

Early Childhood Education and Development in Indonesia: Strong Foundations, Later Success

A Preview



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Early Childhood Education and Development in Indonesia: Strong Foundations, Later Success

A Preview

Human Development
East Asia and Pacific Region

Table of Contents

Introduction	1
The Audience	1
The Book's Organizing Framework	1
The Indonesian Environment for Children's Development	3
A Decade of Progress: ECED Milestones in Indonesia	4
Focusing on the World Bank-Supported ECED Project	6
Development Objective	6
Key Components of the ECED Project	6
Assessing Children's Development in Indonesia	6
Indonesia's ECED Initiatives—Insights to Be Gained from this Book	8
The Chapters One by One	9

Figures

FIGURE 1. Circles of influence on a child's development	2
FIGURE 2. ECED Milestones in Indonesia generally, and with World Bank support	5
FIGURE 3. Children from poorer and rural households have difficulties progressing from lower levels to higher ones	9

Boxes

BOX 1. Special features of the book	2
BOX 2. What is Community-Driven Development?	6
BOX 3. How children's development was measured	7
BOX 4. Characteristics of effective ECED interventions	10
BOX 5. Insights from new data	10
BOX 6. Findings from the planning, implementation and midline evaluation	11
BOX 7. New ECED initiatives in Indonesia-Examples of insights from this book	12

Introduction

This document previews a forthcoming World Bank book entitled *Early Childhood Education and Development in Indonesia: Strong Foundations, Later Success*.

The book, to be published early in 2013, will explore five questions:

1. How has international evidence about the importance of the early years influenced early childhood education and development (ECED) policies and services in Indonesia?
2. What is the pattern of development among young children in poor villages in Indonesia, and how is that development linked with their families' characteristics and the ECED services typically available to them?
3. What were the processes and challenges of implementing a World Bank-supported, community-driven ECED project across 50 poor districts in Indonesia—a project that to date has reached more than 500,000 young children and their families?
4. What can be learned from the short-term results of a randomized evaluation of the project's impact on children's development?
5. What insights can be derived from this body of research to inform future policies and practices in Indonesia and beyond?

The Audience

Early Childhood Education and Development in Indonesia will include information relevant to the needs of

- Researchers in early childhood development and program evaluation
- Policymakers within and beyond Indonesia
- Providers of early childhood services
- Professional development providers
- Advocates for quality early childhood services

The Book's Organizing Framework

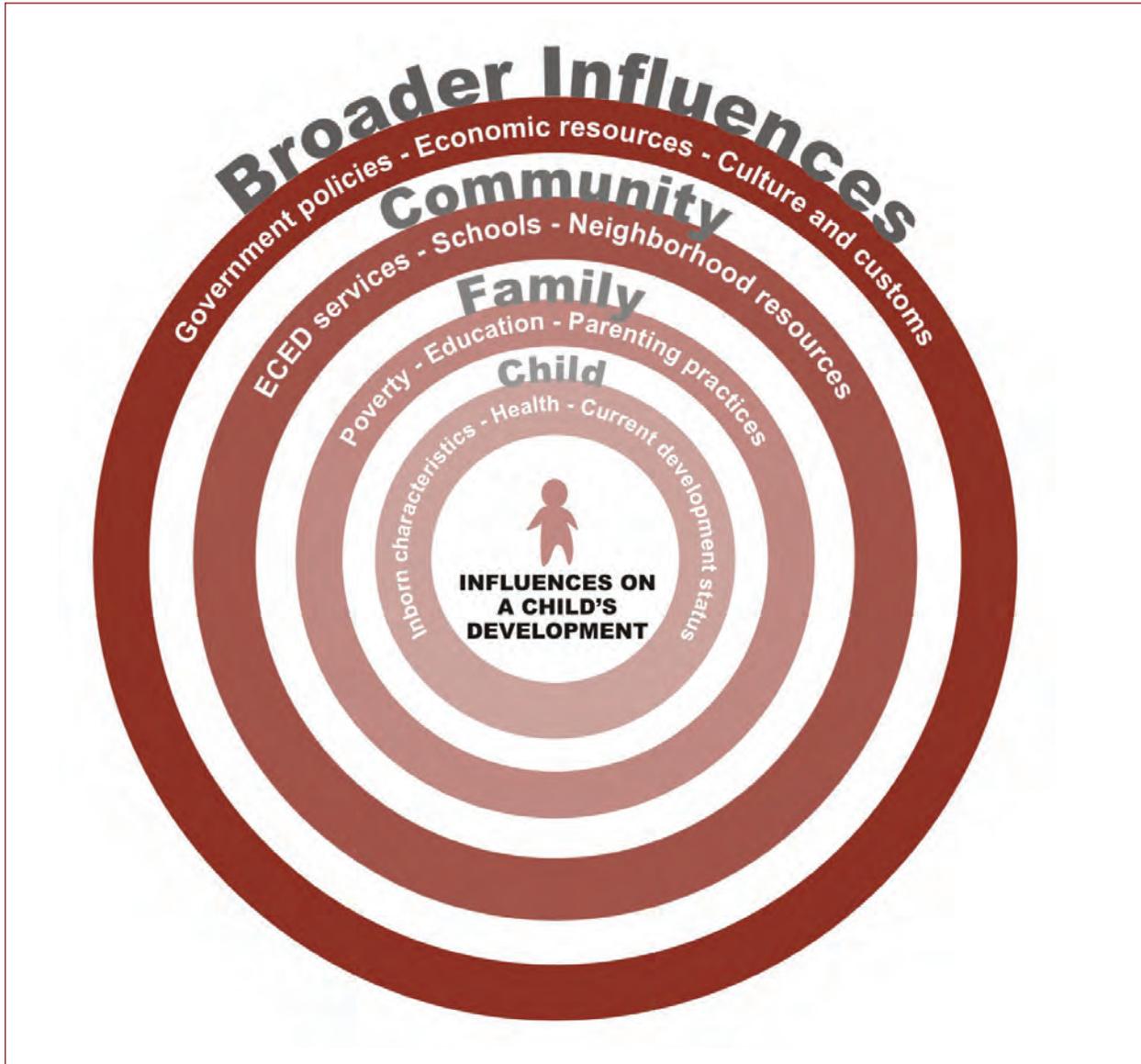
Children's development is influenced by many factors. Together, these "circles of influence," seen in Figure 1, create an environment for early development that either promotes or hinders positive outcomes.

Examples of these influences include:

- **An individual child's characteristics**, including temperament, health problems such as stunted growth, or the presence of disabilities and developmental delays. These do not determine development but can affect the impact of other influences.
- **Family influences**, such as parenting practices or parents' relative wealth and education.
- **Community influences**, such as the presence and characteristics of ECED services or programs for child health monitoring, as well as the presence or absence of community social networks.
- **Broader influences** from government policies and economic resources and cultural traditions, all of which create conditions that may either support or restrict children's development.

Early Childhood Education and Development in Indonesia uses this organizing framework to tell the story of Indonesia's efforts to change poor children's developmental trajectories through policies and services cutting across multiple circles of influence.

FIGURE 1. Circles of influence on a child's development



BOX 1. Special features of the book

Early Childhood Education and Development in Indonesia will feature:

- A description of Indonesia's past, present, and future ECED policy initiatives and goals
- A summary of international evidence on the importance of the early years and the benefits of ECED services
- A detailed picture of the Community Driven Development (CDD) processes used in an ongoing World Bank-supported government project to raise awareness of ECED within villages, select poor districts and villages to participate in the project, and identify village members to serve as teachers
- Information about research tools for assessing early child development and parenting practices within low-income communities
- Access to extensive documentation of data analyses
- Concise definitions of key terms in early child development and evaluation research

The Indonesian Environment for Children's Development

Indonesia is the world's fourth most populous country, with more than 238 million people living in an archipelago comprising over 17,000 islands. Over the past decade the Indonesian economy has experienced positive economic growth, reduced poverty, and made continued progress towards many of the Millennium Development Goals (MDGs). For example, Indonesia has already met and surpassed projected reductions in the number of underweight children under five years old to below 18 percent and is on track to meeting its targets for reducing overall child mortality and the targets for achieving universal basic education.

While clear progress has been made on reducing poverty rates, inequality has persisted, with the result that many children and families have not shared in these gains. Over 30 million Indonesians live below the poverty line (US \$2 per day) and half of all households are clustered around the poverty line. Of the poor, 65% currently live in rural areas. For these families, national economic improvements have brought only modest gains in health and education – putting children's development at risk and threatening national progress.

Unequal experiences for richer and poorer children and their parents begin early in Indonesia and are compounded as children get older. Since 1987 there has been an impressive improvement in skilled birth attendance, but the poor continue to lag behind. Disparities also exist across provinces, economic quintiles, and education levels.

While maternal mortality has fallen from 340 to 220 per 100,000 live births (between 2000 and 2010) in Indonesia, it remains far above the 2010 average rate of 83 for all developing countries in the East Asia and Pacific (EAP) region. Likewise, under-five and infant mortality rates have fallen from 54 to 35 and from 38 to 27 respectively (between 2000 and 2010; per 1000 births) but remain far above the average for all developing countries in the East Asia and Pacific region in 2010, which stood at 24 and 20, respectively.

Births attended by skilled health staff, rates of immunization, and rates of access to improved sanitation facilities also remain behind the region's developing country average. Furthermore, an estimated 42% of rural households have stunted children, putting these children at risk for long-term cognitive deficits, emotional and behavioral problems, and low school achievement.

Another area of continuing disparity is early education. For example, while enrollment rates in ECED services such as playgroups and kindergartens have been rising in Indonesia, poorer children remain far less likely to be enrolled.

A notable achievement for Indonesia is that primary school enrollment is now near 100 percent for boys and girls of all income levels. However, as children move through the primary years, the enrollment disparities seen in ECED services re-emerge. Educational attainment profiles reveal that while almost all children from all segments of society start primary school, children from poorer households and children from rural areas have more difficulties progressing from lower levels of education to higher levels. Only 55 percent of rural children make it to junior secondary school, and less than a quarter enroll in senior secondary. In contrast, 80 percent of urban children make it to junior secondary school and almost two-thirds enroll in senior secondary.

Finally, the most recent results from PISA—the OECD Programme for International Student Assessment—finds Indonesia near the bottom of 65 countries in reading (#57), maths (#61), and science (#60). PISA tests 15- and 16-year old children that are still in school. Disaggregating these data by wealth reveals that even those poor children who manage to stay in school perform worse than richer children.

These data show a picture of Indonesia as a country that, on average, has greatly improved the environment for children's development. Yet many children are still not sharing the benefits of these advances.

A Decade of Progress: ECED Milestones in Indonesia

Influenced by the condition of poor children within its own country and by the pattern of international evidence about the value of ECED, for at least a decade Indonesia's government has implemented policies and programs that prioritize the early years. Figure 2 highlights some of these milestones.

The first critical step was taken in 2001, when a new directorate was established within the Ministry of Education and Culture, dedicated to early childhood. From the beginning, the directorate's advocacy within and beyond the government influenced policy development, put additional resources into community ECED services, and created strategies to raise Indonesian awareness about the importance of the early years. At the same time, UNICEF initiated integrated health service clinics for mothers and children as part of their Smart Toddler program, one component of the government's initiatives to support early childhood at that time.

The second critical step was taken when early childhood education was included in a succession of key policy documents – the National Education System Law No. 20 in 2003, and the Ministry of Education and Culture's Medium Term Planning in 2004.

In the context of these institutional and policy changes, in 2004 a pilot project that had begun under the purview of the Directorate of Community Education was transferred to the supervision of the Directorate of Early Childhood Education. In establishing new ECED services in poor villages, this project previewed and provided key lessons that were subsequently incorporated into a larger-scale project initiated in 2006, which is described in this forthcoming book. The bottom half of Figure 2 highlights milestones in the implementation and evaluation of this World Bank-supported project.

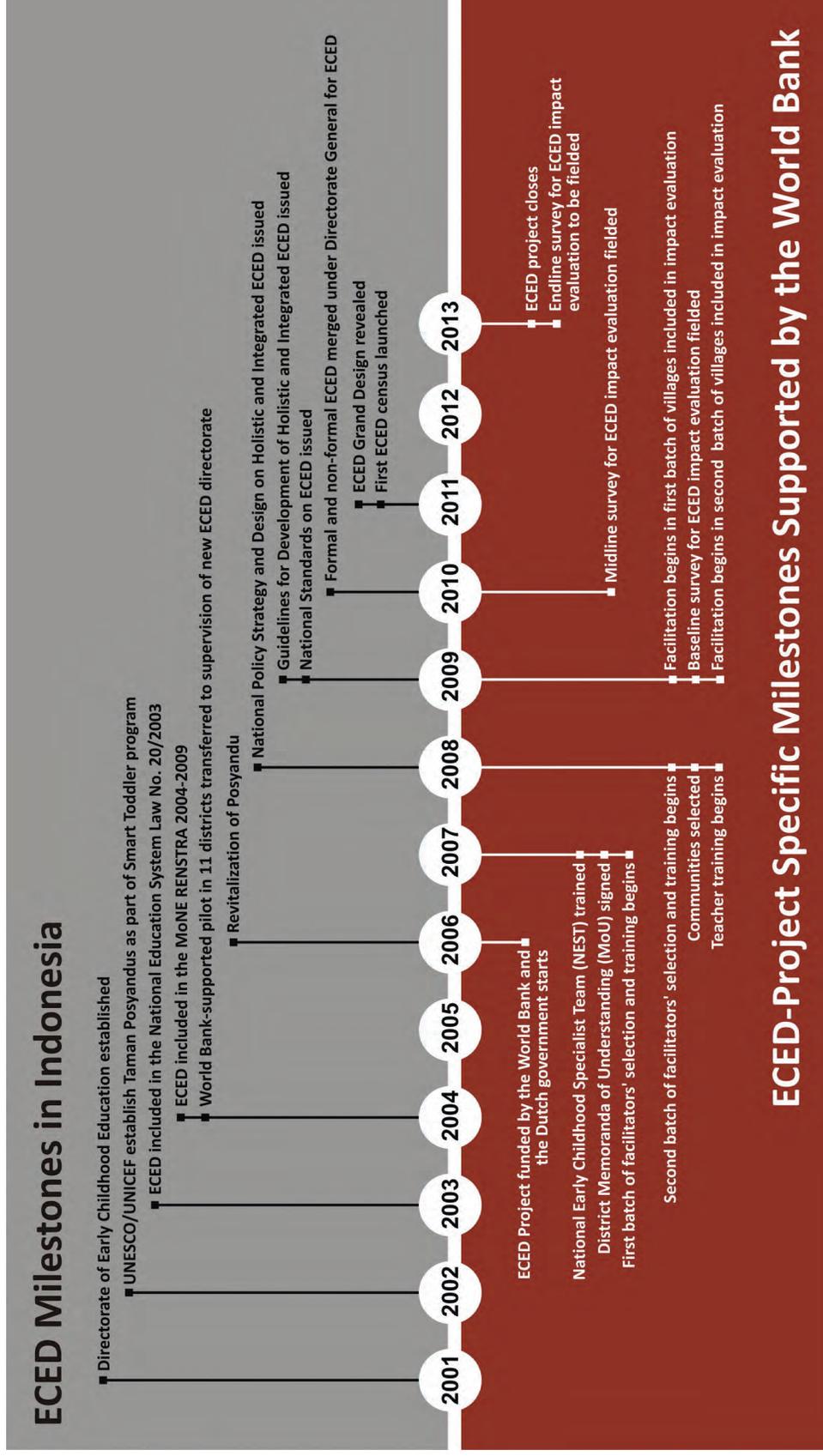
More recently, the need to consider ECED services holistically, across sectors and developmental domains, was recognized through the government's issuance of an ambitious policy strategy and guidelines (2008). The development of national standards for ECED by the Board of National Education Standards (BSNP) in 2009 situated early childhood education as the first level of the country's education system.

A lingering barrier to coordinated ECED service provision was removed when the previously separate "formal" and "non-formal" early childhood directorates were merged into one unit in 2010, with responsibility for all ECED activities within the Ministry of Education and Culture. Finally, the initiation of the first-ever ECED census in 2011 has begun to provide researchers and policymakers with essential data and will continue to inform decisions in the future.

This policy momentum has led to the inclusion of an ambitious set of targets in the Ministry of Education and Culture's (MoEC) "Grand Design" for ECED 2011-2025. Motivated by international research on the short- and longer-term benefits of ECED, the government aims to:

- Expand ECED services to ensure access for all young children
- Focus on providing holistic, integrated service delivery
- Formulate a key role for families and family-focused interventions, parent education and support, in promoting positive outcomes for children
- Increase the qualifications and competencies of ECED teachers

FIGURE 2. ECED Milestones in Indonesia generally, and with World Bank support



Focusing on the World Bank-Supported ECED Project

In 2006, with support from the World Bank and the Dutch government, the Government of Indonesia launched the ECED Project. A major focus of the forthcoming book is to collect lessons from the implementation of this project and present short-run results from an ongoing impact evaluation.

Development Objective

The government and the World Bank agreed that the ECED Project would aim to improve poor children's overall development and readiness for further education within a sustainable high-quality ECED system.

Key Components of the ECED Project

To accomplish this objective, three key components were identified. The project would

1. Increase integrated ECED service delivery through community-driven mechanisms in targeted poor communities. Included in this component, for example, would be staff development, community-level facilitation (awareness-raising), and provision of community block grants.
2. Develop a sustainable system for ECED quality. This component would include national standards and quality assurance systems and the institutionalization of ECED at the district and provincial level.
3. Establish effective program management, monitoring, and evaluation.

BOX 2. What is Community-Driven Development?

Community Driven Development (CDD) is a development initiative that provides control of the development process, resources and decision making authority directly to community groups. The CDD process assumes that people within a community are in the best position to judge what they need to improve their lives. If they are given information and resources, they are capable of using these to meet their own needs.

Many World Bank-supported projects have used a CDD approach, including this ECED project.

Assessing Children's Development in Indonesia

Early Childhood Education and Development in Indonesia will provide data on how children in poor communities are developing in a number of key domains—both in general, and in response to ECED services implemented in some of their communities. For example, in the early years, with supportive environments, children typically become more competent in these areas:

- **Physical well-being and motor development**
development of the brain and central nervous system; growth of the body; learning to stand, walk, run, using hands and fingers in skilled ways
- **Language and literacy development**
speaking, listening, understanding; beginning to connect letters, sounds, and words; beginning to write
- **Cognitive development**
reasoning, thinking, problem-solving
- **General knowledge**
understanding of everyday places, people, and events, including basic knowledge of math and science
- **Social and emotional development**
learning to cooperate, make friends, and be a friend; developing secure relationships; understanding others' feelings; understanding and expressing one's own feelings

- **Executive function skills**

self-regulation: planning and carrying out plans; controlling how one moves, feels, and thinks; remembering details; handling tasks in persistent, flexible ways.

Progress in all of these components is necessary to help children develop well and be ready to make the most of the opportunities provided by formal schooling, yet poverty and other circumstances may limit children's positive development.

Early Childhood Education and Development in Indonesia will describe the development of Indonesian children living in poor, rural villages, using a set of internationally-validated measures that are summarized in Box 3. The book then goes on to describe how community-based services were planned and implemented to improve children's holistic development, and how the results of an ongoing, randomized impact evaluation are influencing the directions of future policies and ECED services.

BOX 3. How children's development was measured

Comprehensive Approach to Assessing Indonesian Children's Development

In studying a sample of children in poor, rural villages, a comprehensive set of measures was used. The measures were selected because they had been internationally validated and were practical to use in community settings.

Height and Weight Measurements

Provided information on extent and severity of stunting, wasting, and underweight conditions.

Early Development Instrument (EDI—short version)

Used mothers' reports to measure children's development in 5 domains: Physical health and well-being; social competence; emotional maturity; language and cognitive development; and communication skills and general knowledge.

Strengths and Difficulties Questionnaire (SDQ)

Assessed children's possible social and emotional difficulties as measured by the extent of mother-reported emotional symptoms; conduct problems; hyperactivity/inattention; and peer-relation problems. Strengths in pro-social behavior were also assessed.

Demonstrations of Child Skills

Observed children's gross and fine motor skills and aspects of their language, cognitive, and socio-emotional development. (Used mothers' reports if child was too young or reluctant to demonstrate).

Dimensional Change Card Sorting Task

Measured children's executive function skills through a card game requiring children to shift flexibly from sorting on one dimension (such as color) to another dimension (such as size).

Drawing Tasks (based on Draw-a-Man Tasks)

Assessed children's cognitive skills through their use of details in drawing pictures of a human figure and a house.

Expressive and Receptive Language Tasks

Showed toddlers familiar objects and asked to name each (expressive language) and to point to body parts that the interviewer named (receptive language).

Indonesia's ECED Initiatives—Insights to Be Gained from this Book

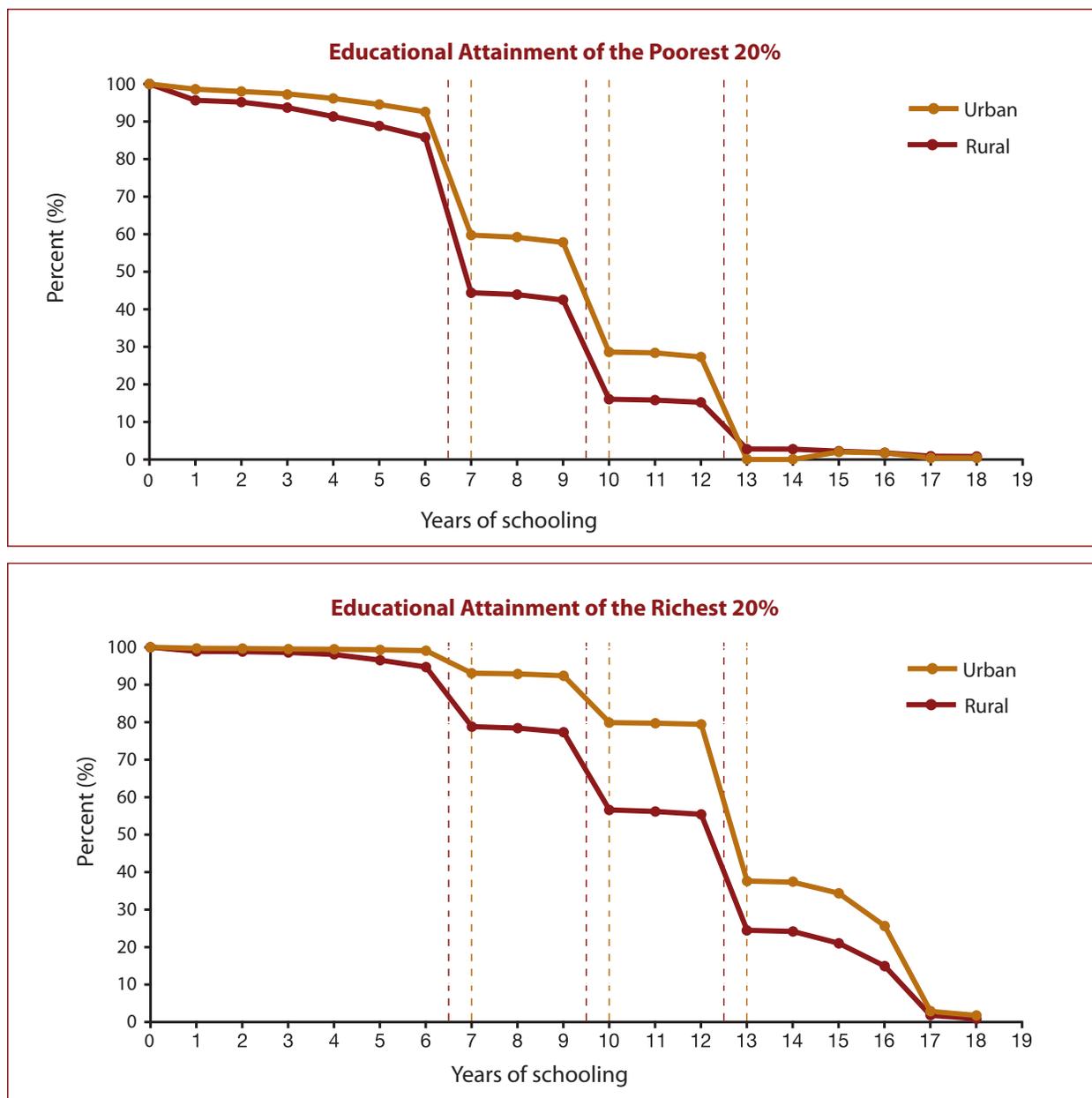
While many other countries aim to support children's early development, several aspects of what will be reported in *Early Childhood Education and Development in Indonesia* are especially valuable and perhaps unique:

1. **Indonesia has characteristics that make its story of special interest.** Indonesia is an example of a country that has begun to emerge into middle-income status, yet persistent poverty and stark inequalities continue to affect young children's development. Most studies of ECED interventions have been conducted at one of two demographic extremes: either in rich countries such as the United States or in countries with much higher levels of poverty than exists in Indonesia. Indonesia's story thus makes a new contribution with relevance for similarly situated countries.
2. **An unusually rich set of data was collected for this study.** The study offers data on all aspects of health and development in a sample of poor young children, collected with internationally validated measures (often including multiple measures of the same construct), as well as household information, information about parenting practices, including feeding patterns, parent questionnaires, and data on the prevalence and distribution of ECED services.
3. **The key components of the ECED project combined direct service delivery with broad policy and systems goals.** From the start, the ECED project aimed to not only support service provision but also to support the development of national standards, build national and district capacity, and encourage the establishment of a system of ECED quality assurance, efforts that are still in process. The book primarily will focus on the services themselves and their association with child outcomes, but the project's broad scope is unusual and will be highlighted in the book's last chapter.
4. **The use of a community-driven development approach to ECED services proved to be a key ingredient for success.** The ECED project empowered village members to identify needs, find local teachers, and guide the implementation of services with district commitment and support. This kind of approach seems to have promise for creating sustainable services responsive to local needs.
5. **A large sample of rural children and families was studied at two points in time, one year apart.** The data reported here is based on a sample of more than 6,000 Indonesian children living in 310 poor villages, including two age cohorts (aged 1 and 4 years old when data were first collected on their development in 2009).
6. **The ongoing impact evaluation that will be reported on used a randomized design to evaluate the effects of the project.** Few such analyses have been done with such a large sample, with multiple measures, and with more than one data point. These design features allow a high level of confidence in the results.
7. **The fact that this is not yet the project's final evaluation provides an opportunity to use the lessons learned in further research, policies, and practices.** The final word has not yet been said about the children, families, and interventions that are being studied: Data for the ECED project's endline evaluation will be collected in early 2013. However, what is being learned from the project's baseline data and from this midline evaluation will help to inform both the project's further implementation and the government's broader ECED initiatives.

The Chapters One by One

Chapter 1 will show how international evidence about the importance of the early years has influenced significant government attention to ECED services in Indonesia. Despite economic progress and reductions in poverty, inequalities remain for Indonesia's children and families. Poverty challenges the holistic development and school readiness of many of Indonesia's children and contributes to poor children's failure to progress through the educational system.

FIGURE 3. Children from poorer and rural households have difficulties progressing from lower levels to higher ones



Source: Authors' calculations using SUSENAS 2010 data.

Research on early childhood development suggests ways to address these inequalities and change the trajectory of poor children's development. In the years from birth to age 6, children develop essential competencies and skills in every area of development. One of the largest influences on child development is poverty. Poor children are significantly more likely to experience negative outcomes, starting early in life and continuing into adulthood.

Early childhood education and development services can improve outcomes for all children, particularly for those living in poverty. Research has demonstrated the benefits of ECED services for a child's short- and longer-term health and development, as well as economic benefits for society from investing in ECED; research also shows that the most effective services share certain characteristics. Taken together, this evidence has prompted an international focus on establishing and expanding ECED services, especially for the poorest children.

For the first time a large set of internationally validated measures of child development has been adapted for use in Indonesia and applied in a large sample of rural children from poor villages. This battery of measures runs the gamut from physical health and well-being to cognitive development. The next chapters will leverage the availability of these rich data.

BOX 4. Characteristics of effective ECED interventions

- Include and prioritize children from birth to age 3 and their parents;
- Target the children who are the poorest and have the least access to ECED services;
- Last long enough and are intense enough to make a difference;
- Are holistic—including education, health, nutrition and family support.

Source: Engle et al., 2007, Strategies to avoid the loss of developmental potential in more than 200 million children in the developing world. *The Lancet*, 369(9557),

Chapter 2 uses the new data to describe the development of young children in a sample of poor villages across Indonesia. It links their developmental trajectories with the characteristics of their families and the typical ECED services available to them. Chapter 2 will offer new evidence about the development of poor children in each of the domains important for comprehensive school readiness and will describe the characteristics of young children's families and the kinds of ECED services available in their communities. The chapter shows how various child, family, and community characteristics may lead to differences in children's development. The chapter also examines disparities in children's development across districts that have similar levels of poverty. Finally, Chapter 2 will assess the relative importance of parenting practices and ECED participation for improving child outcomes and reducing inequalities in children's development.

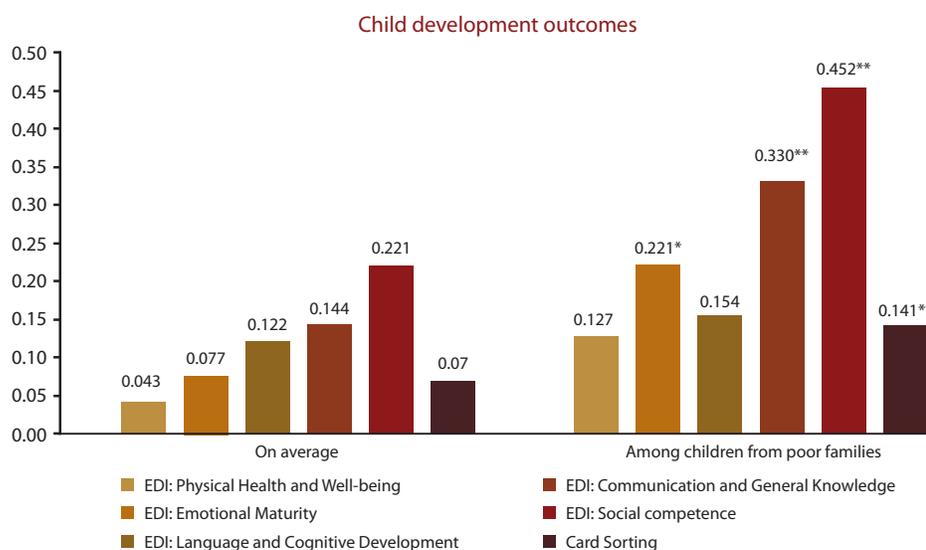
BOX 5. Insights from new data

- **This sample of Indonesian children has very high rates of stunting, wasting and being underweight, limiting their ability to develop physically and cognitively.** These rates are typical of the Indonesian population but are very high compared to the rest of the world.
- **The vast majority of the children observed in this study grow up in households where parents never read stories to their children.** This can limit their cognitive development.
- **Indonesian children living in poor communities have both strengths and difficulties in their development.** In comparison with children in other countries, Indonesian children are relatively independent, can communicate their needs, and act with patience and social appropriateness. However, they appear to need further support to develop the skills that are precursors to reading and writing, such as counting, number recognition and distinguishing between similarities and differences.

Source: Hasan and Jung, 2012. The Indonesia Early Childhood Education and Development (ECED) project: Findings and Policy Recommendations. Jakarta, Indonesia: World Bank.

BOX 6. Findings from the planning, implementation and midline evaluation

- Enrollment in ECED services increased when the government sensitized poor communities to the importance of early childhood development.
- Parental education and household wealth are positively associated with enrollment. Girls are more likely to be enrolled in ECED services than boys. Distance to a center is an important determinant of whether children are enrolled.
- In the short-run, the effects of living in an ECED project village on the average child's development were small.
- However, positive effects on some of the domains included in the evaluation were larger for poor children and for children who had never been enrolled in ECED services before the project.

The ECED project had larger effects on children from poorer families

Results from non-experimental methods are reported here. Outcomes shown include the five domains of the Early Development Instrument (EDI) and the Card Sorting game. *s denote statistical significance level. *** = 1 %, ** = 5 %, * = 10%

Chapter 3 will describe the planning, implementation, and midline evaluation of a government ECED project in 50 districts which began in 2006. Conditions and concerns about Indonesia's young children similar to those reported in Chapter 2 prompted the Government of Indonesia, with support from the World Bank, to develop a project to deliver ECED services in almost 3,000 villages across 50 low-income districts within a sustainable, high-quality system of standards and supports. Part 1 of this chapter describes the project and its implementation. Using a community-driven development process, local facilitators helped village members prepare proposals for small grants, primarily used to establish new playgroups in renovated facilities and primarily serving children ages 3 to 5. Staffed by teachers selected from the community and trained through the ECED project, these centers have served a total of more than 500,000 children to date. Part 2 of the chapter describes short-term effects on ECED enrollment and on children's development, using data from a randomized impact evaluation that is ongoing. This evaluation uses both experimental and non-experimental approaches and takes advantage of the fact that villages were phased into project participation in batches. As such, children in communities that received project-supported services for 20 months can be compared with children in communities that only had these services for 9 months. In addition, communities with ECED project services can be compared with communities that were not part of the project. Results suggest some impacts appearing in the short-term but also identify areas in which few or no effects can yet be seen. The chapter ends by describing the goals of the final round of data collection, to occur early in 2013.

Chapter 4 will use the preceding chapters to highlight insights about Indonesian children’s development and about the ECED project’s planning, implementation, and midline evaluation—and will connect these to emerging ECED priorities. With a broad vision for the central role of early childhood services, Indonesia’s government is moving forward on a number of ambitious ECED initiatives, with a focus similar to that of many other countries which have seen the value of investing in the early years. This chapter discusses four of these emphases: (1) A drive to expand ECED services to ensure access for all young children; (2) a focus on providing comprehensive or holistic ECED services with integrated service delivery across sectors; (3) a key role for families and family-focused interventions in promoting positive outcomes for children; and (4) higher expectations for the qualifications and competencies of ECED teachers. For each area, the chapter will briefly summarize the Indonesian government’s vision and efforts and will then describe what insights may be gained from the project’s data and experiences, reflecting on how these insights might inform future ECED practices and policies either within Indonesia or in other contexts.

BOX 7. New ECED initiatives in Indonesia—Examples of insights from this book

Project data and experiences documented in this book can provide useful insights for emerging ECED priorities in Indonesia—priorities similar to those in many other countries.

Initiative: Expand ECED services to ensure access for all young children

Project Insights:

- A community-driven planning process with skilled local facilitators and a village management team were keys to success.
- Greater involvement of village heads would strengthen the likelihood of sustainable programs.
- Data on between-district disparities in young children’s development suggest that targeting the most-vulnerable districts in the country may be desirable in the short term, while still aiming for universal coverage in the long-term.

Initiative: Focus on providing holistic integrated service delivery

Project Insights:

- Continuing vulnerabilities in children’s physical well-being (moderate and severe levels of stunted growth) and in their language and cognitive skills underscore the need for quality services integrated across sectors.
- Center-based services do not meet the needs of children birth to 3, as most are focused on children 3-6; for younger children, greater use of village health posts for service delivery is needed.

Initiative: Formulate a key role for families, family-focused interventions and parent education and support initiatives in promoting positive outcomes for children

Project Insights:

- Data show that both parents’ education and their home parenting practices predict better development for their children, even for children not enrolled in ECED programs.
- Future parenting interventions should target areas that this book shows to be frequently problematic. For instance, many mothers breastfeed for a shorter time than recommended; few parents read to or tell stories to their children; and children have few opportunities to draw pictures or play with toys at home.

Initiative: Increase the qualifications and competencies of ECED teachers

Project Insights:

- In rural areas, village members may be preferable as ECED personnel since they bring strong motivation and local connections to their work even if they lack formal qualifications—but ongoing support and supervision are essential.
- The impacts of the project’s teacher training was not systematically evaluated (e.g., by assessing classroom quality). Such evaluation will be important as the government implements scaled-up models of teacher training and supervision.

Source: Engle et al., 2007, Strategies to avoid the loss of developmental potential in more than 200 million children in the developing world. *The Lancet*, 369(9557), 229-242.

Notes

