

Applying the science

How what we are learning about brain development should shape policies, practical action, and public advocacy

Anthony Lake¹

Executive Director,
UNICEF, New York, NY,
USA

Science is redefining how we think about brain development during early childhood. Now it must change how we act – investing in practical interventions, integrating our efforts across sectors, and engaging with communities and families to reach the children who are being left behind.

Early childhood development (ECD) was once regarded primarily as the domain of educators, premised on the belief that teaching young children the basics – colours and shapes, letters and numbers – strengthens brain development and increases long-term learning. This is certainly true, and critically important.

But as necessary as early education is, it is not sufficient to support the full, healthy development of children’s brains – and thus to help them reach their full potential as adults. We must broaden the lens through which we view ECD, encompassing other critical areas such as nutrition, nurturing care, and protection from violence – all of which have a potentially life-changing impact for millions of disadvantaged and vulnerable children. Indeed, for *all* children.

We have already recognised how critical the first years of a child’s life are to the healthy development of her brain. During these earliest years, almost 1000 brain cells connect every second, a pace never matched again. These connections are the building blocks of a child’s life. They help determine her cognitive, emotional and social development. They help define her capacity to learn, her future success, even her future happiness.

But now we know considerably more, especially about how the experiences and conditions of a child’s life affect the formation of these critical brain connections – together with the genetic blueprint she is born with. In fact, the two – nature and nurture, genetic and experiential – are inextricably linked.

So when we stimulate a young child’s mind – *playing* with her, *talking* to her, *reading* to her – we are also stimulating her brain development and fostering her ability to learn. When we nourish her body with the proper *nutrition*, we are also feeding her brain and facilitating neural connections. And when we *protect her from violence and abuse*, we are also buffering her brain from the toxic stress that can break those critical connections and hamper healthy brain

¹ In the photo opposite, UNICEF Executive Director Anthony Lake (right) administers an oral polio vaccine to a baby at the Prang Government Primary School in Charsadda District, Khyber-Pakhtunkhwa Province while visiting UNICEF relief programmes for flood victims in the region.



△ Photo: © UNICEF/UNI93833/Ramonedá

development. When we provide her with nurturing care and loving attention, we are laying the foundation for better health and a fuller life.

The implications of our growing knowledge go well beyond individual children – encompassing families, communities, and societies. Children who are deprived of nutrition, or of stimulation, loving care or protection, may never reach their full potential. This is a tragedy for them and for their families. It is also an enormous loss to their societies, which are deprived of the full contribution they could have made, and a significant threat to long-term growth, stability, and even security.

This is of urgent importance in an increasingly fractured world. A world beset by violent conflicts. A world in which some 87 million children aged 7 and under – 1 in 11 children globally – have spent the most formative period of their brains' development growing up in countries affected by conflict. A world in which millions of families believe that physical punishment of their children is 'normal'. A world that is also increasingly affected by climate change – in which the health and well-being of millions of children are threatened by floods, droughts, and other emergencies. A world in which inequities in childhood

– deprivations and conditions that undermine healthy brain development – translate into diminished capacity to learn, to earn a decent living as an adult.

It need not be so. Important change can occur, by applying our evolving knowledge and making ECD – in its full complement of interventions, including early education and stimulation, nutrition, nurturing care, and protection from violence – a priority in policymaking, programming, and public spending.

The return on investment is considerable. Consider only one example. A 20-year study released in 2014 showed that children from disadvantaged households who received high-quality stimulation at a young age went on as adults to earn 25% more than those who did not receive these interventions – bringing their earnings in line with adults who grew up in wealthier households. This study contributes to the mounting evidence that shows how ECD programmes produce long-term economic gains – and fuel progress in human development.

The new global development agenda, embodied in the Sustainable Development Goals (SDGs) and adopted by governments around the world in September 2015, reflect this growing recognition of the role ECD plays in development, helping offset the effects of poverty and adversity. For the first time, ECD is explicitly included in the global development framework, with the specific aim of ‘increasing the percentage of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being’ (United Nations Economic and Social Council, 2015).

‘We need to turn up the volume and commitment around the issue of ECD within the SDGs – and move it from the “point-two” agenda, to the “number one” agenda.’

Although ECD is explicit in the SDGs for education – target 4.2 – it is implicit in others: target 2.2 for nutrition, target 3.2 for health, and target 16.2 for protection and peace. We need to turn up the volume and commitment around the issue of ECD within the SDGs – and move it from the ‘point-two’ agenda, to the ‘number one’ agenda.

To do that, we need to come together across all the sectors – coordinating and integrating our efforts in new ways for ECD. With so much at stake, and so much to be gained, we cannot afford to remain in separate silos. We need to link our efforts – sharing assets and resources and leveraging existing partnerships and networks – to give every young child an opportunity to benefit.

Recognising the urgent need for a more coordinated approach to ECD programmes, in April 2016 the World Bank and UNICEF announced a new partnership for ECD, and a call to action to all of us – in governments, development agencies, partners in academia, civil society, foundations and the private sector – to join forces for ECD.

Governments can invest specifically in nutrition, protection and stimulation and scale-up quality ECD services for every child, especially among the most disadvantaged and vulnerable.

NGOs, civil society organisations and businesses can work together to support local alliances to coordinate and deliver vital ECD services, and to fuel ECD awareness campaigns to inform, inspire and rally people around our common cause.

Academic partners can continue developing the evidence base, expanding our understanding of ECD and effective interventions while helping us develop indicators of brain development in the first 1000 days of life that can help measure progress and identify problems.

Parents and caregivers can learn more about what they can do to positively shape the young minds in their care – playing with and talking to their children, and giving them the active, nurturing care that every child needs and deserves.

ECD, in all its dimensions, is an opportunity and an investment. In today's children. In tomorrow's adults. In the health – physical, social and economic – of families, communities and nations.

The scientific knowledge is irrefutable. The moral argument is strong. The investment case is persuasive. Now we must act to make a lasting and positive difference for our children's most important treasure: their brains and their minds. For their sake. For *our* future.

Reference

United Nations Economic and Social Council.
(2015). *Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators*. Annex III: List of Sustainable Development Goal indicators, Goal 4.2.1.
Available at: <http://unstats.un.org/unsd/statcom/47th-session/documents/2016-2-IAEG-SDGs-E.pdf> (accessed May 2016).