



## Why early childhood development matters

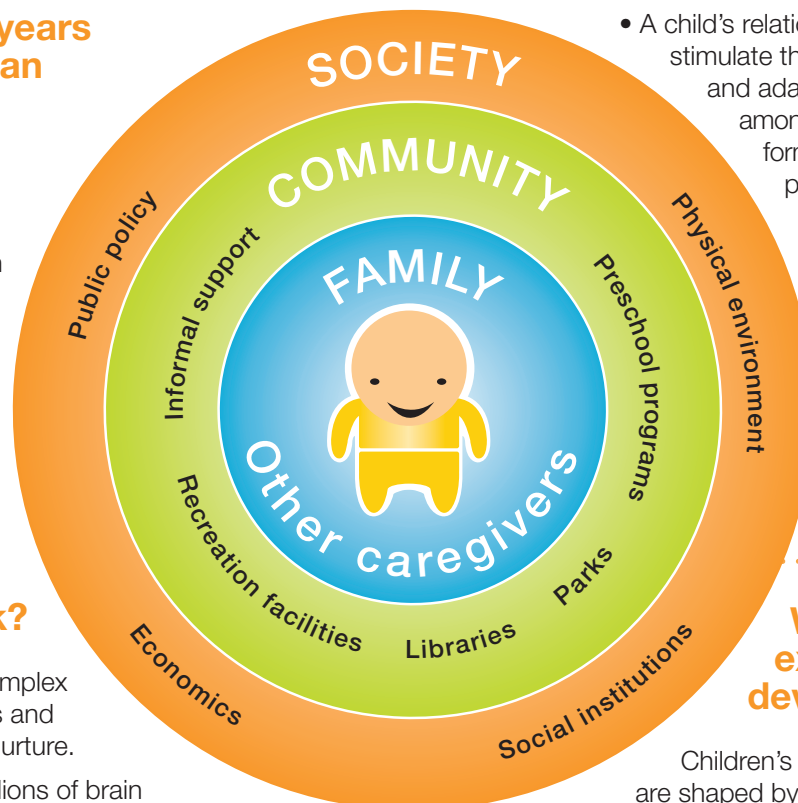
Early childhood development sets the course for a child's future and largely determines how well children will do in school, their physical and mental health, behaviour, relationships and general well-being. A child's early life experiences shape the structure of the brain and lay the foundation for later emotional, social, intellectual and physical development. Early childhood presents great opportunities for influencing children's lives positively as well as risks for influencing their development negatively.

### Why are the early years so critical for human development?

We know a great deal more about how the human brain develops, thanks to new scientific research. The brain grows rapidly between birth and age three. The connections that are formed in the brain during the early years build a foundation for later, more complex human development.

### How does brain development work?

- Brain development is a complex interaction between genes and environment, nature and nurture.
- Every child is born with billions of brain cells. These cells contain genes, which make up the blueprint for brain development. How this blueprint unfolds largely depends on a child's early life experiences.



- A child's relationships and environment stimulate the brain. As the brain responds and adapts, connections are made among brain cells. These connections form networks that control different physical, behavioural and cognitive functions, including hearing, vision, language, learning and memory.
- Repeated experiences, positive or negative, strengthen these connections, and establish the pattern for future development.

### What kinds of early experiences affect development?

Children's early life experiences are shaped by their physical and social environments, and play a significant role in children's brain development.

## When is brain development complete?

Brain development continues throughout life, but the brain is most malleable and open to change during early childhood. Brain connections that control basic functions, including cognition and behaviour, are established during the early years. Once these connections are formed, they can be more difficult to change.

## Why is early childhood development important?

- Most young children in Alberta and Canada are developing well; however, approximately 27 per cent in Alberta — and 25 per cent in Canada — are experiencing difficulties by the time they enter kindergarten.

- One out of every four kindergarten-age children struggles with basic tasks such as holding a crayon, following instructions and getting along with others.
- A greater percentage of children who grow up in poverty and with other social disadvantages are vulnerable. However, the greatest number of vulnerable children comes from middle-income homes, because of the size of the middle-class in Canada (75 per cent of all families).
- Getting children off to the right start reduces juvenile delinquency, addictions, school dropout rates, learning disabilities, obesity and many other problems.
- Investing in the early years pays off. According to one estimate, every \$1 invested in the early years saves \$3 in spending for school-aged children and \$8 for adult education.



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