

The Australian Early Development Index

A national measure of early
childhood development

MARY SAYERS

IN THE SUMMER issue of *Professional Voice*, Kathy Walker in her article "Building Bridges between Preschool and School" wrote: "We are now in exciting times where primary and preschool education have finally placed themselves together on the map as moving in the same direction and needing a greater level of shared understanding." This was written in the context of community and government initiatives that recognised the importance of early childhood education and experiences in shaping child development.

One major initiative in increasing understanding of child development from a population or community perspective is the Australian Early Development Index (AEDI). The AEDI is a community-based measure of young children's development, designed to provide information about how children in Australia are developing during the crucial early years. Information obtained through the index will help communities, schools and governments to plan for services, resources and supports that young children and their families need to give children the best possible start in life. It is now known that investing resources and energy into children's early years, when their brains are developing rapidly, will bring life-long benefits to them and to the whole community.

DEVELOPING THE AEDI

The AEDI is based on the scores from a teacher-completed checklist consisting of over 100 questions in the five developmental domains of physical health and wellbeing, social competence, emotional maturity, language and cognitive skills, and communication skills and general knowledge. These domains are closely linked to predictors of good adult health, education and social outcomes.

The AEDI checklist is derived from the Canadian Early Development Instrument (EDI), which was developed by the Offord Centre for Child Studies, McMaster University, Ontario. The EDI has been completed for more than 520,000 Canadian children, and has been extensively tested and compared with direct assessment results and parent reports. The index was adapted for Australia by the Centre for Community Child Health at The Royal Children's Hospital Melbourne in partnership with the Telethon Institute for Child Health Research, Perth. After preliminary testing in Australia, the Canadian EDI was modified for use in Australia, and then pilot-tested in 2004. A national technical advisory group consisting of experts in child development, researchers and government policy makers advised on the adaptation of the AEDI checklist. This group also endorsed the decision to use web-based data entry, developed for the AEDI by the Australian Council for Educational Research (ACER). This system includes secure data entry, online help, and administration that enables rapid downloading of completed data for cleaning and analysis by the AEDI National Support Centre.

The use of the index is subject to ongoing research and development. Data from 750 children in the 4-year-old cohort of the Longitudinal Study of Australian Children (LSAC) have been used in the AEDI/LSAC Validation Study, confirming the validity of the AEDI as a population level indicator of children's developmental status. From 2007 to 2010 the capacity of the AEDI to predict children's health, social and educational outcomes will be investigated through the AEDI/LSAC Predictive Study.

The AEDI has been adapted for Indigenous children as part of the Indigenous

TABLE 1: THE AEDI DOMAINS

Physical health and wellbeing	Social competence	Emotional maturity	Language and cognitive development	Communication skills and general knowledge
<ul style="list-style-type: none"> • Physical readiness for the day • Physical independence • Gross and fine motor skills 	<ul style="list-style-type: none"> • Overall social competence • Responsibility and respect • Approaches to learning • Readiness to explore new things 	<ul style="list-style-type: none"> • Prosocial and helping behaviour • Anxious and fearful behaviour • Aggressive behaviour • Hyperactivity and inattention 	<ul style="list-style-type: none"> • Basic literacy • Interest in literacy and memory • Advanced literacy • Basic numeracy 	<ul style="list-style-type: none"> • Communication skills and general knowledge

Australian Early Development Index (I-AEDI) Project being undertaken at Telethon Institute for Child Health Research, through its Kulunga Research Network and the Centre for Developmental Health at Curtin University; the project is jointly funded by the Commonwealth Government and Shell Australia. The AEDI Language Background Other than English (LBOTE) Study is also being conducted by the Centre for Community Child Health and will evaluate the AEDI implementation process, results and data usage for culturally and linguistically diverse populations. Recommendations from these two important studies will inform national AEDI rollout.

IMPLEMENTING THE AEDI

The AEDI was trialled between 2004 and 2007 in 60 geographic areas of Australia, in all states and territories except the Northern Territory. Since 2004, 2,157 teachers from 1,012 schools (both government and non-government) have completed the AEDI on 37,420 children in their first year of full-time school. Following the successful trial, and in recognition of the need for all communities to have data on early childhood development, the Commonwealth Government Department of Education, Employment and Workplace Relations is funding an Australia-wide implementation of AEDI, commencing in 2009. Funding from the Commonwealth covers the AEDI National Support Centre based at the Centre for Community Child Health, employment of state and territory AEDI co-ordinators, as well as teacher training and school funding for teacher relief time to enable the AEDI checklists to be completed.

As children start schools at different ages, the checklist is applied to children in their first year of full-time school, regardless of age. This will enable national consistency. Teachers use the simple web-based data entry system to complete the AEDI checklist for each eligible child in their class, based on their knowledge and observations of the child. The names of individual children are not recorded in the data sent to the AEDI National Support Centre, so individual children cannot be identified in the overall data. The AEDI does not score individual children, nor can it be used to reflect the performance of the school or the quality of teaching. Findings are reported at the population level, ie for whole communities, neighbourhoods and schools.

THE AEDI RESULTS AND THEIR IMPACT ON COMMUNITIES

Results from the first four years of AEDI implementation showed that 25 per cent of the children surveyed are "developmentally vulnerable" in at least one domain of the AEDI, and that 12.6 per cent of children are vulnerable in two or more areas. Those children vulnerable in two or more domains would be considered at significant developmental risk. In some suburbs as many as 63.5 per cent of children are "developmentally vulnerable" on one or more domain. However most children were performing well in one or more areas.

The results to date have provided communities with a basis for reviewing the services, supports and environments that influence children in their first five years of life. The AEDI has helped communities raise awareness of the importance of early childhood development and provided them with information which assisted in devel-

oping strategic plans and initiatives to improve outcomes for children. By providing a common language for the community to discuss the needs of young children, the index has facilitated improved collaboration between agencies involved with young children and their families. AEDI results provide an evidence base for the development of community initiatives in various fields including parent support, family and pre-school literacy and nutrition, as well as providing evidence to support grant or funding applications. Knowledge of areas of strength and vulnerability enables communities to understand how well they are currently supporting early childhood development.

The AEDI has given communities a tool to help assess current initiatives or programs and what may need to change in their community to optimise the social, physical, emotional, and cognitive development of young children. AEDI mapping can promote other community mapping exercises, for example program and resource location. Combining the AEDI results with mapping of existing resources such as parenting and children's services and public transport has helped many communities to assess priorities and access funding for their region.

BENEFITS FOR SCHOOLS AND TEACHERS

Teachers who have already completed the AEDI have found the AEDI easy to complete, beneficial to their work in the classroom and a good use of their time. The AEDI also provides teachers with the opportunity to reflect on all aspects of children's development early in the first year of school.

AEDI results facilitate the development of partnerships with community early childhood agencies such as preschools and childcare services to explore new ways of working together to benefit children. AEDI also provides information for schools and the community to look ahead to the supports that need to be developed to enhance children's capacity to be successful once they reach school.

LOOKING TO THE FUTURE

The national implementation of the AEDI will provide a picture of early childhood development across Australia that will enable comparisons to be made about children's health, development and wellbeing in different communities or sub-populations at a particular time. It will also provide a baseline for communities, policy makers and governments to measure their progress in addressing identified needs in early childhood development over time. Communities throughout Australia will be able to use the AEDI results to determine what developmental areas require particular attention, to better focus further support and intervention measures for children in their first five years of life to ensure the best possible outcomes for all children Australia-wide.

FURTHER INFORMATION CAN BE OBTAINED FROM:

The AEDI National Support Centre

Centre for Community Child Health, Royal Children's Hospital, Flemington Road,
Parkville, Vic 3052.

Ph: 1300 558 422 Fax: (03) 9345 5900

E-mail: australianedi@rch.org.au

Web: www.australianedi.org.au

Victorian State AEDI Coordinator

Cathie Nolan, Department of Education and Early Childhood Development

Ph: (03) 9096 8417

E-mail: Cathie.Nolan@dhs.vic.gov.au

