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Njiokiktjien VII Photo

Monitoring progress of NC for ECD

Regional multi-sectoral meeting to promote
nurturing care for early childhood development,
WHO-SEARO - Virtual: 27-29 April 2021



NURTURING CARE
FOR EARLY CHILDHOOD DEVELOPMENT



Linda Richter

Distinguished Professor
DSI-NRF Centre of Excellence in Human Development
University of the Witwatersrand, South Africa



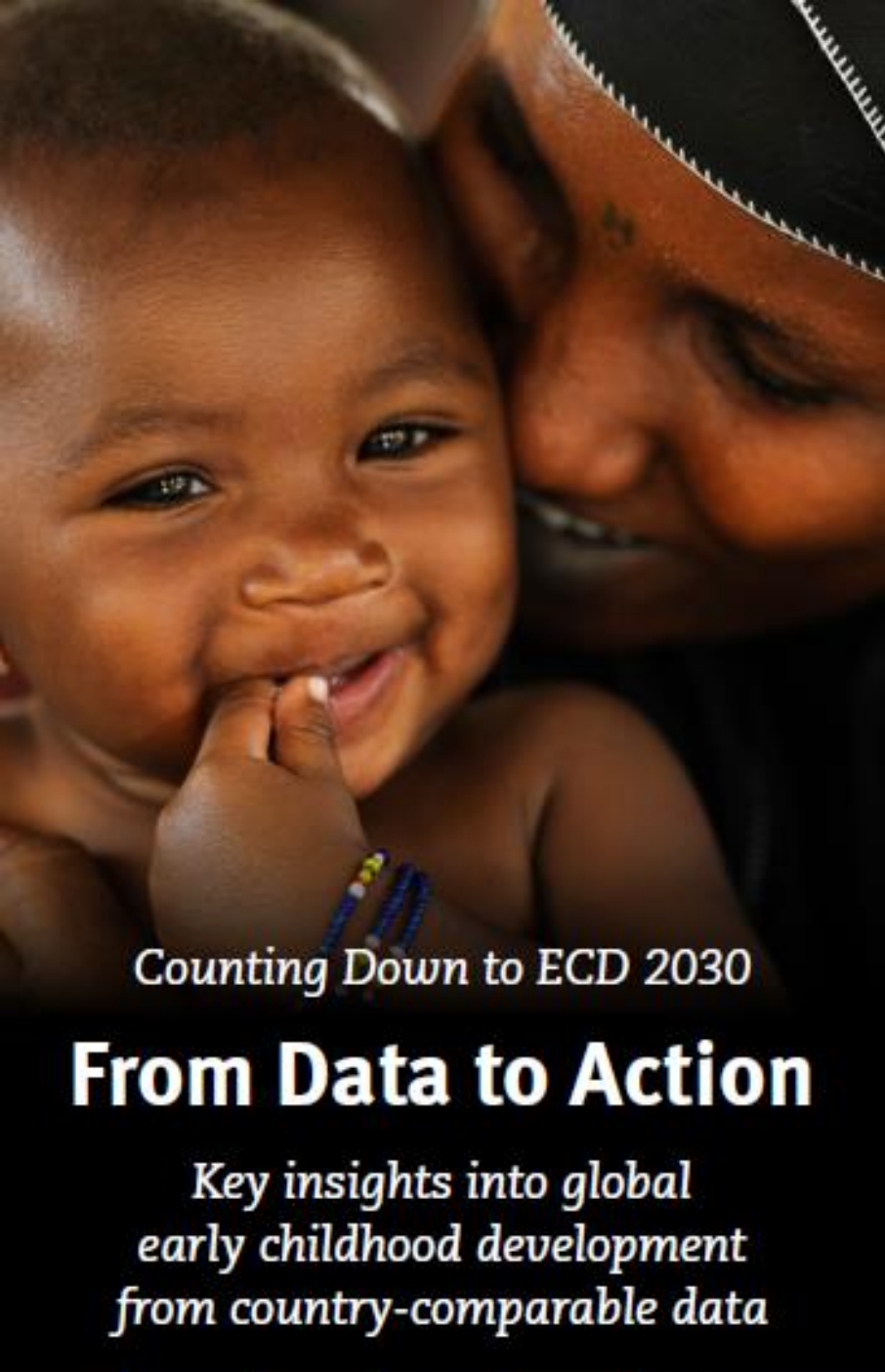
Claudia Cappa

Senior Adviser, Statistics and Monitoring
Child Protection and Development
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Dr. Tarun Dua

Head, Brain Health Unit
Mental Health and Substance Abuse
WHO



Counting Down to ECD 2030

From Data to Action

*Key insights into global
early childhood development
from country-comparable data*

Countdown to 2030 ECD Country Profiles



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Countdown to 2030

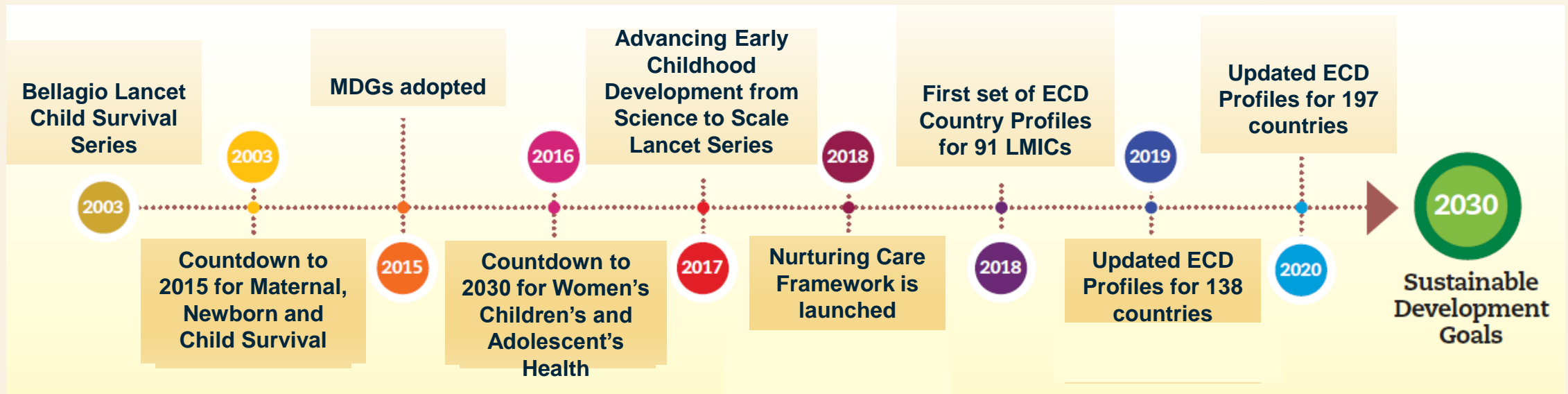
Women's, Children's & Adolescents' Health

Start up and progress

Arose from the **2017 Lancet Series**, launched with the **Nurturing Care Framework**

Created to track progress & monitor accountability, included in **Countdown to 2030**

Directed by a **Technical Working Group**, maintained and updated by **UNICEF**



42 INDICATORS IN 2020

Demographics – 4

Threats to ECD – 8

Facilitating – 9 environment

- Policies – 5
- International conventions – 4

Impact - 6

- Children on track in development (ECDI)
- Functional difficulty 2005–2015 trend in children at risk

5 components of nurturing care - 15

- Health – 4
- Nutrition – 3
- Security and safety – 4
- Early learning – 4
- Responsive caregiving – 0

- Gender & residence differences
- Lifetime cost of early growth deficits



Bangladesh

Countdown to 2030
Women's, Children's & Adolescents' Health

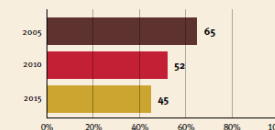
Demographics

Population	164,689,383
Annual births	2,889,959
Children under 5	14,328,179 (9%)
Under-five mortality	31/1,000

Threats to Early Childhood Development

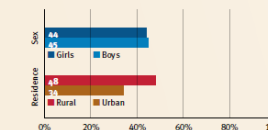
Maternal mortality	173/100,000	Young mothers (births by 18y)	24%
Low birthweight	28%	Preterm births	14%
Child poverty	22%	Under-five stunting	31%
Violent discipline	88%	Inadequate supervision	11%

Young children at risk of poor development

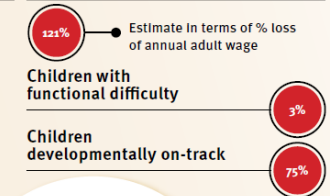


At risk in 2005, 2010 and 2015, using a composite indicator of under-five stunting or poverty

Risk by sex and residence



Lifetime cost of growth deficit in early childhood

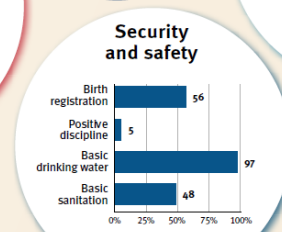
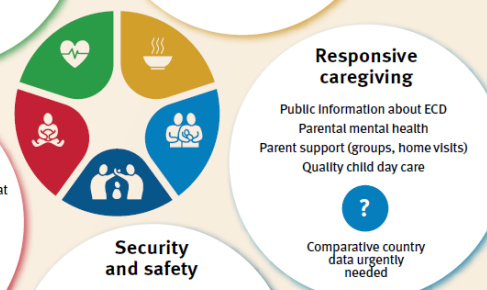
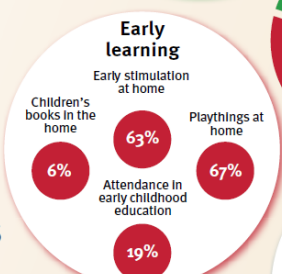
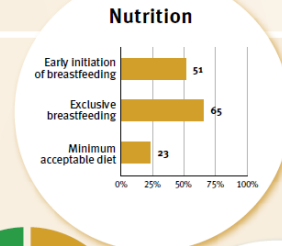
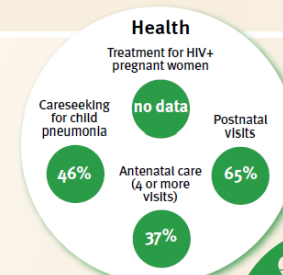


Support and services for early childhood development: Nurturing care

Parents and caregivers need a facilitating environment of laws, policies, services and community support to assist them in providing their young children with nurturing care.

Facilitating environments

Policies				
None	<14	14 – <18	18 – <26	≥26
Paid maternity leave (weeks)				
None	<14	14 – <18	18 – <26	≥26
Paid paternity leave (weeks)				
Not	Slightly	Moderately	Substantially	
International Code of Marketing of Breastmilk Substitutes (alignment)				
✗	National minimum wage			
✗	Child and family social protection			



International conventions

✓	Convention on the Rights of the Child
✓	Convention on the Rights of Persons with Disabilities
✓	CRC Optional Protocol on the Sale of Children, Child Prostitution and Child Pornography
✗	Hague Convention on Protection of Children and Cooperation in Respect of Intercountry Adoption

Data sources

Profiles include data that are:

- available in multiple countries
- country-comparable (same questions and same survey methodology in each country)

Sources

- UNICEF Multiple Indicator Cluster Surveys (MICS)
- USAID Demographic and Health Surveys (DHS)
- Country data published in high impact journals

Definitions, dates, and countries for which data are available

- Technical appendix



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Nearing a global picture of ECD – 197 countries

Expansion of the ECD Country Profiles 2018-2020

2018

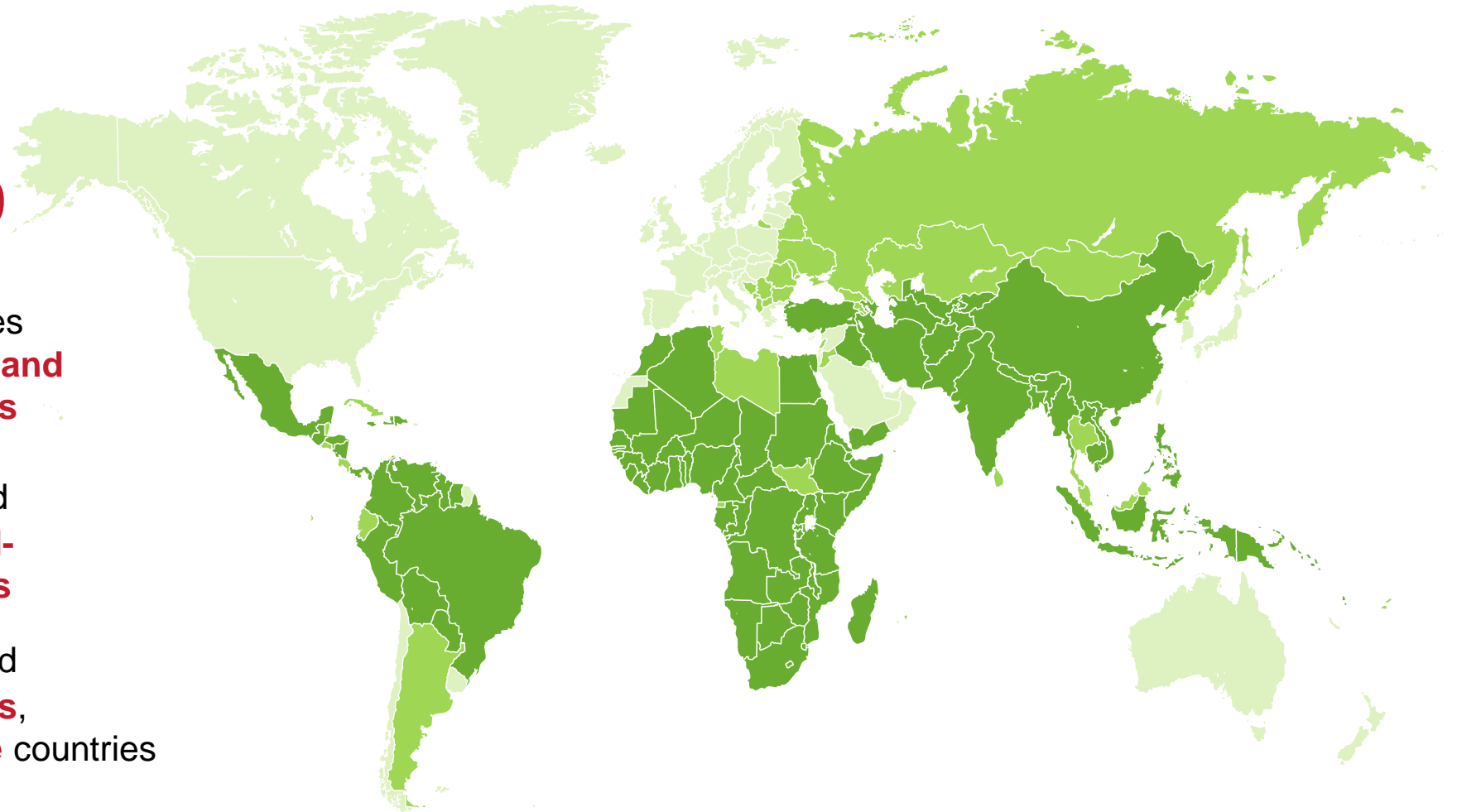
2018 ECD Country Profiles included data for **91 low- and middle-income countries**

2019

2019 profiles updated and extended to **138 low- and middle income countries**

2020

2020 Profiles updated and extended to **197 countries**, including **63 high-income countries**



Updates to 2020 ECD Profiles

ADDITIONAL INDICATORS

Children developmentally on track: % children 3-5 years developmentally on track in 3+ domains on ECDI: literacy-numeracy, physical development, social-emotional development and learning (2010-2019)

Children with functional difficulty: % children 2-4 years with a functional difficulty in at least one domain on the child functioning module - seeing, hearing, walking, fine motor, communication, learning, playing and controlling behaviour (2017-2019)

Updated indicator: Clarified and simplified maternity and paternity leave

2018 & 2019

Policies	
 Paid maternity leave	 Paid paternity leave

2020

Policies				
None	<14	14 – <18	18 – <26	≥26
Paid maternity leave (weeks)				
None	<14	14 – <18	18 – <26	≥26
Paid paternity leave (weeks)				

2020 Profiles translated into Arabic, French, Russian & Spanish

РАЗВИТИЕ ДЕТЕЙ МЛАДШЕГО ВОЗРАСТА

Таджикистан

Countdown to 2030
Women, Children's & Adolescents' Health

Демография

Численность населения	9,537,642	Материнская смертность (на 100 000 живорождений)	17/100 000	6%
Ежегодные рождаемые	277,919	Исключительный вес при рождении	29%	18%
Дети до 5 лет	1,356,750 (14%)	Детская бедность	62%	13%
Смертность детей до пяти лет	34/1 000	Суровая дислексия		

Угрозы раннему развитию детей

Молодые мамы (родившие до 18 лет) 1%

Преждевременные роды 18%

Задержка роста до пяти лет 18%

Недостаточный надзор 13%

DESARROLLO EN LA PRIMERA INFANCIA

Paraguay

Countdown to 2030
Women, Children's & Adolescents' Health

Datos demográficos

Población	7,131,031	Mortalidad materna	129/100,000	6%
Niños menores de 5 años	1,433,395	Peso bajo al nacer	12%	18%
Mortalidad de los niños menores de 5 años	70/1,000 (10%)	Pobreza infantil	62%	13%
	191,000	Discapacidad		

Amaznas al desarrollo en la primera infancia

Madres jóvenes (parturientas antes de los 18 años) 1%

Parturientas prematuras 18%

Retraso del crecimiento de los niños menores de 5 años 18%

Supervivencia discapacitada 13%

DÉVELOPPEMENT DE LA PETITE ENFANCE

Algérie

Countdown to 2030
Women, Children's & Adolescents' Health

Profil démographique

Population	43,851,063	Mortalité maternelle	122/100,000	6%
Naissances annuelles	1,144,528 (10%)	Insuffisance pondérale à la naissance	12%	18%
Enfants de moins de 5 ans	2,371,000	Pauvreté des enfants	62%	13%
Mortalité des enfants de moins de 5 ans	70/1,000	Survivance handicapée		

Menaces pour le développement de la petite enfance

Mères jeunes (accouchements avant l'âge de 18 ans) 1%

Accouchements prématurés 18%

Risque de croissance des enfants de moins de 5 ans 18%

Survivance handicapée 13%

النساء في مرحلة الطفولة المبكرة

الجمهورية العربية السورية

العهد التنافسي لعام 2030
صحة النساء والأطفال والمراهقين

المؤشرات الديموغرافية

السكان	17,500,637	وفيات الأموات	17,500.637	11%
الولادات السنوية	420,602	نقص الوزن عند الولادة	12%	18%
الإطفال دون سن 5 سنوات	1,919,096 (11%)	خطر الإطفال	62%	13%
الوفيات دون سن الخامسة	22/1,000	التأخرات المعنوية		

التحديات الواجهة على النساء في مرحلة الطفولة المبكرة

مهورات مبكرة (ولادات قبل 18 عامًا) 1%

ولادات مبكرة 18%

تأخر النمو في مرحلة الطفولة المبكرة 18%

بقاء الأطفال ذوي الإعاقة 13%

KEY FACTS AND FINDINGS

Low- and Middle-Income Countries with data

- 10 key facts from the 2020 ECD Country Profiles
- Key findings from published analyses



10 key facts from the country profiles

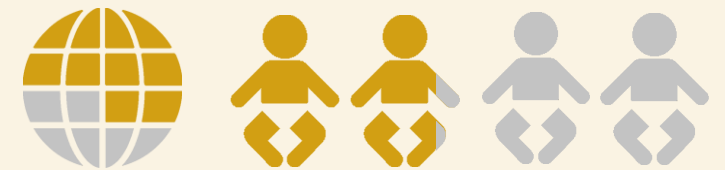
1 

In almost $\frac{1}{2}$ of countries, **>75%** of young children experience **violent discipline**



2 

<50% of infants <6m are **exclusively breastfed** in $\frac{2}{3}$ of countries



3 

<50% of young children in $\frac{1}{3}$ of countries receive **early home stimulation**



4 

> 4 out of 100 children died before reaching their 5th birthday in over $\frac{1}{3}$ of countries



5 

33% of young children had **inadequate supervision** at home in the past week in **1 in 6** countries



10 key facts from the country profiles

6 

Attendance in early childhood education is < 50% in $\frac{3}{4}$ of countries



7 

< 50% of children under 5 are birth registered in 1 out of 6 countries



8 

± 50% of children under 5 are at risk of not reaching their developmental potential



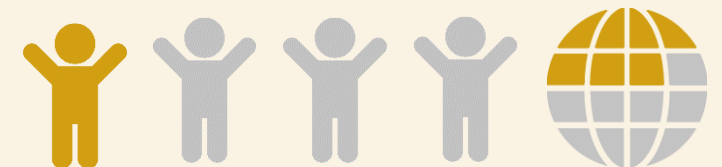
9 

± 50% of countries some form of paid paternity leave is lacking, hampering fathers' involvement in care



10 

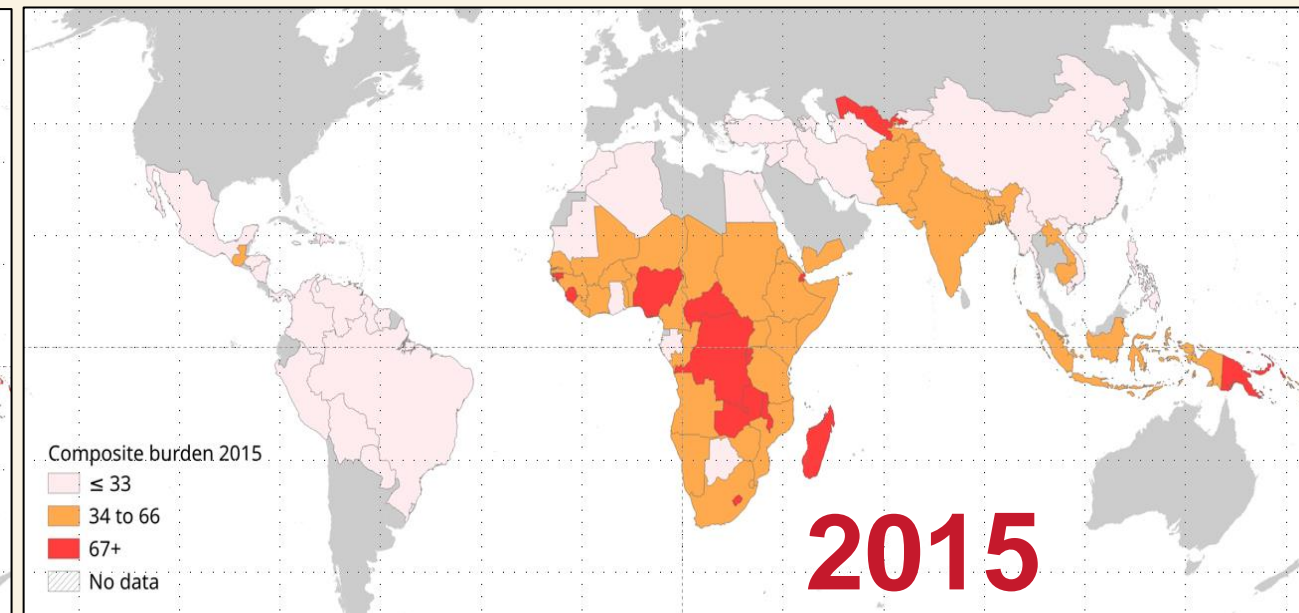
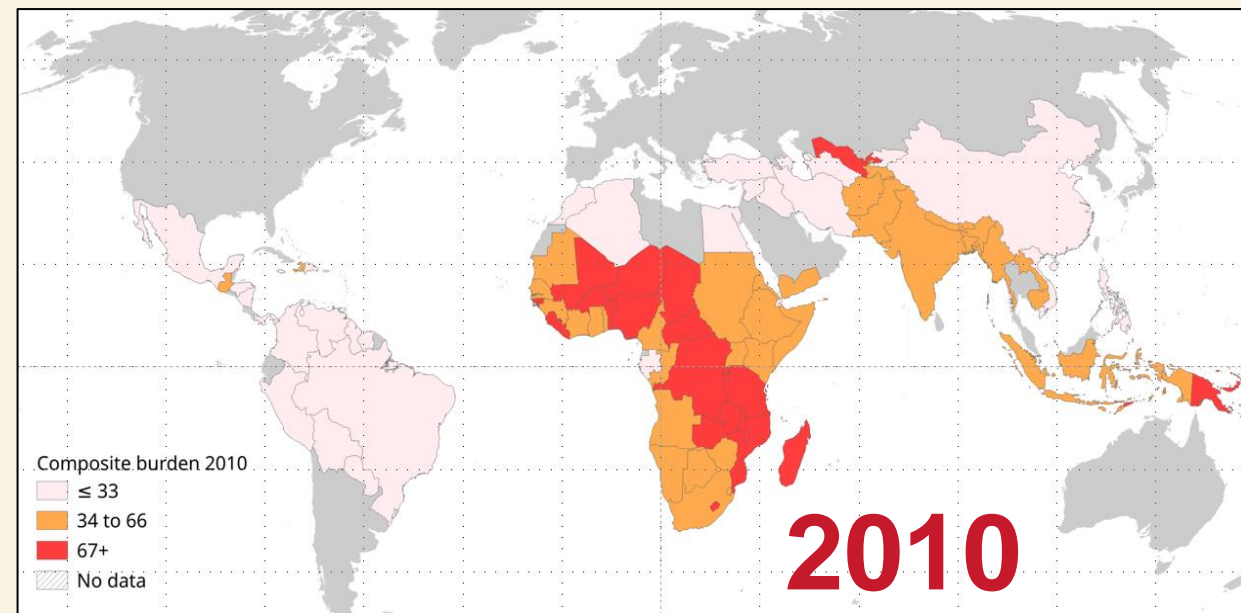
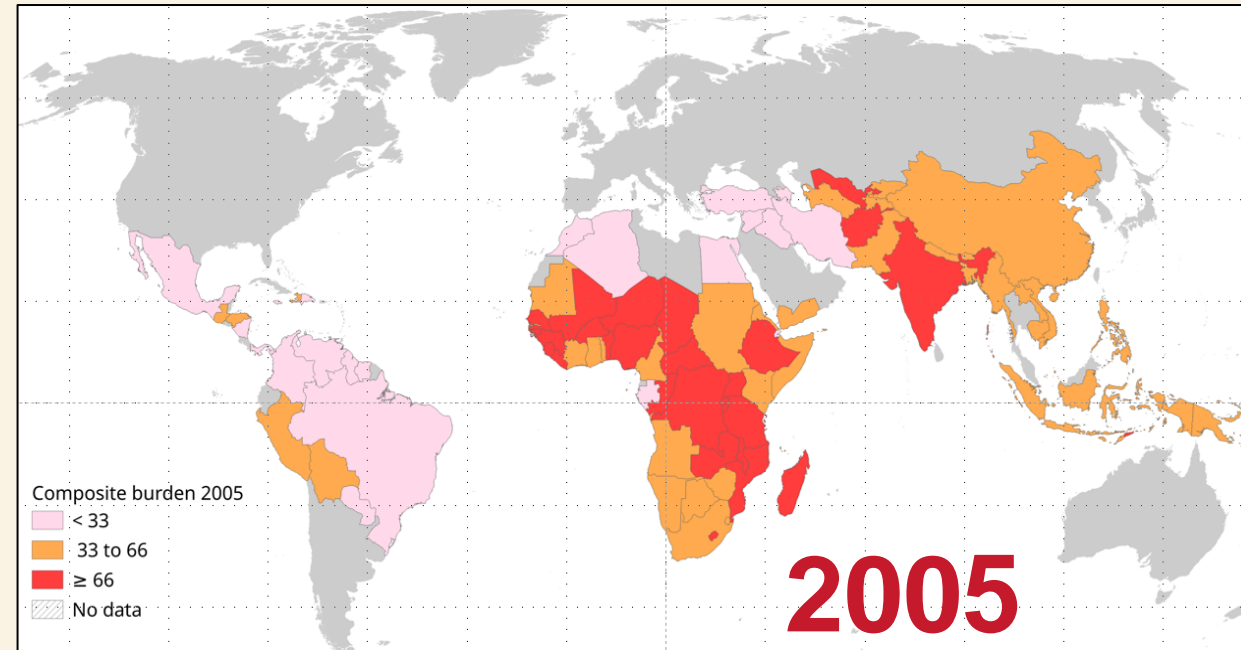
> 25% of children under 5 are stunted in nearly $\frac{1}{2}$ of countries



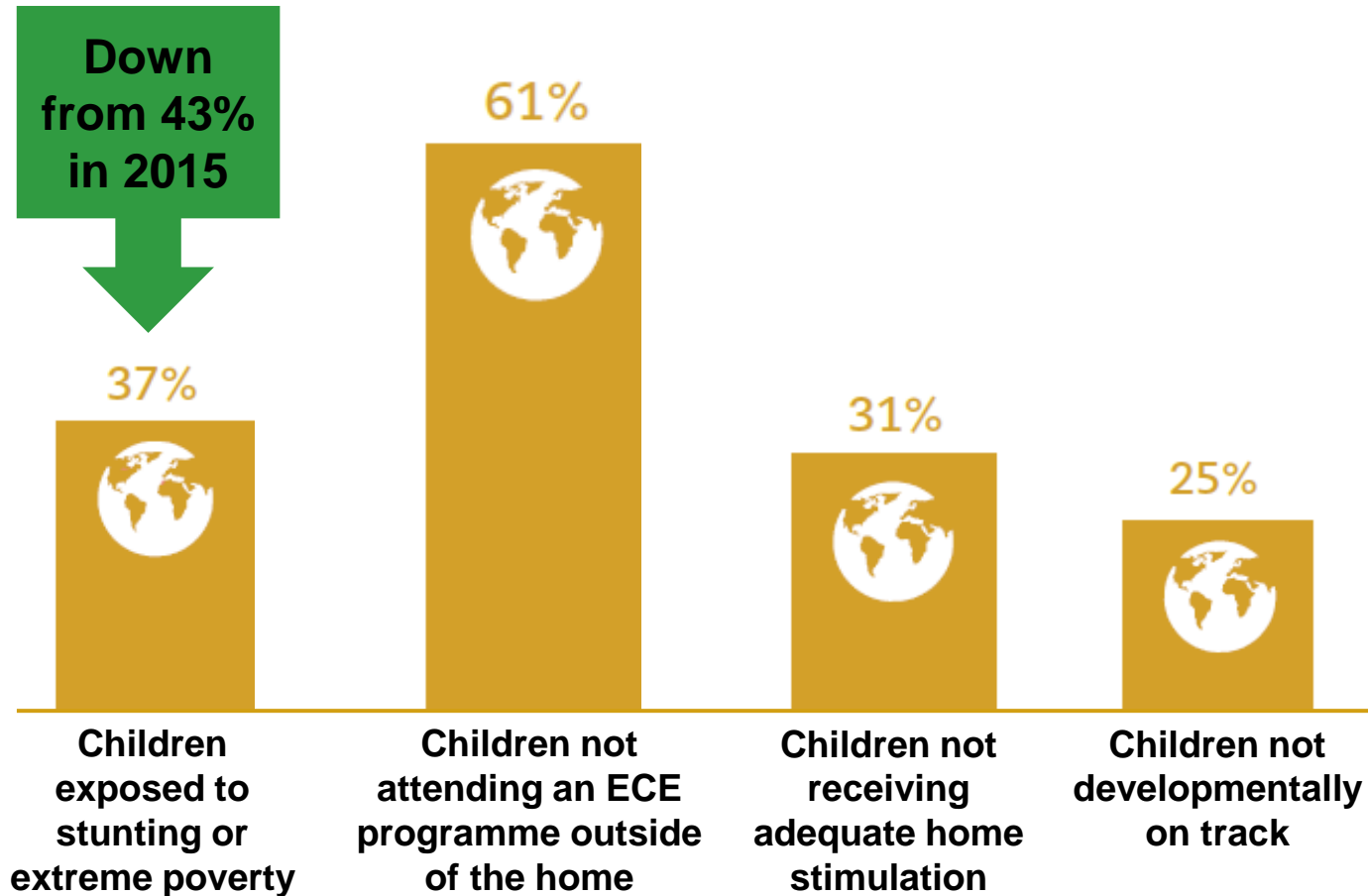
Published findings

REDUCTION IN RISK OF NOT REACHING HUMAN POTENTIAL

(Stunting or extreme poverty)



Published findings (2010 – 2018)



Lu et al (2020) BMJ Global Health

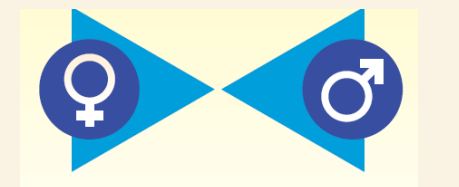
- Children from poorer households fare worse than children from richer households



- On average rural children fare worse than urban children



- Negligible differences between young girls and boys



GAPS & CHALLENGES

- Data not available for all countries
- Responsive caregiving incomplete
- Definitions, indicators and data needed e.g. maternal mental health etc.



New initiative built on ECD Country Profiles

Harnessing Global Data to Advance Young Children's Learning and Development

HARNESSING
GLOBAL DATA

TO ADVANCE YOUNG
CHILDREN'S LEARNING
& DEVELOPMENT



Economic
and Social
Research Council



GCRF
Global Challenges
Research Fund

UNIVERSITY OF THE
WITWATERSRAND,
JOHANNESBURG



DST-NRF Centre of Excellence
in Human Development

Individual and Society



UNIVERSITY OF
OXFORD

Harnessing Global Data Project

- Bring together researchers, policy makers & implementers to analyse and publish global ECD data
- Convert data into information
- Unite the ECD agenda
 - 0-3y (development, health, home/clinic)
 - 3-6y (learning, education, centre/school)
- Disseminate data to advance children's learning & development

Implementation & Dissemination Partners

Regional & country implementation

- International Step-by-Step Association (ISSA)
- African Early Childhood Network (AfECN)
- Arab Network for Early Childhood Development (ANECD)
- Asia-Pacific Regional Network for Early Childhood (ARNEC)

Global & regional policy & implementation

- Inter-American Development Bank
- Early Child Development Action Network (ECDAN)
- UNESCO
- UNICEF
- WHO
- World Bank

Linked to Countdown 2030 and the ECD Country Profiles

- Profiles at global–, regional– and country–level
- Publications with further analyses
- Virtual events disseminating information
- Advocacy to fill gaps in data
- Capacity building and support for ECD measurement

HARNESSING GLOBAL DATA TO ADVANCE YOUNG CHILDREN'S LEARNING & DEVELOPMENT

ECDAN Early Childhood Development Action Network

Harnessing Global Data Webinar: 10th December 08:30 EST

Portraits of nine speakers: a man in a blue shirt, a woman with long brown hair, a woman with curly dark hair, a woman with short grey hair, a woman with short black hair, a woman with long dark hair, a woman with short dark hair, a woman with long dark hair, and a woman with long brown hair.

Comment

Data for action on early childhood development

Early childhood development (ECD) is the first few years of life: the foundation for a lifetime's mental and physical health, education, labour market productivity, and wellbeing.¹ ECD is receiving increasing attention and is included in the Sustainable Development Goals (SDGs). Expanded 2016 ECD Countdown to 2030 country profiles² will be launched by UNICEF and Countdown to 2030 on Nov 23, 2020, shortly after Universal Children's Day on Nov 20, 2020. The updated profiles cover 42 ECD indicators and 157 countries, including 60 high-income countries (HICs), that encompass 99.8% of the world's children younger than 5 years (figure). The profiles reveal substantial threats to ECD across the world: fewer than half of infants younger than 6 months are exclusively breastfed in most countries with data; at least 25% of children younger than 5 years are stunted in about a third of the countries; fewer than half of young children in a third of the countries receive the benefits of early stimulation and responsive care by adults in their homes; and more than three-quarters of children aged 1–4 years experience violent discipline by their caregivers in almost half of the countries.³ Urgent action and investment in ECD by governments and national and international organisations are needed.

Although the country profiles are progress towards establishing a global monitoring and accountability framework for ECD,⁴ daunting challenges remain. Among countries with available data on ECD indicators—mostly derived from UNICEF-supported Multiple Indicator Cluster Surveys (MICS), USAID-supported Demographic and Health Surveys (DHS), and other nationally representative household surveys—fewer than half have data on crucial indicators such as child poverty, or whether young children receive a minimally acceptable diet or attend early education. Rights-based advocacy has helped to raise the availability of data on duration of paid maternity leave⁵ and birth registration⁶ to above 90% in countries included in the country profiles. By 2018, only 40 countries had trend data on important ECD indicators: 17 on early education, 14 on home stimulation, and 13 on the ECD index.⁷

Variations in definitions, indicators, and questionnaires used to collect data occur between international survey programmes such as MICS and DHS, which are mostly done in low income and middle-income countries (LMICs), and administrative and survey data collected in HICs. These variations compromise international comparability of data that is crucial to global monitoring. An important part of ECD is responsive caregiving for which operational definitions are urgently needed. While all human beings are dependent on love to survive and thrive, it is difficult to define and measure responsive caregiving across cultures and contexts in a standardised and comparable way. Similarly, comparable data on policy facilitators, such as government spending on ECD and family support for ECD, require a common understanding of what constitutes essential ECD services and how to quantify them.

Despite these challenges, encouraging initiatives are underway. Coordinated by WHO, UNICEF, and the World Bank, multidisciplinary experts are moving forward with measures of responsive caregiving.⁸ Another example is the launch of the revised ECD index 2030, along with the ECD-country profiles, and its recognition as a tool for generating comparable data on children's developmental outcomes for global monitoring of SDG 4.2.1.

Improvements in the availability of data on ECD indicators have been driven by the inclusion of questions on children's health, learning, nutrition, and family environment in standardised household survey programmes. Since their inception in 1984 and 1995, DHS and MICS have collected data in more than 120 LMICs.

Author/Editor: Katherine Lee, klee@unicef.org

Figure 1: Separation of the ECD country profiles in 2016, 2018, and 2020 ECD early childhood development.

www.unicef.org. Published online November 15, 2020. <https://doi.org/10.1016/j.pnpnp.2020.10.004>

View and download the Country Profiles, Data Sets, Sources and Methods of data collection from the following web pages



NURTURING CARE
FOR EARLY CHILDHOOD DEVELOPMENT

<https://nurturing-care.org/resources/country-profiles>



<https://www.countdown2030.org/early-childhood-development-profiles%20>



<https://www.ecdan.org/countries.html>



<https://data.unicef.org/resources/countdown-to-2030-ecd-country-profiles/>

Early Childhood Development Index 2030 (ECDI2030)



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ECDI2030
Early Childhood Development Index

Measuring up for young children

GENERAL CHARACTERISTICS AND USE



ECDI2030

Early Childhood Development Index

- **Population-level** data collection instrument that can be integrated into existing national data collection and monitoring efforts, including household surveys like MICS and DHS
- Captures the achievement of key developmental **milestones by children aged 24 to 59 months**
- Endorsed measure to **track progress towards SDG 4.2.1** - Proportion of children aged 24–59 months who are developmentally on track in health, learning and psychosocial well-being, by sex

Early Childhood Development



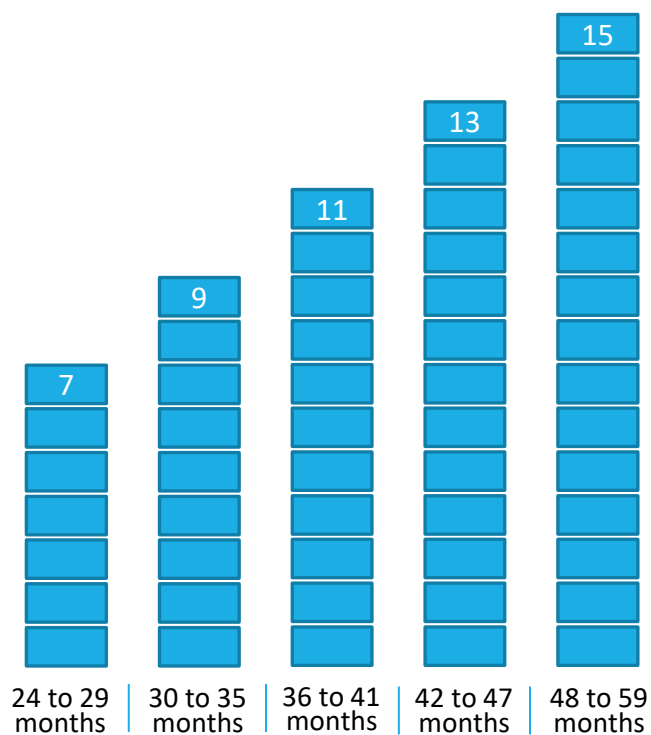
20 questions addressed to mothers/primary caregivers,
3 minutes to implement, 3 hours for the interviewers' training

ECDI2030 INDICATOR



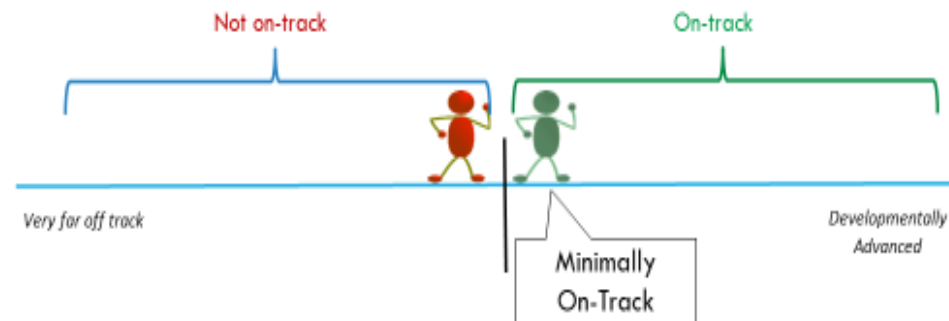
Questions ECD1 to ECD20 are used to generate one indicator

Percentage of children age 24-59 months who are developmentally on track, i.e. have achieved the minimum number of milestones expected for their age group



MINIMUM NUMBER OF MILESTONES EXPECTED BY AGE GROUP

MINIMALLY ON-TRACK CHILD



Can be disaggregated by a child's sex, area of residence, household wealth and other key variables, to **reveal disparities** in developmental outcomes among children with different socioeconomic and family backgrounds



Measuring up for young children

IMPLEMENTATION PACKAGE

Tools for survey planning:

- Quick implementation guide
- Guidelines on integration in household surveys
- Frequently asked questions
- Slide decks on the rationale, development and implementation aspects of the ECDI2030

Tools for survey preparation:

- Standard questionnaires in 8 languages
- Administration instructions manual
- Training slide deck and materials
- Data quality guidance

Tools for data analyses and report:

- Syntaxes for data processing and analyses
- Tabulation plan
- Data analyses slide deck
- Report template

Other tools:

- Guidelines on further analysis and dissemination

CONTRIBUTORS

Inter-Agency and Expert Group on ECD Measurement

- Instituto Nacional de Salud Pública, Mexico
- Inter-American Development Bank
- Organisation for Economic Co-operation and Development
- Palestinian Central Bureau of Statistics
- Save the Children
- Statistics Canada
- UNESCO-UIS
- UNICEF (Chair)
- World Bank
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< BACK TO DEVELOPMENT STATUS



Early childhood development overview



Early Childhood Development Index 2030 (ECDI2030)



Brochures
Country profiles

Countdown to 2030: Country Profiles on Early Childhood Development



Brochures

The Formative Years: UNICEF's work on measuring ECD

<https://data.unicef.org/>

[topic/early-childhood-development/overview/](https://data.unicef.org/topic/early-childhood-development/overview/)



The Global Scale for Early Childhood Development (GSED)



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WHO

The Global Scale for Early Development (GSED)

ECD monitoring at population level

GAP to be filled: indicators for measuring child development up to 24 months of age at population level

ECD measurement for programmatic evaluation

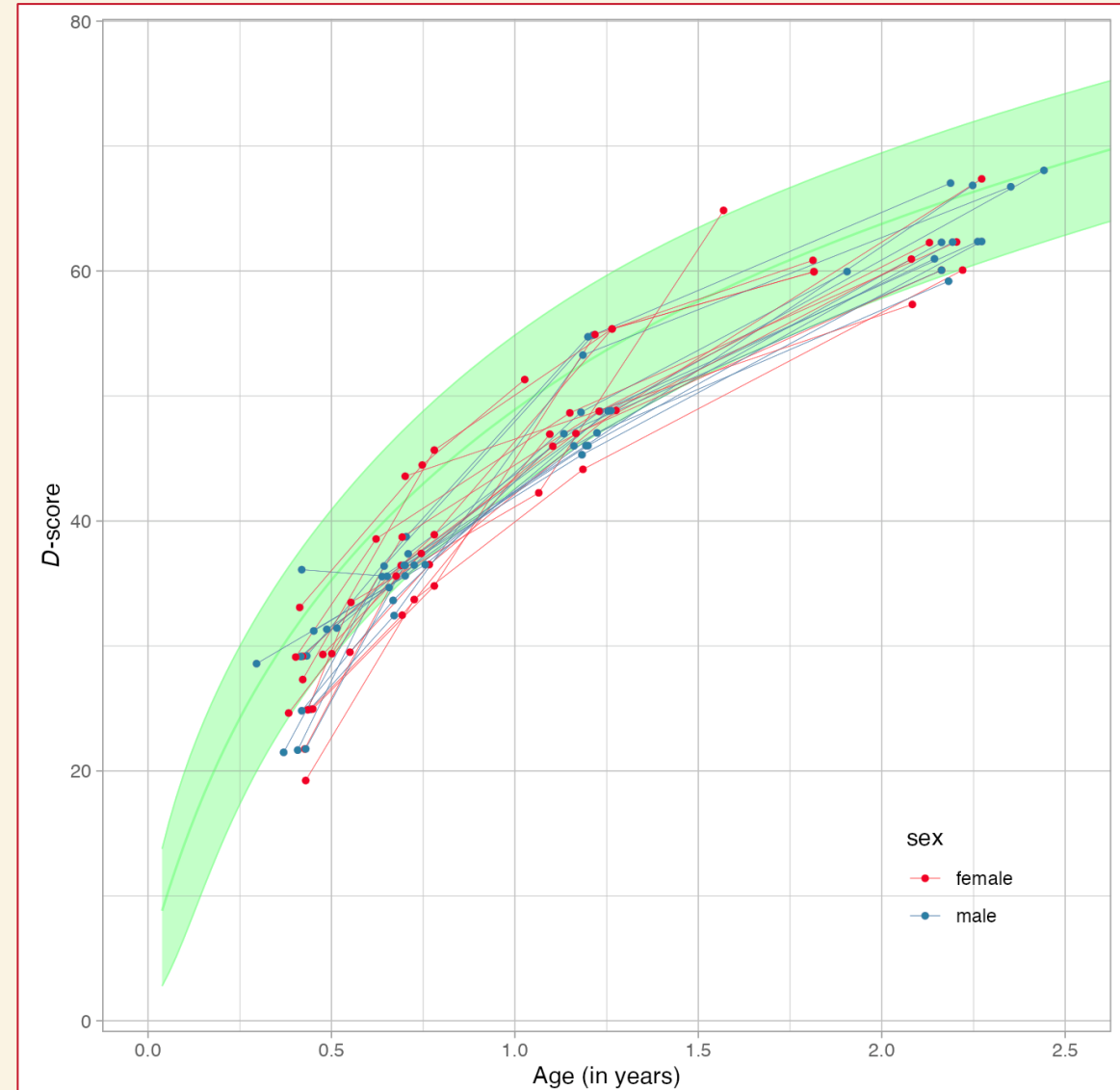
Limited availability of appropriate measures for birth to 3 years

GAP to be filled: indicators that reliable and valid globally, easy to administer and interpretable, free and open-access

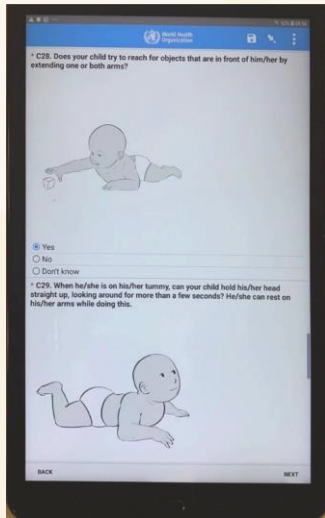


The Developmental Score (D-score)

- **The D-score** is an interval scale with a common numerical unit for all ages.
- **The DAZ is the age-standardized D-Score**, which allows to compare developmental levels by age, **as does height-for-age for height**.
- We can construct cut-off points to identify children reaching their development potential vs. children with developmental delay—this is, on-/off-track children, or in other words, the **equivalent of chronic malnutrition**.



The Global Scale for Early Development (GSED): A single package for measurement



GSED Short Form

Population-Level Monitoring, Caregiver reported

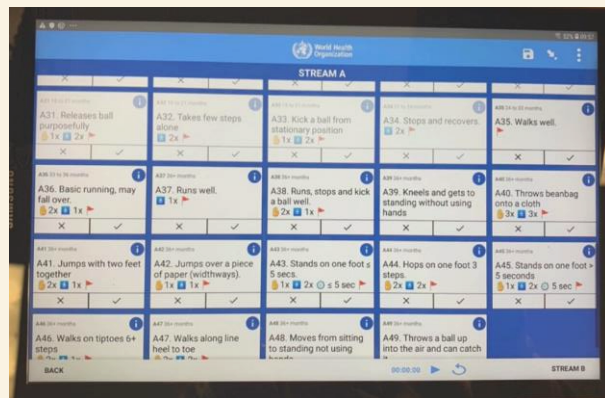
One unidimensional score

Complementary Materials: media package
(audio, visual and short videoclips)

GSED Psychosocial Scale

Caregiver reported

Supplementary module



GSED Long Form

Program Evaluation, Direct assessment

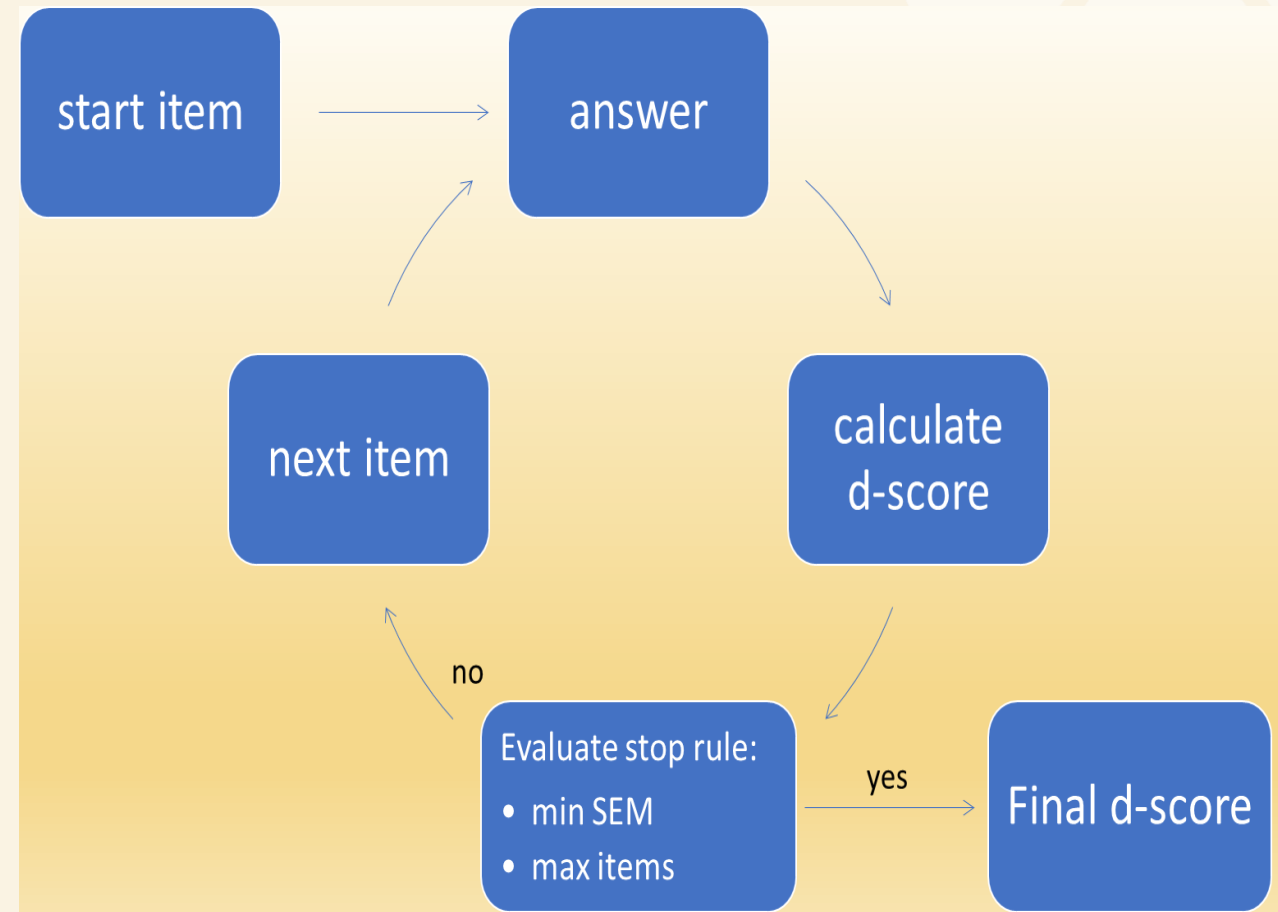
One unidimensional score (by developmental domain being explored)

Complementary Materials: locally made toolkit and interactive media package (audio, visual and short videoclips)

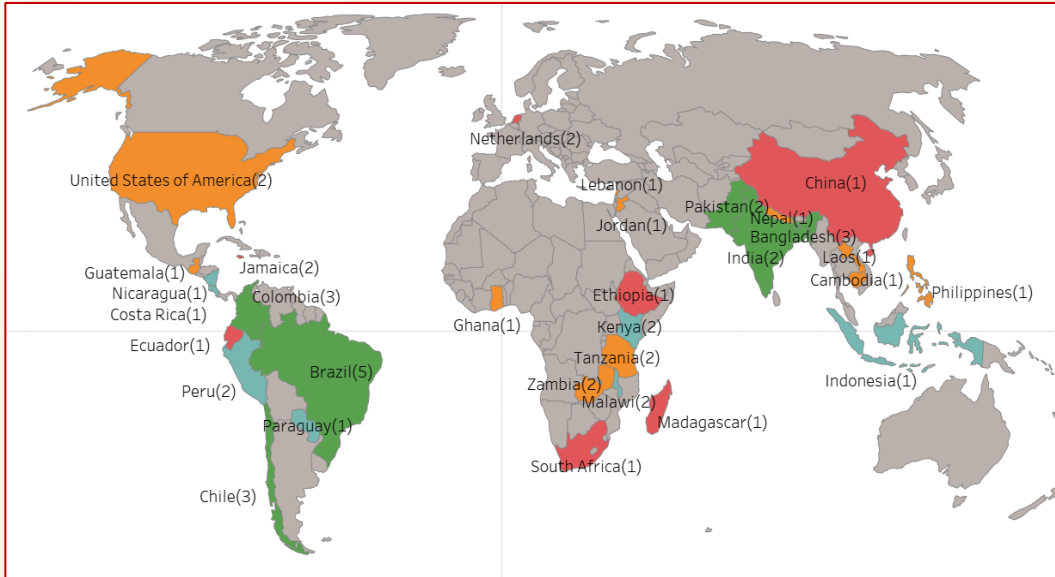
Using innovation and technology: Adaptive testing approach

GSED is validating an adaptive testing approach (3 countries) to reduce the number of items asked to each respondent:

- Adaptive testing relies on a probability model for 'passing' one item based on the difficulty (determined by existing data available) of the item and the age of the child
- Depending on each 'pass' or 'fail' (the ability of the child) the model presents the subsequent item.



GSED development process



Unique children: 73,222 – ages 0 to <48 month

Visits (unique child/age combinations): 109,079

Items: 2,275

Scores: 4,740,866

1 Data harmonization with several countries and instruments: experts review

- Item mapping
- Categorization in developmental areas
- Reliability analysis

2 Statistical methodology harmonization:

- 2PL vs IPL (Rasch model)
- Multidimensional vs unidimensional scores
- Run model

3
o Develop GSED tools

4
Develop an implementation package per instrument:

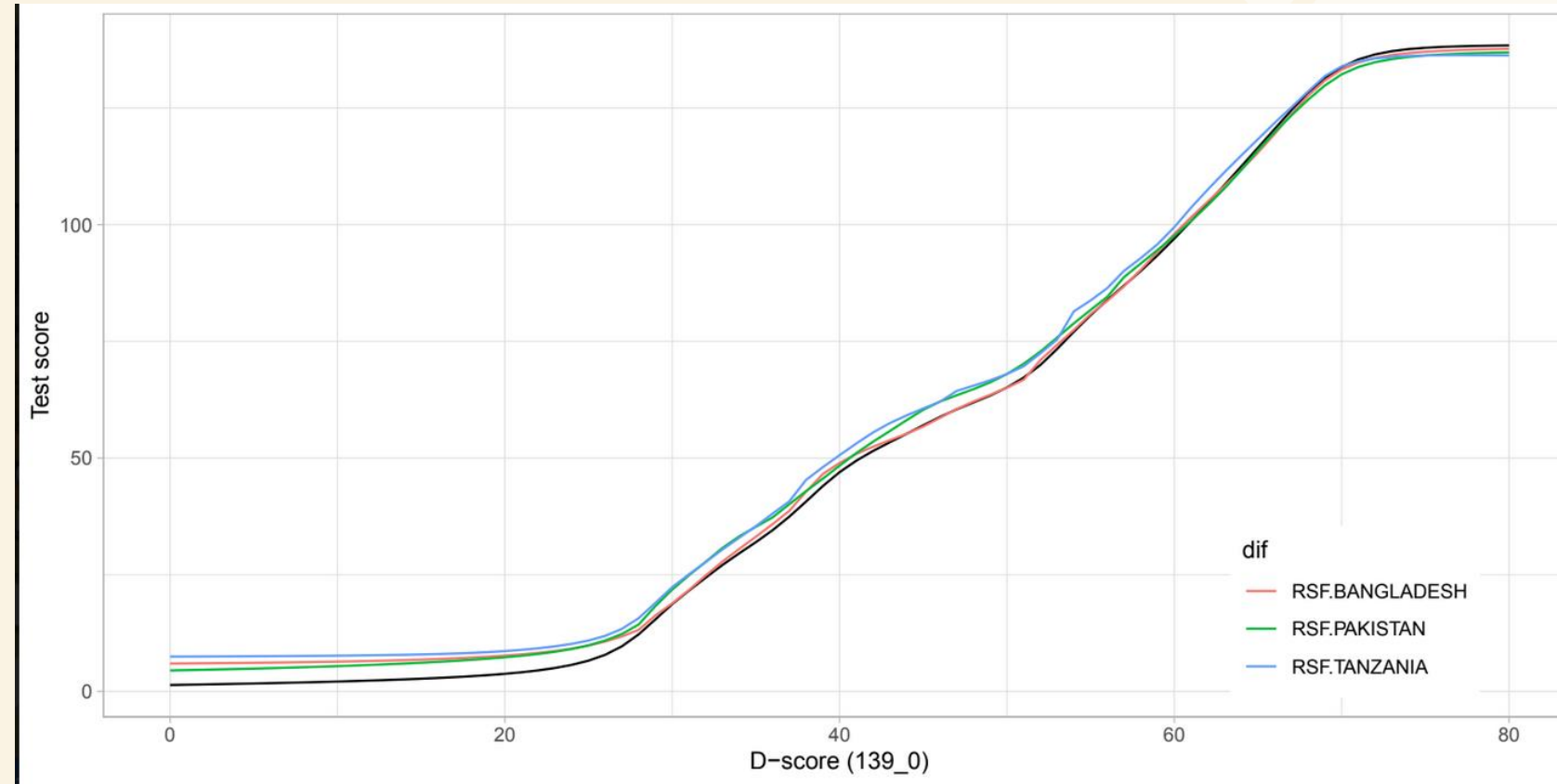
HARMONIZATION

PROTOTYPES




Rapid GSED Short Form testing

(n=164 x3 Bangladesh, Pakistan, Tanzania)

- Found to be reliable and valid
- Reference distribution of scores generalizes to out-of-sample data for children aged 4-36 months → changes were made for validation study to address this issue

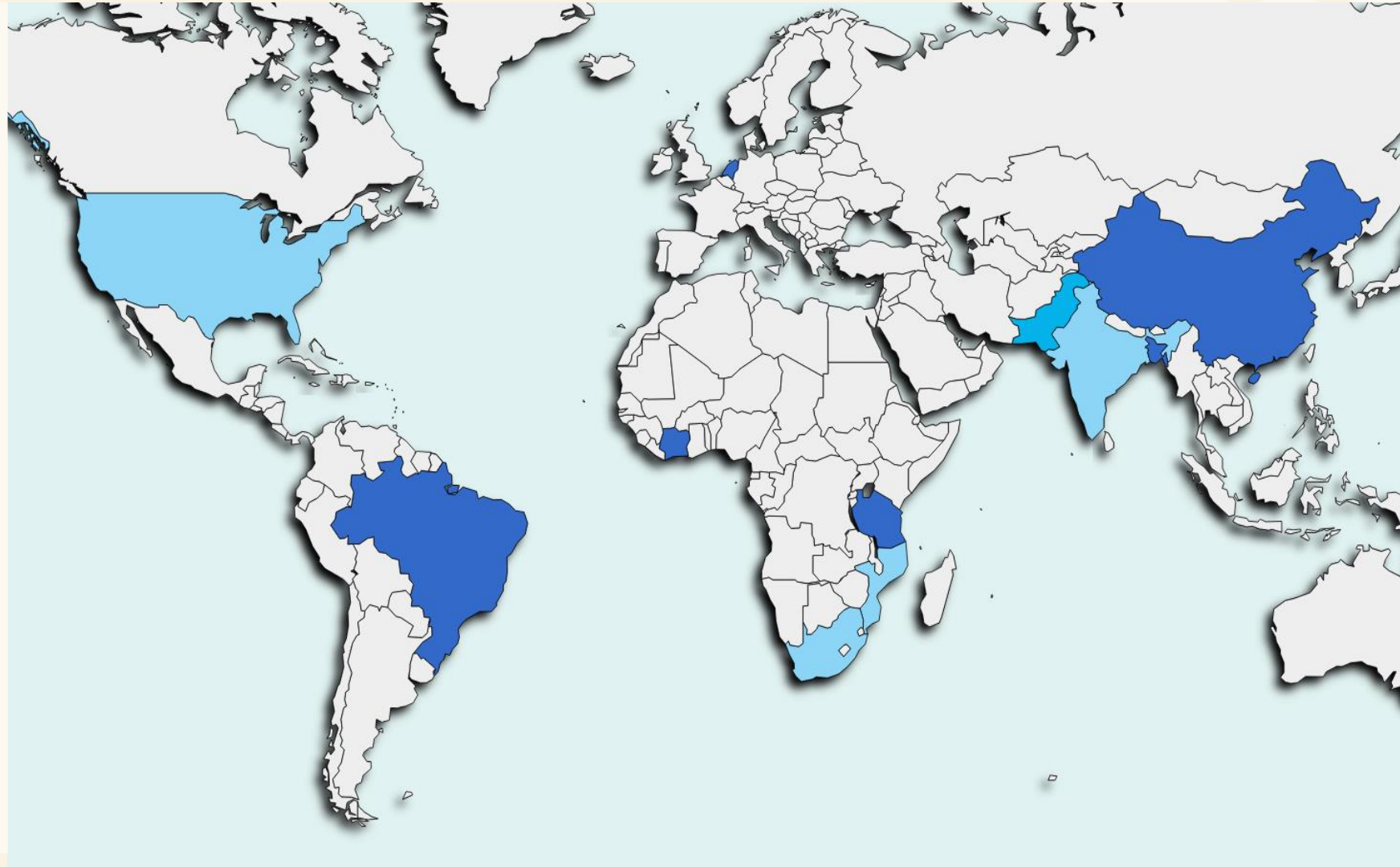


GSED validation

-  GSED main validation
-  GSED opportunistic testing
-  GSED main validation + opportunistic testing

MAIN VALIDATION

- **Brazil:** Butantã-Jaguareé (São Paulo) [University of São Paulo Medical School]
- **Bangladesh:** Projahnmo [Projahnmo Study Group; Johns Hopkins University]
- **China:** Shanghai, Hainan, Hebei and Yunnan [National Children's Medical Center / Shanghai Children's Medical Center]
- **Côte d'Ivoire:** Yopougon (Abidjan), [Innovations for Poverty Action]
- **The Netherlands:** Leiden [Netherlands Organization for Applied Scientific Research]
- **Pakistan:** Karachi [Aga Khan University]
- **Zanzibar-Tanzania:** Pemba, [Center for Public Health Kinetics]



GSED: Next steps

Availability of GSED package:

- December 2021: Launch of GSED package version 1
- December 2022: Launch of final GSED package

More work:

- Creation of global norms and standards
- Uptake and scale up of GSED use
- Determination of predictive validity of GSED
- Adaptation of GSED for individual-level
- Extension of D-score methodology beyond 3 years including:
 - Harmonization of GSED and ECDI2030 (UNICEF): data being collected on same sample in 3 countries
 - Harmonization of GSED with the work by World Bank





THANK YOU.