

Handouts

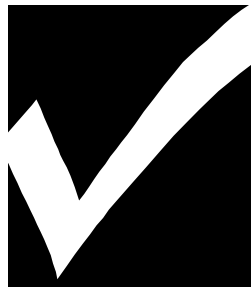


Table of Contents

Canadian Social Policy	2
How do scientists study infant brains?	3
Delivering and Raising a Healthy Child	4
Understanding Brain Connections	5
UN Convention on the Rights of the Child	6
A Framework of Human Development	7
Benefits Of Early Childhood Programs	8
Community Family Resource Centre	9
Rates of Return of Capital Investment in ECD	10

Canadian Social Policy

Canadian society values equality of opportunity. It also recognizes that families need support so that their children can access these opportunities. These values influence government social policy and investments in early childhood development.

- ❑ In 1989 the federal government explicitly called for the end of child poverty by launching *Campaign 2000*. The focus was increasing income assistance and family support:
 - √ Introduction of National Child Benefit (NCB) — a federal tax benefit for low income families and reinvestments in services for children in low income families.
 - √ Canada Health and Social Transfer (CHST) — cash payments and tax transfers made to the provinces and territories for health care, post-secondary education, social assistance and social services.
- ❑ In 1997 the National Children's Agenda (NCA) was announced to help improve the health and well-being of children and to ensure that every child could enter school ready to learn. This included:
 - √ Canada Prenatal Nutrition Program (CPNP) — programs to improve birth weights, improve mother and infant health and encourage breastfeeding.
 - √ Community Action Plan for Children (CAPC) — interventions to help improve the health and well-being of children (age 0 to 6) by providing additional support to families.
 - √ In 1997 Human Resources Development Canada launched Understanding the Early Years (UEY) — an initiative to use research evidence to increase knowledge about children's development, monitor our progress as a society in improving the learning outcomes of children and to build community capacity. There are 13 communities involved in UEY across the country. Abbotsford, BC is one of them.
 - √ In 2000 the government extends parental employment leave and employment insurance provision to one year.

How do scientists study infant brains?

Researchers use Positron Emission Tomography (PET) or Magnetic Resonance Imaging (MRI) technology to investigate brain activity. However, these technologies are too invasive for babies. Other ways have been found to study infant brain activity:

- EEG (electroencephalography) and MEG (magnetoencephalography) – tracking electrical and magnetic activity
- Neuropsychological tools – behavioural changes are observed in children who are given specific tasks related to specific brain function

Brain Vocabulary

Cell death/pruning – the process that causes unused synapse to die

Cell proliferation – creation of new brain cells

Cell migration – movement of new brain cells to appropriate places in the brain

Cortisol – a hormone secreted by the adrenal gland, which circulates through to the brain and regulates behaviour. It increases during times of stress

Myelin – the insulation around the nerves (axons). This allows the nerves to conduct electrical impulses from one brain area to another quickly

Myelination – laying down of the myelin on the nerves of the brain. Most myelination happens after birth

Neurons – brain cells that store and send information

Neurogenesis – process of making new brain cells or neurons

Neurotransmitter – a chemical that carries signals between brain cells. Serotonin and dopamine are familiar neurotransmitters

Synapse – The site between neurons through which nerve impulses travel

Synaptogenesis – the formation of synapse connections between brain cells

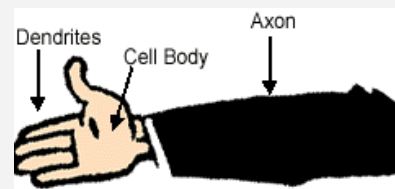
A Simple Brain Cell

You can use your hand and arm to represent a brain cell.

Dendrite – branches of the neuron that receive information from other neurons and transmit it.

Cell body/neuron – stores the biochemical engine of the neuron and determines whether the neuron should transmit messages.

Axon – transmits messages away from the cell. Are often coated with myelin sheath.



Delivering and Raising a Healthy Child

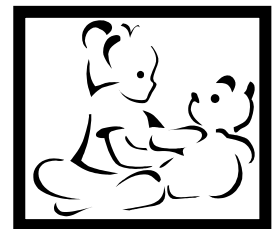
When pregnant

- Eat healthy well-balanced meals
- Take daily exercise
- Have regular medical and dental check-ups and take prenatal vitamins
- Use good hygiene
- Avoid co-workers and friends who are sick
- Don't share food or drinks with anyone
- If you are stressed, seek ways to calm yourself
- Don't take drugs unless prescribed for you
- Don't smoke or drink
- Learn about child development
- Seek support from family, friends and community



After the birth

- Breastfeed; breast milk is considered to be a "perfect food" for babies
- Provide nutritious well-balanced meals for yourself and your child
- Provide basic health care (immunization, check-ups, dental care, etc.)
- Provide safe environments (clean water, safe food, car & bike safety)
- Provide plenty of love (attending, listening, looking, acknowledging)
- Provide lots of language (talk, sing, read)
- Provide appropriate play
- Provide appropriate guidance and teaching
- If you think your child is having developmental problems, seek early screening
- Learn about child development
- Seek support from family, friends and community



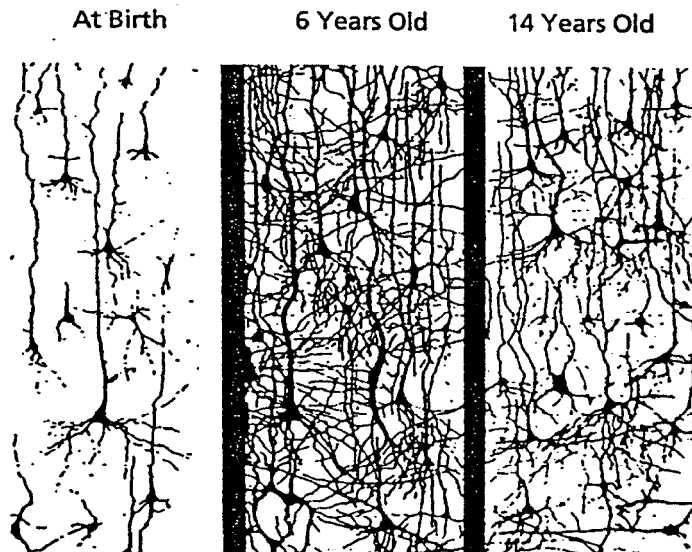
Understanding Brain Connections

The formation of synapses is very rapid during the first few years of life. The child's brain becomes densely packed with connections that correspond with their experiences. The process of forming new synapses continues throughout life, but is most rapid during early childhood.

At two years of age, the child's brain has about as many synapses as an adult's brain. By the time the child is three, until they are about 10-years-old, their brain has approximately twice as many synapses as an adult's brain.

The experiences we have early in life influence how our brains become 'wired' and this wiring lasts throughout our lives. These experiences may be good or bad. An environment that is supportive and caring and rich in stimulation promotes healthy brain development. But an environment that is chaotic, abusive or lacking in stimulation can be detrimental to early brain development.

Beginning in adolescence, (and continuing throughout adulthood) the brain starts to prune (get rid of) more synapses than it produces. The connections that are not used or reinforced are lost. This helps to make the brain more efficient.



UN Convention on the Rights of the Child

The United Nations Convention on the Rights of the Child (CRC) spells out the full range of human rights of children worldwide—civil, political, economic, social and cultural. Signatory governments commit to:

- Recognizing children’s fundamental human dignity.
- Ensuring their well-being and healthy development

The CRC describes three categories of rights:

- Rights of provision, for example, the right to adequate education and health care.
- Rights of protection, for example, the right to be protected from abuse and neglect.
- Rights of participation, for example the right to be heard in matters affecting the child.

The Convention was adopted unanimously by the UN General Assembly on November 20, 1989. One hundred and ninety-one countries have signed it, making it the most ratified of any human rights treaty. The United States and Somalia are the only countries that have not ratified the CRC.

Four principles serve to guide interpretation of the CRC

Non-discrimination and equality of opportunity. No child should be discriminated against on the grounds of his or her race, colour, gender, language or religion; national, social or ethnic origin; political or other opinion; caste, property, disability or birth status.

The best interests of the child. The CRC requires that the best interests of the child be a primary consideration in all decisions that affect children. This must be a key consideration in decisions by courts, legislative bodies and public and private social-welfare institutions.

Life, survival and development. The right to survival and development should be ensured “to the maximum extent possible.” This means ensuring physical, mental and emotional health, and intellectual, social and cultural development.

Participation. Children have the right to be heard and have meaningful participation in matters affecting them, including judicial and administrative procedures.

Responsibilities

The convention holds governments responsible for supporting families and communities, and ensuring the rights of children are provided for in laws, policies and programs. Parents are responsible for providing for the rights and best interests of their children. Children are responsible for respecting others’ rights. Society is responsible for respecting the rights of children and for supporting programs that provide for children’s rights.

The CRC and Our Laws

By ratifying the Convention, Canada agreed to review its

laws, public policies and social programs as they relate to children. Like other signatory countries, Canada has to ensure that the minimum standards in the CRC are met over time. As well, since the Convention is part of international law, Canadian courts have begun to consider the CRC when making decisions that affect children.

Monitoring

Each signatory government makes a first report to the Committee on the Rights of the Child within two years of ratification, and reports every five years after that. The committee can make recommendations to governments on their policies and practices, but has no powers of enforcement.

The CRC and Child Care

Child care groups have identified several of the convention’s 54 articles as either implying or stating a right to child care:

- Article 18 recognizes that children whose parents work have the right to child care services and facilities; and parents have the right to “assistance in the performance of their child-rearing responsibilities.” Article 18 also notes that States Parties “shall ensure the development of institutions, facilities and services for the care of children.”
- Article 2 contains the principle of non-discrimination, thus giving all children the right to benefit from child care services.
- Article 23 spells out the rights of children with disabilities: the right to a full and decent life; education; training; health care and rehabilitation services; recreation opportunities; and preparation for employment. Therefore, children with special needs should have access to appropriate child care services.

There are other elements of the convention that relate to child care:

- Article 3 sets out the best interests of the child as the primary consideration in all actions concerning children. Child care programs based on this principle contribute to children’s healthy development—a key principle of the Convention. Article 3 also notes that “States Parties shall ensure that the institutions, services and facilities responsible for the care and protection of children shall conform with the standards established by competent authorities, particularly in the areas of safety, health, in the number and suitability of their staff, as well as competent supervision.”
- Article 31 recognizes the right of children to rest, leisure, play and recreation, and to participate in cultural life and the arts. Quality child care provides these opportunities to children.

Adapted from: *The United Nations Convention on the Rights of the Child. Advancing an Early Childhood Development Agenda: Leadership.* Canadian Child Care Federation, www.cccf-fcsqe.ca. Used with permission.

A Framework of Human Development

The following framework is adapted from the work of Jacques van der Gaag.¹ It is useful for zeroing in on the overall benefits to children and society when investments are made in young children and their development.

This same framework has been used as a lens for this presentation. You may also want to use it when thinking about how you can promote healthy environments for children in your own community.

Benefits of optimum development	Promoting Health	Nurturing Educational Achievement	Building Social Capital	Building Opportunities for Equality
For children (immediate)	Have lower rates of disease and mortality, less stunting and higher birth weights, less malnutrition	Have improved reasoning skills, higher intelligence, better eye-hand coordination, less school drop out	Higher self-concept, more cooperative, better socially adjusted	Reduction of disadvantages of poverty, improved health, improved social and cognitive development
For adults (long term)	Better cognitive development and fewer diseases	More productive and successful	Higher self-esteem, more social competence, higher motivation	Access to better opportunities, education and health care
For society	Higher productivity, higher incomes	More social cohesion, less poverty and crime, lower fertility rates, improved democratic processes, higher economic growth, easier adoption of new technologies	Enhanced social values	Reduced poverty and crime, better societal health, higher and more sustainable economic growth

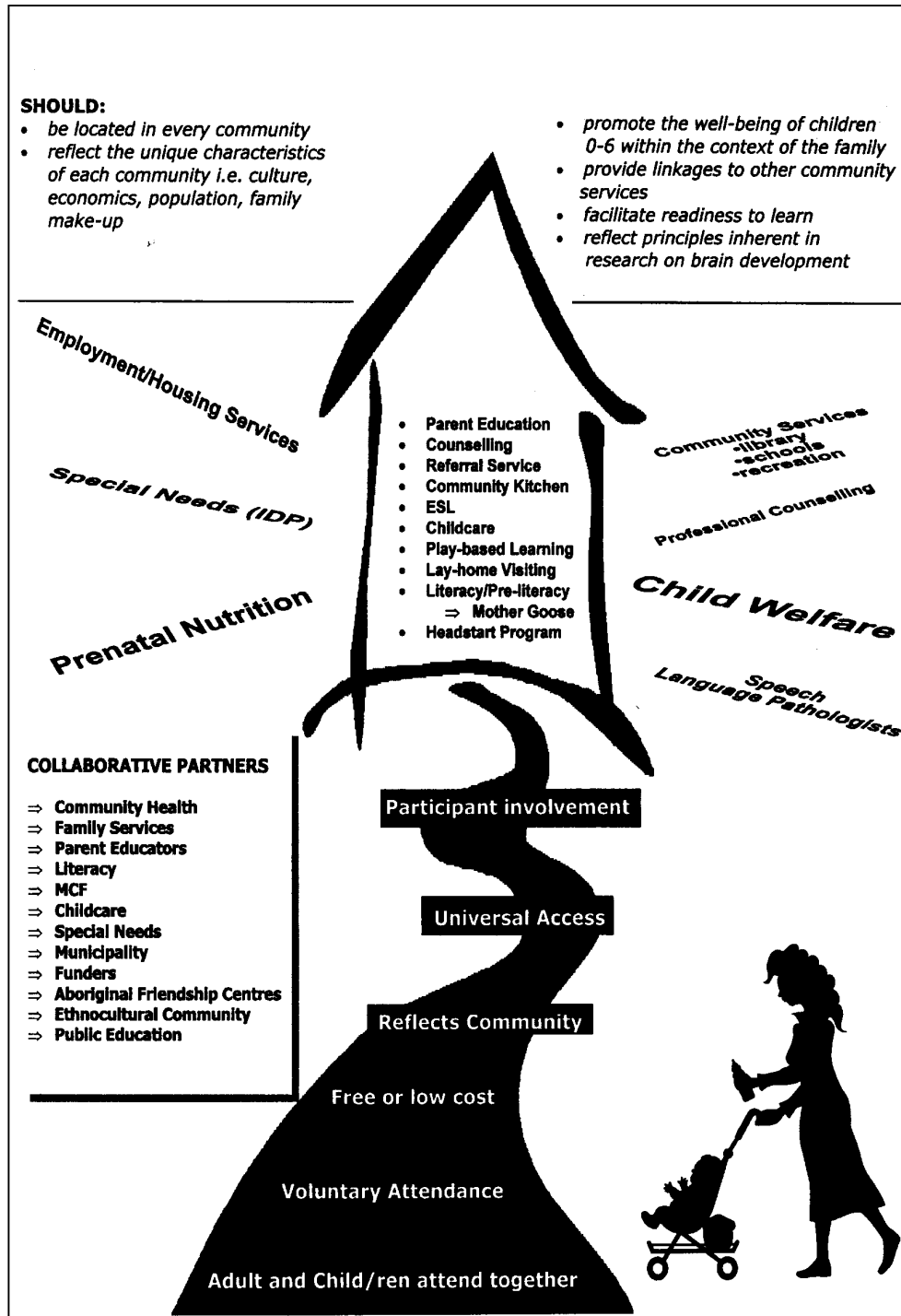
¹ Jacques van der Gaag, Jacques. (2002). From child development to human development. In Young, M. E. (Ed.) 2002. *From early child development to human development: Investing in our children's future*. Washington, DC: The World Bank.

Benefits Of Early Childhood Programs

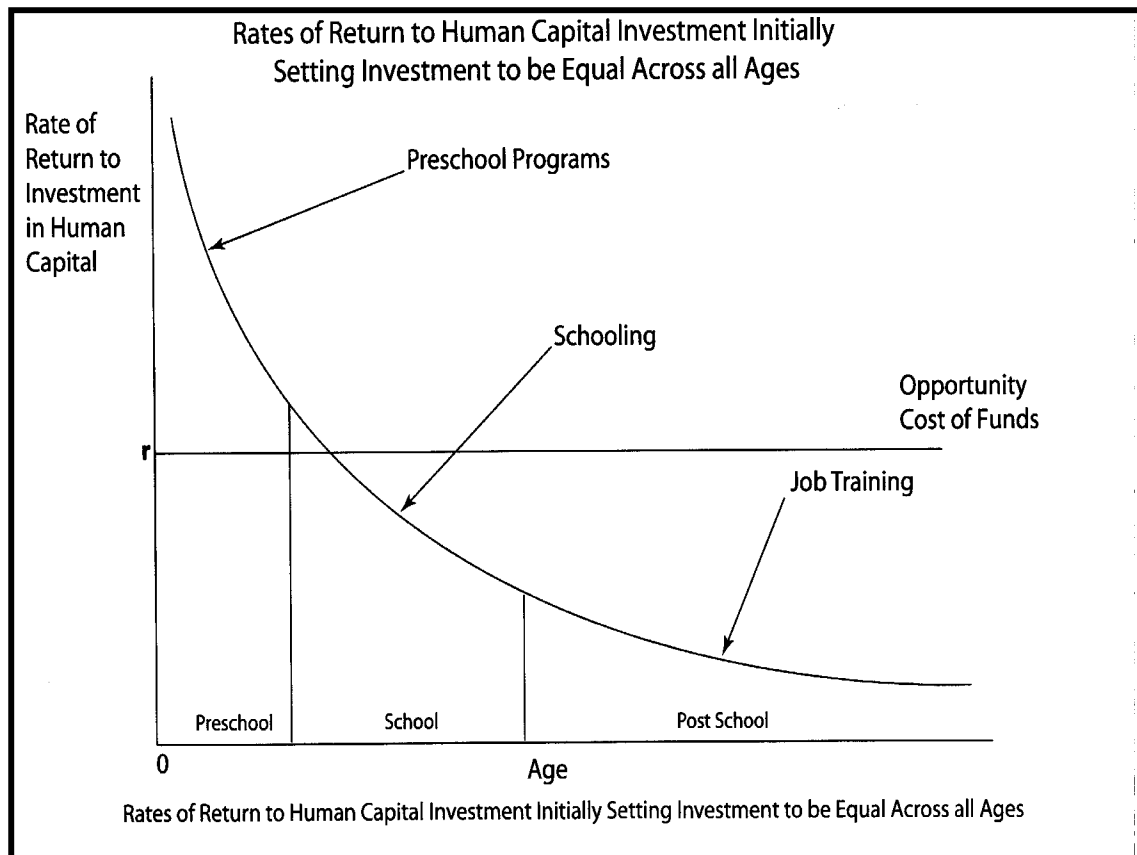
FOR	CHANGES IN	NATURE OF THE CHANGE
CHILDREN	<i>Psycho-social Development</i>	<i>improved cognitive development (thinking, reasoning); improved social development (relationship to others); improved emotional development (self image, security); improved language skills</i>
	<i>Health and Nutrition</i>	<i>increased chances of survival; reduced morbidity; improved hygiene; improved weight/height for age; improved micronutrient balance</i>
	<i>Progress and Performance in Primary School</i>	<i>higher chance of entering; less chance of repeating; greater learning and better performance</i>
ADULTS	<i>General Knowledge</i>	<i>health and hygiene; nutrition (related to own status);</i>
	<i>Attitudes and Practices</i>	<i>leadership skills; health and hygiene; preventive medical practices; opportune treatment; nutrition; improved diet</i>
	<i>Relationships</i>	<i>improved self-esteem; better husband-wife, parent-child, and child-child relationships</i>
	<i>Employment</i>	<i>caregivers freed to seek or improve employment; new employment opportunities created by program; increased market for program-related goods</i>
COMMUNITIES	<i>Physical Environment</i>	<i>sanitation; spaces for play; new multi-purpose facilities</i>
	<i>Social participation</i>	<i>improved solidarity; increased participation of women; community projects benefiting all</i>
INSTITUTIONS	<i>Efficiency</i>	<i>better health attention through grouping or changed user practices; reduced repetition and drop-out in schools;</i>
	<i>Effectiveness</i>	<i>greater coverage</i>
	<i>Capacity</i>	<i>greater ability/confidence and/or changes in organization; improved methods and curriculum content</i>
SOCIETY	<i>Quality of Life</i>	<i>a healthier population, reduced number of days lost to sickness; a more literate, educated population; greater social participation; an improved labor force; reduced delinquency; reduced fertility and early births; reduced social inequalities</i>

ECCD Briefs, The Consultative Group on Early Childhood Care and Development, 1997. Used with permission.

Community Family Resource Centre



Rates of Return of Capital Investment in ECD



We cannot afford to postpone investing in children until they become adults nor can we wait until they reach school - a time when it may be too late to intervene.²

²Heckman, J. "Policies to Foster Human Capital". *Research in Economics*. Vol. 54, no. 1, March 2000.