

Early Childhood Development



The early years of a child's life set the stage for healthy development and positive long-term outcomes. Yet an estimated 200 million children worldwide do not get a healthy start because of poor nutrition and risk factors associated with poverty. Investing in early childhood development (ECD) maximizes opportunities for young children around the world to achieve their development potential, with far-reaching positive implications for current and future generations.

Areas of Expertise:

- Child development assessment
- Deworming
- Disability and inclusion
- ECD policy and systems
- Economics of early childhood
- Executive function
- Impact evaluation and M&E
- Maternal and child health
- Newborn screening
- Nutrition
- Parent and community engagement
- Pre-primary and early grade education
- School readiness
- Socio-emotional learning



RTI's Integrated Approach

The foundation of healthy brain development and success later in life begins in utero and continues throughout the early years of a child's life. Learning starts long before a child enters school, when numerous factors contribute to the development of cognitive and socio-emotional abilities, as well as emergent skills in reading and math. Approximately 90 percent of brain development occurs in the first five years, making both health and nutritional inputs, and cognitive stimulation, crucial elements of the development of cognition and socio-emotional skills. Regarding physical development, undernutrition leads to stunting, wasting, and deficiencies of essential micronutrients, while other chronic or intermittent health problems, including environmental stressors such as exposure to violence, can also have profound long-term developmental consequences.

RTI draws on expertise across the education, nutrition, and health sectors to design and implement integrated interventions that address the key facets of ECD. Our expertise in the education-related aspects of ECD informs interventions that help children build a solid cognitive foundation that supports success in early primary

ECD Critical Benchmarks and Milestones



Maternal health. Healthy development starts with the health of the mother. Utilizing an integrated approach, ensuring pregnant mothers are healthy will reap health benefits for newborns that last into adulthood.



Newborn screening. Even when born with no obvious sign of a congenital disorder, newborn babies can have health conditions that remain hidden in the first days of life.



General health. The basic building blocks of physical health include access to quality healthcare services, water and sanitation, and immunization.



Nutrition and growth monitoring. Proper nutrition prevents stunting and obesity and aids in brain development. Early assessment and identification of problems are important.



Home support. Responsive caregiving, protection from harm, and a safe environment are critical for healthy development.



Parent and community engagement. Parents and communities play an essential role in supporting children's healthy development and emotional well-being.



Disability and inclusion. Support for children with disabilities and ensuring inclusive education opportunities benefit all children.



School readiness and early education. Cognitive and socio-emotional skills are important for success, as is developmentally appropriate classroom practice.

education. Our expertise in global health and nutrition informs interventions that lay the foundation for healthy physical development. Our multi-faceted, cross-sectoral interventions support development throughout a child's lifecycle:

- **Newborn screening.** We conduct research to help inform policy and bring together partners who are invested in better health outcomes for children. Our experts conduct pilot studies for new conditions, examine the potential implications of whole genome sequencing, develop consent models, and research the costs and benefits of screening to inform decision making.
- **Maternal and child health.** We are committed to improving the physical, social, and emotional wellbeing of mothers and children. Our work includes strengthening government and community capacity to plan, manage, and deliver high-quality and equitable family planning, maternal, newborn, and child health services; designing and implementing community-based integrated healthcare services to strengthen and improve child survival, maternal health, and nutrition; strengthening interventions for integrated delivery of HIV/AIDS and reproductive health services; and improving health outcomes for orphans and vulnerable children.
- **Nutrition and growth monitoring.** We have extensive experience in nutrition research, evaluation, and assessments to drive sustainable solutions that reduce the dual burden of undernutrition and obesity around the world. Examples include conducting a mixed method evaluation in Nigeria on infant and young child feeding; an impact assessment on school feeding and education on literacy, nutrition, and health in Mozambique; and the evaluation of the US Supplemental Nutrition Assistance Program Education program. We integrate health and nutrition approaches to ensure access to diverse, high-quality diets at the individual, household, and community levels.
- **Pre-primary and early primary education.** We work with ministries of education around the world to develop teaching and learning materials and train teachers of young children. We promote developmentally appropriate practices while respecting local definitions of quality, and build capacity of policymakers and educators to effectively advocate for increased investment in pre-primary education. RTI has deep experience in early grade reading and math assessment and in improving instructional practice in early primary grades.

- **Executive function.** We conduct research to better understand individual differences in executive function, including how developmental changes in executive function during early childhood contribute to children's school readiness and risk for disruptive behavior disorders. We invest in rigorous, practical measures of executive function that can be applied in rural, low-income settings outside the US.
- **Child development assessment.** Our experts develop innovative assessment tools that tell us about children's development and early learning. We conduct rigorous, policy-relevant studies of early care and education programs, both nationally and internationally. We also study the cognitive abilities of young children both inside and outside of formal education settings, and across the transition from preschool to kindergarten. Our measurement tools help education leaders and policymakers evaluate programs, acquire and employ data for decision making, and improve education for the youngest learners and most vulnerable populations.

Project and Research Highlights

KENYA. The Tayari Programme—Getting Children Ready for School, Children's Investment Fund Foundation (2014–2018).

The goal of the Tayari program is to increase school readiness—including sufficient cognitive, physical, social, and emotional well-being—of pre-primary children in Kenya. With a goal of reaching 75,000 children in 1,500 early childhood centers in selected counties in Kenya, Tayari's activities include development of learning materials for pupils and teachers, teacher training and instructional support, and integrated technology solutions for tracking child development outcomes. Additionally, one component aims to reduce illness-related school absenteeism by promoting improved hygiene practices, water treatment, and health record-keeping in schools.

TANZANIA. USAID Tusome Pamoja, US Agency for International Development (USAID) (2016–2021). The USAID Tusome Pamoja Program, or Let's Read Together, provides sector support to the national 3Rs (reading, writing, and arithmetic) and the pre-primary and primary education program through intensive, targeted assistance in Zanzibar and four mainland regions. USAID Tusome Pamoja aims to improve 3Rs skills for roughly 1.4 million children through improved instructional practice, system strengthening, and community engagement. The program also supports pre-primary to grade 4 learning material development and adaptation.

Why Invest in Early Childhood Development?

Early childhood development (ECD) refers comprehensively to policies and programs for children from conception to eight years of age, to support the development of their full cognitive, emotional, social, and physical potential. The first 1,000 days are crucial to a child's development. If early health, nutritional, and early stimulation needs are met, and children are protected from harm, the child will be more likely to be healthy and productive later in childhood, adolescence, and adulthood. If, however, needs are not met, a lifetime of negative consequences can follow, also affecting subsequent generations.

Investing in ECD can lead to significant social and economic gains. Unsurprisingly, interventions that lead to positive outcomes in the first 1,000 days have very high returns on investment for society. For instance, according to Nobel laureate economist James Heckman, early interventions, such as providing proper nutrition for infants to support brain development, have a return on investment exponentially higher than later interventions, such as job training programs for adults.

Investment in ECD is also crucial to pursue and achieve the United Nations Sustainable Development Goals (SDGs). In 2015, for the first time, the SDGs made ECD a central theme. Millions of young children in developing countries are not meeting SDG targets related to ECD, including developmental milestones (indicator 4.2.1) and participating in organized learning before primary school (indicator 4.2.1). In addition to these education-related goals for ECD, nutrition, child survival, and child protection goals have also been established, illustrating the multi-sectoral nature of ECD. Recent estimates show that 39 percent of children in developing countries under the age of five are at risk of not reaching their development potential.

While the ECD sector is globally underdeveloped, the empirical evidence on successful interventions—and the astounding potential of comprehensive ECD interventions taken to scale—has triggered increased demand. RTI believes that increased investment in ECD is poised to drive significant improvements in development outcomes in the near future.

MADAGASCAR. Santénet2, USAID (2008–2013). RTI designed and implemented community-based integrated healthcare services to improve child survival, maternal health, and nutrition; reduce unintended pregnancy and improve healthy reproductive behavior; prevent and control infectious diseases; improve water and sanitation in target communes; and reduce transmission and impact of HIV/AIDS.

NEPAL. Health for Life, USAID (2012–2017). RTI is strengthening the Government of Nepal's capacity to plan, manage, and deliver high-quality and equitable family planning, maternal, newborn, and child services. Along with the systems work, RTI is improving the capacity of local health workers and community volunteers to provide higher quality maternal, child health, family planning, and nutrition services, and improving health-seeking behavior among local populations.

PHILIPPINES. Integrated Maternal, Neonatal, Child Health and Nutrition/Family Planning Regional Projects in Luzon (LuzonHealth), USAID (2013–2018). RTI is integrating and scaling up best practices and innovations to increase utilization of maternal and child health and nutrition services at the local level. This project uses a combination of strategies to improve supply of and strengthen demand for health services, as well as improve health policies through evidence-based interventions.

JORDAN. USAID Early Grade Reading and Math Project, USAID (2015–2019). RTI is improving the reading and math skills of children in grades K-3. The project supports development and distribution of improved learning material in every K-3 classroom in Jordan and improved curricula, teacher training, and community participation in reading and math education. The project also addresses issues of gender, disabilities, and refugees in learning reading and math skills.

GLOBAL. Measuring Early Learning Quality and Outcomes (MELQO). RTI is a member of a consortium developing the international MELQO instrument, which aims to measure early learning and development, as well as the quality of early learning environments. RTI has piloted the suite of tools in Tanzania and served as lead member of the MELQO technical advisory group.

GLOBAL. ENVISION Project, USAID (2011–2019). ENVISION aims to strengthen ministries of health and their national neglected tropical diseases (NTD) programs—in part by increasing the reach of mass treatment campaigns to all people at risk. RTI has helped USAID to shape their M&E system, designing the data collection systems used by all USAID-supported countries. Additionally, RTI developed and manages USAID's online NTD database, facilitating data analysis across countries and over time. We are also a TOMS® Giving Partner. Through this collaboration, RTI coordinated school-based deworming alongside the distribution of TOMS® shoes in Uganda.

UNITED STATES. Making Pre-K Count, Robin Hood Foundation/MDRC (2013–2016). This project aims to define which pre-kindergarten program characteristics drive positive long-term learning outcomes. RTI is studying the experience of low-income students in New York City, the largest school district in the US, which is in the process of rolling out universal pre-K for all who want to attend.

More Information

Katherine A. Merseth, Team Leader
Early Childhood Development
International Education
kmerseth@rti.org

RTI International
www.rti.org/idg
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