



# The formative years

UNICEF's work on measuring  
early childhood development

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for every child

# The promise of **investing** in young children

Early childhood, which spans the period up to 8 years of age, is critical for cognitive, social, emotional and physical development. During these years, a child's newly developing brain is highly plastic and responsive to change as billions of integrated neural circuits are established through the interaction of genetics, environment and experience. Optimal brain development requires a stimulating environment, adequate nutrients and social interaction with attentive caregivers. Unsafe conditions, negative interactions and lack of educational opportunities during these early years can lead to irreversible outcomes, which can affect a child's potential for the remainder of his or her life.

The **Convention on the Rights of the Child** clearly highlights the importance of early childhood development (ECD), stating that a child has a right to develop to "the maximum extent possible" (Article 6) and that "States Parties recognize the right of every child to a standard of living adequate for the child's physical, mental, spiritual, moral and social development" (Article 27).

Evidence from multiple disciplines has confirmed that investing in early childhood development is one of the most cost-effective ways to improve educational achievement and to increase skills, capabilities and productivity. Based on this research and an enhanced understanding of the complete well-being of the child, early childhood development is increasingly included as part of the agenda for children's rights. Ensuring the sound cognitive, social and emotional development of young children merits the highest priority in seeking to raise healthy children worldwide.

The importance of ECD as a necessary and central component of global and national development has been recognized by the international community through the inclusion of a dedicated target within the Sustainable Development Goals (SDGs). Target 4.2 specifically calls upon countries to "Ensure that, by 2030, all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education."







# Measuring early childhood development

UNICEF monitors and reports on a variety of domains of child development and well-being, including, for example, nutritional status, immunization and parenting practices. While data for these areas are available for many countries, there is no systematic reporting on other important aspects of early childhood development. UNICEF has been working with countries to close this knowledge gap and to develop specific indicators in three vital areas:



**Quality of care**



**Access to early childhood care and education**



**Overall developmental status of children**

Data in all three of these areas are being collected through the UNICEF-supported Multiple Indicator Cluster Survey (MICS), which has a standard module on early childhood development. The module is administered to mothers or primary caregivers of children under the age of 5 (0 to 59 months). Some Demographic and Health Surveys (DHS) and other national household surveys have also collected information on early childhood development, typically with the standard, or modified, versions of the MICS module.

Along with existing evidence about the developing brain, data from MICS and other household surveys provide a compelling case for more effective, better resourced and targeted interventions in early childhood development.

## Quality of care at home

A young child's home environment plays a key role in determining his or her chances for survival and development. Optimal conditions include a safe and well-organized physical environment, opportunities for children to play, explore and discover, and the presence of developmentally appropriate objects, toys and books.

Some of the ECD indicators included in MICS capture the conditions of care within a child's home environment, including the availability/variety of learning materials in the home, early stimulation and responsive care by adults and caregivers, and inadequate supervision. Learning materials include both books and play materials defined as household objects, objects found outside (such as sticks, rocks, shells, etc.), home-made toys and manufactured toys. Activities that promote learning and school readiness include: reading books to the child, telling stories to the child, singing songs to the child, taking the child outside the home, playing with the child, and naming, counting or drawing things with the child.

The main indicator definitions are:

### Learning materials

- Percentage of children under 5 who have three or more children's books.
- Percentage of children under 5 with two or more playthings.

### Early stimulation and responsive care

- Percentage of children aged 24 to 59 months with whom an adult has engaged in four or more activities to provide early stimulation and responsive care in the past three days.

### Inadequate supervision

- Percentage of children under 5 left alone or in the care of another child younger than 10 years of age for more than one hour at least once in the past week.

## Early childhood care and education

Access to good-quality care and education programmes outside the home are important in providing children with the basic cognitive and language skills they need to flourish in school. Such programmes can also help foster social competency and emotional development. In fact, it is widely recognized that early childhood care and education form the foundation of a high-quality basic education.

Questions on attendance in organized early childhood care and education were first collected during the second round of MICS (MICS2). Mothers or primary caregivers are asked whether each child aged 36 to 59 months living in the household is currently attending any organized early learning or early childhood education programme, whether public or private. In some cases, the question is customized to make specific reference to relevant country examples of early childhood education programmes.







## Developmental status of children

Early childhood development is multidimensional, encompassing several aspects of a child's well-being: physical, social, emotional and mental. In general, development takes place in a series of predictable and common stages: Children become progressively more independent and learn increasingly advanced skills and capacities as they grow older. However, children develop at different speeds and may reach developmental milestones at different times. What is considered normal child development also varies across cultures and environments, since expectations and parenting strategies may differ not only among countries but also among cultural, ethnic or religious groups within the same country.

In 2007, UNICEF began a process to develop, within the context of MICS, a set of specific questions posed to mothers/caregivers to measure the overall developmental status of children within the domains of physical development, literacy-numeracy, social-emotional development and learning. This 10-item index – the Early Childhood Development Index, or ECDI – was included in MICS beginning with the fourth round of surveys, and has since produced estimates for more than 70 countries.

One of the indicators selected to measure progress towards SDG target 4.2 is the percentage of children under age 5 years who are developmentally on track in health, learning

and psychosocial well-being (indicator 4.2.1). As custodian agency of this indicator, UNICEF has been leading methodological work since 2015 to develop, test and validate a new measure of child development outcomes that can be used to collect nationally representative data using a standardized approach and measure in order to monitor target 4.2.

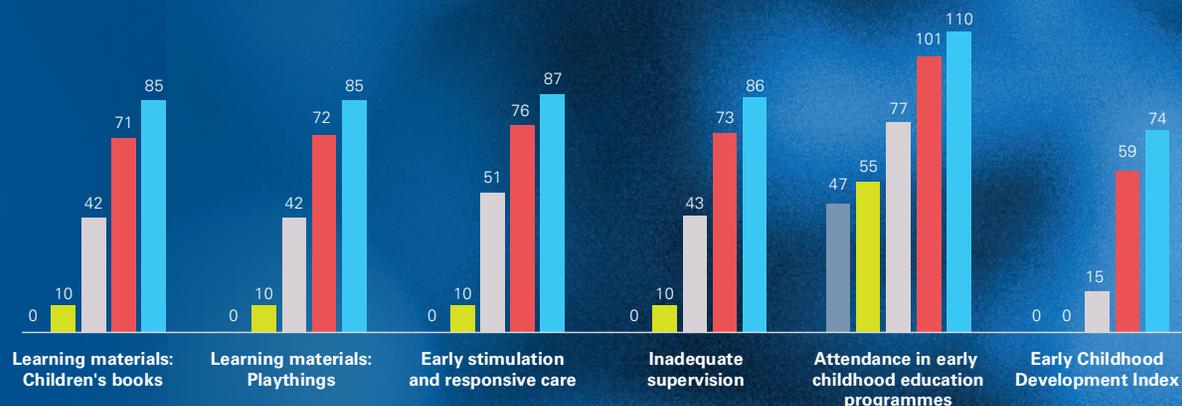
To oversee the methodological work, UNICEF has established the Inter-Agency Expert Group on ECD Measurement (IAEG-ECD), which brings together representatives of national statistical offices and experts from partner development agencies. The IAEG-ECD is being advised by a Technical Advisory Group composed of academics and researchers from selected institutes, agencies and universities.

The new measure builds on the ECDI and includes items drawn from other existing measurement tools. The items selected for inclusion capture some salient global developmental milestones among children aged 24 to 59 months. Key steps in the methodological process have included expert reviews, technical consultations, as well as cognitive and field testing. The new instrument is intended for population-level monitoring of child development outcomes through its inclusion in data collection efforts led by national statistical authorities.

# Global databases for early childhood development

UNICEF maintains global databases on key early childhood development indicators. The main sources of data are household surveys, such as MICS, DHS and other nationally representative household surveys. These databases are updated annually through consultation with national statistical authorities and UNICEF's network of country offices.

Number of countries with available data on select ECD indicators in UNICEF global databases (2000-2018)



## Where to find statistics on early childhood development

Data collected, compiled and analysed by UNICEF on early childhood development are disseminated in a variety of ways, including through the organization's flagship publication, *The State of the World's Children*, and in thematic data-driven publications.

All of the publications, global databases and other resources for ECD statistics can be found on the Early Childhood Development pages of UNICEF's dedicated statistical website: [data.unicef.org](http://data.unicef.org). The site contains up-to-date global and regional summary analyses and graphics of key results. The MICS module on ECD and country datasets can also be found on the website.





**For more information, please contact:**

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