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# Strengthening Early Childhood Care and Education

A Knowledge and Innovation Exchange  
(KIX) Discussion Paper

## Acknowledgments

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## A note on the KIX consultation process

The Global Partnership for Education's Knowledge and Innovation Exchange (KIX) thematic funding will support global and regional initiatives that use knowledge exchange, evidence and innovation to help developing countries solve critical educational challenges. It will support:

- **Capacity development and knowledge exchange among developing countries:** Activities that strengthen national capacity through peer review and exchange; creation of learning modules and diagnostic tools, and face-to-face exchange
- **Evidence and evaluation:** Activities that aim to consolidate and/or extend knowledge about how to improve educational outcomes and national education systems
- **Innovation pilots:** Piloting of approaches, methods, tools or products that solve persistent educational challenges

Investments will be guided by the priorities of developing country partners and allocated through a competitive process managed by an independent grant agent. Knowledge products, innovation pilots and related tools developed through KIX funding will be shared through the Learning Exchange to amplify their uptake.

The purpose of this paper is to describe the current landscape in early childhood care and education and spark discussion and debate around potential areas for KIX investment. The paper is part of a series of discussion papers, drafted to support the engagement and consultation of developing country partners and technical experts in the initial design of the GPE Knowledge and Innovation Exchange. The ideas presented in the initial version of the paper served as a starting point for discussion and were modified significantly based on the consultation process, resulting in this updated version.

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## Acronyms and Abbreviations

BELDS	Better Early Learning and Development at Scale
CARICOM	Caribbean Community
DCP	developing country partner
ECCE	early childhood care and education
ECD	early childhood development
ELDS	Early Learning and Development Standards
ESA	education sector analysis
ESP	education sector plan
ESPIG	education sector program implementation grant
FCAC	fragile and conflict affected states
GPE	Global Partnership for Education
HECDI	Holistic Early childhood Development Index
IIEP	International Institute for Educational Planning
ISSA	International Step by Step Association
KIX	Knowledge and Innovation Exchange
MICS	Multiple Indicator Cluster Surveys
R4D	Results for Development
SABER	Systems Approach for Better Education Results
SDG	Sustainable Development Goal
SECT	Standardized Early Childhood Development Costing Tool
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children’s Fund

## Executive Summary

### Improving quality, equity and learning in the early childhood care and education sector

Good quality early childhood care and education (ECCE) is pivotal for improving equitable education and lifelong learning opportunities for all. ECCE refers, in this document, to organized group care outside the family for children ages 3 to 6 years to develop some skills needed for academic readiness. Over the past two decades, many actors—including the Global Partnership for Education (GPE), education ministries, civil society, nongovernmental organizations and global development partners—have contributed to supporting access to quality ECCE services, including pre-primary education, in low- and middle-income countries. ECCE programs and systems have been strengthened through institutional leadership, design and implementation of curriculum, improvements to teaching qualifications and training, and advancements in data collection and research. Numerous examples of successful global public goods initiatives in each of these areas will be reviewed in this paper.

The ECCE sector has experienced widespread and rapid growth in all regions of the world.<sup>1</sup> Compelling evidence shows that early childhood education can boost early learning, especially for marginalized and disadvantaged groups. However, access rates for disadvantaged and marginalized children in early childhood education programs are far below those for children from higher economic groups. The magnitude of benefits in early childhood education, however, is conditional on quality.<sup>2</sup> The ECCE sector encompasses a wide range of program models, curricula, staffing patterns and qualifications. The fragmentation in this educational space can create inequality through uneven levels of quality provisions and lack of coherent goals. The effects of various program models are quite varied: Some models are rather weak and ineffective, whereas other, scaled-up ones show significant child learning benefits.<sup>3</sup>

A common issue in any context of rapid growth is ensuring that expansion does not come at the expense of quality and equity goals. There is an urgent need to mobilize and advocate for global public goods that can improve the capacity, effectiveness and efficiency of education systems to achieve tangible gains in the quality of and access to early childhood education and care.

### How the Global Partnership for Education supports ECCE in the education sector

GPE supports global and national efforts to achieve equitable and quality education at scale. Through inclusive partnership, GPE aims to foster more effective and equitable education systems and to support financing for a full cycle of basic education. Developing country partners (DCPs) are eligible for financing to support stronger education sector planning and, in some cases, large grants for policy implementation. GPE's focus on strengthening education system planning and implementation extends to the pre-primary education level. Hence, almost all current education sector plans (ESPs) of the 67 DCPs have a discrete focus on ECCE sector planning, capacity development, monitoring and financing. ESPs provide the “big picture” or bird's-eye view of the ECCE sector in each country. They can improve ECCE leadership and strategically align resources with prioritized areas, promote more consistent and coordinated services and

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<sup>1</sup> UNESCO, *Accountability in Education: Meeting Our Commitments*, Global Education Monitoring Report 2017/18 (Paris: UNESCO, 2017); UNICEF, *A World Ready to Learn: Prioritizing Quality Early Childhood Education* (New York: UNICEF, 2019).

<sup>2</sup> OECD, *Starting Strong III: A Quality Toolbox for Early Childhood Education and Care* (Paris: OECD, 2012).

<sup>3</sup> Nirmala Rao et al., “Effectiveness of Early Childhood Interventions in Promoting Cognitive Development in Developing Countries: A Systematic Review and Meta-analysis,” *Hong Kong Journal of Paediatrics* 22 (2017): 14-25.

anchor policy discussions between ministries. Some developing countries are also using GPE financing to support activities in the ECCE subsector, through education sector program implementation grants (ESPIGs), with financing used for activities such as classroom construction, workforce development and system strengthening.

A 2017 GPE survey conducted with DCPs identified priorities for expanding knowledge and innovative practices to help scale up quality ECCE in their respective countries. With regard to expanding quality, nearly all responding countries prioritized enhancing the competencies of their ECCE workforce, including teacher training and mentoring. Other top priorities included designing an age-appropriate curriculum based on early learning standards, expanding physical spaces for early childhood education and improving ECCE teacher incentives and pay. There were also strong priorities within the areas of advancing data collection, analysis and integration as well as support for ECCE planning.

GPE has recently financed some global initiatives to improve knowledge and innovative practices within ECCE. Between 2014 and 2019, GPE supported the US\$8.5 million Pacific Early Age Readiness and Learning (PEARL) program, a global and regional activity focused on ECCE within the Asia Pacific Program. More recently, working with developing country partners and international partners through its new BELDS initiative—Better Early Learning and Development at Scale—GPE supports a small number of partner countries in better integrating quality ECCE into national education sector planning and policy implementation cycles.

### **Global goods and innovations aimed at strengthening the ECCE sector**

Existing global goods can be categorized using UNICEF's five action areas:<sup>4</sup> (1) planning and resource allocation, (2) curriculum development and implementation, (3) teachers and other personnel, (4) families and communities, and (5) monitoring, regulation and quality assurance.

Global goods to inform planning include GPE's education subsector planning guidelines and resources as well as tools by the World Bank, UNICEF and UNESCO designed to inform planning and monitoring. There are also several costing tools to inform resource allocation. Goods that support curriculum development and implementation include guidelines and minimum service standards that support countries in developing ECCE quality standards. There are also efforts to support countries to develop curriculum and learning standards.

To support teachers and other personnel, a number of networks exist at both the global and regional levels. There are also resources on teacher education, recruitment and continuous professional development. Several free online courses are designed to support administrators and other personnel working in ECCE systems. Only a few global goods focus on engaging families and communities, and the ones that exist were developed by or in collaboration with the health sector.

Finally, for monitoring, regulation and quality assurance, there are a variety of resources including tools and data on equity and ECCE. Multiple open source tools for measuring quality and child outcomes have been developed for low- and middle-income countries.

### **Gaps in available global goods and their application**

While many global goods exist to support ECCE systems, DCPs frequently do not use them. Often this is because the products require technical and financial support to implement. In addition to the need for

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<sup>4</sup> UNICEF, *Conceptual Framework for the Pre-Primary Sub-Sector* (New York: UNICEF, 2019b).

expanded implementation of existing goods, five gaps in global goods emerged from this analysis as they pertain to the five action areas of the framework:

1. Lack of strong education sector plans for ECCE and a need for improved system-level planning related to resource allocation, implementation and monitoring of the ECCE subsector
2. Limited peer learning and knowledge exchange on the effective design and implementation of ECCE curricula, including alignment with primary curricula and evaluation and assessment of curricula effectiveness and relevance
3. Lack of shared knowledge on training and supporting the ECCE workforce, and attracting and retaining qualified teachers and staff
4. Underutilization of parents and communities as strategic partners to improve the quality of ECCE services and act as a network to support families and reduce inequity
5. Limited technical support and training to collect data and monitor ECCE services, especially related to service quality

### **Proposed activities for Knowledge and Innovation Exchange investment**

To ensure Knowledge and Innovation Exchange (KIX) investments in these opportunities respond to the needs and landscape, several areas of investment are required. All should include relevant DCP stakeholders, such as monitoring and evaluation personnel, education ministry planners, curriculum developers and teacher trainers, so that existing global goods might be more fully used through a learning-by-doing approach. The areas of investment include the following:

- Building capacity through knowledge transfer, capacity development and learning exchange on issues where there is a sufficient evidence base
- Building evidence and evaluation of what works on topics where there are some solutions, but where more synthesis is needed to develop a solid evidence base
- Innovation in piloting approaches to quality service provision in partner countries, particularly in fragile and conflict areas and with vulnerable segments of the population<sup>5</sup>

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<sup>5</sup> Katie M. Murphy, Hirokazu Yoshikawa and Alice J. Wuerml, "Implementation Research for Early Childhood Development Programming in Humanitarian Contexts," *Annals of the New York Academy of Sciences* 1419, no. 1 (2018): 201-17.



## 1. Introduction

Early childhood care and education is a term used to include formal services that support children’s early cognitive, physical, social and emotional development and that introduce young children to organized instruction outside of the family context. ECCE is intended to develop in children some of the skills needed for academic readiness and to prepare them for entry into primary education.<sup>6</sup> The terms “preschool,” “kindergarten” and “pre-primary” education refer to education largely in the 3-to-6-years age range and may be defined differently in each country.

A growing body of research recognizes that ECCE in low- and middle-income countries brings a wide range of benefits. At the individual level, ECCE can support better early learning outcomes,<sup>7</sup> improved health outcomes,<sup>8</sup> and even better social and economic development reaching into adulthood.<sup>9</sup> Within an education system, this can translate into more equitable education outcomes for marginalized groups<sup>10</sup> and less remediation, repetition and dropout, resulting in major savings in public resources. For society, the rate of return on investment is 7-10 percent every year through improved education, health and social outcomes, economic activity and reduced crime.<sup>11</sup> Given the benefits, it is perhaps not surprising that there has been rapid growth in rates of pre-primary enrollment across all regions of the world in the past two decades. Since 2005, the gross enrollment ratio (GER) in pre-primary education has seen a gradual increase, including in countries affected by fragility and conflict and among vulnerable groups. However, despite these positive trends, deep inequities exist. Currently, 175 million children are not enrolled in pre-primary education, including 78 percent of children in low-income countries. The most common barriers to a child’s participation in ECCE programs are the household economic status and their mother’s level of education.<sup>12</sup>

The inclusion of quality ECCE in Sustainable Development Goal 4 (SDG 4) as target 4.2 establishes the need for at least one year of free and universally accessible quality ECCE. For SDG 4.2, this is measured through two indicators:

- Indicator 4.2.1: The proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex
- Indicator 4.2.2: The participation rate in organized learning (one year before the official primary age), by sex

Scaling up ECCE to meet the SDG 4 objectives will require governments to work with new and existing delivery models while advancing and scaling up national strategies that ensure quality and equity. Countries will need to learn and adapt best practices from one another in scaling their ECCE programs, and research and innovations are needed to contribute to evidence-based policymaking in a variety of country contexts. Moreover, achieving universal access to pre-primary education will require a rapid expansion in national and international financing. While donor investments in ECCE have increased in the

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<sup>6</sup> UNESCO Institute for Statistics Glossary, s.v. “early childhood education (ISCED-P level 0),” <http://uis.unesco.org/en/glossary>.

<sup>7</sup> Pia R. Britto et al., “Nurturing Care: Promoting Early Childhood Development,” *Lancet* 389, no. 10064 (2017): 91-102.

<sup>8</sup> Sneha Elango et al., “Early Childhood Education,” NBER Working Paper 21766, National Bureau of Economic Research, Cambridge, MA, 2015.

<sup>9</sup> Paul Gertler et al., “Labor Market Returns to an Early Childhood Stimulation Intervention in Jamaica,” *Science* 344, no. 6187 (2014): 998-1001.

<sup>10</sup> Samuel Berlinski, Sebastian Galiani and Marco Manacorda, “Giving Children a Better Start: Preschool Attendance and School-age Profiles,” *Journal of Public Economics* 92, no. 5-6 (2008): 1416-40.

<sup>11</sup> Elango et al. 2015.

<sup>12</sup> UNICEF 2019a.

last 15 years, much of this increase is seen in the health and nutrition sectors, not in pre-primary education.<sup>13</sup>

GPE supports global and national efforts to achieve equitable and quality education at scale. As the only global fund and partnership focused entirely on education in low- and middle-income countries, GPE plays a unique role in supporting partners to design and implement effective and equitable education programs, extending to pre-primary education for children 3 to 6 years of age. GPE has committed itself to harnessing knowledge, best practices and innovation to support developing country partners to strengthen their education systems and fulfill the global goals in ECCE. GPE and others' efforts have helped this agenda progress by providing opportunities for governments to analyze and plan for improved services and to implement their education sector plans. In addition to financial support, technical supports from international experts help country partners frame their plans and focus on priorities. This support includes advancing data collection and monitoring systems that provide feedback cycles to inform education policy and planning. Beyond enhancing access for young children by putting preschools and teachers in place, an increasing number of new tools and methodologies are available to assist in improving educational offerings and developing an information system to track its progress.

A core policy issue is ensuring collective action at the global level to facilitate the production of global public goods. These can be described as “Institutions, mechanisms and outcomes that provide near universal benefits, reach across borders and extend across generations”:<sup>14</sup> tools, products and approaches—including programs, assessment tools, standards and research evidence—that, once developed as the outcome of one particular intervention, are freely accessible and adaptable, in order to create a tool or approach that is applicable, with appropriate customization, to other contexts.<sup>15</sup>

The purpose of this paper is to describe the current landscape in strengthening ECCE systems and to spark discussion and debate around potential areas for investment by GPE's new Knowledge and Innovation Exchange initiative. Section 2 briefly describes the methodology used to write the paper; Section 3 frames what GPE is doing in the realm of ECCE. Section 4 outlines key challenges for ECCE where there is a need for knowledge and tools as articulated by developing country partners. Section 5 outlines global goods available to advance access, quality, standards and innovation in ECCE. Section 6 identifies global goods that could be better applied and the gaps and where there is need for knowledge generation and innovation in the area of ECCE. Section 7 suggests areas in which GPE could invest through the new KIX initiative.

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<sup>13</sup> Zubairi, Asma, and Pauline Rose, *Donor Scorecard. Just Beginning: Addressing Inequality in Donor Funding for Early Childhood Development* (London: Theirworld, 2018).

<sup>14</sup> Kaul et al. (1999), as cited in UNESCO, “Fulfilling Our Collective Responsibility: Financing Global Public Goods in Education,” Policy Paper 34, UNESCO, Paris, 2018.

<sup>15</sup> Education Commission, *The Learning Generation: Investing in Education for a Changing World* (New York: International Commission on Financing Global Education Opportunity, 2016).

## 2. Paper development and consultation process

GPE commissioned two senior authors to write this paper between April 2018 and January 2019. This included conducting desk reviews of the global literature and GPE documents related to ECCE to summarize key challenges, inventorying existing global goods in ECCE, noting gaps that emerged from the desk review and providing suggestions for potential KIX investment areas. Taking advantage of regional events, in-person consultations were held during the Regional Consultation Workshop on Innovative Financing Mechanisms and Partnerships for ECCE in Bali, Indonesia, in September 2018 and the Africa Early Childhood Network conference in Nairobi, Kenya, in October 2018. The feedback from representatives from 23 DCPs attending these sessions was incorporated into the draft discussion paper. In January 2019, this draft was sent to GPE DCP representatives as well as international experts in ECCE. The GPE Secretariat received written feedback from 9 DCPs and 20 international experts. This additional feedback was incorporated into a concept note and in further detail in this finalized discussion paper.

## 3. GPE's support and investments to early childhood care and education

### Supporting countries through policy planning and implementation

GPE invests heavily in education system strengthening, providing developing country partners with grants of up to US\$500,000 to prepare education sector plans based on an analysis of available data and research on current education sector conditions. At the core of GPE's operational model is support for credible and nationally owned education plans that identify priority goals and determine the most effective strategies, programs and specific activities to achieve those goals, all in light of available resources and capacity. Incorporating ECCE into an education sector plan is an important consideration in getting the plan endorsed by development partners.

Once education sector plans are endorsed, GPE offers DCPs large-scale implementation grants (ESPIGs) up to a maximum of US\$125 million. The grants are intended to strengthen national education systems to ensure equitable and quality education, starting with the pre-primary level. Supporting improved early learning outcomes through early childhood education is an important feature of GPE's work, as expressed in the GPE 2020 strategic plan and monitored through its annual results report. Two global goals highlight the impact GPE seeks to achieve through education systems strengthening: (1) more children under 5 years of age developmentally on track in health, learning and psychosocial well-being, and (2) increased access to quality pre-primary education of 5- and 6-year-olds.

In the past 15 years, GPE has invested more than US\$270 million in ESPIGs to support the implementation of ECCE components of education plans. These grants have provided support for developing policy guidelines and service standards, training educators, building and rehabilitating classrooms, establishing early learning assessment systems, distributing learning and play materials, and supporting parent education and community-based early learning programs. A small number of countries, many of which made significant progress in the universalization of basic education, dedicated their full ESPIG grant to support and strengthen the ECCE sector, including Guyana, the Kyrgyz Republic, Moldova, Mongolia and Nicaragua.

A recent review of 48 ESPs active in 2017 highlights that while nearly all the plans include discrete ECCE strategies and policy priorities, specific data on the ECCE subsector is somewhat limited in country plans. While nearly all the plans provided data on overall coverage, data on equity was reported in only half of them, most often reported through enrollment rates by sex or geographic area. Data from household surveys reflecting ECCE access by differing socioeconomic groups and access rates for children with disabilities are limited in existing plans. Moreover, only six plans included any data on the quality of the learning environment and/or student learning outcomes.

### **Knowledge and innovation exchange**

With the understanding that much is to be learned through peer learning, GPE provided a US\$8.5 million Global and Regional Activities (GRA) grant to the World Bank for the Pacific Early Age Readiness and Learning (PEARL) program. This project supports Pacific countries to acquire, adapt and use methodological tools to track progress in early childhood development; foster know-how about the interpretation and application of results; and participate in regional knowledge exchange on addressing implementation constraints.

GPE plans to fund more knowledge exchange and innovation activities in the coming years, with the aim of improving policy planning, implementation and ultimately financing to education.

Currently, GPE is partnering with UNICEF to better integrate ECCE into national education sector planning and policy implementation cycles, including budgeting processes, under the BELDS initiative. BELDS aims to develop a global toolkit of ECCE planning resources stemming from capacity-building and knowledge-sharing activities with four developing country partners—Ghana, the Kyrgyz Republic, Lesotho and Sao Tome and Principe—throughout 2019.

Case studies on improving education sector planning and implementation within the ECCE subsector will be developed to serve GPE's broader partner countries and their ECCE programs. Additionally, through its new KIX program, GPE will make an initial investment from its core fund, seeking to match this support with contributions from others, to make catalytic investments to harness successful knowledge and innovation in ECCE policy planning and implementation across the partnership.

A 2017 GPE survey conducted with 40 DCPs provides some insight into country priorities for knowledge and innovation exchange in the ECCE subsector. Nine out of ten respondents indicated an interest in information on various ECCE models in other countries, including formal school-based models, community-based models, transition to primary school programs and parent education programs. Fewer were interested in more information on accelerated school readiness programs and programs focusing on younger (ages 0 to 3 years old) programs.

Moreover, DCPs shared their top priorities for ECCE data and information gaps. The two biggest priorities were support for data generation (developing, adapting and/or using tools to collect data on ECCE access and quality) and financing options analysis for better planning in ECCE.

## 4. Key challenges in strengthening early childhood care and education

A first set of challenges relates to **system-level planning for ECCE, including education sector planning, resource allocation and implementation and monitoring of services**. This is especially true in situations of conflict and fragility, where these systems may only partially be developed or not developed at all. It is also the case in most countries, where fewer than 40 percent of eligible children attend pre-primary. Service provision is often more complex in the ECCE sector than in the primary and secondary schooling system because of the varying types of service provision (public, private, nongovernmental), the various models and approaches used for curricula and pedagogy, and a lack of regulations and oversight. The private sector, both for-profit and not-for-profit, is often not included in government deliberations on regulation and information gathering. Relative to other areas of education, funding for ECCE has not kept pace. The recent global economic crisis is putting increasing pressure on ECCE funding and calls for proven results and accountability involving the financial tracking and monitoring of outcomes. It is difficult to pull together one consolidated figure for public spending on ECCE at the national level and especially where financing is administered by different ministries.

A second set of challenges relates to **the design and implementation of curriculum and methods of teaching and learning**. Developing country partners have expressed a demand for global goods—including knowledge transfer, sharing of good practices and innovative approaches—to support the design and development of effective curriculum for the pre-primary subsector.<sup>16</sup> Ensuring a smooth transition from pre-primary education to primary education is a challenge: A curriculum framework for children ages 4 to 6 years is often nonexistent; if it does exist, it does not align with the curriculum for primary school. Determining a curriculum's effectiveness and relevance is also challenging for many countries: Most countries are not implementing an evidence-based curriculum, partly because of a lack of capacity and financing at the policy level for conducting evaluations and collecting valid and informative data. The comparative advantage of different curriculum models, such as community-based preschools and accelerated learning programs, regarding their effects on learning and equity, for example, remains unclear. Evidence exists about their child outcomes such as school readiness, but little is known about their quality, curriculum, cost and implementation.

A third set of challenges are related to **ECCE staff qualifications, training and retention**. A general consensus is that the professionalization of the ECCE workforce is a key factor in achieving quality services and plays a crucial role in ensuring process quality. A 2017 U.K. Department for International Development (DFID) literature review points to several features of this workforce: They are in short supply, often have low status with no defined career path, work for little money and may receive little mentoring on the job.<sup>17</sup> ECCE practitioners with specialized training are more likely to provide children with the stimulating, responsive and supportive interactions that can lead to more positive learning and developmental outcomes. The main categories of early education teachers are certified education professionals with a certificate or diploma in (early) education and noncertified paraprofessionals who may or may not have completed secondary school. Although there is recognition that competencies and standards are

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<sup>16</sup> GPE 2017 ECCE survey with DCPS.

<sup>17</sup> Emma Pearson et al., *Reaching Expert Consensus on Training Different Cadres in Delivering Early Childhood Development at Scale in Low-Resource Contexts* (London: Department for International Development, 2018), <https://www.gov.uk/dfid-research-outputs/reaching-expert-consensus-on-training-different-cadres-in-delivering-early-childhood-development>.

important, few efforts have been made to date to systematize the various approaches so as to develop and implement them for the early childhood workforce.

A fourth set of challenges involves **engaging families in ECCE services**. Often cultural norms do not support parents and caregivers being involved in their child’s education or questioning the school or teacher. For working parents, it is difficult to find time to engage in the child’s ECCE program, and working mothers may want services for the whole day and even for children younger than 3 years. Including group care for children under 3 years of age would require interministerial coordination because health ministries typically take responsibility for the health and care of children under 3 years. Families understandably prefer a seamless integration of health, nutrition, education and child protection services rather than siloed services. This means introducing not only child health and nutrition services into early education but also early learning and protection into families. Because of this separation, children’s learning needs are not well integrated with their health and nutrition needs within families and communities. Community members and businesses may not see how they can contribute to a local ECCE program, and ECCE teachers and administrators may erroneously believe that children learn at school only and not through experiences at home and in the community. As a result, there are missed opportunities in engaging parents and community members in children’s early learning experiences.

Finally, there are challenges related to **data collection and feedback cycles in the pre-primary subsector, especially for monitoring and quality assurance**. Very few developing country partners have systems in place to collect data on the quality of pre-primary services, including private providers. Monitoring practices and collection of data can provide feedback on what works and help identify areas of improvement and lead to higher quality.<sup>18</sup> There is no consensus on which indicators of quality should be collected (although there is good understanding of what constitutes quality in early years provision), and financial support, political buy-in and capacity building is required to align quality information within existing data systems (feasibility and sustainability).

## 5. Review of global goods, knowledge and innovation to improve early childhood care and education

It is necessary to conduct a brief review of existing global goods in knowledge and innovation in ECCE before identifying the gaps. The global goods in this section includes tools, methods, frameworks, evidence, standards, resources and activities that provide capacity support to multiple countries in planning and implementing quality and equitable ECCE. As a way of organizing the existing global goods, we use UNICEF’s Conceptual Framework on Pre-Primary Education,<sup>19</sup> which identifies five action areas: (1) planning and financial resource allocation, (2) curriculum development and implementation, (3) teachers and other personnel, (4) families and communities, and (5) data collection for monitoring, regulation and quality assurance. The fifth has been modified slightly to cover data collection and utilization for the sake of learning from monitoring and evaluation, particularly to ensure quality and outcomes. Several global goods could fall under multiple action areas, and this is noted below.

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<sup>18</sup> Frances E. Aboud and Kamal Hossain, “The Impact of Preprimary School on Primary School Achievement in Bangladesh,” *Early Childhood Research Quarterly* 26 (2011): 237-46.

<sup>19</sup> UNICEF 2019b.

## Global goods to support ECCE planning and financial resource allocation

### *Tools to inform planning*

For quality ECCE service provision to be adequately tackled at the national level, it needs to be well embedded into national education sector policies and plans. Moreover, having a robust diagnosis based on evidence is a prerequisite when planning; it ensures the credibility of the plan, as highlighted in the GPE/International Institute for Educational Planning (IIEP) ESP preparation guidelines.<sup>20</sup> The Education Sector Analysis (ESA) Methodological Guidelines, Systems Approach for Better Education Results Early Childhood Development (SABER-ECD) framework and UNICEF diagnostic toolkit are all useful resources to generate the sector diagnosis and can be used in a complementary way—the ESA being the basis to develop a robust diagnosis.

The World Bank's SABER-ECD framework evaluates national policies on four aspects of program quality:<sup>21</sup>

- Structural variables: Adult-child ratios, group size, physical environment and availability of equipment and pedagogical material
- Caregiver variables: Initial education, training, mentoring/supervision and wages
- Program variables: Program intensity, parent involvement, language of instruction, curriculum, daily routine and health/nutrition inputs.
- Process variables: Caregiver-child and child-child interactions

This tool can be used to stocktake, analyze and provide options for planning and resource allocation. It has been used in 39 countries.

The UNICEF ECCE subsector diagnostic and planning tool assists national stakeholders in assessing strengths and weaknesses of the ECCE subsector at large, with a focus on identifying key priority areas for action and planning. The diagnostic and planning tool is used through a three- to four-day national workshop and includes pre-workshop preparation and follow-up activities. The workshop, attended by key stakeholders in education as well as partners, includes self-assessment and diagnostic exercises across the subsector (from national to subnational levels) with the goal of promoting ownership in the process of systematic pre-primary subsector planning. The workshop is also a valuable opportunity for capacity building, dialogue and in-depth reflection. It has been used in 17 countries.

The ESA Methodological Guidelines provide methods for carrying out a comprehensive and robust analysis based on existing evidence of the education sector in developing countries.<sup>22</sup> Chapter 7 in volume 2 of the guidelines focuses on early childhood development (ECD); its intended objective is to support detailed ECD analysis, with a focus on pre-primary and transition to primary. More specifically, it provides guidance on how to (1) review the national ECD context to understand the political, institutional and financial arrangements and to assess the level of commitment of the government toward creating an enabling environment for the (sub)sector; (2) map existing ECD services and activities to better grasp its contours and identify its development priorities; and (3) draw up a detailed picture of children and their home environment to determine their development needs and assess the level of access and use of ECD services. This chapter has been used by a few countries, including Burkina Faso, Cote d'Ivoire, Guinea, Niger, Nepal, Togo and Zanzibar.

<sup>20</sup> The guidelines should come first, providing the overarching process on how to develop the plan.

<sup>21</sup> World Bank, "What Matters Most for Early Childhood Development: A Framework Paper," SABER Working Paper 5, World Bank, Washington, DC, 2013.

<sup>22</sup> GPE and IIEP-UNESCO, *Education Sector Analysis Methodological Guidelines* (Washington, DC: Global Partnership for Education, 2014).

The ESA Methodological Guidelines serve as one of the few education sector planning tools that provide specific recommendations regarding the ECCE subsector. Resources such as the [Guidelines for Education Sector Plan \(ESP\) preparation](#), [Guidelines for ESP Appraisal](#), [Guidelines for Transitional Education Plan Preparation](#) and a [guide for organizing effective joint sector reviews](#) are designed for the education sector at large, with application to ECCE. IIEP-UNESCO, UNESCO, UNICEF and GPE are jointly developing a [five-week massive open online course \(MOOC\)](#) aimed at strengthening ECCE planning as part of the broader education sector planning; it is expected to launch in September 2019.

The [Planning Policies for Early Childhood Development: Guidelines for Action](#) provide an ECD policy toolkit for national planners of governmental and nongovernmental organizations to help them (1) conduct participatory processes for policy planning that include institutions of government and civil society at all levels; (2) prepare national ECD policies or policy frameworks with strategies for filling critical gaps in services for vulnerable children and for guiding the development of comprehensive and culturally appropriate ECD programs; and (3) insert concepts of the integrated approach to ECD into related cross-sectoral and sectoral policies and plans.

To connect ECCE and other aspects of early childhood development, such as health, nutrition and social protection, UNESCO developed the [Holistic Early Childhood Development Index \(HECDI\)](#) framework in 2014. The HECDI includes targets, subtargets and indicators for holistic monitoring of young children's well-being at the national and international levels. The targets developed for the HECDI framework align with the Convention on the Rights of the Child (CRC) and Education for All (EFA). The targets cover health, nutrition, education, social protection, poverty and parental support, though many targets in these have been updated with the adoption of the SDGs and Education 2030 Framework for Action.

#### ***Tools to inform financial resource allocation***

A number of regional and global goods are currently available to help developing country partners cost their ECCE programs and plan for expansion and improvement. Costing tools to estimate the costs of pre-primary programs include the UNICEF regional prototype (West Africa), Van Ravens and Aggio interactive cost estimation model, and the Caribbean Community (CARICOM) costing model. More recently, the Brookings Institution in partnership with the World Bank Strategic Impact Evaluation Fund (SIEF) developed a global tool called the Standardized Early Childhood Development Costing Tool (SECT). This tool differs from the other three tools mentioned in two ways: It can be used to cost services across a range of ECD interventions (for example, education, nutrition, health, social protection) and it has the mechanisms to produce internationally comparable results.<sup>23</sup> The pilot exercise in five countries (Bangladesh, Malawi, Mali, Mexico and Mozambique) demonstrated an enormous demand for this type of tool for budgeting, planning and advocacy purposes. Evaluation and adaptation of the SECT requires support to national stakeholders and evidence for its value.

### **Global goods to support quality assurance, program standards and effective curriculum**

#### ***Quality standards***

The development and use of nationally owned quality standards are a way to safeguard the quality of service and safety of children. National quality standards are typically public documents. They describe the elements of a high-quality ECCE experience that programs serving children at a particular age or education level should aspire to. Program quality standards, if implemented consistently, can “level the playing field” by ensuring all children benefit from a consistent quality of education. Establishing quality

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<sup>23</sup> Emily Gustafsson-Wright, Izzy Boggild-Jones and Sophie Gardiner, *The Standardized Early Childhood Development Costing Tool (SECT): A Global Good to Increase and Improve Investments in Young Children* (Washington, DC: Brookings Institution, 2017), <https://www.brookings.edu/wp-content/uploads/2017/09/standardized-ecd-costing-tool.pdf>.



standards can help ensure conditions for better child learning outcomes, promote more consistent ECCE services across diverse delivery models and service providers, strategically align resources to improve poor quality services and provide direction on pedagogical strategies for teaching staff.<sup>24</sup>

Several regional guidelines exist to support developing country partners in designing and implementing national quality standards and regulatory mechanisms. For example, UNICEF and UNESCO, in partnership with education ministries, CARICOM and Pacific island countries, have guidelines for national quality standards, policy and regulation for early childhood education. These guidelines are intended to harmonize expectations for quality and equity in access to services, support the establishment of benchmarks at the national level and provide a common methodology and set of principles that can be used by country partners.

These minimum service standards describe examples of curriculum delivery and optimal learning environments for young children. Several countries have applied the guidelines to support policy and quality improvement efforts. For example, in Grenada, national quality standards based on the regional CARICOM guidelines were developed in parallel with the early childhood policy and linked to the ESP.<sup>25</sup> The process involved an iterative exchange of information between the policy process and the development of quality standards. Program monitoring results indicate that the establishment of the standards as “best practices” yielded many benefits, including improved space and equipment for learning, provision of books and staff-child interaction. The national and local responses to the standards are reportedly positive and attributed in large part to the inclusive consultative processes, which generated awareness of the need for quality services and ownership of the standards.

#### ***Global goods to support the design and implementation of curriculum***

A common national (or subnational) evidence-based curriculum framework and its contents is important for ensuring quality across diverse ECCE settings and can act as a tool to guide early childhood education educators in developmentally appropriate and stimulating learning strategies.

Early Learning and Development Standards (ELDS), driven largely by the work initiated by UNICEF in partnership with Columbia University in 2002, is one of the core existing global goods to support developing countries with the design and implementation of curriculum in early years settings. The ELDS typically reflect what children should know and be able to do from birth to 8 years of age related to their physical, cognitive, social-emotional and language development. In several countries, especially those with a tradition of standards in public education, the nationally adapted ELDS prompted curriculum revision to focus on holistic development of children, including integrating early motor skills and play into the curriculum.<sup>26</sup> For example, the Zambian government created a curriculum and syllabus for children 3 to 6 years old built on their national ELDS and supported by evidence of child development.<sup>27</sup> It also described a method of learning that was based more on play and problem solving rather than on rote learning, the previous focus. In South Africa, the ELDS drove the development of the first National

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<sup>24</sup> OECD 2012.

<sup>25</sup> CARICOM, *Regional Guidelines for Developing Policy, Regulation and Standards in Early Childhood Development Services* (Georgetown, Guyana: CARICOM, 2008).

<sup>26</sup> UNICEF, *Early Learning and Development Standards (ELDS) and School Readiness*, Evaluation Report (New York: UNICEF, 2016).

<sup>27</sup> Zambia Curriculum Development Centre, *Early Childhood Education Syllabi, 3 to 6 Years* (Lusaka, Zambia: Ministry of Education, Science, Vocational Training and Early Education, 2013); Günther Fink et al., “The Zambian Early Childhood Development Project: 2010 Assessment Final Report,” 2012.

Curriculum Framework (NCF) for ECD in 2015 to ensure a consistent level of quality across the variety of ECCE provision.

Additional global goods to support the design and implementation of curriculum include the following resources, which provide insights and practical ideas for applications/adaptations of curriculum that respond effectively to localized needs in non-Westernized contexts: The book *Indigenous early Childhood Care and Education (IECCE) Curriculum Framework for Africa: A Focus on Contexts and Contents*, published in 2013 by UNESCO; and *Innovative Pedagogical Approaches in Early Childhood Care and Education*, a resource pack published by UNESCO Bangkok and the Asia-Pacific Regional Network for Early Childhood (ARNEC) in collaboration with UNICEF and the Organisation Mondiale pour l'Éducation Préscolaire (OMEP). Both resources offer “grass roots” knowledge and innovative examples that can be used to inform ECCE programs operating in diverse social and cultural contexts for various purposes.

### **Global goods that support country-level workforce and early childhood education stakeholders**

A number of networks that provide specific supports to early childhood education policymakers and professionals are listed below. In addition, multiple networks provide a variety of supports to ECCE professionals. While these could be categorized in multiple sections, they are listed here for convenience.

- The Early Childhood Development Action Network, launched by UNICEF and the World Bank, is a global platform for knowledge exchange, collaboration, advocacy and communication on early childhood development.
- The Organisation Mondiale pour l'Éducation Préscolaire (World Organization for Early Childhood Education) is a professional organization for early childhood educators. It has chapters in many countries around the world.
- Regional networks bring together national and international organizations and stakeholders working in the ECCE sector. These include the Africa Early Childhood Network (AfECN), Asia-Pacific Regional Network for Early Childhood (ARNEC), Arab Network for Early Childhood Development (ANECD) and the International Step by Step Association (ISSA).
- The Association for the Development of Education in Africa (ADEA) Inter Country Quality Node for Early Childhood Development (ICQN for ECD) is an intergovernmental organization for policy dialogue and collaborative action among African ministers of education and strategic partners for advancing the ECD agenda in Africa. The ICQN facilitates networking of African institutions and experts for exchange of knowledge on concepts, research findings and capacity building to respond supportively to the varying contexts in which ECD programs are implemented. It is hosted in the Ministry of Education and Human Resources of Mauritius.

### **Goods that support teachers**

There is a general consensus that the professionalization of the ECCE workforce is a key factor in achieving quality services and plays a crucial role in ensuring quality services. To meet SDG 4.2, countries need to be able to recruit, pay, support and retain qualified ECCE personnel. ECCE practitioners with specialized training are in a better position to provide children with the stimulating, responsive and supportive interactions that can lead to more positive learning and developmental outcomes.

The **Early Childhood Workforce Initiative** launched by Results for Development (R4D) and ISSA works on country, system and policy levels, providing support and empowerment to professionals working with families and children under age 8 (for example, preschool staff, community health workers) as well as to individuals who direct and guide practitioners (for example, supervisors, mentors and coaches, trainers). R4D and ISSA created a useful web portal for education ministries and the early childhood workforce:

[www.earlychildhoodworkforce.org](http://www.earlychildhoodworkforce.org). It is organized around themes for competencies and standards, training and professional development, monitoring and support for continuous quality improvement, and recognition of the profession. The portal uses a simple framework for connecting workforce qualities to children's outcome: Structural features such as initial education and mentoring influence teachers' competencies, which in turn affect the quality of the teaching/learning setting, and this in turn affects children's outcomes. Of course, this sequence and corresponding associations have not always been supported by evidence, but there is increasing evidence that the competencies of teachers and teaching quality directly impact children's learning.<sup>28</sup>

Programs to enhance training of pre-primary teachers lead to a higher-quality program if the teachers develop competencies related to good pedagogical practices. Two landscape analyses have been completed by the initiative, one on competencies and standards for the ECCE workforce and another on training and professional development.

The Southeast Asian Guidelines for Early Childhood Teachers provide recommendations based on both regional and international experiences on how best to manage and further enhance the quality of early childhood teachers. The guidelines cover recruitment to the profession, pre-service education, certification, deployment, continuing professional assessment and development, career progression, and working conditions and environments.<sup>29</sup> Once endorsed by the ministers of education in Southeast Asia, the expectation is that these guidelines will be useful to "those engaged in devising international, national, regional, local, sectoral, workplace (private and public), and home-based ECCE policy and practice and organization of ECCE services" and will be of particular use in assisting education ministries as well as other relevant ministries and agencies in both professionalizing early childhood teachers and promoting better working conditions for them.

Finally, consultation participants noted that a group of organizations participating in the Early Childhood Development Action Network (ECDAN) are considering the provision of tools/guidance notes, knowledge hubs, capacity-building modules and mapping exercises related to workforce issues.

#### ***Goods that support other early childhood education stakeholders***

For ministry and other organizational staff involved in designing and evaluating programs, there are at least three online courses they could take while maintaining their usual work schedule. The content of these courses could also fit into areas 1 (planning and resource allocation) and 5 (monitoring, regulation and quality assurance). The Science of Early Child Development (SECD) is a knowledge translation and mobilization initiative designed to make current ECD research accessible to anyone interested in learning more about the impact of early experience on lifelong health and well-being. The World Bank offers a free online course in ECD that covers how to conduct ECD diagnostics for countries or projects, how to use and adapt assessment tools to country context to monitor child growth and development, how to assess the cost of ECD interventions and how to finance them, as well as how to address issues related to project design, implementation, and monitoring and evaluation. The third option, an open online course by the SDG Academy, explores the role of ECD in achieving the SDGs.

<sup>28</sup> For example, aeioTU preschool in Colombia, detailed in Milagros Nores et al., "Implementing aeioTU: Quality Improvement Alongside an Efficacy Study: Learning While Growing," *Annals of the New York Academy of Sciences* 1419, no. 1 (2018): 201-17.

<sup>29</sup> South-East Asian Ministers of Education Organization (SEAMEO) and UNESCO, *Southeast Asian Guidelines for Early Childhood Teacher Development and Management* (Bangkok: SEAMEO Secretariat and UNESCO Bangkok, 2016), <https://unesdoc.unesco.org/ark:/48223/pf0000244370>.

### Global goods that support working with families and communities

Most of the global goods in this area are related to community initiatives to integrate health and nutrition into ECCE, or resources on parenting initiatives, which are often independent of ECCE programs. The Early Childhood Workforce Initiative produced a case study titled “Supporting the Early Childhood Workforce at Scale: Community Health Workers and the Expansion of First 1000 Days Services in South Africa,”<sup>30</sup> which describes an integrated ECD program and implications for other countries wishing to leverage community resources to integrate health, nutrition and early learning.

UNICEF recently produced the guide “Standards for ECD Parenting Programmes in Low and Middle Income Countries,” which describes interventions and services to support stimulating and responsive parenting interactions for those with children under 3 years of age. The document is aimed at practitioners and presents a set of standards for parenting programs. In 2015, a systematic review and meta-analysis was published showing positive effects of parenting programs for young children in low- and middle-income countries.<sup>31</sup> Based on the evidence to date, the World Health Organization is preparing formal guidelines to inform the implementation of nurturing care by parents, health workers and child care workers. Based on the Nurturing Care Framework, ratified by the World Health Assembly in May 2018, guidelines encourage responsive care and early learning opportunities for young children, in the context of nutrition, health and protection.

The Essential Package (EP) is a comprehensive set of tools and guides for program managers and service providers that enables programs to address the unique needs and competencies of young children, particularly those affected or infected by HIV/AIDS, in an integrated and holistic way. It was developed by the Inter-Agency Task Force on ECD and AIDS (IATF) within the Consultative Group and co-chaired by CARE and Save the Children.

### Global goods that support data collection for the sake of learning from monitoring and evaluation, particularly to ensure quality and outcomes

#### **Tools to capture equity data**

Household surveys are the main source of disaggregated education data for the analysis of disparities between different population groups; they can address some of the data challenges related to equity in ECCE settings. The Inter-Agency Group on Education Inequality Indicators (IAG-EII), created by the UNESCO Institute for Statistics (UIS), UNICEF and the World Bank in 2016, aims to promote and coordinate the use of household survey data, such as the Demographic and Health Surveys (DHS) for SDG 4 monitoring, at national, regional and global levels.

The Multiple Indicator Cluster Surveys (MICS) consistently provide important evidence on inequities in early childhood education by wealth quintile, highlighting how, in many parts of the world, early childhood education opportunities are quite unequally distributed, favoring children from richer households. The MICS estimates of pre-primary education, as reported by caregivers, may contrast with official reports and provide an estimate of the size of unregistered early childhood education programs. The World Inequality Database on Education (WIDE) brings together data from MICS from over 160 countries to enable users to compare pre-primary education attendance, according to factors that are associated with inequality, including wealth, gender, ethnicity and location.

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<sup>30</sup> Kavita Hatipoğlu et al., *Supporting the Early Childhood Workforce at Scale: Community Health Workers and the Expansion of First 1000 Days Services in South Africa* (Washington, DC: Results for Development, 2018).

<sup>31</sup> Frances E. Aboud and Aisha Yousafzai, “Global Health and Development in Early Childhood,” *Annual Review of Psychology* 66 (2015): 433-57.

The UNICEF Out of School survey is another source of global data on out-of-school pre-primary aged children (in the year prior to primary school entry).<sup>32</sup> The major gap is in the use of access data for planning purposes, especially for disadvantaged, migrant and disabled children.

***Tools to advance data collection on pre-primary quality and outcomes***

Monitoring in ECCE should ideally include standards and ratings for program quality, for accountability, improvement purposes and policy planning. The collection and monitoring of program quality data can provide feedback on what works and help identify areas for quality improvements. For example, in Bangladesh, the introduction of a program quality rating scale allowed practitioners and management to improve their practices, and statistically significant effects were found on children’s literacy and numeracy skills year-on-year.<sup>33</sup>

There are several assessment tools for defining and monitoring the quality of early childhood education programs in low- and middle-income countries. Some are available for free and some are available only for purchase (for example, ECERS-R and ECERS-E). Some tools require training by the publisher to be able to use them. For the purposes of this paper and the focus on global public goods, we focus on freely available tools developed for low- and middle-income country contexts. Reliability and validity have been established for some of these measures, while others are more emerging.

- The **Measure of Early Learning Environments (MELE)**, developed by the Measuring Early Learning and Quality Outcomes (MELQO) initiative, is available online at no cost ([ecdmeasure.org](http://ecdmeasure.org)).<sup>34</sup> It is the first early childhood education program quality tool specifically developed for low- and middle-income countries. See the World Bank’s 2016 Early Learning Partnership guidance note “Measuring the Quality of Early Learning Programs” for a description of the measure, steps to implement, timeline and cost. A manual accompanies the measure so that observers and practitioners understand why each observed feature is important and what distinguishes low-quality provision from high-quality provision. The initial training of government and in-country staff might require an international consultant, but within a short time, there should be a cohort of national and regional observers available to train others.
- The **Early Childhood Education Quality Assessment Scale**,<sup>35</sup> developed for ECCE programs in India, is organized by domain of development (cognitive, language, socio-emotional) rather than by teaching and learning activities that might be seen in a daily routine.
- The **ACEI Global Guidelines Assessment (GGA)** contains 76 indicators of ECCE program quality in five content areas: (1) environment and physical space, (2) curriculum content and pedagogy, (3) early childhood educators and caregivers, (4) partnerships with families and communities, and (5) young children with special needs. It has been translated into 14 languages. It is available online at [www.acei.org/global-guidelines](http://www.acei.org/global-guidelines).
- The **Teacher Instructional Practices and Processes System (TIPPS)** was developed to assess teacher-child interactions. It has been used in countries affected by conflict and fragility.

ECCE quality assessment tools such as the ones listed above can be used for various purposes, including gathering feedback to inform standards and curricula development, teacher pre- and in-service trainings,

<sup>32</sup> <https://data.unicef.org/resources/a-future-stolen/>.

<sup>33</sup> Aboud and Hossain 2011.

<sup>34</sup> UNESCO, UNICEF, Brookings Institution, and World Bank, *Overview: MELQO: Measuring Early Learning Quality and Outcomes* (Washington, DC: World Bank and Brookings Institution, 2017).

<sup>35</sup> Venita Kaul et al., “Early Childhood Education Quality Assessment Scale (ECEQAS),” Centre for Early Childhood Education and Development (CECED), Ambedkar University, Delhi, 2012.

and mentoring, as part of a national monitoring system, and for research studies showing which qualities specifically impact components of children’s development and school readiness.

Nicaragua is one example of how ECCE quality assessment tools have been used to inform system improvements. To measure improvements in the education system attributable to new ECCE policies, the Nicaraguan government, with technical assistance from the World Bank, created a new Integrated Early Childhood Development Monitoring and Evaluation System (SEIDI) as a way to assess and monitor the quality of the preschool learning environment. The instruments, developed with the support of the MELQO consortium, measure various aspects related to child development and the quality of learning environments. This innovative approach puts Nicaragua at the forefront of preschool quality monitoring as well as of assessment of children’s development and learning. In addition to having available explicit how-to manuals for use, countries need capacity-building support to collect and use evidence of quality.

**Table 1. Information about global goods for program quality evaluation and monitoring**

Measure	Examples of LMIC use	Advantages	Disadvantages	M&E purposes
<b>MELE</b>	East Africa; Hong Kong; Colombia; several others	Tailored to LMIC; used in fragile context; possible to train observers; accompanied by explanatory manual; adaptable; LMIC evidence of associations with child outcomes	Relatively new; limited evidence of validity across countries; some experience adapting to national contexts	Can be shortened for monitoring; defines high quality for each item, so direction of improvement is clear
<b>TIPPS</b>	Ghana; Pakistan	Focuses on important pedagogical features of teacher-child interaction; validated in several contexts	Lengthy descriptions of each of four ratings for each item; full training required	May require video observation
<b>GGA</b>	China; India; Mexico; Peru	Covers many components including children with special needs	Intended as a self-assessment; items require clarification (e.g., good health practices); requires a rating and a written description; suitable for high- and middle-income countries	Not always clear what a higher-quality rating would require

*Note:* LMIC = low- and middle-income countries; MELE = Measure of Early Learning Environments; TIPPS = Teacher Instructional Practices and Processes System; GGA = ACEI Global Guidelines Assessment.

### ***Tools to measure child development and learning***

A number of tools to measure student outcomes for children in the 3-to-6-years age group have been developed and validated in recent years. These are captured in *A Toolkit for Measuring Early Childhood Development in Low- and Middle-Income Countries*, prepared for the World Bank Strategic Impact Evaluation Fund.<sup>36</sup> The five tools described below and in Table 2 are freely available and have been commonly used in low-income countries where GPE partners with the government, with evidence of reliability. Several criteria are worth considering, including whether it is a direct assessment of the child or based on a caregiver report, the length of time to administer the measure (30-40 minutes if direct assessment), domains of development, and whether it is a measure of holistic child development or a more focused school readiness test. The ability to discriminate between children who attended a high-quality early childhood education program compared and those who did not attend or attended a low-quality program is a strong validation of the test. Weaker evidence of validation comes from correlations with child's age and mother's education. The MICS ECDI 10 questions have not been included here because many items are for children under 3 years; they are less suited to an assessment of early education in the 3-to-6-years age group. Also not included here are the Early Grades Reading and Math Assessments; however, they are useful for examining whether high-quality pre-primary schooling enhances children's early primary achievements.

- The multi-item **Early Development Instrument (EDI)** is a teacher report. The main drawback is its questionable convergent validity with the child's actual behavior; with class sizes of 40 children, teachers may not accurately report on each child. Results have been published from teachers of pre-primary and first grade rating their students.<sup>37</sup> However, many of the items seem more appropriate for 4-year-olds (for example, is experimenting with writing tools, understands one-to-one correspondence).
- **International Development and Early Learning Assessment (IDELA)**, Save the Children Federation; see <https://resourcecentre.savethechildren.se/library/international-development-and-early-learning-assessment-technical-paper>) covers four domains: literacy, numeracy, socio-emotional and motor skills for children from 4 to 6 years. It requires little modification, except for the use of local materials, has good reliability and concurrent validity.<sup>38</sup>
- The **Measure of Development and Early Learning (MODEL)**; [www.ecdmeasure.org](http://www.ecdmeasure.org)) is a direct assessment of children from 3 to 5 years and covers domains and items similar to the IDELA and EDI. It has been translated and tested in more than a dozen countries and reveals good internal structure and reliability.
- The **Module on Child Functioning** (<https://data.unicef.org/resources/module-child-functioning/>) is now used in place of the Ten Questions test as a screen to determine the prevalence of disabilities among children. It uses a parent report to identify cognitive, language, motor, sensory and emotion difficulties (no longer called "disabilities"). A four-point rating scale allows for severity of problem to be recorded. It is a measure of difficulties in functioning, not a measure of learning or school readiness.

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<sup>36</sup> Lia Fernald et al., *A Toolkit for Measuring Early Childhood Development in Low- and Middle-Income Countries* (Washington, DC: World Bank, 2017).

<sup>37</sup> See, for example, Sebastian Martinez, Sophie Naudeau and Vitor Pereira, *The Promise of Preschool in Africa: A Randomized Impact Evaluation of Early Childhood Development in Rural Mozambique* (Washington, DC: World Bank and Save the Children, 2012).

<sup>38</sup> See Sharon Wolf et al., "Measuring School Readiness Globally: Assessing the Construct Validity and Measurement Invariance of the International Development and Early Learning Assessment (IDELA) in Ethiopia," *Early Childhood Research Quarterly* 41 (2017): 21-36; Peter F. Halpin et al., "Measuring Early Learning and Development Across Cultures: Invariance of the IDELA Across Five Countries," *Developmental Psychology* 55, no. 1 (2019): 23-37.

In addition to these, it is worth noting that the UNICEF Early Child Development Index (ECDI), derived from the MICS, is the key indicator for reporting child development for both GPE and SDG 4.2. It draws on 10 questions addressed to parents, grouped in four dimensions of literacy-numeracy, physical, learning and socio-emotional development. Children who meet the conditions of at least three dimensions are considered “on track.” Data are available for only a few countries (22 of 65 DCPs). As an indirect measure and composite index, the ECDI has come under criticism, and the Inter-agency and Expert Group on SDG Indicators (IAEG-SDGs) has classified it as a tier III indicator, in need of further methodological development. In response, UNICEF has set up an expert group on early childhood development measurement under the auspices of the IAEG-SDGs. The current measure is at best an index of development for under-5 children; therefore, it is not a discriminating measure for the impact of early childhood education.

**Table 2. Measures of child development and learning for children 3 to 6 years of age**

Measure	Type	Developmental domains	Advantages	Disadvantages
<b>Early Development Instrument (EDI)</b>	Indirect teacher or parent report	Cognitive; language; motor; social; emotional	Used in many LMIC	Many items inappropriate for pre-primary children; validity when teaching large classes
<b>International Development and Early Learning Assessment (IDELA)</b>	Direct child	Math; literacy; executive function; social-emotional	Used in many LMIC to evaluate school readiness; validated by comparing high-quality vs low-quality vs no preschool	
<b>Measure of Development &amp; Early Learning (MODEL)</b>	Direct or indirect	Math; literacy; executive function; social-emotional	Used in many LMIC to assess development and school readiness	Relatively new; requires validation in context
<b>Washington Group/UNICEF Module on Child Functioning</b>	Parent report	cognitive; language; motor; sensory; emotional difficulties	Easy to administer; two forms (2- to 4-year-olds, 5- to 17-year-olds)	May require medical validation for individual children; does not measure strengths

Note: LMIC = low- and middle-income countries.

## 6. Gaps in available goods

Despite a number of global goods available worldwide to improve ECCE policy planning and implementation, relatively few DCPs use these existing goods. The capacity required to adapt, train and implement measures, and to interpret the data within the local context, is substantial. Currently, few global, bilateral and multilateral initiatives provide the sustained technical and financial resources needed



to support the adaptation and application of existing global goods by DCPs. Hence, the use of existing global goods for reflection and improvements for ECCE policy, implementation and action plans has been limited to date.

Limitations in their application may be due to the recent adoption of pre-primary education in many countries; the lack of tertiary education programs devoted to pre-primary education, resulting in lack of expertise in ECCE; insufficient political will and insufficient financial resources.

To apply and extend global goods in DCPs, as a start, investment in capacity building, knowledge exchange and exchanges on successful and innovative approaches to share best practices will be necessary. Working with local organizations and academic/research institutions, DCPs need the capacity and experience to evaluate their ECCE policies and services and to innovate ways to offer high-quality services, particularly to disadvantaged populations. Because many global goods currently exist as tools or practices, the gaps lie in innovative ways to scale up, adapt, apply and follow through on their findings in a broader range of countries—documenting capacity building, evidence gathering, financial constraints, political climate and implementation of recommendations. In so doing, they will develop new global goods such as models and frameworks on how to adapt and apply existing goods regarding the curriculum, quality standards and workforce development. They will develop strategies to collect and use data that allow for planning, such as cost-effectiveness analysis and funding analysis. They may develop new global goods on tools for planning and scale-up of ECCE and tools for a full feedback cycle from diagnosis to policy reform.

Aligning with the five action areas described in the previous section, five gaps in global goods emerge.

**Global good gap 1: Lack of strong education sector plans that include ECCE and need for improved system-level planning related to financial resource allocation, implementation and monitoring of the ECCE subsector**

A number of existing tools support planning and resource allocation in the ECCE subsector, but these are not translating into strong and realistic ECCE components of education sector analyses and plans nor sufficient resources to budget, plan and manage ECCE systems. There is also a lack of knowledge on how to manage the implementation process and how to scale up good practices. The ongoing GPE-supported BELDS initiative aims to strengthen ECCE within sector planning and budgeting by building on a few country examples with targeted capacity building, but even with the BELDS toolkit, it is expected that additional tools, or revisions to current tools, will be needed to support technical capacity building in the full education planning process.

Ultimately, translating ECCE goals into action is a challenge for virtually all countries. This is partially due to the technical expertise needed to use these tools, but it is also related to the availability of financial resources to implement these tools. Eight DCPs who reviewed this paper noted challenges in budget limitations for ECCE in their countries. DCP participants in the Nairobi consultation mentioned that low domestic budgets for ECCE result in funding gaps for teacher pay, materials, infrastructure, training and other critical needs. Even strong ESPs and policies for the ECCE subsector may be insufficiently funded or lack strong political leadership for implementation. Further, there are gaps in global knowledge and tools around financing options and high-level advocacy for greater domestic financing for ECCE.

**Global good gap 2: Limited peer learning and knowledge exchange on the effective design and implementation of ECCE curricula, including alignment with primary curricula and evaluation and assessment of curricula effectiveness and relevance**

While several prominent global goods and initiatives do support national quality standards and early learning and development standards, there appears to be a gap in the implementation and institutionalization of these standards and their monitoring. Although some countries have developed quite sophisticated quality standards, pre-primary curricula and workforce training, in other countries these efforts are scattered and piecemeal. Those leading the teacher education and curriculum efforts within a country may not have access to available tools or adequate financing to make changes, or they may access one best practice but not know how to adapt it for their purposes. They may lack an understanding of the criteria or principles underlying the development of quality standards, curricula and training. Because pre-primary is a recent educational provision in most countries, there exists little expertise on what is unique to pre-primary education, for example, in methods of teaching and learning. While there exist examples of regional guidelines for national quality standards, there is uncertainty on what prevents other countries from adequately using these tools.

Participants at the Nairobi consultation mentioned that national ECCE curricula and standards often do not align with those in primary education, causing an abrupt shift in education goals between pre-primary and primary schooling. They noted a lack of appropriate teaching and learning materials and a lack of curricula to support play-based learning. While curricula reform happens regularly, there is a need for evaluation of these reforms so that countries are not reinventing the wheel each time they undergo a curriculum reform.

Thus, there is a need to better understand how national stakeholders can start with a curated list of quality standards in use, adapt them for their context, develop a regulatory framework and then apply it. Support for teachers to begin to meet quality standards, along with budgets to support needed resources for teaching and learning, may be identified as critical. Regions outside of the Caribbean Community might benefit from understanding how this process unfolded among the CARICOM group and applying it to their region.

**Global good gap 3: Lack of shared knowledge on training and supporting the ECCE workforce and attracting and retaining qualified teachers and staff**

Some global goods are aimed at supporting teachers and personnel, but they are not yet used widely by education practitioners in DCPs. One challenge is the lack of alignment of the pre-primary curriculum and teaching/learning methods with teacher training, supervision and mentoring. Teachers are often trained to perform specific teaching activities, such as rote learning of numbers, and may have difficulty quickly adapting when the curriculum changes.

Participants in the Nairobi consultation and DCP reviewers to the paper noted that the large numbers of underqualified early childhood education teachers were a challenge, especially when paired with a lack of sufficient professional development. They noted professional development was needed in particular on the non-academic domains, such as social-emotional learning. Low or no pay for teachers was also mentioned, relating to the budgetary challenges mentioned above. These challenges can result in low retention of ECCE teachers and poor teacher attitudes and perceptions of their work and of children.

While individual countries and projects may have robust evaluation results of a successful teacher training program for preschool teachers, currently there is a knowledge gap in the evidence and evaluation of these programs reaching a wider audience.

#### Global good gap 4: Underutilization of parents and communities as strategic partners to improve the quality of ECCE services and act as a network to support families and reduce inequity

There is a large gap in global goods that support ECCE systems in leveraging families and communities as partners. This area is where the fewest global goods were found. Most of the goods in this area apply to parents of children in the 0-to-3-years age range and so have been developed for the health sector. A few have been implemented for parents of preschoolers but tend to be poorly attended. There is a large gap in providing full-day center-based care for children of working mothers. Participants in the Nairobi consultation noted this lack of attention is also evident in the countries where they work, where community and parent engagement are lacking in the ECCE systems for children ages 3 to 7 years. They mentioned a lack of evidence on what works in family and community engagement programs, and a particular lack of facilities and programs to engage families and communities in marginalized communities and among children with special needs.

#### Global good gap 5: Limited technical support and knowledge exchange on data collection and monitoring of ECCE services, especially related to service quality, and follow-up of recommendations

There are many tools available for measuring child development outcomes and an increasing number of tools for measuring the quality of ECCE programs. The translation of these tools into action, however, is lacking. Often, data are collected as a research or policy exercise and not integrated into the government's planning process; other times, data are initiated by governments but not disseminated to the teachers and parents who could use them. Tools for diagnosing equal access by disadvantaged, disabled and migrant children are available but often not used. Participants in the Nairobi consultation noted the need for contextualization of ECCE tools and more widespread measurement of child development to inform the teaching-learning process. They also mentioned the lack of qualified personnel for monitoring and supervision of ECCE programs, which relates to a lack of consistent monitoring at scale.

## 7. Potential investment areas

To overcome gaps in global goods and their use, GPE has the opportunity to simultaneously strengthen national and regional capacity while providing evidence for programs and policies that work and innovating with different ones. In brief, there are three areas of investment:

- **Capacity development and knowledge exchange among developing countries:** In relation to the five gaps, activities that strengthen national and regional capacity through knowledge transfer and peer exchange for the creation of adapted diagnostic and evaluation tools, and models of curricula for pre-primary education and training its workforce. Capacity might be enhanced if there is a training-by-doing approach, whereby those with relevant responsibilities learn while applying the global good.
- **Evidence and evaluation of what works:** In relation to the five gaps, activities that aim to collect information on programs and policies that work and the process by which this information is used to improve programs and policies.
- **Innovation pilots:** Piloting of new approaches to quality service provision in partner countries, particularly in fragile and conflict areas and with vulnerable segments of the population.<sup>39</sup>

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<sup>39</sup> Murphy, Yoshikawa and Wuermler 2018.

The three areas of investment—namely capacity development, evidence and innovation—benefit from synergy if conducted in tandem rather than singly. For example, the capacity to adapt a tool and use it to collect upstream diagnostic data on quality and learning outcomes or evaluate an innovative curriculum benefits not only capacity but also service provision. The capacity to develop a model for how to subsequently use data collected on quality, learning outcomes and cost, for example, would raise national and regional expertise and provide an innovative global good that is currently lacking.

The three areas for investment will be integrated into the five gaps stated in section 5. Capacity development will feature more strongly under certain gaps, while evidence and innovation are priorities for other gaps.

### **1. Support system-level planning for the ECCE subsector through education sector planning, including clear policy goals and minimum standards for resource allocation, implementation and monitoring of services**

- Areas for investment of *knowledge transfer, capacity development and learning exchange* might include joint DCP planning workshops, experience sharing, formal training and high-quality technical support to stimulate development and improvement of national ECCE subsector planning, including the implementation and monitoring of quality ECCE policies and programs and better alignment of resources. Building on the BELDS work with additional country case studies to strengthen technical capacity across the full planning process and/or revising current planning tools to support the ECCE subsector are possible opportunities under KIX. It could also include creating an integrated tool to help identify resource allocation for ECCE, for example, to collect more reliable country-level data on ECCE spending and to better understand the effects of increased funding.
- Areas for investment in *evidence and evaluation* might include support for formal training sessions on ECCE costing and financial simulation tools and funding analyses, and the consolidation of costing and financial data and an assessment of a comprehensive return on investment (cost-benefit, cost-effectiveness). It could also include case studies on successful advocacy for domestic financing for quality ECCE provision as well as innovative financing.
- Areas for investment in *innovation* might include implementation research to build knowledge and evidence of the impact and sustainability of ECCE programs at scale and evaluations to test the impact of innovative, emerging or alternative delivery models to scaling up pro-poor and developmentally appropriate services, including innovative programs delivered in humanitarian and fragile contexts.

### **2. Strengthen networks of peer learning and institutions to design, implement and evaluate pre-primary curriculum**

- Areas for investment of *knowledge transfer, capacity development and learning exchange* might include the development of a common curriculum framework to help ensure coverage of the most critical aspects of child development areas, continuity with primary schooling and an even level of quality across different forms of pre-primary provision and for different groups of children.
- Areas for investment in *evidence and evaluation* might include research on alternative curriculum models that are locally adapted and implemented (for example, learning objectives, methods) and research on the comparative advantage of different curriculum models, for example, on children's language and numeracy outcomes or long-term benefits.

- Areas for investment in *innovation* might include a global online database of existing curriculum models and effective implementation, including impact and cost data to help inform next generation planning.

### 3. Support improvements to ECCE staff qualifications, education and training

- Areas for investment of *knowledge transfer, capacity development and learning exchange* might include experience sharing, formal training and high-quality technical support to plan and implement ECCE teacher training standards or curriculum for initial education programs. This could include strengthening existing online portals and courses for workforce development.
- Areas for investment in *evidence and evaluation* might include research on improving workforce qualifications and training, for example, case studies on good practice in recruitment, training and retention of ECCE teachers and/or policy analysis on stimulating demand for a qualified workforce.
- Areas for investment in *innovation* might include the development of teaching and learning technology or applications to support professional development and continuous training for ECCE teachers and staff.

### 4. Strengthen parental and community engagement to improve the quality of ECCE services, support parents and improve equity in ECCE settings

- Areas for investment of *knowledge transfer, capacity development and learning exchange* might include learning exchange and capacity development on good practices in parental engagement in ECCE settings, for example, engaging parents in ECCE management bodies, making parent engagement a policy priority, teacher training on parent engagement and innovative ways to include parents and community in the delivery of high-quality ECCE services.
- Areas for investment in *evidence and evaluation* might include research to assess and evaluate the benefits of parent engagement on the quality of ECCE services, including studies that engage parents to evaluate services.
- Areas for investment in *innovation* might include strategies to enhance parental and community demand for quality pre-primary education and provision of center-based care for children of working mothers.

### 5. Support improvements to advancing data collection, research and monitoring of ECCE services, especially related to service quality

- Areas for investment in *knowledge transfer, capacity development and learning exchange* might include experience sharing, formal training and technical support on the design and implementation of ECCE data collection and monitoring tools, especially related to quality of services and child development. This will enhance the ability to measure change, monitor progress and use data and evidence to inform system-level change and program improvements. It could include strengthening feedback cycles between research and monitoring results and action plans for policy and practice.
- Areas for investment in *evidence and evaluation* include the use of different tools for monitoring and supervision, and the impact of monitoring data on quality improvements at scale.

- Areas for investment in *innovation* might include tools to support mobile-based reporting for monitoring and evaluation and citizen engagement in monitoring ECCE quality and learning outcomes.

Because many of these global goods and their application overlap with each other and are part of the overall ECCE provision, they can be seen as inseparable. Certainly capacity building to use the global goods, with the help of partners and experts, will lead to important evidence. Evidence on the process and effectiveness of any one good, such as monitoring of quality or curriculum development, will feed back into planning and also teacher training, among others. Planning how to work with all the stakeholders in a particular country or education system will be important. A scheme for dissemination and feedback cycles by KIX grantees should be considered and may be mandatory.

**Table 3. Global gaps and one example of potential investments for each of KIX investment area**

<b>Global gaps</b>	<b>Knowledge transfer, capacity development and learning exchange</b>	<b>Evidence and evaluation</b>	<b>Innovation</b>
<b>Planning and resource allocation</b>	Joint DCP planning workshops, experience sharing, formal training and high-quality technical support to stimulate development and improvement of national ECCE subsector planning, implementation and monitoring of quality ECCE policies and programs and better alignment of resources	Formal training sessions on ECCE costing and financial simulation tools and funding analyses; consolidation of costing and financial data and an assessment of a comprehensive return on investment; case studies on successful advocacy for domestic financing for quality ECCE provision as well as innovative financing	Implementation research on ECCE programs at scale and emerging or alternative delivery models, including innovation in humanitarian and fragile contexts
<b>Curriculum frameworks and learning standards</b>	Common curriculum framework to ensure coverage of the most critical aspects of child development, continuity with primary schooling and an even level of quality	Curation of knowledge on implementation and evaluation of different early childhood education programs; research to fill gaps	Global online database of existing curriculum models and evaluations of new and promising ones
<b>Teacher training and working conditions</b>	Implement and strengthen existing online portals and courses for workforce development	Case studies on DCPs using existing global goods, their adaptation and evaluation of outcomes; policy analysis on stimulating demand for a qualified workforce through regulated working conditions and compensation	Development of teaching and learning technology or applications to support professional development and continuous training for ECCE teachers and staff
<b>Families' engagement</b>	Learning exchange and capacity development on parental engagement in ECCE settings—engaging parents in management bodies, making parent engagement a policy priority and teacher training	Research how to increase public demand for quality ECCE; analysis of whether mothers engage in remunerative employment, and demand for under-3 group care by working mothers	Comparison of policies and regulations for child care services for working mothers

<p><b>Data collection, research and feedback cycles</b></p>	<p>Formal training and technical support on the design and implementation of ECCE data collection and monitoring tools (e.g., quality and outcomes); strengthening feedback cycles between research and monitoring results and action plans for policy and practice</p>	<p>Evaluation of the monitoring and supervision systems used by governments, nongovernmental organizations and private preschools; impact of monitoring and evaluation on improvements in quality at scale</p>	<p>Tools to support mobile-based reporting for monitoring and evaluation and evaluation of their application</p>
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## Annex A. GPE fact sheet on early childhood care and education

### Overview

Two indicators from the results framework are directly related to strengthening early childhood care and education. Key results for both these indicators as reported in the GPE [Results Report 2018](#) (which uses data from 2015-2016) are summarized below. Key points from the [Results Report 2019](#) (which uses 2016 data for these indicators) are also described.

Indicator 6 tracks gross enrolment ratio (GER) for pre-primary education. It is the total number of students enrolled in pre-primary education, regardless of age, expressed as a percentage of the total population of official pre-primary education age. Aggregate figures are calculated as a weighted average, using the population of the theoretical age of pre-primary education as the weight.

Indicator 2 tracks the percentage of children under 5 years of age who are developmentally on track in terms of health, learning and psychosocial well being. It uses the total number of children aged 36 to 59 months, who are developmentally on track in at least three of four domains - Literacy-numeracy, Physical, Social-emotional, and Learning - expressed as a percentage of the total corresponding age-group population. Aggregate figures are calculated as the weighted average of country-level percentages, using the population of children aged 36 to 59 months in each country as the weight.

### Key results

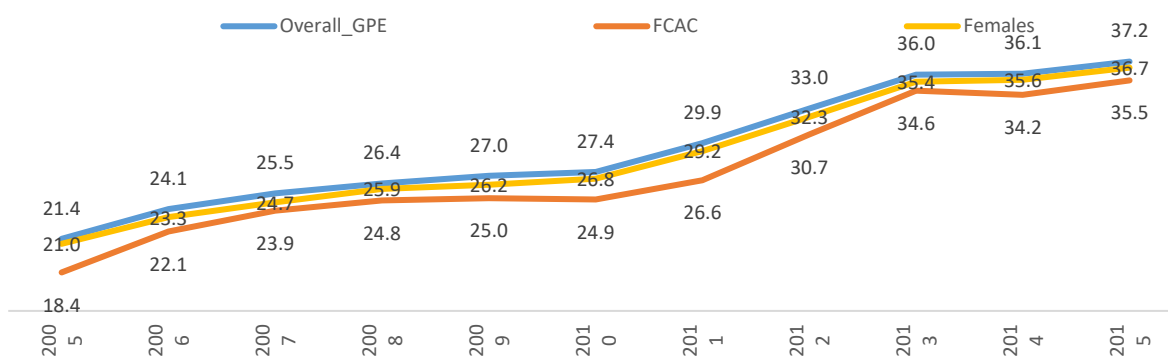
#### Gross-enrolment ratio for pre-primary education (Indicator 6)

Pre-primary gross enrolment ratio is 37.2 percent, exceeding the 2017 milestone of 29.8 percent by 7 percentage points. The indicator exceeded the milestones for FCAC and girls as well, by 12 and 8 percentage points, respectively.

As seen in figure 1, trend data show a steady increase in pre-primary education GER, which increased from 21.4 percent in 2005 to 27.4 percent in 2010 and to 37.2 percent in 2015. This corresponds to a 6 percentage points increase between 2005 and 2010 and a 9.8 percentage points increase between 2010 and 2015.

**Figure 1. Trends in Pre-Primary GER 2005-2015**

Source: GPE compilation based on UNESCO Institute for Statistics 2015 data.

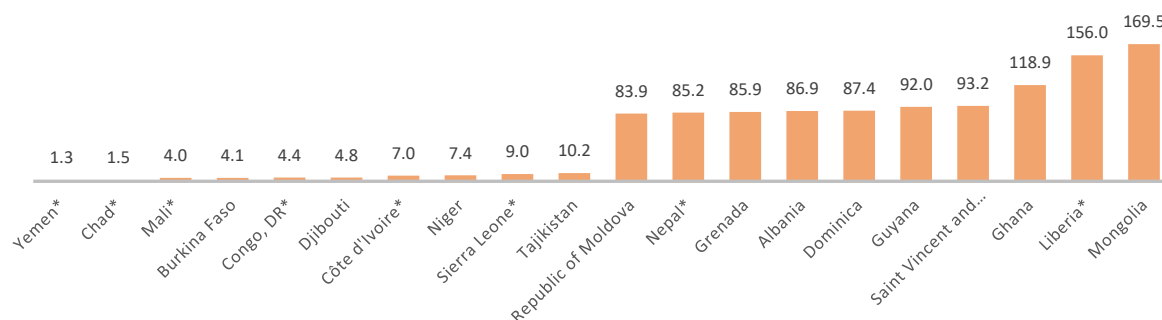


Note: GPE averages include 61 GPE countries for all years (28 FCACs).

Despite the overall progress, some GPE countries experience a very low access to pre-primary education. Countries including Yemen, Chad and Mali have extremely low access to pre-primary education with a GER of less than 5 percent (figure 2).

**Figure 2. Pre-Primary GER in selected GPE countries, 2015**

Source: GPE compilation based on UNESCO Institute for Statistics 2015 data.



Note: Only the top 10 and the bottom 10 countries with data available are included in this figure.

Note: Pre-primary GER includes students enrolled in pre-primary education irrespective of age.

\*FCAC

The GPE Results Report 2019 proposes that attention to additional equity issues in ECCE is warranted given that in low-income countries, the poorest children are eight times less likely to attend ECCE programs. Moreover, fewer than 50 percent of pre-primary teachers have received training, compared with 74 percent of teachers at the primary level, highlighting for ECCE the importance of not only access but quality. In recent consultations conducted by the Secretariat, a large majority of DCPs named financing as a top bottleneck to accelerating equitable access to quality ECCE, and they expressed interest in information on the various ECCE models used in other countries. The two biggest data and planning priorities mentioned were support to data generation on ECCE access and quality and financing options analysis in ECCE.

## Indicator 2

In terms of early childhood development, the 2018 Results Report contained no new data since the Results Report 2015/6 which noted that, overall, 66 percent of children under 5 years old were developmentally on track in terms of health, learning and psychosocial well-being, based on data from 2011-2014 available from only 22 GPE DCPs.

The 2019 Results Report does not report on indicator 2 because data comparability poses a challenge for drawing meaningful conclusions from this indicator since data are available for only 13 countries, only 3 of which were part of the baseline sample. This underscores the need for greater and more consistent data availability to be able to track and improve outcomes for children.