Despite an increased international interest in child development, representative data on child development is still remarkably scarce, particularly from Sub-Saharan Africa. For this project, researchers from Harvard University and the University of Zambia partnered with the Zambian Ministry of Education, the Examination Council of Zambia and UNICEF to develop and evaluate a comprehensive instrument for assessing Zambian children’s physical, socio-emotional, and cognitive development before and throughout their schooling careers. The project has thus far demonstrated that comprehensive child assessments are feasible. Longer-term follow-studies are planned to assess both the validity of the tool and to identify the most important domains of child development for schooling outcomes in a Sub-Saharan African context.

Policy Issue
Early childhood care and education remains underdeveloped in much of the developing world, though early educational experiences may have a significant impact on future learning. A large number of studies have investigated the impact of early childhood experiences on children’s developmental, health, and educational outcomes in developed countries, yet relatively little evidence is available on early childhood development in Sub-Saharan Africa. This research responds to this knowledge gap, aiming to improve understanding of child development in a Sub-Saharan Africa context.

Note: This study is not a randomized controlled trial.

Evaluation Context
In 2009, the Zambian Ministry of Education, the Examination Council of Zambia, UNICEF, the University of Zambia, and the Center on the Developing Child at Harvard University launched the Zambian Early Childhood Development Project (ZECDP), a collaborative effort to measure child development in general, and to measure the improvements in child development achievable through large health programs like Zambia’s nationwide Rollback Malaria program. In order to comprehensively measure children's development prior to school entry, the ZECDP created an instrument for assessing children's physical, socio-emotional, and cognitive development before and throughout their schooling careers—the first assessment tool of its kind in Zambia.
Details of the Intervention

Researchers and early childhood development stakeholders from the University of Zambia, the Ministry of Health, the Ministry of Education, and UNICEF developed and evaluated a comprehensive instrument for assessing Zambian children's physical, socio-emotional, and cognitive development before they enter the formal schooling system.

Completed in May 2010, the Zambian Child Assessment Test (ZamCAT) combines existing child development measures with newly developed items in order to provide a broad assessment of children of preschool age in the Zambian context. The ZamCAT features tasks and tests to measure seven fundamental domains of child development: fine motor skills, language (expressive and receptive), non-verbal reasoning, information processing, executive functioning, socio-emotional development and task orientation.

After two rounds of piloting, a first cohort of 1,686 children born in 2004, from randomly selected households across 73, was assessed between July and December 2010. In 2011, successful follow-up occurred with 1,250 of those children. IPA collected data during an additional follow-up in June-August 2012. The 2012 survey covered 945 children and their caregivers in 53 of the study clusters. Trained surveyors visited the 945 randomly selected children and their caregivers at home, and conducted a one-hour long skill assessment with children followed by an one-hour interview with their caregiver to capture children's socioeconomic and health background as well as children's exposure to early learning programs.

Results and Policy Lessons

Results from the ZECDP suggest a stark socioeconomic gradient in children's development prior to entering school. In the absence of national preschool programs, only a relatively small fraction of Zambia children has access to early childhood care and learning prior to entering school, further increasing developmental differences generated by limited nutrition and exposure to infectious disease in the first years of children's lives.

The research team plans to follow up with children from both the 2010 and 2012 cohort when they complete primary school to further validate the instrument and to identify the most critical aspects of child development in this context.

Read more about the Zambian Early Childhood Development Project in this UNICEF report.