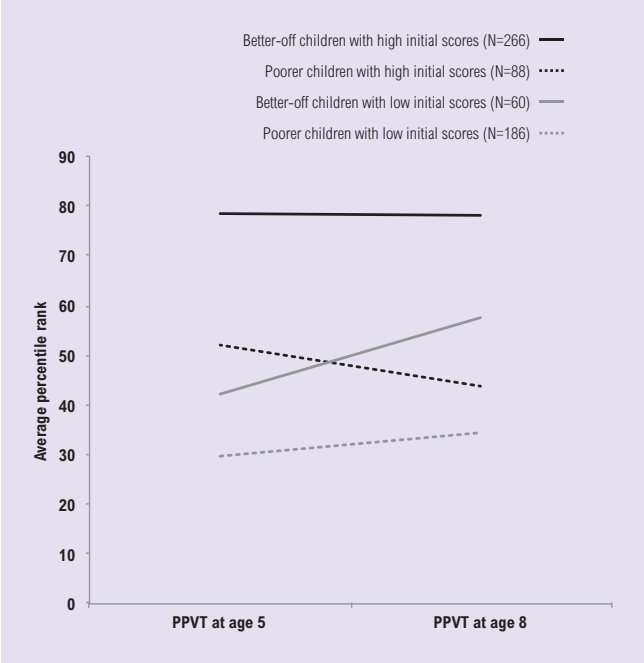
Key finding 2. Inequalities emerge – and they are best prevented – early in life

Goal 10 of the SDGs focuses on reducing inequalities. The link between poverty, child development outcomes and widening inequalities is well known (Woodhead et al. 2013). A powerful catalyst for global policy engagement in these issues has been a series in *The Lancet*, which estimated that: "... more than 200 million children under 5 years fail to reach their potential in cognitive development because of poverty, poor health and nutrition, and deficient care." These deprivations impact cumulatively on long-term outcomes. For example, one multi-country study showed that for every 10% increase in levels of stunting among children, the proportion of children reaching the final grade of school dropped by almost 8% (Grantham-McGregor et al. 2007).

Young Lives has been tracking the links between poverty and early stunting and the subsequent impact on development. Children in India who were stunted at the age of 18 months showed lower levels of cognitive ability at age 5, and those stunted at age 8 had lower reading, writing and maths skills by the age of 12. Stunting at 8 years old also predicted lower self-efficacy, self-esteem and educational aspirations by age 12. Poorer and socially marginalised children are most likely to be stunted, compounding other inequalities.

Figure 1 vividly represents the early emergence of inequalities, for one school readiness indicator, the Peabody Picture Vocabulary Test (PPVT). It shows how poorer children in our sample in Ethiopia who had relatively high scores at age 5 were left behind by the age of 8, compared with children from better-off households, including being overtaken by children whose abilities at age 5 were much lower.

Figure 1. *The link between household wealth and children's learning trajectories (Ethiopia)*



Source: Adapted from P. Dornan and M. Woodhead (2014) *How Inequalities Develop through Childhood*, using data from the Young Lives Younger Cohort in Ethiopia.

Note: High wealth is defined as in the top quarter of the distribution (and vice versa for low wealth). Children were assigned to ability groups based on CDA test scores at age 5. High scores are those in the top quarter; low scores are those in bottom quarter of CDA test results. The CDA tests children's understanding of concepts of quantity. Progress is measured on the PPVT test of receptive vocabulary at age 5 and age 8.

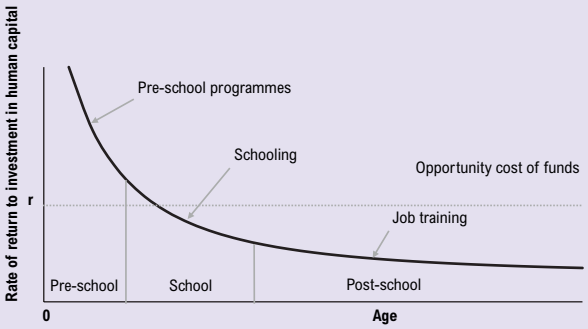
Research reviews suggest the most effective interventions to reduce inequalities are comprehensive (health, nutrition and learning) and targeted to the youngest and most disadvantaged children. Importantly, the evidence doesn't prescribe for a particular programme as most effective, but does emphasise the importance of quality, whether delivered through parenting support and training or through pre-school programmes (Engle et al. 2007, 2011; Walker et al. 2011; Rao et al. 2013).

Key finding 3. Early child development is cost-effective

Economic analyses add to the weight of evidence that ECD is not only critical but cost-effective (van der Gaag and Tan 1998; Barnett 2009). Figure 2 builds on life-course evidence from experimental studies, calculating the cost of interventions against the returns to children and society through, for example, reduced costs of special education, reduced social protection costs, higher earnings, etc.

Recognising the investment potential of ECD is not an alternative to respecting children's fundamental rights to development, and engaging the power of ECD to promote social justice and greater equality, benefitting the poorest and most marginalised as well as bringing wider economic and social benefits (Wilkinson and Pickett, *The Spirit Level*, 2009).

Figure 2. *Rates of return to human capital investment, with equal investment across all ages*



Source: Adapted from Cuhna et al. (2006) *Interpreting the Evidence on Life Cycle Skill Formation.*

Key finding 4. The first three years matter too

The investment potential of ECD is not just about 'pre-primary' although the weight of policy interest has often been skewed towards school readiness, including in the framing of Target 4.2 of the SDGs. In the past, this education bias was reinforced by the balance of research evidence. Now, systematic studies increasingly span diverse geographies and socio-economic contexts, delivery platforms, and age groups, from peri-natal and early infancy through to kindergarten and early grade schooling (Nores and Barnett 2010). Indeed Figure 2 suggests that the biggest returns may come from programmes targeted towards the very youngest children and parents, not forgetting the importance of support for the mother from around conception, since her well-being directly impacts foetal development.

For example, an experimental study in Jamaica supported parents to stimulate early learning in their children as well as providing nutritional supplementation. 129 stunted 9- to 24-month-old children were assigned to one of four groups: (1) Control; (2) Nutritional supplementation; (3) Early learning stimulation; or (4) supplementation and stimulation. Both interventions (groups 2 & 3) produced significant benefits. Children who received both treatments (group 4) caught up with a group of 32 matched non stunted children.

These children were tracked for over twenty years. When they were assessed at age 17 to 18 years, those who had received the stimulation intervention had higher scores on a range of cognitive and educational tests, as well as psychosocial indicators, e.g. less anxiety, depression, attention problems and higher self-esteem than the control group. Twenty years after the intervention was conducted, the average current earnings of the stimulation group were 25% higher than the control group and had caught up to the earnings of the non stunted comparison group (Gertler et al. 2012).

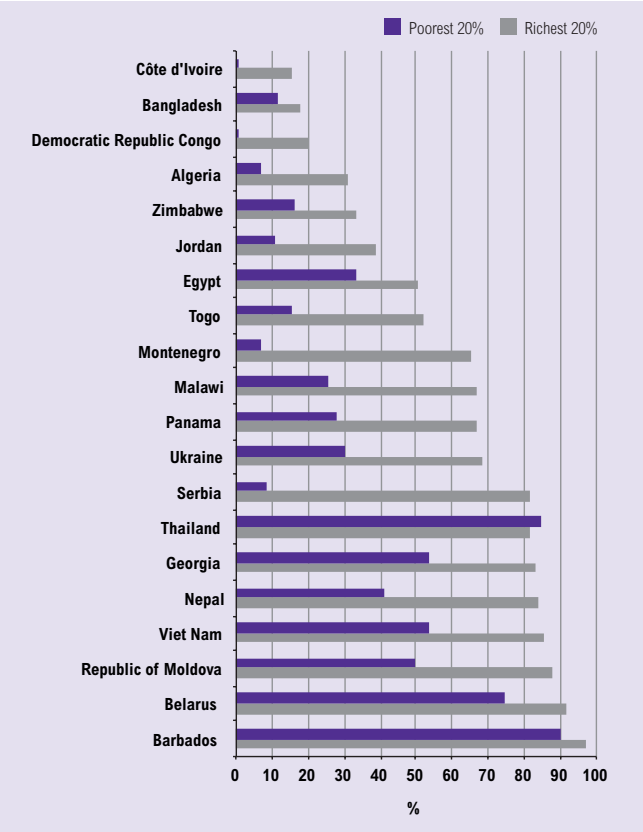
In short, comprehensive ECD involves early learning and school readiness, as well as health, nutrition and social protection for the full age–range, delivered via multiple community, pre-school and family strategies. The national Mother-Child Education Programme (MOCEF) in Turkey is a prime example of parent-focused ECD delivered to scale and with proven long-term effects (Kagitcibasi 2009).

Key finding 5. The importance of targeted, equitable and inclusive programmes

One of the biggest challenges for scale-up is to reach the poorest, most remote and marginalised communities; and within those communities, the children most at risk of exclusion, whether related to their gender, ethnicity or special needs. Indeed, one of the reasons the poorer children in Figure 1 are losing out between 5 and 8 may be because they aren't able to access services, or they are attending poorer quality pre-primary and primary schools than their more advantaged peers.

Many examples can be given of countries and communities that have successfully delivered to scale, (see Woodhead et al. 2014 for case studies). But there is a long way to go before SDG Target 4.2 can be achieved for every child. In the case of pre-primary education, Figure 3 shows that early inequalities are actually being amplified because of inequitable access. Consistently, children in the poorest households are less likely than children in the richest households to attend early childhood education programmes, across 20 diverse countries (see Figure 3).

Figure 3. *Percentage of 3- to 4-year-old children who attend some form of early childhood education, by household wealth quintile*



Source: UNICEF global databases, 2016, based on DHS, MICS, and other nationally representative surveys.

Data are from the latest available from the DHS (2012, 2013 or 2014), MICS (2012, 2013 or 2014) or the WMS (2013). With thanks to the Data and Analytics Section, UNICEF Division of Data, Research and Policy.

Many countries are at an early stage in operationalising ECD policies. As delivery and monitoring systems develop, so Goals 4 and 10 of the SDGs require that these access inequalities must be eliminated, along with other inequities related to gender, ethnicity or disability. Young Lives research draws attention to country variations in the factors that contribute to differences in service delivery, which include the distribution of ECD infrastructure, the level of government engagement in regulating as well as delivering programmes, systematic poverty-linked variations in quality, and the significant role of private sector providers in many countries, which may reinforce divisive trajectories into primary school (Woodhead and Streuli 2013).

The implication of Figure 3 is that enrolment statistics may be misleading, unless disaggregated on key poverty, inequality and exclusion indicators. One of the two proposed indicators for Target 4.2 is 'Participation rate in organised learning (1 year before official primary entry age) for all countries'. It is essential that this indicator is disaggregated, and capturing quality of learning is highly desirable.

Implications: Putting integrated ECD at the core of policy

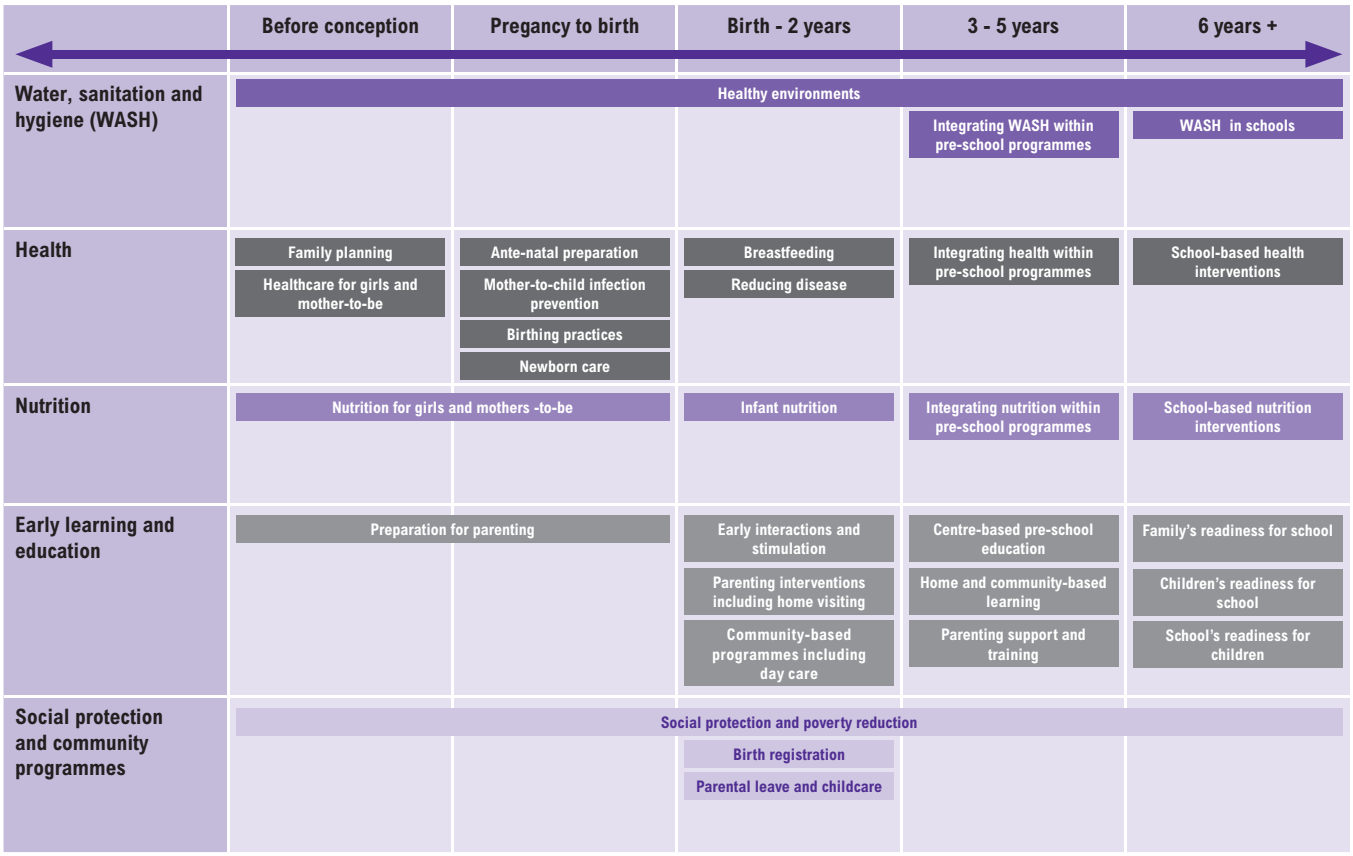
As earlier sections emphasise, human development is not sectoral, but dynamic and integrated. Deprivations in health and nutrition impact on children's education, and poor-quality education in turn impacts children's self-esteem, well-being and future prospects. But with a few notable exceptions (e.g. the Integrated Child Development Services in India), national policies and services are typically planned sectorally, in terms of health, nutrition, education, etc., and these divisions are largely reflected in the organisation of the SDGs.

One priority is to build more coordinated health, education, and protection systems: comprehensive, equitable, high-quality services that span all sectors, client groups and age groups (Denboba et al. 2014). Reviewing the evidence, UNICEF Executive Director Anthony Lake and World Health Organization Director-General Dr Margaret Chan confirm that:

"... to be most effective, interventions must be inter-sectoral, going beyond education to encompass health, nutrition, and protection. The healthy development of a child's brain depends on multiple positive experiences. Nutrition feeds the brain; stimulation sparks the mind; love and protection buffer the negative impact of stress and adversity. And distinct interventions are mutually supportive, achieving the strongest results when delivered together." (*The Lancet*, 20 Sept 2014)

Figure 4 presents a framework for reviewing inter-sectoral ECD initiatives and taking steps towards greater coordination in the best interests of children, families and societies. The second indicator proposed for Target 4.2 can help keep focus on this more comprehensive ECD vision: 'Percentage of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being'. Several initiatives are working towards appropriate developmental monitoring tools for the more ambitious goals of ECD.

Figure 4. *A framework for comprehensive ECD*



Source: Woodhead et al. 2014

Conclusion

Explicit reference to ECD in Target 4.2 is a landmark in the history of global policy development, but ECD is about so much more that this single education target. Quality ECD is fundamental to achieving the SDGs related to poverty and inequality, gender and social inclusion, health, well-being and the promotion of sustainable futures for all.

Scaling-up multi-sectoral ECD to deliver on the SDGs requires ambitious policy vision, combined with robust but pragmatic implementation strategies. ECD is not a 'one size fits all'. A range of policy pathways can deliver quality ECD, building on existing infrastructure and, crucially, on family and community aspirations to support their children's development. While some countries have opted for centrally driven comprehensive ECD reforms, others are strengthening ECD through more incremental and more localised capacity building, quality development and evidence-led initiatives.

In summary:

- Quality ECD is at the heart of the SDGs and it is a major route to their achievement.
- Early childhood is the most critical first phase of life, and the most cost-effective opportunity for investing in prevention and intervention programmes that reduce the effects of poverty, inequality, and trauma.
- Interdependencies between young children's survival, health, care and learning are best promoted through coordinated and integrated policies and services;
- Multiple entry-points and delivery platforms for ECD may be focused on social protection for families, water, sanitation and housing, ante-natal services, supporting parents' role as children's first educators, as well as child-targeted health, nutrition and early learning programmes.
- Comprehensive, equitable policies and systems need to be tailored to the specific developmental phases within early childhood, from before birth, early infancy through to beginning primary school – and beyond.

REFERENCES AND FURTHER READING

The Topic Guide to Early Childhood Development commissioned by DFID (Woodhead et al. 2014) gives an overview and introduction to the vast literature which has been referred to here. Selected references and key readings include:

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