Web appendix 1: Early childhood development (ECD) definitions referred to in paper

TERM	DEFINITION
Screening test	A brief measure used to identify children who are at risk of developmental problems in one or more domains.(1)
Ability test	An assessment that provides a range of scores representing children's development levels across the range of typical development, in contrast to a screening test, which indicates risk of delay but does not provide a range of scores in a group of typically developing children.(1)
Developmental monitoring	The term developmental monitoring is used here for approaches in which a health care provider, who follows the child and family regularly, uses standardized instruments to monitor the child's developmental functioning in all areas. In this model, the child's cognitive, language, social-emotional and motor development is followed on a regular basis, in conjunction with other aspects of the child's health and the family's functioning. Monitoring also includes working with the family to provide special support when needed to ensure the child's optimal development (2) Note: Often used interchangeably with **developmental surveillance** in literature (2)
Developmental evaluation	When developmental surveillance or screening identifies a child as being at high risk of a developmental disorder, diagnostic developmental evaluation should be pursued. This evaluation is aimed at identifying the specific developmental disorder or disorders affecting the child, thus providing further prognostic information and allowing prompt initiation of specific and appropriate early childhood therapeutic interventions.(3) (Ref) The family-centred assessment should be comprehensive and include all aspects of the child's development using formal standardised instruments as well as including a child's developmental history, caregiver's concerns and health, and related contextual information.(2) Note: Often used interchangeably with **developmental assessment** (2)
Developmental delay	The condition in which a child's development lags behind established normal ranges for his or her age. Delay is determined relative to normative development within a given population.(1)
Developmental risk	Biological and psychosocial conditions that pose risks to optimal development. Biological risks include conditions such as premature birth, low birth weight, malnutrition, infectious diseases, and genetic disorders. Psychosocial risks include conditions such as poverty, maternal depression, child-caregiver interaction problems, caregiver illness and/or stress, human discrimination, violence, war, natural disaster. Developmental risks may be multiple and combined. A child with a risk may not yet demonstrate difficulty or delay.(2).
Disability	An umbrella term for impairments, activity limitations, and participation restrictions, denoting the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors).(4)
Impairment	Loss or abnormality in body structure or physiological function (including mental functions), where abnormality means significant variation from established statistical norms.(4)
Early identification	The process by which risk factors associated with developmental difficulties and developmental delays, disabilities and disorders are identified in order to facilitate early intervention (2)
Early intervention	A systematic and planned effort to promote development through a series of manipulations of environmental or experiential factors, initiated during the first five years of life.(2) Involves strategies which aim to intervene early in the life of a problem and provide individually tailored solutions. It typically focuses on populations at a higher risk of developing problems, or on families that are experiencing problems that have not yet become well established or entrenched.(4)
Individual-level tool	A tool that measures how individual children progress following a health, caregiving, or educational intervention, or to relate performance on one test with another. A tool could either be designed as a screening test or an ability test. (1, 2)
Population-level tool	A tool that is designed for use at scale, with an emphasis on feasible, cost-effective measurement, and can be used to draw conclusions about the overall state of children's well-being or used to compare a group of children (such as within a classroom, a school, a region or country) to other groups of children, within and across countries to inform national and community-level policies on child development (1)(2) Note: these tools are not intended to measure individual-level assessment.

Web appendix 2: Resources for rating

Resource	References
GENERAL RESOURCES	
A Toolkit for Measuring Early Childhood Development in Low- and Middle-Income Countries.	(1)
Early Child Development Measurement Inventory	(5)
Interventions for management of children with intellectual disabilities.	(6)
The Identification of Children with or at Significant Risk of Intellectual Disabilities in Low and Middle Income Countries: A Review.	(7)
Childhood Disability Screening Tools: The South East Asian Perspective.	(8)
Early childhood developmental screening: A compendium of measures for children ages birth to five (OPRE Report 2014-11).	(9)
GENERAL REVIEWS	
Sabanathan, Wills, and Gladstone (2015)	(10)
Fischer, Morris, and Martines (2014)	(11)
Semrud-Clikeman, Romero, Prado et al. (2016)	(12)
Rubio-Codina, Araujo, Attanasio et al. (2016)	(13)
POPULATION LEVEL	
Caregiver-Reported Early Child Development Instruments (CREDI)	(14-19)
Indicators of Infant and Young Child Development (IYCD)	(20-22)
INDIVIDUAL LEVEL	
Screening tests	
Abbreviated Developmental Scale I (EAD-1)	(23-26)
Access Portfolio	(27)
Ages & Stages Questionnaire (ASQ)	(23, 28-36)
Ages & Stages Questionnaire: Inventory	(37, 38)
Ankara Developmental Screening Inventory	(39-42)
Child Development Evaluation (CDE)	(43-45)
Denver Developmental Screening Test	(46-53)
Denver Prescreening Developmental Questionnaire (Denver II PDQ)	(53-55)
Developmental Screening Questionnaire (DSQ)	(56)
Guide for Monitoring Child Development (GMCD)	(57, 58)
ICMR Psychosocial Development Screening Test	(59-62)
Parents' Evaluation of Developmental Status (PEDS)	(63-69)

Resource	References
Rapid Neurodevelopmental Assessment Tool: 0-2 y	(11, 70-73)
Shoklo Neurological and Developmental Tests	(74, 75)
Ability tests	
Battelle's Development Inventory	(76-78)
Bayley Scales of Infant Development (BSID-III)	(79-89)
Comprehensive Developmental Inventory for Infants and Toddlers (CDIIT)	(90-96)
Developmental Assessment Scale for Indian Infants (DASII)	(97-103)
Early Childhood Care and Development (ECCD) Checklist	(104-106)
Extended Ages & Stages Questionnaire (EASQ)	(107, 108)
Griffiths Mental Development Scales	(109-120)
Intergrowth 21st Neurodevelopment Assessment (INTER-NDA)	(121-134)
Mullen Scales of Early Learning (MSEL)	(135-145)
Test de Aprendizaje y Desarrollo Infantil (TADI)	(146-153)
The Oxford Neurodevelopment Assessment (OX-NDA)	(123, 128)
TOOLS FOR ADDITIONAL RATING	
Multiple Indicator Cluster Surveys (MICS) Early Child Development Index (ECDI)	(154-165)
Screening Test Battery for Assessment of Psychosocial Development	(166, 167)
Kilifi Developmental Checklist (KDC)	(168-174)
Malawi Developmental Assessment Tool (MDAT)	(170, 173, 175-189)

Web appendix 3: ECD tools flow chart for multi-domain matrix mapping and rating (Figure 2) exclusion criteria (5)

Table A) EXCLUSION OF TOOLS COVERING >3 YEARS OLD (n=48)	MIN AGE
Achenbach Youth Self-Report (YSR)	7.0
Australian Early Development Index (AEDI)	4.0
Beekunko (Évaluation des Apprentissages Scolaires par la Société Civile au Mali)	6.0
Behavior Rating Inventory of Executive Function (BRIEF)	5.0
Bender Visual-Motor Gestalt Test	4.0
Bruininks-Oseretsky Test of Motor Proficiency (BOT)	4.0
California Verbal Learning Test (CVLT)	5.0
Cambridge Neuropsychological Testing Automated Battery (CANTAB)	4.0
Children's Depression Inventory (CDI)	7.0
Cogstate	6.0
Conner's Continuous Performance Test	6.0
Development and Well-Being Assessment (DAWBA)	5.0
Early Development Instrument	4.0
Early Grade Math Assessment (EGMA)	6.0
Early Grade Reading Assessment (EGRA)	6.0
International Development Learning Assessment (IDELA)	3.5
Jàngandoo	6.0
Kiddie Schedule for Affective Disorders and Schizophrenia for School-Aged Children (K-SADS)	6.0
Literacy Boost Assessment Toolkit	7.0
Luria's tapping test/pencil tapping test	3.5
Measuring Early Learning Quality Outcomes (MELQO) Measuring Child Development and Learning (MODEL)	4.0
Medición Independiente de Aprendizajes	6.0
N-Back Task	6.0
Object-based Pattern Reasoning Assessment (OPRA)	6.0
Panga Munthu Test	4.0
Participation in Activities of Daily Living (PADL)	6.0
Program for the Analysis of Educational Systems of the CONFEMEN (PASEC)	7.0
Psychological Experiment Building Language (PEBL) test battery	5.0
Purdue Pegboard	6.0
Rapid Assessment of Cognitive and Emotional Regulation (RACER)	4.0
Raven's Progressive Matrices	5.0
Revised Children's Manifest Anxiety Scale (RCMAS)	6.0
Rey Auditory Verbal Learning Test (AVLT)	5.0
Senior South African Individual Scales (SSAIS)	7.0
Social Skills Rating System (SSRS)	4.0
Stroop Test (e.g. Day/Night, Numbers)	5.0
Test of Everyday Attention for Children (TEACh)	6.0
Test of Variables of Attention	4.0
The Annual Status of Education Report (ASER)	6.0
Tower of London Task	6.0
Universal Nonverbal Intelligence Test (UNIT)	5.0
Uwezo National Learning Assessment	6.0
Wechsler Intelligence Scales for Children (WISC)	6.0
Weschler Abbreviated Scale of Intelligence (WASI)	6.0
Wide-Range Achievement Test (WRAT)	5.0
Wisconsin Card-Sorting Test	6.0
Zambian Achievement Test (ZAT)	6.0
Zambian Child Assessment Test (ZamCAT)	5.0

Table B) EXCLUSION OF TOOLS COVERING ONLY 1 DOMAIN* (n=31)
A not B task
Achenbach Child Behavior Checklist (CBCL)
Ages & Stages Questionnaire: Socio-Emotional (ASQ:SE)
Brief Infant-Toddler Socio-Emotional Assessment (BITSEA)
Delay of Gratification
Early Childhood Vigilance Task
Escala Argentina de Inteligencia Sensorimotriz (EAIS)
Eyberg Child Behavior Inventory
Infant Behavior Questionnaire (IBQ)
Infant Neurological International Battery Test
Infant Temperament Questionnaire
Infant-Toddler Socio-Emotional Assessment (ITSEA)
Kilifi Developmental Inventory (KDI)
Leiter Examiner Scale
Leiter International Performance Scale
MacArthur-Bates Communicative Development Inventories
Matching Familiar Figures Test (MFFT)
Peabody Picture Vocabulary Test (PPVT)
Preschool Language Scale (PLS)
Profile of Socio-Emotional Development (PSED)
Reynell Developmental Language Scale (New)
Social Competence and Behavior Evaluation (SCBE -30) - Short version of SCBE-80
Strengths and Difficulties Questionnaire (SDQ)
The Matson Evaluation of Social Skills with Youngsters (MESSY)
Visual habituation/dishabituation
Wolke's Behavior Rating Scale
Woodcock-Johnson Tests of Achievement
Woodcock-Johnson Tests of Cognitive Abilities
Woodcock-Johnson Tests of Oral Language
World Health Organization (WHO) Motor Milestones
Yoruba Mental Subscale
***see table F for info regarding domain by tool**

Table C) EXCLUSION OF TOOLS NOT USED IN LMIC (n=8)	ORIGIN	COUNTRIES USED *may not be comprehensive*
American Guidance Service (AGS) Early Screening Profile	USA	No studies LMICs found
BRIEF-preschool	USA	
Children's Behavior Questionnaire (CBQ)	USA	
Griffiths Mental Development Scales - Extended Revised: 2 to 8 years (GMDS-ER 2-8)	UK	
National Institute of Health (NIH) Toolbox	USA	
NIH Executive Abilities: Measures and Instruments for Neurobehavioral Evaluation and Research (EXAMINER)	USA	
Parents' Evaluation of Developmental Status - Developmental Milestones (PEDS-DM)	USA	Australia
Social Skills Improvement System (SSIS) Rating Scale	USA	

Table D) EXCLUSION OF TOOLS WITHOUT ALL 3 CORE ECD DOMAINS (n=26)	COGNITIVE	LANGUAGE	MOTOR
Baroda Development Screening Test (BDST)	yes	no	yes
Bayley Scales of Infant Development (BSID-II)	yes	no	yes
Bracken Basic Concept Scale	yes	yes	no
British Abilities Scalea (BAS)	yes	yes	no
Cambodian Developmental Milestone Assessment Tool (cDMAT)	no	yes	yes
Developmental Milestones Checklist (DMC, DMC-II)	no	yes	yes
Disability Screening Schedule (DSS)	yes	no	yes
Early Human Capability Index (eCHI)	yes	yes	no
Escala de Evaluacion del Desarrollo Psichomotor (EEDP)	no	yes	yes
Grover-Counter Scale of Cognitive Development	yes	yes	no
Independent Behavior Assessment Scale	no	yes	yes
Junior South African Individual Scales (JSAIS)	yes	no	no
Kaufman Assessment Battery for Children (KABC)	yes	yes	no
Kilifi Developmental Checklist (KDC)	no	yes	yes
Lucknow Development Screen for Indian Children	no	yes	yes
Malawi Developmental Assessment Tool	no	yes	yes
Movement Assessment Battery for Children (MABC)	no	no	yes
Multiple Indicator Cluster Surveys (MICS) Early Child Development Index (ECDI)	no	yes	yes
Parent Report Scales	no	yes	yes
Preschool Self-Regulation Assessment (PSRA) Assessor Report	no	no	no
Screening Test Battery for Assessment of Psychosocial Development	no	yes	yes
Stanford Binet Intelligence Scale	yes	yes	no
Test de Desarrollo Psicmotor (TEPSI)	no	yes	yes
Trivandrum Developmental Screening Chart (TDSC)	yes	no	yes
Vineland Adaptive Behavior Scales	no	yes	yes
Wechsler Preschool and Primary Scales of Intelligence (WPPSI)	yes	yes	no

Table E) EXCLUSION OF TOOLS MEASURING ≥ 2 YEARS (n=8)	MIN AGE
Cambodian Developmental Assessment Test	3.0
Developmental Assessment Tool for Anganwadis (DATA, DATA-II)	2.0
East Asia-Pacific Early Child Development Scale (EAP-ECDS)	3.0
Engle Scale of the Regional Project on Child Development Indicators (Programa Regional de Indicadores de Desarrollo Infantil; PRIDI)	2.0
McCarthy Scales of Children's Abilities (MSCA)	2.5
Neuropsychological Assessment (NEPSY)	3.0
Ten Questions Questionnaire (TQQ)	2.0
Rapid Neurodevelopmental Assessment Tool: 2-5 y	2.0

Table F) Tools with 1 domain only

TOOL	Cognitive	Language	Motor	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing	No. of domains
A not B task	no	no	no	no	yes	no	no	no	no	no	no	1
Achenbach Child Behavior Checklist (CBCL)	no	no	no	yes	no	no	no	no	no	no	no	1
Ages & Stages Questionnaire: Socio-Emotional (ASQ:SE)	no	no	no	yes	no	no	no	no	no	no	no	1
Brief Infant-Toddler Socio-Emotional Assessment (BITSEA)	no	no	no	yes	no	no	no	no	no	no	no	1
Delay of Gratification	no	no	no	no	yes	no	no	no	no	no	no	1
Early Childhood Vigilance Task	no	no	no	no	yes	no	no	no	no	no	no	1
Escala Argentina de Inteligencia Sensorimotriz (EAIS)	yes	no	no	no	no	no	no	no	no	no	no	1
Eyberg Child Behavior Inventory	no	no	no	yes	no	no	no	no	no	no	no	1
Infant Behavior Questionnaire (IBQ)	no	no	no	yes	no	no	no	no	no	no	no	1
Infant Neurological International Battery Test	no	no	yes	no	no	no	no	no	no	no	no	1
Infant Temperament Questionnaire	no	no	no	yes	no	no	no	no	no	no	no	1
Infant-Toddler Socio-Emotional Assessment (ITSEA)	no	no	no	yes	no	no	no	no	no	no	no	1
Kilifi Developmental Inventory (KDI)	no	no	yes	no	no	no	no	no	no	no	no	1
Leiter Examiner Scale	no	no	no	yes	no	no	no	no	no	no	no	1
Leiter International Performance Scale	yes	no	no	no	no	no	no	no	no	no	no	1
MacArthur-Bates Communicative Development Inventories	no	yes	no	no	no	no	no	no	no	no	no	1
Matching Familiar Figures Test (MFFT)	no	no	no	no	yes	no	no	no	no	no	no	1
Peabody Picture Vocabulary Test (PPVT)	no	yes	no	no	no	no	no	no	no	no	no	1
Preschool Language Scale (PLS)	no	yes	no	no	no	no	no	no	no	no	no	1
Profile of Socio-Emotional Development (PSED)	no	no	no	yes	no	no	no	no	no	no	no	1

Table F) Tools with 1 domain only

TOOL	Cognitive	Language	Motor	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing	No. of domains
Reynell Developmental Language Scale (New)	no	yes	no	no	no	no	no	no	no	no	no	1
Social Competence and Behavior Evaluation (SCBE -30) - Short version of SCBE-80	no	no	no	yes	no	no	no	no	no	no	no	1
Strengths and Difficulties Questionnaire (SDQ)	no	no	no	yes	no	no	no	no	no	no	no	1
The Matson Evaluation of Social Skills with Youngsters (MESSY)	no	no	no	yes	no	no	no	no	no	no	no	1
Visual habituation/dishabituation	yes	no	no	no	no	no	no	no	no	no	no	1
Wolke's Behavior Rating Scale	no	no	no	yes	no	no	no	no	no	no	no	1
Woodcock-Johnson Tests of Achievement	no	no	no	no	no	no	yes	no	no	no	no	1
Woodcock-Johnson Tests of Cognitive Abilities	yes	no	no	no	no	no	no	no	no	no	no	1
Woodcock-Johnson Tests of Oral Language	no	yes	no	no	no	no	no	no	no	no	no	1
World Health Organization (WHO) Motor Milestones	no	no	yes	no	no	no	no	no	no	no	no	1
Yoruba Mental Subscale	yes	no	no	no	no	no	no	no	no	no	no	1

Web appendix 4: Multi-domain and age heat map matrix for each ECD 0 to 3 tool meeting mapping criteria (5)

AGES	POPULATION-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
EAST ASIA-PACIFIC EARLY CHILD DEVELOPMENT SCALE (EAPS-ECDS)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
ENGLE SCALE OF THE REGIONAL PROJECT ON CHILD DEVELOPMENT INDICATORS (PROGRAMA REGIONAL DE INDICADORES DE DESARROLLO INFANTIL; PRIDI)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
CAREGIVER-REPORTED EARLY CHILD DEVELOPMENT INSTRUMENTS (CREDI)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
MULTIPLE INDICATOR CLUSTER SURVEY (MICS) EARLY CHILD DEVELOPMENT INDEX (ECDI)											
<3 months											
3 months to <6months											

AGES	POPULATION-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
INDICATORS OF INFANT AND YOUNG CHILD DEVELOPMENT (IYCD)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN SCREENING										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
ABBREVIATED DEVELOPMENTAL SCALE 1 (EAD-1)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
ACCESS PORTFOLIO											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
AGES & STAGES QUESTIONNAIRE (ASQ)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
AGES & STAGES QUESTIONNAIRE: INVENTORY											
<3 months											
3 months to <6months											
6 months to <9 month											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN SCREENING										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
ANKARA DEVELOPMENTAL SCREENING INVENTORY											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
BARODA DEVELOPMENT SCREENING TEST (BDST)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
CAMBODIAN DEVELOPMENTAL MILESTONE ASSESSMENT TOOL (cDMAT)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN SCREENING										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
CHILD DEVELOPMENT EVALUATION (CDE)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
DENVER DEVELOPMENTAL SCREENING TEST											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
DENVER PRESCREENING DEVELOPMENTAL QUESTIONNAIRE (DENVER II PDQ)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN SCREENING										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
DEVELOPMENTAL SCREENING QUESTIONNAIRE (DSQ)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
DISABILITY SCREENING SCHEDULE (DSS)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
GUIDE FOR MONITORING CHILD DEVELOPMENT (GMCD)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
ICMR PSYCHOSOCIAL DEVELOPMENT SCREENING TEST											
<3 months											
3 months to <6months											
6 months to <9 month											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN SCREENING										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
LUCKNOW DEVELOPMENT SCREENING TEST											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
PARENTS' EVALUATION OF DEVELOPMENTAL STATUS (PEDS)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
RAPID NEURODEVELOPMENTAL ASSESSMENT TOOL: 0-2Y											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN SCREENING										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
RAPID NEURODEVELOPMENTAL ASSESSMENT TOOL: 2-5Y											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
SCREENING TEST BATTERY FOR ASSESSMENT OF PYSCHOSOCIAL DEVELOPMENT											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
SHOKLO NEUROLOGICAL AND DEVELOPMENTAL TESTS											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN SCREENING										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
TEN QUESTIONS QUESTIONNAIRE (TQQ)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
TRIVANDRUM DEVELOPMENTAL SCREENING CHART (TDSC)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN ABILITY										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
BATTELLE'S DEVELOPMENT INVENTORY											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
BAYLEY SCALES OF INFANT DEVELOPMENT (BSID-II)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
BAYLEY SCALES OF INFANT DEVELOPMENT (BSID-III)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
BRACKEN BASIC CONCEPT SCALE											
<3 months											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN ABILITY										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
BRITISH ABILITIES SCALEA (BAS)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
CAMBODIAN DEVELOPMENTAL ASSESSMENT TEST											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
COMPREHENSIVE DEVELOPMENTAL INVENTORY FOR INFANTS AND TODDLERS (CDIIT)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN ABILITY										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
DEVELOPMENTAL ASSESSMENT SCALE FOR INDIAN INFANTS (DASII)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
DEVELOPMENTAL ASSESSMENT TOOL FOR ANGANWADIS (DATA, DATA-II)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
DEVELOPMENTAL MILESTONES CHECKLIST (DMC, DMC-II)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN ABILITY										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
>36 months to 5 years											
>5 years to 10 years											
EARLY CHILDHOOD CARE AND DEVELOPMENT (ECCD) CHECKLIST											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
EARLY HUMAN CAPABILITY INDEX (eCHI)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
ESCALA DE EVALUACION DEL DESARROLLO PSICHOMOTOR (EEDP)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
EXTENDED AGES & STAGES QUESTIONNAIRE (EASQ)											
<3 months											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN ABILITY										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
GRIFFITHS MENTAL DEVELOPMENT SCALES											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
GROVER-COUNTER SCALE OF COGNITIVE DEVELOPMENT											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
INDEPENDENT BEHAVIOUR ASSESSMENT SCALE											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN ABILITY										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
INTERGROWTH 21ST NEURODEVELOPMENT ASSESSMENT (INTER-NDA)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
JUNIOR SOUTH AFRICAN INDIVIDUAL SCALES (JSAIS)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
KAUFMAN ASSESSMENT BATTERY FOR CHILDREN (KABC)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN ABILITY										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
>36 months to 5 years											
>5 years to 10 years											
KILIFI DEVELOPMENTAL CHECKLIST (KDC)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
MALAWI DEVELOPMENTAL ASSESSMENT TOOL (MDAT)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
McCARTHY SCALES OF CHILDREN'S ABILITIES (MSCA)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
MULLEN SCALES OF EARLY LEARNING (MSEL)											
<3 months											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN ABILITY										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
NEUROPSYCHOLOGICAL ASSESSMENT (NEPSY)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
PARENT REPORT SCALES (PRS)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
PRESCHOOL SELF-REGULATION ASSESSMENT (PSRA) ASSESSOR REPORT											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN ABILITY										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
STANFORD BINET INTELLIGENCE SCALE											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
TEST DE APRENDIZAJE Y DESARROLLO INFANTIL (TADI)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
TEST DE DESARROLLO PSICMOTOR (TEPSI)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN ABILITY										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
THE OXFORD NEURODEVELOPMENT ASSESSMENT (OX-NDA)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
WECHSLER PRESCHOOL AND PRIMARY SCALES OF INTELLIGENCE (WPPSI)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											
VINELAND ADAPTIVE BEHAVIOUR SCALES											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											

AGES	INDIVIDUAL-LEVEL CHILD DEVELOPMENT ASSESSMENTS BY DOMAIN SCREENING & ABILITY										
	Cognitive	Motor	Language	Socio-Emotional/ Temperament	Attention/ Executive Function	Personal-Social/ Adaptive	Disability Screener	Academic/ Pre-Academic	Approaches to Learning	Vision	Hearing
MOVEMENT ASSESSMENT BATTERY FOR CHILDREN (MABC)											
<3 months											
3 months to <6months											
6 months to <9 month											
9 months to <12 months											
12 months < 18 months											
18 months to < 24 months											
24 months to <30 months											
30 months to <36 months											
36 months											
>36 months to 5 years											
>5 years to 10 years											

WEB APPENDICES REFERENCES

1. Fernald L, Prado E, Kariger P, et al. A Toolkit for Measuring Early Childhood Development in Low- and Middle-Income Countries. Washington DC: International Bank for Reconstruction and Development/The World Bank; 2017.
2. Developmental difficulties in early childhood: prevention, early identification, assessment and intervention in low- and middle-income countries. World Health Organisation; 2012.
3. Council on Children with Disabilities, Section on Developmental Behavioural Pediatrics, Bright Futures Steering Committee, et al. Identifying Infants and Young Children with Developmental Disorders in the Medical Home: An Algorithm for Developmental Surveillance and Screening. *Pediatrics*. 2006;118(1):405-20.
4. ICF The International Classification of Functioning. Disability and Health. Geneva: World Health Organisation; 2001.
5. Early Child Development Measurement Inventory [Internet]. World Bank. 2017 [cited 2018].
6. World Health Organisation. Interventions for management of children with intellectual disabilities.
7. Roberston J, Hatton C, Emerson E. The Identification of Children with or at Significant Risk of Intellectual Disabilities in Low and Middle Income Countries: A Review. Lancaster, UK Centre for Disability Research (CeDR), Lancaster University; 2009.
8. Krishnamurthy V, Srinivasan R. Childhood Disability Screening Tools: The South East Asian Perspective. Mumbai: Ummeed Child Development center; 2011.
9. Moodie S, Daneri PG, S, Halle T, et al. Early childhood developmental screening: A compendium of measures for children ages birth to five (OPRE Report 2014-11). Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, US Department of Health and Human Services; 2014.
10. Sabanathan S, Wills B, Gladstone M. Child development assessment tools in low-income and middle-income countries: how can we use them more appropriately? *Archives of Disease in Childhood*. 2015;100(5):482-8.
11. Fischer V, Morris J, Martines J. Developmental Screening Tools; Feasibility of Use at Primary Healthcare Level in Low- and Middle-income Settings. *Journal of Health, Population and Nutrition*. 2014;32(2):314-26.
12. Semrud-Clikeman M, Romero R, Prado E, et al. Selecting measures for the neurodevelopmental assessment of children in low-and middle-income countries. *Child Neuropsychology*. 2016;23(7):1-42.
13. Rubio-Codina M, Araujo M, Attanasio O, et al. Concurrent Validity and Feasibility of Short Tests Currently Used to Measure Early Childhood Development in Large Scale Studies. *Plos One*. 2016;11(8):e0160962.
14. McCoy DC, Sudfeld CR, Bellinger DC, et al. Development and validation of an early childhood development scale for use in low-resourced settings. *Popul Health Metr*. 2017;15(1):3.
15. McCoy D, Fink G, Pierre-Louis M. CREDI. Assessor Manual.; 2018.
16. McCoy D, Fink G, Pierre-Louis M. CREDI. User Guide.; 2018.
17. McCoy D, Black M, Daelmans B, et al. Measuring child development in children from birth to age 3 at population level. *Early Childhood Matters*. 2016.
18. Harvard T.H. Chan School of Public Health. Caregiver-Reported Early Development Instruments (CREDI) 2018 [Available from: https://sites.sph.harvard.edu/credi/].
19. Harvard T.H. Chan School of Public Health. Caregiver Reported Early Childhood Development Instruments (CREDI). Research. [Available from: https://sites.sph.harvard.edu/credi/research/.
20. WHO Indicators of Infant and Young Child Development (IYCD). Users' Manual.; 2018.
21. McCray G, Lancaster G. WHO 0-3 child development indicators project: statistical report for Phase 2 pilot study. Keele University, UK: World Health Organisation; 2017.
22. Infant and Young Child Development IYCD Package [Available from: https://ezcollab.who.int/iycd].
23. Singh A, Yeh CJ, Boone Blanchard S. Ages and Stages Questionnaire: a global screening scale. *Boletín Médico Del Hospital Infantil de México (English Edition)*. 2017;74(1):5-12.

24. Muñoz-Caicedo A, Zapata-Osso H, Perez-Tenorio L. Validacion de criterio de la Escala Abreviada del Desarrollo (EAD-1) en el dominio audicion-lenguaje. *Revista de Salud Publica*. 2013;15(3).
25. Cardona Arias J, Jaramillo Caro A, Sanchez Rojas J. Reproducibility and Validity of the Abbreviated Scale of Development and Frequency of Abnormal Child Development in Medellin. *Translational Biomedicine*. 2015;6(3).
26. Moreno Luna S, Granados Rugeles C, Rodriguez Malagon N, et al. Escala Abreviada de Desarrollo - 3. Pontificia Universidad Javeriana, Facultad de Medicina, Departamento de Epidmeiologia Clinica y Bioestadistica.
27. Wirz S, Edwards K, Flower J, et al. Field testing of the ACCESS materials: a portfolio of materials to assist health workers to identify children with disabilities and offer simple advice to mothers. *Int J Rehabil Res*. 2005;28(4):293-302.
28. Ages & Stages Questionnaires [Available from: https://agesandstages.com/.
29. Ages & Stages Questionnaires. Translations of ASQ [Available from: https://agesandstages.com/languages/].
30. Squires J, Bricker D. A Parent-Completed Child Monitoring System (CD-ROM). Paul Brookes Publishing Co.; 2009.
31. Kerstjens JM, Bos AF, ten Vergert EM, et al. Support for the global feasibility of the Ages and Stages Questionnaire as developmental screener. *Early Hum Dev*. 2009;85(7):443-7.
32. Tsai H, McClelland M, Pratt C, et al. Adaptation of the 36-Month Ages and Stages Questionnaire in Taiwan: Results from a Preliminary Study. *J Early Interv*. 2006;28(3):213-25.
33. Veldhuizen S, Clinton J, Rodriguez C, et al. Concurrent validity of the Ages And Stages Questionnaires and Bayley Developmental Scales in a general population sample. *Acad Pediatr*. 2015;15(2):231-7.
34. Filgueiras A, Pires P, Maissonette S, et al. Psychometric properties of the Brazilian-adapted version of the Ages and Stages Questionnaire in public child daycare centers. *Early Hum Dev*. 2013;89(8):561-76.
35. Schonhaut BL, Perez RM, Castilla FA, et al. [Predictive value of Ages & Stages Questionnaires for cognitive performance at early years of schooling]. *Rev Chil Pediatr*. 2016.
36. Steenis LJ, Verhoeven M, Hessen DJ, et al. Parental and professional assessment of early child development: the ASQ-3 and the Bayley-III-NL. *Early Hum Dev*. 2015;91(3):217-25.
37. Chen C. Examining psychometric dimensions of the Ages and Stages Questionnaires: Inventory: A cross-country comparison between Taiwan and the United States. Oregon, USA: University of Oregon; 2013.
38. Weber A. Implementation of the ASQ: Inventory for 0-12 month children in Madagascar 2015 [Available from: http://pubdocs.worldbank.org/en/585941429125578250/05-Implementation-of-the-ASQ-Inventory-for-0-12-month-children-in-Madagascar-Ann-Weber-Stanford-University.pdf.
39. Sezgin N. Two Different Validity Study of Ankara Developmental Screening Inventory (ADSI): Criterion-Related Validity and Concurrent Discrimination Validity. *Turk J Child Adolesc Ment Health*. 2011;18(3):185-96.
40. Karaaslan O, Diken I, Mahoney G. A Randomized Control Study of Responsive Teaching with Young Turkish Children and Their Mothers. *Topics in Early Childhood Special Education*. 2011;33(1):18-27.
41. Wertlieb D, Krishnamurthy V. Special needs, special rights: addressing young children with disabilities via inclusive early childhood development *Early Childhood Matters*. 2015;124:59-65.
42. Savaşır I, Sezgin N, Erol N. Ankara Developmental Screening Inventory [Ankara Gelişim Tarama EnvanteriAGTE] 3rd Edition ed. Ankara: Turkish Psychology Association; 2005.
43. Rizzoli-Cordoba A, Schnaas-Y-Arrieta L, Ortega-Riosvelasco F, et al. Child Development Evaluation Test analysis by field improves detection of developmental problems in children. *Boletin Medico de Hospital Infantil de Mexico*. 2014;71(3):154-62.

44. Rizzoli-Cordoba A, Ortega-Riosvelasco F, Villasis-Keever M, et al. Reliability for detection of developmental problems using the semaphore from the Child Development Evaluation test: Is a yellow result different from a red result? . *Boletin Medico de Hospital Infantil de Mexico*. 2014;71(5).
45. Rizzoli-Cordoba A, Campos-Maldonado M, Velez-Andrade V, et al. Diagnostic evaluation of the developmental level in children identified at risk of delay through the Child Development Evaluation Test *Boletin Medico de Hospital Infantil de Mexico*. 2015;72(6):397-408.
46. Shahshahani S, Vameghi R, Azari N, et al. Validity and Reliability Determination of Denver Developmental Screening Test-II in 0-6 Year-Olds in Tehran. *Iran J Pediatr*. 2010;20(3):313-22.
47. Glascoe F, Byrne K, AShford L, et al. Accuracy of the Denver-II in Developmental Screening *Pediatrics*. 1992;89(6):1221-5.
48. Frankenburg W, Dodds J, Archers P, et al. Denver Developmental Screening Test (DDST II): Denver Developmental Materials, Inc; 1990 [2nd Edition:[Available from: https://blogs.elon.edu/ptkids/2015/03/16/ddst-ii-denver-developmental-screening-test-2nd-edition/.
49. Essays U. Information on The Denver Developmental Screening Test 2013 [Available from: https://www.ukessays.com/essays/psychology/information-denver-developmental-screening-2006.php?vref=1.
50. Wijedasa D. Developmental screening in context: adaptatio and standardization of the Denver Developmental Screening Test-II (DST-II) for Sri Lankan children. *Child Care Health Dev*. 2011;38(6):889-99.
51. Lim H, Chan T, Yoong T. Standardisation and adaptation of the Denver Developmental Screening Test (DDST) and Denver II for use in Singapore children. *Singapore Med J*. 1994;35(156-160).
52. Frankenburg W, Dodds J, Archer P, et al. Denver II Developmental Screening Test [Available from: https://www.hogrefe.co.uk/shop/tests/clinical/denver-ii-developmental-screening-test.html.
53. Frankenburg W, van Doorninck W, Liddell T, et al. The Denver Prescreening Developmental Questionnaire (PDQ). *Pediatrics*. 1976;57(5):744-53.
54. Al-Ansari S, Bella H. Translation and adaptation of the revised Denver pre-screening developmental questionnaire for Madinah children, Saudi Arabia. *Annals of Saudi Medicine*. 1998;18(1):42-6.
55. Shahshahani S, Sajedi F, Vameghi R, et al. Evaluating the Validity and Reliability of PDQ-II and Comparison with DDST-II for Two Step Developmental Screening. *Iranian Journal of Pediatrics*. 2011;21(3):343-9.
56. Kwan C, Nam S. Utilizing parental observations and computer technology in developing a child-screening instrument in Singapore. *International Journal of Early Years Education*. 2010;12(2):117-29.
57. Ertem I. The international Guide for Monitoring Child Development: enabling individualised interventions. *Early Childhood Matters*. 2017.
58. Ertem I, Dogan D, gok C, et al. A guide for monitoring child development in low- and middle-income countries. *Pediatrics*. 2008;121(3):e581-9.
59. Vazir S, Landsdown R, Naidu A, et al. A comparison of Indian and American Scales of Child Development *Journal of the Indian Academy of Applied Psychology*. 1994;20(2):175-81.
60. Indian Council of Medical Research [Available from: https://icmr.nic.in/].
61. Mukherjee S, Aneja S, Krishnamurthy V, et al. Incorporating Developmental Screening and Surveilland of Young Children in Office Practice. *Indian Pediatrics*. 2014;51:627-35.
62. Sheelamma J, Kumari K. Developmental profile of children under two years in the coastal area of Kochi, Kerala. *Int J Adv Res*. 2013;1(9):870-4.
63. Glascoe F, Marks K. Detecting children with developmental-behavioural problems: The value of collaborating with parents. *Psychological Test and Assessment Modeling*. 2011;53(2):258-79.
64. Woolfenden S, Eapen V, Williams K, et al. A systematic review of the prevalence of parental concerns measured by the *Parents' Evaluation of Developmental Status (PEDS)* indicating developmental risk. *BMC Pediatr*. 2014;14.
65. Adapted from Glascoe F. How to administer PEDS: Parents' Evaluation of Developmental Status. Presentation.
66. Parents' Evaluation of Developmental Status (PEDS) Interpretation form. The Royal Children's Hospital Melbourne; 2015.

67. Theeranate K, Chuengchitraks S. Parent's Evaluation of Developmental Status (PEDS) detects developmental problems compared to Denver II. *J Med Assoc Thai*. 2005;88(Suppl 3):S188-92.
68. PEDS Test [Available from: http://www.pedstest.com/default.aspx].
69. Vameghi R, Sajedi F, Shahshahani S, et al. Validity and Reliability Determination of Parents Evaluation of Developmental Status (PEDS) in 4-60 Months old Children in Tehran. *Iran Rehab J*. 2015;13(2):62-7.
70. Thompson L, Penaloza R, Stormfields K, et al. Validation and adaptation of rapid neurodevelopmental assessment instrument for infants in Guatemala. *Child Care Health Dev*. 2015;41(6):1131-9.
71. Khan N, Muslima H, Begum D, et al. Validation of Rapid Neurodevelopment Assessment Instrument for Under-Two-Year-Old Children in Bangladesh. *Pediatrics*. 2010;125(4):e755-62.
72. Khan N, Muslima H, Shilpi A, et al. Validation of a home-based neurodevelopmental screening tool for under 2-year-old children in Bangladesh. *Child Care Health Dev*. 2012;39(5):643-50.
73. UNICEF Bhutan. Planning, Monitoring & Evaluation 2018 [Available from: http://www.unicefbhutan.org.bt/our-programmes/planning-monitoring-evaluation/.
74. Haataja L, McGready R, Arunjerdja R, et al. A new approach for neurological evaluation of infants in resource-poor settings. *Ann Trop Paediatr*. 2013;22(4):355-68.
75. McGready R, Simpson J, Panyavudhikrai S, et al. Neonatal neurological testing in resource-poor settings. *Ann Trop Paediatr*. 2000;20(4).
76. Glascoe F, Byrne K. The usefulness of the Battelle Developmental Inventory Screening Test. *Clin Pediatr (Phila)*. 1993;32(5):273-80.
77. Houghton Mifflin Harcourt [Available from: https://www.hmhco.com/support.
78. Newborg J. Battelle Developmental Inventory. 2nd Edition ed2004.
79. Cromwell EA, Dube Q, Cole SR, et al. Validity of US norms for the Bayley Scales of Infant Development-III in Malawian children. *Eur J Paediatr Neurol*. 2014;18(2):223-30.
80. Hack M, Taylor HG, Drotar D, et al. Poor predictive validity of the Bayley Scales of Infant Development for cognitive function of extremely low birth weight children at school age. *Pediatrics*. 2005;116(2):333-41.
81. Yu YT, Hsieh WS, Hsu CH, et al. A psychometric study of the Bayley Scales of Infant and Toddler Development - 3rd Edition for term and preterm Taiwanese infants. *Res Dev Disabil*. 2013;34(11):3875-83.
82. Lee K. Use of the Bayley Scales of Infant Development-III by Therapists for Assessing Development and for Recommending Treatment for Infants in a NICU Follow-Up Clinic: University of Puget Sound; 2013.
83. Greene MM, Patra K, Silvestri JM, et al. Re-evaluating preterm infants with the Bayley-III: patterns and predictors of change. *Res Dev Disabil*. 2013;34(7):2107-17.
84. Luttikhuizen dos Santos ES, de Kieviet JF, Konigs M, et al. Predictive value of the Bayley scales of infant development on development of very preterm/very low birth weight children: a meta-analysis. *Early Hum Dev*. 2013;89(7):487-96.
85. Long SH, Galea MP, Eldridge BJ, et al. Performance of 2-year-old children after early surgery for congenital heart disease on the Bayley Scales of Infant and Toddler Development, Third Edition. *Early Hum Dev*. 2012;88(8):603-7.
86. Greene MM, Patra K, Nelson MN, et al. Evaluating preterm infants with the Bayley-III: patterns and correlates of development. *Res Dev Disabil*. 2012;33(6):1948-56.
87. Velikos K, Soubasi V, Michalettou I, et al. Bayley-III scales at 12 months of corrected age in preterm infants: Patterns of developmental performance and correlations to environmental and biological influences. *Res Dev Disabil*. 2015;45-46:110-9.
88. Adams-Chapman I, Bann CM, Vaucher YE, et al. Association between feeding difficulties and language delay in preterm infants using Bayley Scales of Infant Development-Third Edition. *J Pediatr*. 2013;163(3):680-5 e1-3.
89. Pearson. Psychology, Health and Education Assessments [Available from: https://www.pearsonclinical.co.uk/.
90. Huang C, Tung L, Chou Y, et al. Development of a Computerized Adaptive Test of Children's Gross Motor Skills. *Arch Phys Med Rehabil*. 2018;99(3):512-20.

91. Liao H, Yao G, Wang T. Concurrent validity in Taiwan of the Comprehensive Developmental Inventory for Infants and Toddlers who were full-term infants. *Percept Mot Skills*. 2008;107(1):29-44.
92. Hwang A, Chao M, Liu S. A randomized controlled trial of routines-based early intervention for children with or at risk for developmental delay. *Revs Dev Disabil*. 2013;34:3112-23.
93. Huang C, Tung L, Chou Y, et al. Improving the utility of the fine motor skills subscale of the comprehensive developmental inventory for infants and toddlers: a computerized adaptive test. *Disability and Rehabilitation*. 2016:1-7.
94. Liao H, Pan Y. Test-retest and inter-rater reliability for the Comprehensive Developmental Inventory for Infants and Todderls diagnostic and screening tests. *Early Hum Dev*. 2005;81(11):927-37.
95. Liao H, Wang T, Yao G, et al. Concurrent validity of the comprehensive developmental inventory for infants and toddlers with the Bayley Scales of Infant Development-II in preterm infants. *J Formos Med Assoc*. 2005;104(10):731-7.
96. Tsai YP, Tung LC, Lee YC, et al. Selecting score types for longitudinal evaluations: the responsiveness of the Comprehensive Developmental Inventory for Infants and Toddlers in children with developmental disabilities. *Neuropsychiatr Dis Treat*. 2016;12:1103-9.
97. Bhave A, Bhargava R, Kumar R. Development and Validation of a New Lucknow Development Screen for Indian Children Aged 6 Months to 2 Years. *J Child Neurol*. 2009;25(1):57-60.
98. Chandrasekaran A, Rao S, Raman V, et al. Glucose levels in first 3 days and neurodevelopmental outcome at 1 year in low birth weight infants: A cohort study. *Indian J Child Health*. 2016;3(4):274-80.
99. Baburaj S, Abraham B, Vinod Vasant P, et al. Growth and development of high risk graduates till one year from a rural neonatal intensive care unit in south India. *International Journal of Biomedical Research*. 2013;04(12):695-700.
100. Juneja M, Mohanty M, Jain R, et al. Ages and Stages Questionnaire as a Screening Tool for Developmental Delay in Indian Children. *Indian Pediatrics*. 2012;49(457-461).
101. Centre MR. Developmental Assessment Scales for Indian Infants (DASII) [Available from: https://www.manashakti.org/tests/developmental-assessment-scales-indian-infants.
102. Jain R, Arora A, Anand R, et al. Designing and validation of a Hindi-langauge parent self-report developmental screening tool. *Indian Pediatrics*. 2017;54(7):550-5.
103. Bhave A, Bhargava R, Kumar R. Correlation between developmental quotients (DASII) and social quotient (Malin's VSMS) in Indian children aged 6 months to 2 years. *J Paediatr Child Health*. 2010;47(3):87-91.
104. How to Use the Early Childhood Care and Development Checklist. Manila, Philippines; 2011.
105. Early Childhood Care and Development (ECCD) Checklist, Child's Record 2. Manila, Philippines; 2004.
106. Independent Progress Review Report. Agreement Number - 707761 SO 01. Australian Department of Foreign Affairs and Trade (DFAT). Philippines Early Childhood Care and Development (ECCD) Project; 2015 15 April 2015.
107. Stewart C, Kariger P, Fernald L, et al. Effects of water quality, sanitation, handwashing, and nutritional interventions on child development in rural Kenya (WASH Benefits Kenya): a cluster-randomised controlled trial. *Lancet Child Adolesc Health*. 2018;2:269-80.
108. Fernald L, Kariger P, Hidrobo M, et al. Socioeconomic gradients in child development in very young children: Evidence from India, Indonesia, Peru, and Senegal. Supplemental Materials. . *PNAS*. 2012;109(Supplement 2):17273-80.
109. Griffiths R, Huntley M. The Griffiths Mental Development Scales from birth to 2 years: Manual. Oxford: Hogrefe.
110. Ho J, Amar H, Ismail R. Use of the Griffiths Mental Scales in Normal 2 Year Old Malaysian Children. *Med J Malaysia*. 2001;56(3):331-5.
111. Laughton B, Springer P, Grove D, et al. Longitudinal developmental profile of children from low socio-economic circumstances in Cape Town, using the 1996 Griffiths Mental Development Scales. *SA Journal of Child Health*. 2010;4(4):106-11.
112. Luiz D, Foxcroft C, Steward R. The construct validity of the Griffiths Scales of Mental Development. *Child Care Health Dev*. 2008;27(1):73-83.

113. Tso W, Wong V, Ao L, et al. Griffiths Mental Developmental Scales (GMDS): validation for Chinese children. *Pediatrics*. 2014;19(2):124-5.
114. Reyes A, Pacifico R, Benitez B, et al. Use of the Griffiths Mental Development Scales in an agro-industrial province in the Philippines. *Child Care Health Dev*. 2010;36(3):354-60.
115. Picciolini O, Squarza C, Fontana C, et al. Neurodevelopmental outcome of extremely low birth weight infants at 24 months corrected age: a comparison between Griffiths and Bayley Scales. *BMC Pediatr*. 2015;15:139.
116. Wong HS, Santhakumaran S, Cowan FM, et al. Developmental Assessments in Preterm Children: A Meta-analysis. *Pediatrics*. 2016;138(2).
117. McLean M, McCormick K, Baird S. Concurrent Validity of the Griffths' Mental Development Scales with a Population of Children Under 24 Months. *J Early Interv*. 1991;15(4):338-44.
118. Stroud L, Green E, McAlinden P, et al. Child development and its assessment: revising the Griffiths Mental Development Scales. *Arch Dis Child*. 2016;101(Suppl 1):A1-A374.
119. Biasini A, Montui F, Gianstefani I, et al. Griffiths Mental Development Scales as a Tool for the Screening of Motor Disability in Premature Infants: Is it Worth it? *J Clin Neurol*. 2015;4(1):22-5.
120. Luiz D, Foxcroft C, Povey J. The Griffiths Scales of Mental Development: A Factorial Validity Study. *South African Journal of Psychology*. 2006;36(1):192-214.
121. The Inter-NDA Consortium [Available from: https://www.inter-nda.com/.
122. The Inter-NDA Consortium. Assessing Early Child Development. [Available from: https://www.inter-nda.com/about.html].
123. The Inter-NDA Consortium. Frequently Asked Questions. [Available from: https://www.inter-nda.com/faqs.html.
124. Fernandes M, Stein A, Newton C, et al. The INTERGROWTH-21st project neurodevelopment package: a novel method for the multi-dimensional assessment of neurodevelopment in pre-school age children. *Plos One*. 2014;9(11).
125. Murray E, Fernandes M, Newton C, et al. Evaluation of the INTERGROWTH-21st Neurodevelopment Assessment (INTER-NDA) in 2 year-old children. *Plos One*. 2018;13(2).
126. INTERGROWTH-21st. Study protocol and other project documents. [Available from: https://www.intergrowth21.org.uk/protocol.aspx?lang=1&lang=1.
127. INTERGROWTH-21st. Vision Assessment Manual. Univerity of Oxford; 2013.
128. Santos I, Bassani D, Matijasevich A, et al. Infant sleep hygiene counseling (sleep trial): protocol of a randomized controlled trial. *BMC Psychiatry*. 2016;16(307).
129. Fernandes M, Stein A, Kennedy S. The INTERGROWTH-21st Neurodevelopment Package: A novel multi-dimensional assessment of early child development. *Arch Dis Child*. 2018;103(Suppl 1):A1-A212.
130. INTERGROWTH-21st. The INTERGROWTH-21st Neurodevelopmental Package Standardisation Protocol. University of Oxford; 2014.
131. INTERGROWTH-21st. The INTERGROWTH-21st Neurodevelopmental Assessment (INTER-NDA) Manual. University of Oxford; 2013.
132. Rockers PC, Fink G, Zanolini A, et al. Impact of a community-based package of interventions on child development in Zambia: a cluster-randomised controlled trial. *BMJ Glob Health*. 2016;1(3):e000104.
133. Hallal PC, Bertoldi AD, Domingues MR, et al. Cohort Profile: The 2015 Pelotas (Brazil) Birth Cohort Study. *Int J Epidemiol*. 2017.
134. Slim J, Villar J, Guerrero Varela G, et al. Individual or Group-based Approach to the Assessment of Preschool Children: A Comparison using the INTERGROWTH-21st Neurodevelopment Assessment (INTER-NDA). *International Journal of Growth and Development*. 2018;2:11-33.
135. Ruisenor-Escudero H, Sikorskii A, Familiar-Lopez I, et al. Neurodevelopmental Outcomes in Pre-School Children Living with HIV-1 Subtypes A and D in Uganda. *Pediatr Infect Dis J*. 2018 - published ahead of print.
136. Familiar I, Collins P, Sikorskii A, et al. Quality of Caregiving is Positively Associated With Neurodevelopment During the First Year of Life Among HIV-Exposed Uninfected Children in Uganda. *J Acquir Immune Defic Syndr*. 2018;77(3):235-42.
137. Ben-Sasson A, Habib S, Tirosh E. Feasibility and validity of early screening for identifying infants with poor social-communication development in a well-baby clinic system. *J Pediatr Nurs*. 2014;29(3):238-47.

138. Bornman J, Romski M, Tonsing K, et al. Adapting and translating the Mullen Scales of Early Learning for the South African context. *S Afr J Commun Disord*. 2018;65(1):e1-e9.
139. Libertus K, Sheperd K, Ross S, et al. Limited Fine Motor and Grasping Skills in six-month-old Infants at High Risk for Autism. *Child Dev*. 2014;85(6):2218-31.
140. Koura G, Boivin M, Davidson L, et al. Usefulness of child development assessments for low-resource settings in francophone Africa. *J Dev Behav Pediatr*. 2013;34(7).
141. Akshoomoff N. Use of the Mullen Scales of Early Learning for the Assessment of Young Children with Autism Spectrum Disorders. *Child Neuropsychol*. 2006;12(4-5):269-77.
142. Bodeau-Livinec F, Davidson LL, Zoumenou R, et al. Neurocognitive testing in West African children 3-6 years of age: Challenges *Brain Res Bull*. 2018.
143. Burns T, King T, Spencer K. Mullen Scales of Early Learning: The Utility in Assessing Children Diagnosed With Autism Spectrum Disorders, Cerebral Palsy, and Epilepsy. *Appl Neuropsychol Child*. 2013;2(1).
144. Mullen E. Mullen Scales of Early Learning (MSEL). Manual1995.
145. Swineford L, Guthrie W, Thurm A. Convergent and divergent validity of the Mullen Scales of Early Learning in young children with and without autism spectrum disorder. *Psychol Assess*. 2015;27(4):1364-78.
146. Torres Aguilera M, Jacome Astudillo T. Evaluacion del desarrollo infantil en preescolares de 3 a 5 años a traves de la escala de desarrollo armonico (EDA). Cuenca, Ecuador: Universidad de Cuenca; 2016.
147. Test de Aprendizaje y Desarrollo Infantil (TADI): Construyendo evaluaciones con sentido. In: Centro de Investigacion Avanzada en Educacion UdC, editor. 2018.
148. Test de Aprendizaje y Desarrollo. Servicion de correccion en linea. [Available from: http://tadi.cl/servicio-de-correccion-en-linea/.
149. CEDEP. Test de Aprendizaje y Desarrollo Infantil 2013 [Available from: http://www.cedep.info/tadi.html].
150. Rodriquez-Garces C, Muñoz-Soto J. Delay in child development: The importance of education quality of family atmosphere. *Rev Int Investig Cienc Soc*. 2017;13(2):253-70.
151. Narea M. Who cares for our children matters: early maternal employment, early childcare and child development in Chile. London: The London School of Econoics and Political Science; 2015.
152. Bedregal P. Hacia la renovacion en las politicas de infancia en Chile. *Rev Chil Pediatr*. 2014;85(1):7-11.
153. Pardo M, Gomez M, Edwards M. Test de Aprendizaje y Desarrollo Infantil (TADI). Para niñas y niños de 3 meses a 6 años. Chile: UNICEF; 2012.
154. UNICEF. The Multiple Indicator Cluster Surveys (MICS) 1995-2015. Monitoring the Situation of Children and Women for 20 Years. 2015.
155. Bogard K, Mellody M, editors. The Cost of Inaction for Young Children Globally: Workshop Summary2001: The National Academies Press, Washington D.C.
156. Jeong J, McCoy D, Yousafzai A, et al. Paternal Stimulation and Early Child Development in Low- and Middle-Income Countries. *Pediatrics*. 2016;138(4):e20161357.
157. Jeong J, Bhatia A, Fink G. Associations between birth registration and early child growth and development: evidence from 31 low- and middle-income countries. *BMC Public Health*. 2018;18:673.
158. UNICEF. The Formative Years: UNICEF's Work on Measuring Early Childhood Development. New York: UNICEF.
159. Miller A, Murray M, Thomson D, et al. How consistent are associations between stunting and child development? Evidence from a meta-analysis of assocaitions between stunting and multidimensional child development in fifteen low- and middle-income countries. *Public Health Nutr*. 2015;19(8):1339-47.
160. Loizollon A, Petrowski N, Britto P, et al. Development of the Early Childhood Development Index in MICS Surveys. *MICS Methodological Papers, No 6*. 2017.
161. McCoy DC, Peet ED, Ezzati M, et al. Early Childhood Developmental Status in Low-and Middle-Income Countries: National, Regional, and Global Prevalence Estimates Using Predictive Modeling. *PLoS Med*. 2016;13(6):e1002034.
162. UNICEF, MICS. Publications (MICS) 2018 [Available from: http://mics.unicef.org/publications/reports-and-methodological-papers.
163. UNICEF. Key early childhood development indicators 2013 [Available from: https://www.unicef.org/earlychildhood/index_69536.html.
164. UNICEF. ECD Monitoring 2013 [Available from: https://www.unicef.org/earlychildhood/index_69846.html.
165. Gove A, Black M. Measurement of Early Childhood Development and Learning under the Sustainable Development Goals. *J Hum Dev Capab*. 2016;17(4):599-605.

166. Vazir S, Naidu A, Vidyasagar P, et al. Screening test battery for assessment of psychosocial development. *Indian Pediatrics*. 1994;31:1465-75.
167. Malik M, Pradhan S, Prasuna J. Screening for psychosocial development among infants in an urban slum of Delhi. *Indian J Pediatr*. 2007;74(9):841-5.
168. Abubakar A, Holding P, Van de Vijver F. Children at risk for developmental delay can be recognised by stunting, being underweight, ill health, little maternal schooling or high gravidity. *J Child Psychol Psychiatry*. 2010;51(6):652-9.
169. Abubakar A, Holding P, Van de Vijver F, et al. Developmental Monitoring Using Caregiver Reports in a Resource-Limited Setting: The Case of Kilifi, Kenya. *Acta Paediatr*. 2010;99(2):291-7.
170. Goldfeld S, Yousafzai A. Monitoring tools for child development: an opportunity for action. *The Lancet Global Health*. 2018;6(3):e232-e3.
171. Magai D, Malik J, Koot H. Emotional and Behavioural Problems in Children and Adolescnts in Central Kenya. *Child Psych Hum Dev*. 2018;49:659-71.
172. Abubakar A, Holding P, Baar A, et al. Monitoring psychomotor development in a resource-limited setting: an evaluation of the Kilifi Developmental Inventory. *Ann Trop Paediatr*. 2008;28.
173. Kammerer B, Isquith P, Lundy S. Chapter 2: Approaches to Assessment of Very Young Children in Africa in the Context of HIV. In: Boivin M, Giordani B, editors. Neuropsychology of Children in Africa: Perspectives on Risk and Resilience. New York: Springer Science+Business; 2013.
174. Abubakar A, Van de Vijver F, Mithwani S, et al. Assessing Developmental Outcomes in Children from Kilifi, Kenya, Following Prophylaxis for Seizures in Cerebral Malaria. *J Health Psychol*. 2007;12(3):417-30.
175. Malawi Developmental Assessment Tool. The MDAT 2018 [Available from: https://mdatchilddevelopmentanddisability.liv.ac.uk/.
176. Boivin M, Mohanty M, Sikorskii A, et al. Early and middle childhood developmental, cognitive, and psychiatric outcomes of Malawian children affected by retinopathy positive cerebral malaria. *Child Neuropsychol*. 2017.
177. Phillips G, Lancaster G, Titman A, et al. Developing Robust Scoring Methods for use in Child Assessment Tools. Lancaster University 2016.
178. Gladstone M, Lancaster G, Umar E, et al. Perspectives of normal child development in rural Malawi – a qualitative analysis to create a more culturally appropriate developmental assessment tool. *Child Care Health Dev*. 2009;36(3):346-53.
179. Boivin M, Gladstone M, Vokhiwa M, et al. Developmental outcomes in Malawian chidlren with retinopathy-positive cerebral malaria. *Trop Med Int Health*. 2011;16(3):263-71.
180. Barlow K, Reynolds S. A Mixed-Methods Study Examining Developmental Milestones and Parental Experiences in Ghana. *The Open Journal of Occupational Therapy*. 2018;6(2):1-12.
181. Gladstone M, Lancaster G, Jones A, et al. Can Western developmental screening tools be modified for use in a rural Malawian setting? *Arch Dis Child*. 2008;93:23-9.
182. Gladstone M, Lancaster G, Umar E, et al. The Malawi Developmental Assessment Tool (MDAT): The Creation, Validation, and Reliability of a Tool to Assess Child Development in Rural African Settings. *PLoS Med*. 2010;7(5):e1000273.
183. Gladstone M, Mallewa M, Jalloh A, et al. Assessment of Neurodisability and Malnutrition in Children in Africa. *Semin Pediatr Neurol* 2014;21:50-7.
184. Lokuketagoda B, Thalagala N, Fonseka P, et al. Early Development Standards for Children Aged 2 to 12 Months in a Low-Income Setting. *Sage Open*. 2016:1-22.
185. van den Heuvel M, Voskuijil W, Chidzalo K, et al. Developmental and behavioural problems in children with severe acute malnutrition in Malawi: A cross-sectional study. *J Glob Health*. 2017;7(2):1-10.
186. MDAT Research Team. Malawi Developmental Assessment Tool (MDAT) Administration Manual. Version 6. . 2018.
187. Yameogo C, Cichon B, Fabiansen C, et al. Correlates of Physical Activity among Young Chidlren with Moderate Acute Malnutrition. *J Pediatr*. 2016;181:235-41.
188. Boivin M, Vokhiwa M, Magen J. The correspondence validity of Malawian preschool developmental assessment and school-age neurocognitive performance in the longitudinal assessment of severe malaria. *Lancet*. 2013.
189. Prado E, Phuka J, Ocansey E, et al. A method to develop vocabulary checklists in new languages and their validity to assess early language development *J Health Popul Nutr*. 2018;37(13).