

Measuring Early Childhood Development in Regina



Understanding the Early Years
UEY REGINA

Special points of interest:

- Research shows that the most critical period in human development occurs from birth to age 6.
- The Early Development Instrument (EDI) measures readiness to learn at school as an outcome of early childhood development
- EDI measurements apply to groups of children, rather than individual children.
- The EDI does not measure school performance or teacher ability.
- Results provide valuable information about supporting children's early development.
- EDI data are contributing to a community-driven action plan by spring 2010

Research Findings Help Prepare Children

The results of a study released by the Regina Qu'Appelle Health Region, the Regina Regional Intersectoral Committee, the United Way of Regina, and the Regina and Area Early Childhood Network show children in Regina behind their Canadian peers in early development.

Children were assessed using the Early Development Instrument (EDI), developed at McMaster University's Offord Centre for Child Studies. The EDI provides a holistic measure of children's overall development from birth until kindergarten entry. Kindergarten teachers complete the EDI, and are instructed to respond based on children's abilities near the beginning of the school year. Therefore, the EDI measures children's cumulative development from birth until children begin kindergarten. The tool provides group-level measurements, but is not designed to diagnose, screen, or assess individual children. The EDI does not measure school per-

formance or teacher ability.

During the 2008-09 school year, all kindergarten teachers in both Regina school systems completed the 104-core-item questionnaire on each of their students. The questionnaire allows teachers the opportunity to note demographic information and before-school experiences. In total, the EDI was administered on 1906 kindergarten-age children in Regina.

The EDI assesses early childhood development (ECD) and its impact on how ready for school children are. Being "ready for school" includes the child's ability to meet the various demands of learning in a classroom and school environment, the ability to benefit from the educational activities at school, as well as the ability to interact with and get along with others, including teachers and other children.

Results show Regina kindergarten-age children (without diagnosed special needs) signifi-



The Early Development Instrument (EDI) measures the early childhood development of kindergarten-age children.

cantly behind their Canadian peers.

While the results are not cause for celebration, the project's partners are already using the study's results to improve outcomes of young children.

This marks the first time EDI data have been available for Regina, providing a baseline for ongoing monitoring. The data inform us of the strengths and needs in our community, providing valuable information to tailor early learning, and to improve community supports for young children and their families.

Early Development Instrument: Key Findings

The Early Development Instrument (EDI) measures early childhood development from birth until children enter kindergarten. The EDI scores of a community's children are then compared to the Canadian sample, with scores grouped according to percentiles to allow for comparisons between populations.

Based on where children's scores fall, children are considered "on track" or "not on track" in each major area of early childhood development.

Based on their score, children fall within one of the following categories (see Figure 1) in each of the five major areas of early childhood development (see Figure 2):

Fig. 1 — Percentile Groupings

On Track	Very Ready (Scored > 75th percentile)
	Ready (Scored within 25th–75th percentile)
Not on Track	At Risk (Scored within 10th–25th percentile)
	Vulnerable (Scored < 10th percentile)

Fig. 2 — Major Areas of Development

Major Areas	Description
Physical Health & Well-Being	Child's physical readiness for the school day, physical independence, and gross and fine motor skills
Social Competence	Child's overall social competence, responsibility and respect, approaches to learning, and their readiness to explore new things
Emotional Maturity	Child's prosocial and helping behaviour, anxious and fearful behaviour, aggressive behaviour, and
Language & Cognitive Development	Child's basic and advanced literacy skills, interest in literacy and numeracy, memory, and basic numeracy skills
Communication Skills & General Knowledge	Child's ability to communicate needs and ideas effectively, and general knowledge about the surrounding world

Early Development Instrument: Key Findings



The EDI examines children's earliest development—that which occurs from birth until children begin kindergarten.

“One-third of Regina’s children are behind in at least one aspect of their development at kindergarten entry.”



Children benefit from early environments that are stable, supportive, interactive, and stimulating.

The results of the 2008/2009 EDI data collection for non-special needs kindergarten children in Regina (n=1825), in comparison to their Canadian peers (n=176,621) include the following findings:

As a whole, children in Regina scored significantly lower than their Canadian peers in all 5 major areas of development (see Fig. 3).

Fig. 3: Mean Scores by Major Area (0–10 scale)

Major Area	Regina	Canada
Physical Health & Well-Being	8.5	8.8
Social Competence	8.0	8.3
Emotional Maturity	7.9	8.0
Language & Cognitive Development	7.6	8.4
Communication & General Knowledge	7.4	7.7

The greatest needs were evident in children’s Physical Health & Well-Being and Language & Cognitive Development (see Fig 4).

Within these areas, the study identified basic literacy, advanced literacy, basic numeracy, and gross and fine motor skills as specific areas of greatest need.

Approximately 33.6% of Regina’s children are behind in at least one aspect of their development at kindergarten entry, in comparison to their Canadian peers.

One in three Regina children scored among the lowest 10% of scores in one or more of the major areas of development, in comparison to one in four Canadian children. Universal programs are recommended to improve outcomes of children vulnerable in one major area of development.

Approximately 19.8% of children in Regina are behind in at least two aspects of their development at kindergarten entry, in comparison to 13.6% of their Canadian peers.

One in five Regina children scored among the lowest 10% of scores in two or more of the major areas of development, in comparison to one in seven Canadian children. Targeted programs are recommended to improve outcomes for children vulnerable in two major areas of development.

Approximately 7.6% of non-special needs kindergarten children in Regina scored positive on the Multiple Challenge Index.

Children with multiple challenges experience significant delays in a broad spectrum of development, scoring low in three out of five major areas of

development. Regina’s rate of multiple challenges is nearly double that found in the Canadian cohort. Research points to clinical interventions for children who experience multiple challenges.

Vulnerable children were found throughout Regina, and throughout all demographic groups.

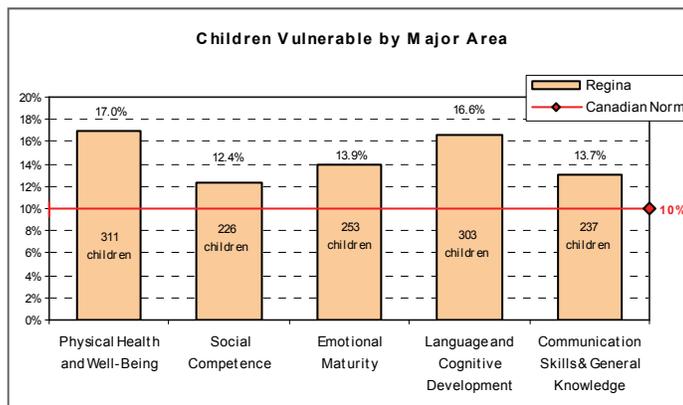
While some areas and groups had higher rates of vulnerability, vulnerable children were found throughout Regina, and throughout demographic groups.

EDI data provide a considerable basis from which to begin planning to meet the needs of young children, and from which to build on existing strengths in our community. Researchers caution that a thorough understanding of the study are critical to using the data effectively. For instance, while Physical Health & Well-Being and Language & Cognitive Development stand out as areas in which the greatest proportion of children are vulnerable, focusing on the these areas to the exclusion of other areas may neglect children’s underlying issues. Ensuring that children’s social and emotional needs are met can be key to improving school performance, as well as children’s ability to get along well with others.

While the EDI can predict elementary school achievement for groups, children’s fates are certainly not sealed by the time they reach kindergarten. However, the longer needs go unmet or undiagnosed, research clearly demonstrates that it becomes more difficult and requires more resources for children to get back on track.

The study’s results point to a combination of enhanced universal, targeted, and clinical interventions beginning at birth to close the gap between children in their earliest years.

Fig 4 Most Vulnerable Population



Early Childhood Sets the Stage for Lifelong Health, Well-being

The science on early childhood development is clear: the first six years of life are the most critical period in human development. During this period, children develop the foundation of basic skills, knowledge, and abilities that they will build upon for life. This critical period has a lifelong impact on our health, learning, and overall well-being.

Human beings are born with very similar levels of development. Yet, by the time children reach kindergarten significant differences in children's development have often emerged. These differences are largely based on early environments and experiences, which set a 'developmental trajectory' for each child. Once set, children's

trajectories tend to continue into the future, unless significant changes occur in terms of children's experiences and environment.

By ensuring more equitable early learning opportunities beginning at birth, we can help reduce the occurrence of developmental challenges, and reduce pressure on our education, health, and social systems. Considerable research shows that ensuring quality early learning environments for our youngest citizens, coupled with early monitoring and interventions is the most effective way to maximize the opportunities early childhood provides.

Parents and guardians are the most consistent influence on

young children's early development. It is, therefore, crucial to support parents in their important and challenging roles. A snapshot of the research shows that the following factors greatly influence healthy early childhood development:

- Early exposure to language and interaction;
- Social inclusion and healthy learning environments;
- Opportunities for play and exploration.

When combined with local data, this considerable body of scientific evidence provides a solid foundation for supporting children, parents, caregivers, and early educators to ensure that all children arrive at school ready to learn and thrive.



Early learning begins at birth.

Partners Working Together on Community-Driven Plan for Children

A primary outcome of the Regina UEY Project is the development of a community-driven action plan, informed by science, local data collection and broad community involvement. The community action plan is due for release in the spring of 2010. Planning is underway with local results already contributing to better informed planning and program development.

UEY Regina's community action plan will be child-centred and will consider the interdependencies between parenting, family circumstances, neighbourhood context, cohesion and conditions, and the state and quality of early childhood development.

There is widespread community involvement in UEY Regina's research and planning project. Some of the key partners include:

- Parents

- Regina and Area Early Childhood Network
- United Way of Regina;
- Regina Catholic Schools;
- Regina Public Schools;
- City of Regina Community Associations;
- Regina Regional Intersectoral Committee; and
- Regina Qu'Appelle Health Region.

This broad and informed community involvement is key to the development of a comprehensive action plan that involves all sectors of our community.

Of note, the Regina and Area Early Childhood Network is acting as one of the key planning tables for the Regina UEY project. The Regina and Area Early Childhood Network acts as an inclusive-minded network that supports, informs and plans

together. A great deal of cooperation, networking and collaboration takes place amongst the diverse set of professionals and agencies that participate in the Network. Together at the planning table, members are examining the UEY Regina study results, reflecting on current practices and considering options to strengthen and enhance support to families with young children.

Community meetings will be held in local schools, neighbourhood centres, and libraries in October, November and December 2009. The project will present the results of the study and will ask community members to offer their reflection, ideas and concerns. For more information regarding dates, times and locations of upcoming meetings, please visit the UEY Regina Web site at www.reginakids.ca or call (306) 766-6795.

"The science is clear—the first six years of life are the most critical period in human development."



The EDI results will contribute to a community-driven action plan for families with young children in Regina.



Understanding the Early Years

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Understanding the Early Years (UEY) Regina focuses on community capacity building for families with young children in Regina, Saskatchewan. For more information about Regina's UEY project, please contact Michael Quennell, Project Coordinator at 766-6795 or Michael.Quennell@rqhealth.ca, or visit our Web site at www.reginakids.ca.

Understanding the Early Years is funded by Human Resources and Skills Development Canada. For more information, visit www.hrsdc.gc.ca. The views expressed in this document are the authors' and do not necessarily reflect the opinion of Human Resources and Skills Development Canada or of the Federal Government. All computations presented here were prepared by the authors.

EDI results on the Web:
www.reginakids.ca

The first 6 years of my life will affect my learning, behaviour and health throughout my life.

Learn more at www.reginakids.ca

The Understanding the Early Years Initiative is funded by Human Resources and Skills Development Canada. Further information, visit www.hrsdc.gc.ca

What is Understanding the Early Years (UEY)?

Understanding the Early Years (UEY) is a national initiative that enables members of communities across Canada to better understand the needs of their young children and families so that they can determine the best programs and services to meet those needs.

The focus of UEY is community capacity building using local information on young children. The broad objectives of UEY are:

- To strengthen the capacity of communities to use quality local information to help them make decisions to enhance children's lives; and

- To enable community members to work together to address the needs of children.

The Initiative provides members of participating communities with quality information on local programs and resources to support young children and their families; neighbourhood-based census data; data on the early development of kindergarten-age children; and interviews with parents and guardians on family and community factors that influence children's development.

Parents, teachers, key decision-makers, and others interested in the well-being of children in each community then work

together to address issues identified by the information.

The availability of EDI data is an important first step toward improving child outcomes in Regina. Combined with local information on programs and resources; socio-economic data; parent interviews; and direct assessments of children, UEY and its partners will create a Community Action Plan to address issues identified in Regina.

The UEY Regina project is sponsored by the Regina Qu'Appelle Health Region, with the support of the Regina Regional Intersectoral Committee, and the United Way of Regina.



UEY Regina's research focuses on families with children ages 6 and under.