



EDI Fact Sheet

Using the Early Development Instrument (EDI) to Engage Communities around Actionable Planning and Improvement Activities

Every Child Deserves the Best Start in Life

It has now been well established that children's early experiences and exposures set the neurological and biological pathways that affect children's health and cognitive, language, and social-emotional development. In turn, this has profound effects on their successful transition to school, learning outcomes throughout school and better education, employment and health after school. When expanded to entire populations, these effects are major determinants of the quality of a country's human capital formation.

Communities Struggling to Demonstrate Positive Results for Children

In an effort to improve children's early developmental outcomes, a number of state and local early childhood initiatives are implementing a variety of programs for children and families and working to improve how early childhood service systems function. Many of these initiatives, however, are struggling to achieve and/or demonstrate positive results because they do not have effective community level outcome data that holistically measures the status of children's development. Without this information, early childhood initiatives cannot fully assess the impact of past investments, effectively engage in planning and improvement activities to inform future ones or provide compelling evidence to policymakers about the importance of sustaining resources dedicated to early childhood.

Where data on children have been collected in the past, a number of factors have limited its usefulness. First, data has typically not been available at the neighborhood level or comparable across neighborhoods, cities or states and therefore has not been relevant and actionable for local, state and national planning groups. Second, measures often have only looked at limited domains of development such as literacy or health rather than taking a whole child approach by holistically measuring children's physical, social, emotional, cognitive and language skills. A holistic measure at the community level is important to aligning efforts and fostering shared accountability for common outcomes across diverse constituencies. Though there are a number of valid measures of child development, they often involve time-consuming assessments to screen or diagnose limited aspects of development for individual children and therefore would not provide a holistic measure or be economically feasible to implement at a population level. Lastly, outcome data on children's development has often not resulted in improved conditions for children because there has not been a system of supports that links data to an evidence-based process for planning and improvement.

What is the Early Development Instrument (EDI)?

Canadian researchers have spearheaded the effort to measure children's early outcomes by developing the Early Development Instrument (EDI): A Population-based Measure for Communities. The EDI, which was developed by the Offord Centre for Child Studies at McMaster University in Canada, is a 104-item questionnaire filled out by kindergarten teachers on each child in their class in the spring of the school year. [1] The checklist requires approximately 20 minutes per child to complete and teachers are generally provided with either a stipend or release time for EDI-related activities. Information collected using the EDI is analyzed at a group level (e.g. for a census tract, neighborhood, city, etc) and is not used as a diagnostic tool for individual children. The EDI is unique in that it is a well-validated, population-based developmental checklist that has been found to be easy to use by kindergarten teachers.

What does the EDI Measure?

The EDI is used to produce holistic, population-based measures of childhood development during the kindergarten year. The EDI includes five key domain areas: 1) Physical health and well-being; 2) Social competence; 3) Emotional maturity; 4) Language and cognitive development; and 5) Communication skills and general knowledge. The EDI identifies the percentage of children who are vulnerable by developmental domain and compares this information by target community (e.g. by census tracts, neighborhoods, cities, school districts, etc.) The EDI is *not* designed to screen, identify or diagnose individual children. As a population-based tool, it is also *not* appropriate to use the EDI to evaluate individual programs, services, or curricula without the appropriate and controlled evaluation study design. The EDI is a population-based indicator of children's development that can be used to monitor populations of children over time, report on populations of children in different communities, predict how groups of children will do in elementary school and inform systems and policies concerning young children and their families.

How are the results of the EDI used in Communities?

The EDI is not just a measurement tool but a set of guidelines, toolkits and supports to carry out a system of measurement, mapping, community engagement and system improvement. The EDI measures the health and development of populations of children and then geographically maps the EDI results to other socio-demographic and community indicators so communities can reflect on where and why children are doing better and or worse in particular geographic and developmental areas and how system-level inputs relate to community level developmental outcomes. EDI maps help to "put children on the map" and are useful tools to engage communities in a data-driven process to inform and improve early childhood service systems.

What outcomes can be expected?

Evaluations in Canada and Australia have documented a number of important outcomes for communities using the EDI. For instance, using the EDI has resulted in: 1) Increased community awareness of the importance of early childhood development; 2) More collaborative relationships between stakeholders; 3) More informed planning processes; 4) Changes to early childhood strategies, policies and levels of funding; and 4) Strengthened grant applications. Case studies have revealed compelling evidence about reductions in vulnerability attributed by participants to the use of EDI data as a catalyst for change and the resulting program and system enhancements.[2]

Is the EDI a valid and reliable tool?

Researchers have found the EDI to be a psychometrically good indicator of child well-being during the kindergarten year.[3] These findings have been based on favorable assessments of the EDI's: Internal consistency; Parent-teacher agreements; Inter-rater reliability; and Concurrent test-criterion validity. The predictive validity has also been assessed using three direct tests, 3 years after the EDI was first implemented. The EDI was found to have high predictive validity from kindergarten to grade 1 (higher than direct tests) [4], and at least moderate predictive validity from kindergarten to third grade. In addition, low EDI scores consistently increase children's odds to fail in later grades. Though there is no perfect instrument, we believe there is no better tool, at this time, to develop population-based measures of children's development. With adequate validity and reliability, strong partnerships, a system of tools and supports and a willingness to continually improve the EDI with future pilots and research studies, we believe that all the necessary components are in place to move forward with expansion efforts in the US.

Who has used the EDI?

The EDI has been used widely in Canada and Australia. The Offord Centre for Child Studies at McMaster University, the Human Early Learning Partnership at the University of British Columbia, the Centre for Community Child Health at the Royal Children's Hospital in Melbourne, and the Telethon Institute for Child Health Research in Perth, Australia have all been instrumental in expanding the use of the EDI in their respective countries. In Australia, legislation was recently passed by the federal government to implement the EDI nationwide. Public Health Seattle & King

County in Washington has collected EDI data for several years using the Canadian version of the instrument. The EDI has also been used at sites in a number of other countries such as Chile, Mexico, Kosovo, Holland, New Zealand and Jamaica.

Recent Activities and How to Get Involved

The UCLA Center for Healthier Children, Families and Communities in collaboration with the Children and Families Commission of Orange County has piloted the first US version of the EDI for two consecutive years in Orange County California. In 2008, the pilot involved one school district and 23 teachers and in 2009, it involved four districts with 100 teachers. We expect that in 2010 and beyond, we will continue to expand the number of districts to reach population-level data for each community in Orange County. The EDI is also being implemented in two schools within the Los Angeles Unified School District with additional communities in Los Angeles and other California Counties exploring EDI implementation for 2010. There are 15-20 additional state and local organizations around the country that have expressed interest in also implementing the EDI beginning in 2010. Many of the local groups are Local United Ways that have been recruited through UCLA's partnership with the United Way of America, Success By 6 program.

In partnership with the UWA, the UCLA Center for Healthier Children has recently been awarded a grant from the Kellogg Foundation to pilot the EDI as part of a four component system building initiative called TECCS, *Transforming Early Childhood Community Systems* (TECCS). The goal of TECCS is to provide "prototype communities" with the tools and technical assistance to create more accountable and well-functioning supports for young children. The three-year Kellogg grant will support TECCS within target cities in Michigan, New Mexico and Mississippi.

Who to Contact?

We are interested in forming new partnerships and recruiting additional sites. We encourage those organizations interested in learning more about TECCS and the EDI to contact either:

- Lisa Stanley, EDI Project Director, UCLA Center for Healthier Children, Families and Communities, LisaStanley@mednet.ucla.edu, (310) 312-9083; or
- Carolyn Cox, Director, SB6 Field Support and Engagement, United Way of America, carolyn.cox@uwa.unitedway.org, (615) 612-0049.

Resources & References:

Offord Centre for Child Studies: <http://www.offordcentre.com/>

Human Early Learning Partnership (HELP): <http://www.earlylearning.ubc.ca/>

Centre for Community Child Health: http://www.rch.org.au/australianedi/index.cfm?doc_id=6210

1. Janus, M., et al., *The Early Development Instrument: A Population-based Measure for Communities*. 2007, A handbook on development, properties and use. Hamilton, ON: McMaster University Press.
2. Mort, J., *The Early Development Instrument (EDI) in British Columbia: Documenting Impact and Action in Schools, Communities and Early Childhood Development 2009*, Human Early Learning Partnership.
3. Janus, M. and D.R. Offord, *Development and psychometric properties of the Early Development Instrument (EDI): A measure of children's school readiness*. Canadian Journal of Behavioural Science, 2007. **39**(1): p. 1-22.
4. Forget-Dubois, N., Lemellin, JP., et al, *Predicting Early School Achievement with the EDI: A Longitudinal Population-Based Study*. Early Education and Development, 2007. **18**(3): p. 405-426.