



4.2 By 2030, ensure that all boys and girls have access to quality early childhood development, care and pre-primary education so that they are ready for primary education

4.2.1 Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex

Definition:

There is not yet a globally-accepted definition of 'developmentally on track'. The Multiple Indicator Cluster Survey's Early Childhood Development Index (ECDI) presently defines 'on track' as the percentage of children aged 36-59 months who are developmentally on-track in at least three of the following four domains: literacy-numeracy, physical, socio-emotional and learning. Other measures use different definitions, with varying empirically- and conceptually-driven perspectives on how best to define 'on track'. Methodological work is ongoing to define commonly agreed terms and methods for more comprehensively assessing each of the domains of early childhood development (i.e. health, learning and psychosocial well-being).

ECDI defines children as being *developmentally on track in literacy-numeracy* if they can do at least two of the following tasks: identify/name at least 10 letters of the alphabet; read at least 4 simple, popular words; and/or recognise and name all numbers from 1 to 10. Children are *developmentally on-track physically* if they can pick up small objects easily and are generally well enough to play. Children are *developmentally on-track in socio-emotional development* if at least two of the following are true: they get along with other children; do not usually kick, bite or hit other children; and they are not easily distracted. Children are *developmentally on-track in learning* if they can follow simple instructions correctly on how to do something and/or when given something to do, and they are able to do it independently.

Purpose:

The indicator is a broad measure of children's development and their preparedness to begin school. Available data for global tracking are typically collected in regional or national-level surveys and assessments from individual-level data through direct assessment of children or reported by mothers/primary caregivers or teachers, which are then used to calculate an indicator that represents a composite measure across a range of agreed characteristics in the areas of health, learning and psychosocial well-being.

Calculation method:

In the MICS ECDI, the indicator is calculated as the percentage of children aged 36-59 months demonstrating age-appropriate levels of development in the areas being measured, according to the



items used in the MICS. One commonly-accepted definition of 'on track' has not yet been developed using national and regionally-developed standards for children's learning and development.

$$\text{PCDT}_{3t4} = \frac{\text{CDT}_{3t4}}{\text{P}_{3t4}}$$

where:

PCDT_{3t4} = percentage of children aged 3-4 years (36-59 months) who are developmentally on track in health, learning and psychosocial well-being

CDT_{3t4} = children aged 3-4 years (36-59 months) who are developmentally on track in health, learning and psychosocial well-being

P_{3t4} = population aged 3-4 years (36-59 months)

Interpretation:

A high value indicates a large number of young children are well-prepared for starting primary school in the areas of health, learning and psychosocial well-being.

Type of data source:

Household surveys or direct assessment of children, either in homes or schools depending on the measure.

Disaggregation:

By age, sex, location, income, family background, participation in early childhood education programmes, and others as available.

Data required:

The number of children aged 36-59 months demonstrating age-appropriate levels of development in the areas being measured and the total number of children in the same age group.

Data sources:

Measures to capture children's early childhood experiences have been used in multiple countries in representative samples include the MICS ECDI, the UNICEF West and Central African Regional Office (WCARO) Prototype in West Africa, *Programa Regional de Indicadores de Desarrollo Infantil* (PRIDI) in Latin America, the East Asia and Pacific Child Development Scales, the Early Development Index and the Early Human Capacity Index. Newly-developed scales with two to three representative samples



include the Measuring Early Learning Quality and Outcomes Scale, and the International Development and Early Learning Assessment (IDELA).

Limitations and comments:

Further methodological developmental work will be needed to ensure that the proposed measure reflects a commonly-agreed upon definition of 'on track' that is aligned with national standards, is relevant to children in all parts of the world and accurately reflects 'developmentally on track' in all countries. This requires establishment of normative developmental patterns, which has not yet taken place in most countries.



4.2.2 Participation rate in organized learning (one year before the official primary entry age), by sex

Definition:

Percentage of children in the given age range who participate in one or more organized learning programme, including programmes which offer a combination of education and care. Participants in early childhood education and in primary education are both included. The age range will vary by country depending on the official age for entry to primary education.

An *organized learning programme* is one which consists of a coherent set or sequence of educational activities designed with the intention of achieving pre-determined learning outcomes or the accomplishment of a specific set of educational tasks. Early childhood and primary education programmes are examples of organized learning programmes.

Early childhood and *primary education* are defined in the 2011 revision of the International Standard Classification of Education (ISCED 2011). *Early childhood education* is typically designed with a holistic approach to support children's early cognitive, physical, social and emotional development and to introduce young children to organized instruction outside the family context. *Primary education* offers learning and educational activities designed to provide students with fundamental skills in reading, writing and mathematics and establish a solid foundation for learning and understanding core areas of knowledge and personal development. It focuses on learning at a basic level of complexity with little, if any, specialisation.

The *official primary entry age* is the age at which children are expected to start primary education according to national legislation or policies. Where more than one age is specified, for example, in different parts of a country, the most common official entry age (i.e. the age at which most children in the country are expected to start primary) is used for the calculation of this indicator at the global level.

Purpose:

The indicator measures children's exposure to organized learning activities in the year prior to the start of primary school.



Calculation method:

The number of children in the relevant age group who participate in an organized learning programme is expressed as a percentage of the total population in the same age range.

$$\mathbf{PROL}_{0t1,AG(a-1)} = \frac{\mathbf{E}_{0t1,AG(a-1)}}{\mathbf{SAP}_{AG(a-1)}}$$

where:

$\mathbf{PROL}_{0t1,AG(a-1)}$ = participation rate in organized learning one year before the official entry age **a** to primary education

$\mathbf{E}_{0t1,AG(a-1)}$ = enrolment in early childhood or primary education (ISCED levels 0 and 1) aged one year below the official entry age **a** to primary education

$\mathbf{SAP}_{AG(a-1)}$ = population aged one year below the official entry age **a** to primary education

Interpretation:

A high value of the indicator, at or near 100%, indicates that all or most children are participating in organized learning immediately before the official entrance age to primary education. A low value of the indicator indicates low or delayed entry into organized learning programmes.

Type of data source:

Administrative data, household surveys

Disaggregation:

By sex from administrative sources; and by sex, location, and income from household surveys and others as available.

Data required:

Number of children participating in organized learning activities by single year of age; population estimates by single year of age (if using administrative data); and data on the official entrance age to primary education.

**Data sources:**

Administrative data from schools and other centres of organized learning or from household surveys on enrolment by single year of age in early learning programmes; population censuses and surveys for population estimates by single year of age (if using administrative data on enrolment); administrative data from ministries of education on the official entrance age to primary education.

Limitations and comments:

Participation in learning programmes in the early years is not full time for many children, meaning that exposure to learning environments outside of the home will vary in intensity. The indicator measures the percentage of children who are exposed to organized learning but not the intensity or quality of the programme. More work is needed to ensure that the definition of learning programmes is consistent across various surveys and defined in a manner that is easily understood by survey respondents, ideally with complementary information collected on the amount of time children spend in learning programmes.



4.2.3 Percentage of children under 5 years experiencing positive and stimulating home learning environments

Definition:

Percentage of children aged 36-59 months who live in households where their mother, father or other adult household members engage with them in the following types of activities: reading or looking at picture books; telling stories; singing songs; taking children outside the home; playing; and naming, counting and/or drawing.

Purpose:

Within the home, caregivers are tasked with establishing a safe, stimulating and nurturing environment and providing direction and guidance in daily life. Interactions with responsible caregivers who are sensitive and responsive to children's emerging abilities are central to social, emotional and cognitive development. This type of positive caregiving can help children feel valued and accepted, promote healthy reactions, provide a model for acceptable social relationships, and contribute to later academic and employment success.

This indicator provides a broad measure of the ways in which adults in the household interact with children in meaningful and stimulating ways to promote learning and school readiness.

Calculation method:

The indicator is calculated as the percentage of children aged 36-59 months participating in activities in the areas being measured.

$$\text{PCPSH}_{3t4} = \frac{\text{CPSH}_{3t4}}{\text{P}_{3t4}}$$

where:

PCPSH_{3t4} = percentage of children aged 3-4 years experiencing positive and stimulating home learning environments

CPSH_{3t4} = children aged 3-4 years experiencing positive and stimulating home learning environments

P_{3t4} = population aged 3-4 years

**Interpretation:**

A high value indicates a large number of young children live in households which are supportive and provide stimulating learning environments.

Type of data source:

Household surveys

Disaggregation:

By age, sex, location, income, and others as available.

Data required:

The number of children aged 36-59 months participating in activities in the areas being measured and the total number of children in the same age group.

Data sources:

Measures of positive and stimulating home learning environments for young children which have been used in multiple countries are available from surveys and assessments, including the Multiple Indicator Cluster Surveys, *Programa Regional de Indicadores de Desarrollo Infantil* (PRIDI) in Latin America, Young Lives and others.

Limitations and comments:

Further methodological developmental work will be needed to ensure that the proposed measure is relevant to children in all parts of the world.



4.2.4 Gross early childhood education enrolment ratio in (a) pre-primary education and (b) early childhood educational development

Definition:

Total enrolment in (a) pre-primary education and (b) early childhood educational development regardless of age expressed as a percentage of the population of the official age for early childhood education.

Purpose:

To show separately the general level of participation in the two categories of early childhood education: pre-primary education and early childhood educational development. The values indicate the capacity of the education system to enrol children of early childhood education age.

Calculation method:

The number of students enrolled in the given category of early childhood education is expressed as a percentage of the population of the official age for early childhood education.

$$GER_{0,c} = \frac{E_c}{SAP_{0,a}}$$

where:

$GER_{0,c}$ = gross early childhood education enrolment ratio in category c

E_c = enrolment in early childhood education category c

$SAP_{0,a}$ = population of the official age **a** for early childhood education (ISCED level 0)

c = pre-primary education (ISCED level 02) or early childhood educational development (ISCED level 01)

Note: If the official entrance age to early childhood education is 2 years and the duration is 4 years, then **a** is the age group 2-5 years.

Interpretation:

A high value generally indicates a high degree of participation, whether the pupils belong to the official age group or not. A value approaching or exceeding 100% indicates that a country is, in principle, able to accommodate all of its early childhood education-age population, but it does not indicate the proportion already enrolled. The achievement of a gross enrolment ratio of 100% is therefore a necessary but not sufficient condition for enrolling all eligible children in early childhood education.

**Type of data source:**

Administrative data, household surveys

Disaggregation:

By sex from administrative sources; and by sex, location and income from household surveys and others as available.

Data required:

Enrolment in pre-primary education and early childhood educational development; population estimates by single year of age (if using administrative data) and data on the structure (entrance age and duration) of early childhood education.

Data sources:

Administrative data from schools or household survey data on enrolment; population censuses and surveys for population estimates by single year of age (if using administrative data on enrolment); administrative data from ministries of education on the structure (entrance age and duration) of early childhood education.

Limitations and comments:

The gross enrolment ratio can exceed 100% due to the inclusion of over-aged or under-aged pupils because of early or late entrance.



4.2.5 Number of years of (a) free and (b) compulsory pre-primary education guaranteed in legal frameworks

Definition:

Number of years of pre-primary education to which children are legally entitled that are either free from tuition fees or compulsory or both.

Most countries have legislation specifying the ages and the level of education (typically pre-primary or primary education) at which children should start school. Such legislation usually also specifies either the number of years of education that are guaranteed or the age at which young people may leave education or, in some cases, both.

The number of years of pre-primary education to which children are legally entitled should ideally be the number of grades of pre-primary education which children are expected to have completed before entering primary education.

Purpose:

To measure government commitment to guaranteeing the right to education to children and young people.

Calculation method:

Record the number of grades of pre-primary education that are guaranteed. If using ages rather than grades, subtract the lower age from the official entrance age to primary school. If the result is 0 or negative, there are no years of pre-primary education which are guaranteed.

YF₀₂ = number of years of free pre-primary education (ISCED level 02)

YC₀₂ = number of years of compulsory pre-primary education (ISCED level 02)

Interpretation:

The existence of national legislation guaranteeing the right to education at given ages and/or grades demonstrates the government's commitment to ensuring that children and young people attend school regularly. The greater the number of years of pre-primary education that are guaranteed, the more likely children will be well-prepared for entry to primary education at the appropriate time.

Type of data source:

Administrative data

**Disaggregation:**

None.

Data required:

Number of grades of pre-primary education which are (a) free from tuition fees and/or (b) compulsory according to national legislation. If the number of grades is not specified, the age range in which education is (a) free and/or (b) compulsory may be used instead. Data on the structure (entrance age and duration) of each level of education are also required.

Data sources:

National legislation and formal education standards and norms on access to schooling and, in particular, the legal entitlement or obligation to attend school; and administrative data from ministries of education on the structure of the education system.

Limitations and comments:

The existence of national legislation does not guarantee that countries ensure that it is implemented effectively and that parents are indeed ensuring their children benefit from the provision available.