Introd ction

Introduction

Early childhood[1] is the most important stage for human development. The success—or failure—of countries in promoting early childhood development (ECD) will shape not only the life course of young children, but also the trajectories of countries' development. School success and labor market outcomes are grounded in children's early development. The early years of a child's life are particularly formative because during this time the developing brain is extremely responsive to the physical, social, and emotional environment. The formation of synapses—the building blocks of the brain and nervous system—begins in utero and peaks within the first few years of life (Shonkoff and Phillips 2000). Early experiences can have a lasting impact on children's brain development and

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development, resulting in substantially lower intelligence (Qian et al. 2005). However, iodine supplementation, often provided by iodizing salt, can prevent this loss of human potential. Early childhood education can also be an important early childhood intervention. One study found that 15-year-old students who had attended pre-primary education performed better on a reading assessment than those who did not. Even after accounting for socioeconomic differences among students, those who attended pre-primary had higher performance, a difference equivalent to almost one year of formal schooling (OECD 2011). In India, children who participated in ECD programs were more likely to be enrolled in school even up through age 18 (Hazarika and Viren 2013).

Early childhood care and education (ECCE) is not only beneficial for children's development but also for children's families, since ECCE can free up the time of siblings or parents to invest in other productive activities, such as schooling or 9( )TJ0.028 TwynotLokshiprovideGntsskayen who (EGaril
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preschool enrollment to 25 percent or 50 percent in developing countries have a benefit-cost ratio between 6.4 and 17.6 (Engle et al. 2011). The importance of early childhood to countries' development is demonstrated by the prominence of early childhood in the Millennium Development Goals (see box 1.1). Not only are the economic benefits high for investing in ECD, but insufficient investments at this critical stage incur high economic costs later in life in terms of reduced human capital. For example, investing in children's health early can prevent stunting, which damages human capital. Stunting leads to a loss in human resources that causes[2] a 20 percent decrease in adult income (Grantham-McGregor et al. 2007). Although most stunted children will remain stunted through adulthood (Grantham-McGregor et al. 2007), interventions that identify and target children whose growth is faltering can prevent stunting and the loss in human capital it

Box 1.1 Early Childhood Development and the Millennium Development Goals

F a l l l p t f t t ff t app a f a t Millennium Development Goals (MDGs). The MDGs are eight goals that address the world's main development challenges and include specific targets to be achieved by 2015. The actions and targets required to attain the MDGs were set forth in the Millennium Declaration of 2000. Of t t MDG , f f t al a p t alt , t t , a at f children.

The five child-related goals are:

- To halve the proportion of people (disproportionately children) who suffer from hunger,
- To ensure that all boys and girls complete a full course of primary schooling,
- To eliminate gender disparities in primary and secondary education,
- To reduce the under-five mortality rate by two-thirds, and
- To reduce by three-fourths the maternal mortality rate.

Reducing the maternal mortality rate and under-five mortality requires a sustained focus on the health and welfare of mothers and the development of children before, during, and after birth. Prenatal care, skilled delivery care, and postnatal care are important components of reducing maternal and neonatal (first month) mortality. Health, nutrition, and child-rearing practices all contribute to children's early survival, and all can be improved with a sustained focus on ECD. In order to halve the proportion of people whvt whr " / mat

causes (Naudeau et al. 2011). This loss of human resources is mediated through not just decreased physical and cognitive potential, but also other domains of development. Children who are stunted lack psychosocial competencies such as self-efficacy and self-esteem, which are linked to success in the labor market (Dercon and Sanchez 2011). ECD interventions also enhance equity, since they tend to have the largest impact on disadvantaged children (Heckman and Masterov 2007). Early childhood is therefore a time when economic efficiency and equity do not have to be traded off, but instead can be enhanced together.

The Middle East and North Africa (MENA)[3] stands out as a region that until now has not invested sufficiently in ECD. For instance, early childhood education in MENA is seriously lagging behind other regions. Gross enrollment in pre-primary education stands at 27 percent as of 2011. The only region with a lower level of enrollment is sub-Saharan Africa at 18 percent (World Bank 2014). The MENA region, as well as having low enrollment in pre-primary education, also has the lowest public provision of pre-primary, with only 29 percent of pre-primary enrollment in public programs and 71 percent of pre-primary enrollment in private preschools and nurseries (UNESCO 2014). MENA countries and territories also have the world's highest rates of violent child discipline (UNICEF 2013) and the region has the lowest coverage of iodine, an important nutrient for brain development (UNICEF 2012). These deficits in ECD in MENA are limiting the potential of a generation of children, and making the region less productive and competitive in the long run. Another important reason to study ECD in MENA is the serious shortage of data and research on ECD in the region. A recent meta-analysis of the high-quality evidence on ECD (Nores and Barnett 2010) included 56 different studies from 23 countries from all regions of the world except MENA; there were no studies from the MENA region. Without quality research on the state of ECD, and contextualized information on the impact, costs, and benefits of ECD investments, it is difficult for policy makers to prioritize ECD investments.

In light of the above, the objective of the analysis provided in this book is to offer evidence on the state of ECD in MENA in order to allow policy makers to implement better policies and programs, as well as to target programs to those with the greatest need. The information will also allow countries to benchmark their progress and to learn from the experiences of other countries and regions.

Measuring Early Childhood Development

Healthy ECD occurs across a variety of different dimensions. As well as developing in terms of physical health and nutrition, it is important that children experience healthy cognitive development, healthy emotional development, and the development of healthy social relationships (see box 1.2).

Health and Nutrition

Early death represents the ultimate loss of all a child's development potential, and the compounded effects of malnutrition and diseases. This book examines

population" of healthy children, and calculates how far from the average of a healthy child of the same age and gender a child is. This is called a *height-for-age* "z-score," which is measured in standard deviations (SD) from the healthy reference population median. *Stunting*, that is, being more than two SD below the median height of a healthy reference child of the same age and gender, has been connected to decreased cognition, poorer school performance, decreased productivity later in life, and decreased income (Glewwe and Miguel 2008; Grantham-McGregor et al. 2007; Walker et al. 2011). Two other common measures are weight-for-age and weight-for-height, which are relative to the weight

cognitive development. ECCE and development activities contribute to children's early social and emotional development, their cognitive development, and early learning. ECCE and development activities can interact and complement each other in promoting children's development. Development outcomes can also interact; children who suffer from poor physical health will be at a disadvantage in terms of their capacity for early learning and cognitive development. The different indicators and outcomes in early childhood interact and

their control. This book quantifies the unequal opportunities children face in several ways. First, the extent of inequality in each country and territory and for each indicator is measured using a dissimilarity index (see appendix A for details). Then the contributions of different circumstances to inequality—such as household wealth or gender—are calculated using a Shapley decomposition (see appendix A for details). Lastly, to measure disparities in children's chances for healthy development, we construct a profile for a "least advantaged" and "most advantaged" child for each country and territory and calculate how different children's outcomes are based on differences in just a few circumstances (see appendix A for details).

Notes

1. There are different definitions of early childhood. This book focuses on early childhood development from before children are born (in utero) through age five. Around age six is when children in most MENA countries and territories enter school, which substantially changes their needs and development, as well as opportunities for interventions.
2. The diminished human resources are due to decreased cognitive ability and productivity from stunting.
3. In this book, we specifically examine Algeria, Djibouti, the Arab Republic of Egypt,

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