Health Canada Santé Canada

Healthy Development of Children and Youth

The Role of the Determinants of Health

An Overview

Canada

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Introduction

Canada's children are, for the most part, growing up healthy. They live, learn, play and work in environments that promote health and well-being. The majority of children in Canada have access to good health care, education and social services. Most live in adequate housing and safe neighbourhoods with reasonable air and water quality. They eat well and exercise appropriately.

Yet, a number of significant inequalities exist in the health status of Canadian children and youth. Some young people are more likely to be injured, others to experience physical and mental health challenges. Without appropriate action, these health inequalities are likely to persist and have an impact not only on the children, but on the adults that they will become. On both a personal and societal level, the downstream consequences of these early experiences can be overwhelming.

Current research shows that much of the ill health and injury evident among young Canadians can be prevented. It also shows that the health status of young people in Canada is influenced by a wide range of social, cultural, physical and economic determinants, many of which lie outside the traditional health sector. For this reason, a cooperative, multisectoral approach that addresses the wider determinants of health is essential for enhancing the health of Canadian children and youth.

This booklet is a quick guide to the full report entitled *Healthy Development of Children and Youth: The Role of the Determinants of Health.* As such, it provides contextual information about the population health approach and the process of child development, as well as basic demographic information about Canada's children and youth.

This summary report features highlights of 11 factors that, together, determine the development of children and youth. It is hoped that this booklet will be of use to a wide range of audiences concerned with the current and future health of Canada's children and youth, including policy and program developers, researchers working in all levels of government, health and social service agencies, and research organizations.

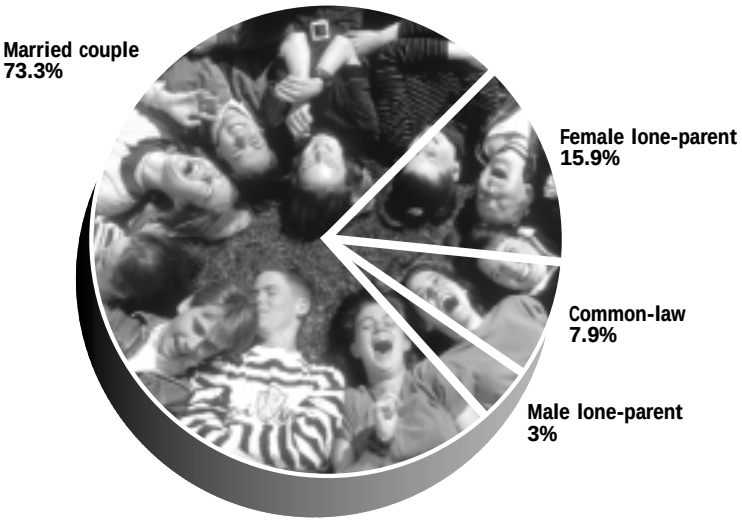
The Context

Population health approach

The report *Healthy Development of Children and Youth* uses a population health approach to examine and explain how the various determinants of health interact to shape healthy child development, and to depict conditions and trends relevant to the health and well-being of children and youth in Canada. This approach explores the ways in which health is determined by the interaction of individual characteristics and endowments, the physical environment, and social and economic factors. It shifts the focus from individual actions and attributes to include collective, societal factors that affect health and well-being.

The population health approach builds on a 20-year legacy of Canadian advancements in how best to promote and maintain the health of a nation. Over the years, our understanding of the factors that contribute to health, as well as the role of the government in promoting health, has broadened and deepened. In 1994, the ministers of health at all levels of government officially endorsed the population health approach in the report entitled *Strategies for Population Health: Investing in the Health of Canadians.* The report summarized what was known about the broad determinants of health and articulated a framework to guide the development of policies and strategies to improve population health. The key determinants included: income and social status, employment and work environment, education, social environment, natural and built environments, personal health practices, individual capacity and coping skills, biology and genetic endowment, health and social services, culture and gender. These determinants are seen to interact in various ways at various stages to affect personal health and well-being.

Proportion of children living in selected family structures, Canada, 1996



Note: Numbers do not total 100% due to rounding

Source: Adapted from Statistics Canada (1997). *The Daily*, Catalogue No. 11-001, October 14, 1997.

Child development and the determinants of health

Good health does not happen automatically. When ongoing positive investments are made, an infant is likely to grow and develop into a competent, participating adult member of society. When such investments are not made, many children will carry into adulthood physical and/or emotional deficits that could have been prevented.

Population of children and youth, by sex and age, Canada, 1997

	Both sexes	Male	Female	Both sexes	Male	Female
	Number			% of total population		
All ages	**30,286,596**	**14,999,677**	**15,286,919**	**26.5**	**27.4**	**25.6**
0–4	1,915,801	981,837	933,964	6.33	6.55	6.11
5–9	2,049,449	1,049,529	999,920	6.77	7.00	6.54
10–14	2,027,130	1,035,369	991,761	6.69	6.90	6.49
15–19	2,024,088	1,037,276	986,812	6.68	6.92	6.46

Source: Adapted from the Statistics Canada Web site: www.statcan.ca

Children and youth are particularly vulnerable to conditions in their social and physical environments. As they pass through infancy, childhood and the teenage years, they are susceptible to a wide range of positive and negative influences, influences that can be broadly defined as determinants of health. The interaction of these determinants at each developmental stage helps to define both their level of health and well-being and to have a continuing impact at later stages.

Traditionally, the course of childhood development has been seen as a progression through a series of predictable stages, each with its own tasks and accomplishments. Longitudinal studies, however, are offering support for a less rigidly defined line of development, shifting the model to one of pathways.

While an individual's physical, psychological and social growth does progress through stages marked by important life transitions, the meaning and impact of these transitional events seem to be varied and personal. Childhood development is less a ladder of linear steps than a series of pathways with innumerable routes and outcomes. A single negative event does not necessarily and inevitably lead to a single effect. Adverse experiences may be offset by "recuperative" experiences and/or circumstances from the past, the present, or even the future. We must see the complex links in causal chains and how they interconnect, and we must search for the unifying principles underlying the diversity of pathways from childhood to adult life.

About Canada's children

Canadian children and youth are a diverse group that makes up almost one third of the population. They come from varied ethnic, religious and linguistic backgrounds; they live in a variety of family structures in both urban and rural settings; and they grow up in families with disparate levels of social and economic resources.

- In 1996, 20.9% of children under 18 years of age lived below Statistics Canada's low income cut-off (LIC) compared with 14.9% in 1980.
- In 1998, life expectancy at birth was 81 years for women and 75 years for men for the general Canadian population. Life expectancy for the First Nations population was 76.2 years for women and 69.1 for men in 1995 (the most recent data available).
- In 1996, the infant mortality rate was 5.6 deaths per 1,000 live births, declining from 6.1 per 1,000 live births in 1995. The rate for the First Nations population was 12 deaths per 1,000 live births in 1994 (the most recent data available).
- In 1996, 5.8% of babies were considered to be of low birthweight (below 2,500 grams), declining slightly from 5.9% the previous year.

This is the context in which we take a closer look at how the 11 determinants interact and have an impact on the health of children and youth.

Income and Social Status

Income and social status show up consistently as critical determinants of health. People at each increasing level of the income scale are healthier and live longer than those at the level below. Personal wealth, as well as its distribution across the population, also has a strong impact on health and well-being. In countries where incomes are more evenly distributed, with a smaller gap between rich and poor, populations show longer life expectancies, a higher quality of life and lower mortality rates. In short, these countries boast a healthier population.

Family income helps set the stage

Family income has a direct influence on children's health and well-being. Children depend on their parents, guardians, and communities to provide food, shelter, clothing and activities that will ensure their healthy development. A child's socio-economic status — as determined by parents' income, occupation and level of education, has an obvious impact from the womb through the dependent years, but research has shown that it also sets the stage for health and well-being throughout life. An adequate income contributes positively to a child's physical and mental health, cognitive and social development, and academic achievement — benefits that will serve them well for the rest of their lives.

Conversely, children who grow up in poverty have a greater risk of health problems, disability and death. They are more likely to drop out of school, have emotional problems and mental health disorders, get in trouble with the law, engage in risk-taking behaviour and die as the result of injuries. In fact, poverty is recognized as the single most significant determinant of a child's level of health.

Yet the number of poor children in Canada is increasing. In 1994 there were 1.1 million Canadian children living in poverty, 1.1 million children living in families where the average income was only 32% of the national average for all families. In 1996 that number had increased to 1.5 million.

Distribution of children aged 0 to 11, by main source of household income, Canada, 1994–95

Main source of household income	% of children
Wages and salaries	74.6
Self-employment	10.8
Social assistance	10.1
Unemployment insurance	1.5
Miscellaneous[a]	1.0
Child tax benefit	0.9
Pensions[b]	0.4
Worker's compensation	0.3[c]
Child support	0.3[c]
Dividends and interest	†
Alimony	†
Total	**100.0**

a. Includes other government assistance, rental income, scholarships, etc.
b. Includes Canadian and Quebec Pension Plans, Old Age Security and Guaranteed Income Supplement, retirement pensions, supperannuation and annuities.
c. Estimate less reliable due to high sampling variability.
† Estimate too unreliable to publish.

Source: Adapted from D.P. Ross, K. Scott and M.A. Kelly (1996). "Overview: Children in Canada in the 1990s." In *Growing Up in Canada: National Longitudinal Survey of Children and Youth*. Catalogue No. 89-550-MPE, No. 1. Ottawa: Human Resources Development Canada and Statistics Canada, p. 35.

Inequality is a growing trend

While the average family income has been relatively stable since 1990, families in the highest brackets have shown an increase in income, while those in the lowest have shown a decrease. This trend of growing inequalities between high- and low- income earners in Canada continues.

Child poverty rates are often tied to the economic conditions of the times, rising and falling along with the economy. Most families' fortunes are tied to labour market conditions, with almost 80% of the total family income coming from employment. Government transfer payments and personal income tax also play an important role in reducing income inequality in Canada.

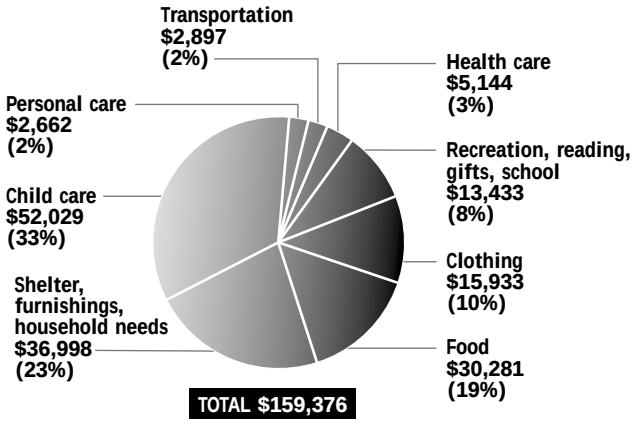
In 1991, the average income of low-income couples with children under 18 was $18,800 — just 32% of the $58,761 average for the rest of Canada. Five years later, this proportion was relatively unchanged. While the majority of low-income children are in two-parent families, children in single-parent families headed by women and Aboriginal families have shown persistently low incomes. Children in these families have a higher incidence of poverty at more than double the national rate of 22%.

Raising family income levels

Children's income status depends on their parents. A commitment to the healthy development of children in Canada requires a commitment to raising family incomes and socio-economic status. While we do not know the exact causal relationship, we do know that income has a strong impact on providing both the basic necessities of life, and the supports to make that life productive and healthy.

Efforts that address income inequalities, and that support adequate income, employment opportunities, appropriate training and educational opportunities, and accessible and comprehensive health and social programs, all have the ability to contribute to the health of our children.

Estimated cost of raising a child to age 18, by type of expenditure, Canada, 1998



Note: These numbers are in current 1998 dollars.

Source: Prepared by the Canadian Council on Social Development using data from Manitoba Agriculture's *Family Finance: The Cost of Raising a Child: 1998*. In Canadian Council on Social Development (1998). *The Progress of Canada's Children — 1998*. Ottawa: CCSD, p. 19.

Employment and Work Environment

Employment status and working conditions can contribute to better health for parents and children. People are generally healthier when they are employed, particularly when they have a high degree of control over their work circumstances and a low degree of stress-related job demands. The amount, quality and stability of parental employment can strongly influence the economic opportunities of parents and their children. It can also affect parents' ability to carry out family responsibilities and develop healthy parenting styles.

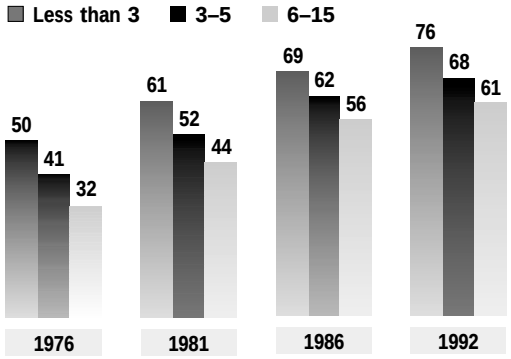
Unemployment, underemployment and stress at work are associated with poorer mental and physical health. Unemployed people show a higher incidence of psychological distress, anxiety, depressive symptoms, health problems and hospitalization visits. In turn, their children may suffer as well, particularly during difficult family times.

A supportive workplace, combined with policies that recognize and support the needs of parents, can reduce stress and improve parents' ability to meet the demands of both working and parenting.

A changing work force

In Canada, most parents of young children have jobs, a situation that both benefits children and presents challenges to family life and healthy child development. In 1994–95 more than a third of children under age 12 lived in families where both parents were employed full time and another third lived in two-parent families where one parent was employed. The participation rate of women in the labour market has more than doubled between 1961 and 1991, increasing from 29% to 60%, with women with young children having higher participation rates than women in general. This increased presence in the labour force has created new challenges for parents, employers and communities as they try to accommodate work and family responsibilities, particularly since women still take on the primary responsibility for child care and house work. Working mothers report high levels of work/family conflict, stress and depression, with these levels being particularly high among employed lone mothers. Moreover, two-parent families with children under 18 have increased their combined weeks of employment in a year — up from 72.6 weeks in 1984 to 78.3 weeks in 1994.

Labour force participation of women,[a] by age of youngest child, Canada, 1976 to 1992



a. Includes full-time and part-time participation.

Source: Canadian Institute of Child Health (1994). *The Health of Canada's Children: A CICH Profile*, 2nd edition. Ottawa: CICH, p. 7.

The changes in our work force have had a strong impact on how and where we care for our children. There is evidence to suggest that child-care arrangements are not meeting the changing needs of Canadian families. Child-care services and subsidies are in high demand, and yet that demand is not being met. In 1994, more than half of the children whose parents would have preferred licensed care ended up in alternative situations, mostly because licensed care was in short supply.

Unemployment poses its own challenges, and is higher among youth and Aboriginal and lone-parent families than in the general population. More than half the children who live in lone-parent families live with the effects of long-term family unemployment, including higher stress, less money for the basic necessities and fewer opportunities for educational and social enrichment.

The impact of job opportunities on youth

While Canada's youth is more highly educated than in the past, many still have a hard time finding work except in low-paying, service sector jobs. The outlook for young people with post-secondary education is good, while females who drop out of high school may have more difficulty finding a job than their male counterparts. This is in part due to the changing nature of work in Canada. Globalization, changing market structures and the advent of new technologies have had a profound effect on the Canadian wage economy as employment shifts towards knowledge- and technology-intensive industries.

We do know that the quality and quantity of employment opportunities have a strong impact on children both in their present circumstance and as they grow. We can improve employment status and conditions by providing a variety of opportunities for education, training, child support, family support and by creating supportive links between the schools, the workplace and the community. As our society changes — in terms of the work we do and who does it — we need to ensure that our responses take into account the short- and long-term effects on children.

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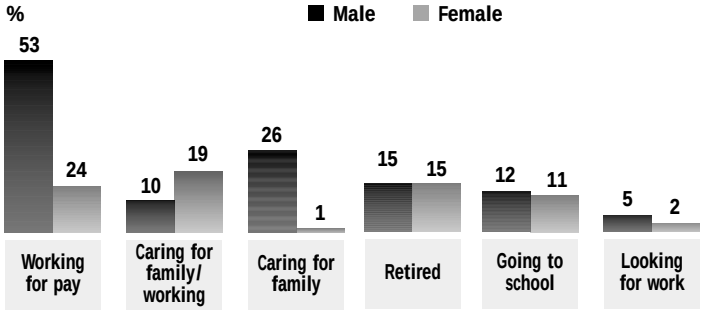
Main daily activity of adults, by selected activity and sex, Canada, age 15+, 1994–95



Source: Federal, Provincial and Territorial Advisory Committee on Population Health (1996). *Report on the Health of Canadians: Technical Appendix*. Catalogue No. H39-385/1-1996E. Ottawa: Health Canada, p. 48.

Education

Education is a tool for life and health. It equips people with the knowledge and skills needed to get a job, solve problems, gain access to information that can keep them healthy, and have a sense of control over their lives. In general, as education increases self-rated health status improves. People with university degrees are about half as likely to have high blood pressure, high blood cholesterol, or to be overweight as those who never completed high school.

Education provides children with one of the best chances they have to improve their economic security, job satisfaction, quality of life and ability to enjoy a healthy lifestyle. The trend towards a knowledge-based economy has had an influence on the need for higher education. Without this higher education, the future success of the young is compromised.

A child's ability to be ready for school, to stay in school, and to succeed in school is affected by many factors. Children from higher income families and those whose parents have more education tend to be more "ready" than others, have a lower dropout rate, and attain higher levels of academic achievement. Children raised in low-income or Aboriginal families have an increased risk of lagging behind. Programs and supports that allow all children to experience a positive and supportive learning environment contribute to their success.

Youth are better educated

The education level of Canadians is increasing. In 1996, well over one third of 15- to 24-year-olds had at least some post-secondary education, compared to one quarter in 1971. University enrolment is, however, decreasing slightly. The number of Aboriginal children on reserve enrolled in schools increased 33% between 1987–88 and 1996–97. Moreover, on reserve Aboriginal children are staying in school longer. The proportion of Aboriginal children who remain in school until Grade 12 almost doubled between 1987–88 (37%) and 1996–97 (71%).

While more young people are staying in school, children from low-income families, Aboriginal youth and children with learning disabilities are more likely than others to drop out. Dropping out costs money. A 1992 study calculated that, over their collective lifetimes, the children who dropped out of school in Canada in 1989 would cost Canadian taxpayers a cumulative total of $4 billion.

The education level of Canadians is increasing. In 1996, well over one third of 15- to 24-year-olds had at least some post-secondary education, compared to one quarter in 1971.

Parents are active in schooling

Canadian parents are very involved in their children's education. In 1994–95, parents of more than half of the infants and toddlers up to age 2 showed their children picture books daily and most read aloud to their children every day. The parents of more than 50% of children aged 2 to 5 also helped them with writing every day, while another 30% did so a few times a week. Teachers surveyed in 1994–95 reported that two thirds of their students had parents who were "very involved" in their children's education. Children whose parents had little interest in their schooling were seven times more likely to repeat a grade than children whose parents placed a great deal of importance on education.

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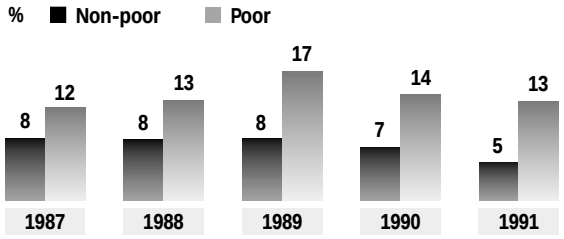
School drop-out rates for poor[a] and non-poor youth aged 16 and 17, Canada, 1987 to 1991



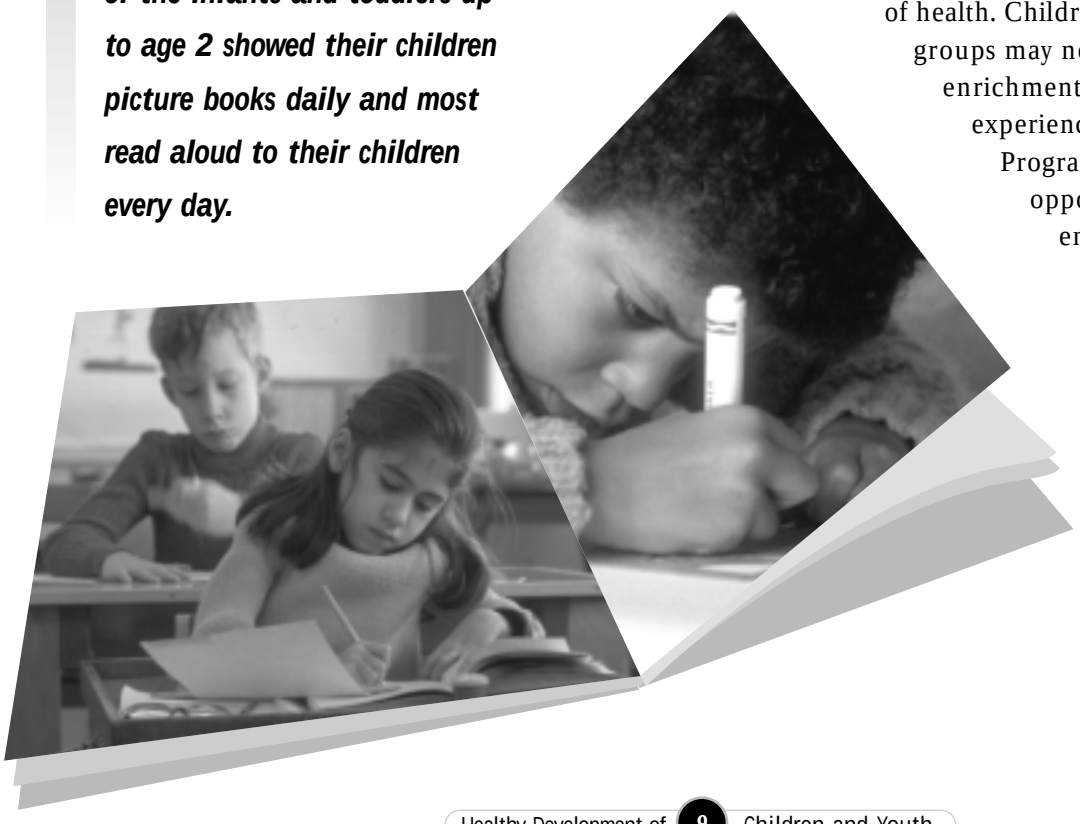
a. Youth living below Statistics Canada's low income cut-offs.

Source: Prepared by the Canadian Council on Social Development, Centre for International Statistics on Economic and Social Welfare for Families and Children, Newsletter No. 1, July 1993. In Canadian Institute of Child Health (1994). *The Health of Canada's Children: A CICH Profile*, 2nd edition. Ottawa: CICH, p. 122.

Funding plays a role

Funding plays a key role in the availability and quality of education for all students. Many provinces no longer provide funding for kindergarten programs, which reach children in their very formative learning years. Over the last decade, every province has increased university tuition fees in response to funding constraints. Undergraduate enrolment at Canadian universities has declined over the past five years, due in large part to a sharp drop in part-time undergraduate enrolment.

Level of education, employment and socio-economic status are closely related determinants of health. Children from some population groups may need extra support and enrichment to make their educational experiences productive and relevant. Programs, services, supports and opportunities that allow and encourage children to enter, stay, and succeed in school will be critical to the future health of Canadian children and their families.



Social Environment

Children grow up surrounded by family, friends, neighbours, schools and communities. Healthy social environments and strong support networks promote the emotional and physical well-being of all children. At the heart of this social environment is the family. The love, affection and attention parents give their children in their early years will often have a great impact on a child's development, influencing language skills, literacy, social adjustment and scholastic achievement. A key requisite for healthy child development is the attachment to an adult who consistently provides direction, understanding and support.

Parents themselves need a supportive environment in which to raise their children, an environment that fosters their knowledge and growth as caring parents and that recognizes and helps them cope with the stresses of raising children. School and community networks provide the support and enrichment needed to create safe and nurturing environments. Children who have had the opportunity to participate in a wide variety of activities and programs outside the family are more likely to view themselves as capable human beings.

Social supports are changing

In Canada, most children live in families with married parents but the diversity of family structures has increased. The percentage of families that include common-law spouses doubled between 1981 and 1995 from 6% to 12%, and the number of step-families and lone-parent families is increasing. Canadian families are smaller, with 81% having either one or two children and extended support networks that are often drawn from outside the family. Children today face a complex world of new relationships and changing patterns of support.

Shrinking and changing families put an increased focus on school and community networks to provide developmental opportunities through informal play, organized recreation, schooling and cultural experiences. Schools educate the whole child and can often act as a buffer against potentially harmful conditions in the home or the community. While most Canadian cities provide recreational programs for children and youth, almost all charge user fees and nearly half of poor families say a barrier to their participation is the cost.

Children today face a complex world of new relationships and changing patterns of support.

Security is important

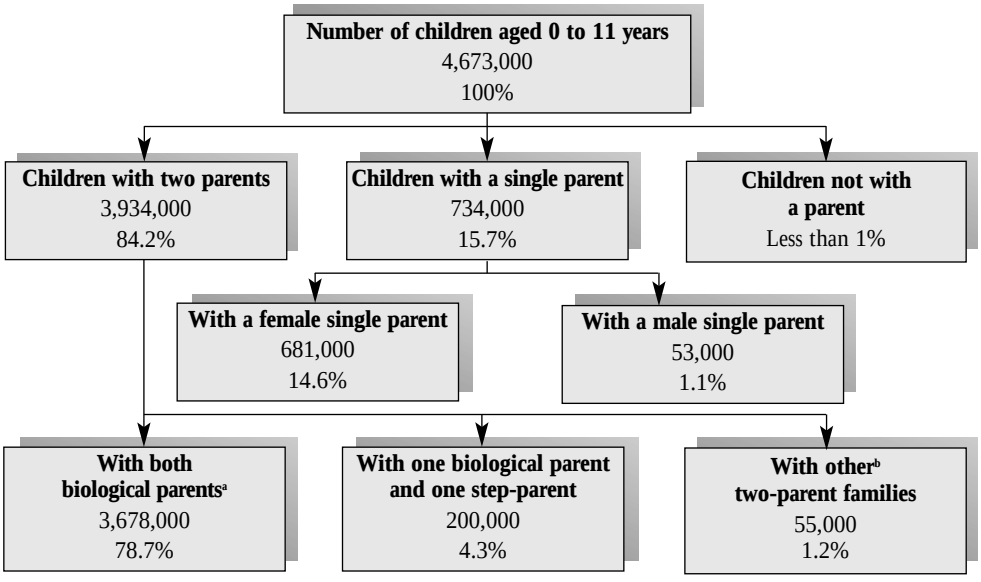
The degree of violence and fear in children's lives has a significant influence on their health and well-being. Children are put at risk when they witness violence or are direct victims of abuse. Combined with the values and norms of the broader society as a whole, the feeling and experience of security and support can have a profound impact on the physical, mental, spiritual, social and economic health and well-being of children.

The majority of Canadian children live in homes and neighbourhoods that their parents believe to be safe. Yet there are still too many children who are not only witnesses, but victims of violence. In a survey of police agencies in 1996, children under 18 years of age were the victims in 22% of all reported assaults. One fourth of all assault cases against children involved family members. One out of every four girls, and one out of every ten boys will be sexually assaulted before they are 16. Living with violence or the fear of violence has a devastating long-term impact on children and on society. Children and adolescents with histories of maltreatment are more likely to engage in risky behaviours and to come into contact with the justice system. Adolescents who have experienced neglect, physical, emotional or sexual abuse, or exposure to inter-parental violence are more likely to run away from home and to use tobacco or other drugs. They are often less able to adjust to life changes and are more likely to contemplate suicide, suffer from mental illness and engage in criminal behaviour.

Comprehensive support programs are needed

Children need healthy relationships and social environments to become individuals who participate in and contribute to the social fabric of their families and communities. To support their development we need to reduce violence against children, strengthen and support a variety of family formations and recognize that parenting is a critical responsibility that belongs not only to the individual family, but to society as a whole. School and community based programs that offer information and support for parenting skills, child development, early intervention, violence prevention, conflict resolution and social skills development are becoming more important in ensuring a healthy social environment for children and their families.

Distribution of children aged 0 to 11 by family type, Canada, 1994–95



a. Includes 182,000 children living with step-siblings.

b. Includes children with two adoptive parents, one biological and one adoptive parent, two foster parents, two step-parents, and one adoptive and one step-parent.

Source: Adapted from D.P. Ross, K. Scott and M.A. Kelly (1996). "Overview: Children in Canada in the 1990s." In *Growing Up in Canada: National Longitudinal Survey of Children and Youth*. Catalogue No. 89-550-MPE, No. 1. Ottawa: Human Resources Development Canada and Statistics Canada, p. 29.

Natural and Built Environments

The physical environment — the houses, buildings, parks, playgrounds, streets and pathways, as well as the air, water and soil that surround these infrastructures — has both direct and indirect influences on health, quality of life and well-being. Children are often more vulnerable to these influences because their biological systems are still developing and they have little or no control over the environment.

The environments we build and live in can support our children by providing them with easy access to healthy places to play, learn and interact with others. But the physical environment can also harm them. Unintentional injuries, including traffic-related injuries, drowning, burns, falls and poisoning, are the leading cause of death for children.

Environment has a major influence

For children in Canada, injury-related deaths have dropped from 31.5 per 100,000 in 1981–83 to 20.6 per 100,000 in 1990–92, but they continue to be the leading cause of death.

Infants and children consume up to three times more food and four times more fluids per kilogram of body weight than adults do. Young children spend, on average, 85% to 90% of their time indoors. Their developing organs and tissues are highly susceptible and more prone to functional damage from the contaminants spread throughout both the natural and built environments. Substandard housing, poor air quality, inadequate ventilation and biological and chemical contaminants all have a strong impact on their immediate and long-term health.

The quality of Canada's natural environment is, in general, very good. In those instances where we have been able to set government standards and monitor pollutants we have been able to have a positive impact on children's and adults' health. Levels of atmospheric lead (which affects the developing brain and nervous system and can result in learning disabilities, hyperactivity and hearing problems) have declined 95% since unleaded gasoline became available. The levels of DDT and PCBs in human breast milk have dropped. However, children's exposure to biological and chemical contaminants continues, with respiratory illnesses being the leading cause of hospitalization. One of the most common health problems related to airborne contaminants is asthma — a respiratory disease that is more frequent in younger children than older children. For example, the prevalence of asthma is 15% in boys aged 1 to 4 and drops to 5% by 10 to 15 years of age.

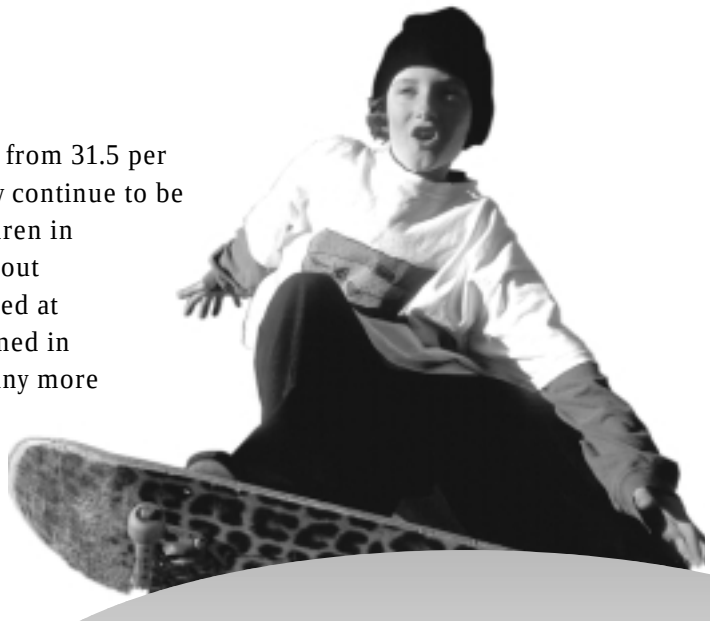
Almost 2.8 million Canadian children under the age of 15 are exposed to environmental tobacco smoke (ETS) or second-hand smoke at home and are at greater risk of death from respiratory diseases and sudden infant death syndrome (SIDS). We continue to expose our children to possible acute and long-term health problems through the air they breathe, the food they eat and the water they drink.

Injuries are on the decline

For children in Canada, injury-related deaths have dropped from 31.5 per 100,000 in 1981–83 to 20.6 per 100,000 in 1990–92, but they continue to be the leading cause of death. In 1990 alone, about 1,500 children in Canada died from injuries and 81,000 were hospitalized. About 80% of the injuries for children under 4 years of age occurred at home, while 83% of adolescent injury-related deaths happened in traffic incidents. For each child who dies from an injury, many more require hospitalization, emergency room care and follow-up visits to health professionals.

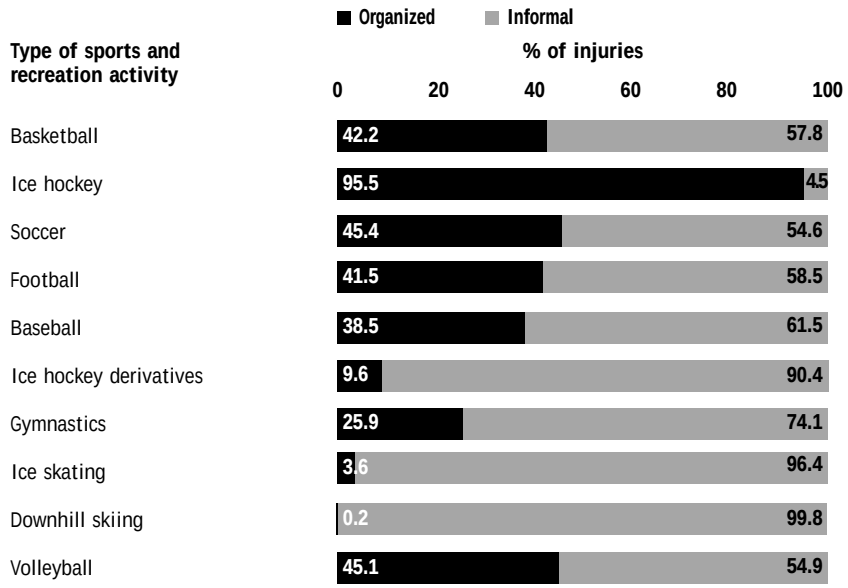
Poverty increases a child's risk of injury with children living in the lowest income neighbourhoods at the greatest risk of dying from injuries. These are also the children with the greatest exposure to the effects of environmental pollution because of the locations and standards of their housing.

Children are exposed to different hazards in both the natural and built environments. Standards and programs that address chemical, biological and physical hazards need to be developed and set with the enhanced vulnerability of children in mind.



Children are exposed to different hazards in both the natural and built environments. Standards and programs that address chemical, biological and physical hazards need to be developed and set with the enhanced vulnerability of children in mind.

Distribution of injuries related to the 10 leading sports and recreation activities,[a] by mode of practice, children and youth aged 0 to 19, Canada, 1993



a. Excludes drownings, near drownings and other water-related injuries, playground equipment injuries, cycling injuries and off-road vehicle injuries.

Source: CHIRPP, unpublished data, 1993.

Personal Health Practices

People's health practices, including their level of physical activity, eating habits, sexual practices, use of alcohol and other drugs, and attention to issues of safety, have a profound impact on their health and well-being. Positive, health-promoting behaviours are a major determinant of child and youth health. Many disabilities and chronic health problems that arise in adulthood can be traced to negative health behaviours entrenched during childhood and adolescence.

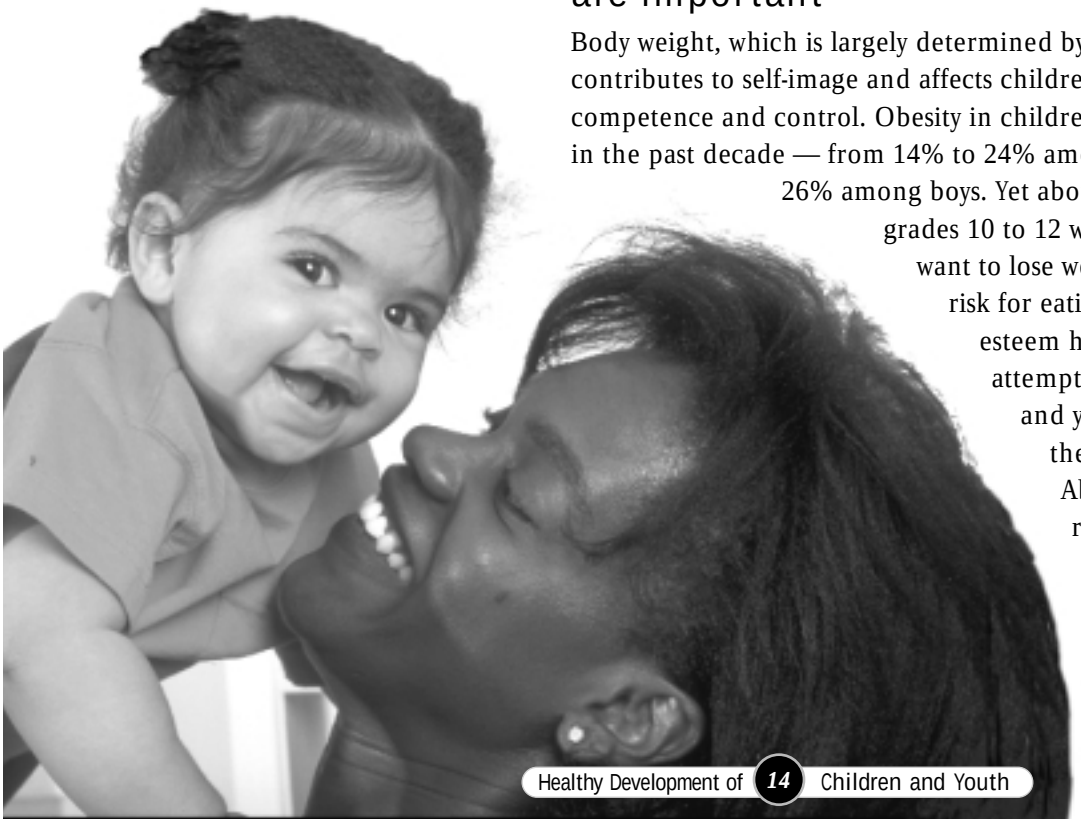
Health practices of parents are key

Parents' health practices have a strong impact on their children from the moment of conception right through adolescence. Poor nutrition, smoking and alcohol and drug use during pregnancy increase the risk of a child developing certain health problems and disabilities. Infants born at a normal birthweight and young children who develop strong coping skills, enjoy quality child care, good nutrition and plentiful opportunities for stimulation are more likely to practice healthy behaviours in later life.

In Canada the incidence of low birthweight, stillbirths, perinatal death and SIDS has either remained stable or declined in recent years. More Canadian mothers are breast-feeding and most women abstain from smoking during pregnancy. However, fetal alcohol syndrome (FAS) is still one of the leading causes of preventable birth defects and developmental delay.

Healthy eating and physical activity are important

Body weight, which is largely determined by eating patterns and exercise, contributes to self-image and affects children's mental health, sense of competence and control. Obesity in children has increased dramatically in the past decade — from 14% to 24% among girls and from 18% to 26% among boys. Yet about 85% of young women in grades 10 to 12 who are of average weight want to lose weight. Adolescent girls are at risk for eating disorders, while low self-esteem has been linked with obsessive attempts to gain weight among boys and young men — sometimes with the help of anabolic steroids. Aboriginal children are at higher risk for some nutritional deficiencies, and in 1995 close to 1 million children received food from a food bank.



Participation in physical activity has far-reaching positive health impacts. A 1995 study revealed that only one third of Canada's children and youth were active enough to meet the standard for optimal health and development. One quarter of Canada's youth are sedentary, with adolescent boys spending 50% more energy on physical activities than girls.

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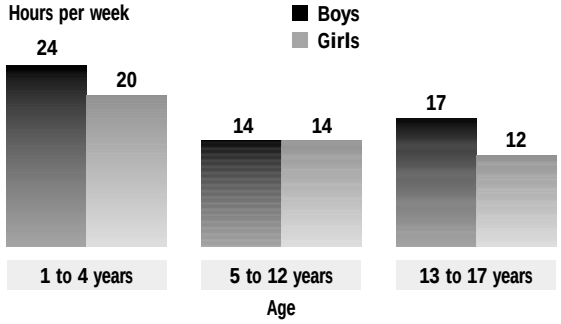
Some behaviours are risky

During 1992, one in three deaths and one in six hospitalizations among Canadians under age 20 resulted from injuries. While there has been a slow but steady decrease in injuries in recent years, they still remain the leading cause of death for Canadian children. Traffic related injuries continue to be the leading cause of injury-related deaths. Other incidents leading to preventable injuries and even death include drownings, fire-related injuries, unintentional poisoning and falls — both at home and in playgrounds.

Adolescence is the period most likely associated with the onset of smoking, alcohol and drug consumption, early and/or unprotected sex and a more sedentary lifestyle. Despite public health messages warning of the consequences, many young Canadian teens try smoking. Smoking rates for young women continue to increase, with 21% of 15-year-old girls smoking daily in 1998, a rise from 18% in 1990. Alcohol appears to be the drug of choice, with 20% of teens rated as heavy drinkers (five or more drinks per drinking session). Drug use has declined steadily since reaching its peak in the late 1970s, although there are indications that the use of cannabis is increasing.

Number of hours per week spent in physical activities, 1- to 17-year-olds, by sex and age, Canada, 1995



Source: Prepared by the Canadian Council on Social Development using data from Canadian Fitness and Lifestyle Research Institute, *Progress on Prevention*, Bulletin No. 8, 1995. In Canadian Council on Social Development (1997). *The Progress of Canada's Children — 1997*. Ottawa: Canadian Council on Social Development, p. 38.

Sexual and reproductive health is a major concern

Adolescence is also a time of experimentation with newly discovered sexuality. Teenagers are at high risk for both pregnancy and infection from sexually transmitted diseases (STDs). The rate of teen pregnancy (of which approximately half result in live births) has been increasing steadily since 1987. Teen childbearing often leads to poor economic and social outcomes for adolescent parents and their children. Despite the fact that the number of reported cases for some STDs have been falling, rates for both chlamydia and gonorrhea are well above average for young women aged 15 to 19 years and the median age of people with AIDS has decreased from 32 years of age to 23.

While progressing through the various developmental stages from conception to adulthood, children and youth encounter many challenges and situations that entail risk. In addition to protecting children from potential dangers, parents and communities need to guide them by giving them the skills, knowledge and confidence to face challenges in responsible and productive ways. Efforts need to be directed towards the development and implementation of strategies that encourage and promote positive personal health practices at all stages of life.

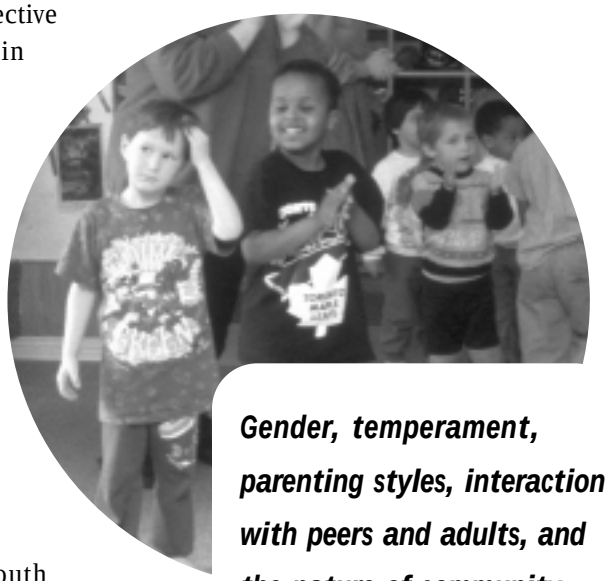
Individual Capacity and Coping Skills

Individual capacity and coping skills are those psychological characteristics, such as personal competence and a sense of control and mastery over one's life, that allow an individual to deal with the events, challenges and stresses in their day-to-day lives. These skills, habits and attitudes play an important role in supporting mental and physical health. How people deal with the challenges in their living and working environments can influence their vulnerability to cancer, cardiovascular disease, mental disorders, unintentional injuries, suicide and other health problems. Some coping mechanisms contribute to health and equilibrium (such as physical activity and hobbies such as music and art), while others have a negative impact (such as smoking and drug and alcohol use).

Skills develop early

There is strong evidence that coping skills are acquired primarily in the first few years of life. All children are born with an innate ability to cope. They can and do develop such skills as social competence, effective problem solving, autonomy and a sense of purpose and belief in a positive future.

Developing these skills to their fullest potential depends on a variety of protective and risk factors in the individual, family and community. Gender, temperament, parenting styles, interaction with peers and adults, and the nature of community support are all factors that interact to either hinder or enhance children's ability to develop resilience and positive coping skills.



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Most Canadian children develop the skills and tools necessary for coping with the challenge of surviving in an increasingly complex and demanding world. Yet research suggests that between 17% and 22% of our children suffer from one or more psychiatric disorders with a higher rate for adolescents. A survey of Ontario youth revealed that 25% of youth aged 15 to 24 reported having a mental health disorder.

Gender plays a role, as does environment. The highest rate of emotional and behavioural problems was among boys aged 8 to 11, while girls are much more likely to experience "internalized" disorders such as depression. In Ontario, children living in urban environments had higher rates of psychiatric disorders (16.7%) compared to children in rural areas (12.3%).

Frequency of emotional and behavioural problems among 4- to 11-year-olds, by age and sex, Canada, 1994–95

	Emotional and behavioural problems						
	A. Conduct disorder (%)	B. Hyper-activity (%)	C. Emotional disorder (%)	D. One or more disorders (%)	E. Repeated a grade[a] (%)	F. Impairment in social relationships (%)	G. One or more problems[a] (E. or F.) (%)
Boys							
4–7	10.6	14.0	6.1	21.9	2.9	2.7	27.4
8–11	11.3	14.0	11.8	26.0	8.1	4.2	31.0
4–11	11.0	14.0	9.0	24.0	6.5	3.5	29.9
Girls							
4–7	8.3	6.1	5.8	16.0	2.1	1.5	19.1
8–11	8.2	6.7	11.3	18.8	5.8	2.9	24.0
4–11	8.3	6.4	8.6	17.4	4.6	2.3	22.4
Boys and girls							
4–7	9.5	10.2	6.0	19.0	2.5	2.1	23.3
8–11	9.8	10.4	11.6	22.4	6.9	3.6	27.5
4–11	9.6	10.3	8.8	20.7	5.6	2.9	26.2

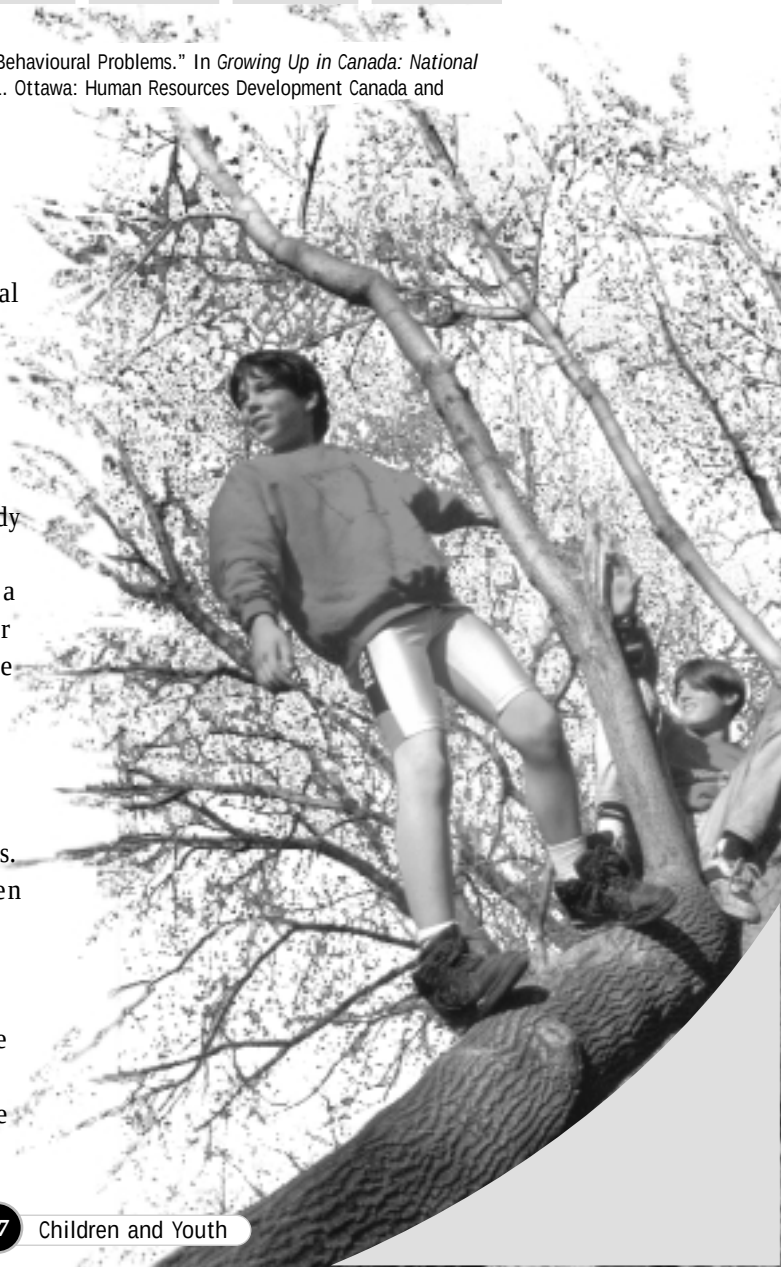
a. Data available for 6- to 11-year-olds only.

Source: Adapted from D.R. Offord and E.L. Lipman (1996). "Emotional and Behavioural Problems." In *Growing Up in Canada: National Longitudinal Survey of Children and Youth*. Catalogue No. 89-550-MPE, No. 1. Ottawa: Human Resources Development Canada and Statistics Canada, p. 123.

Adolescents are under stress

For Canadian children, adolescence seems to be a critical time when their coping skills have an immediate impact on their lives. Adolescents and young adults experience higher levels of work stress than do older workers, cite school as the greatest source of stress, and have to deal with rapid physiological changes interacting with other stress factors. The most frightening indicator is the steady and significant increase in the suicide rate for 15- to 19- year-olds, from a low of 7 per 100,000 population to a peak of 14 per 100,000 in 1983. The rate in 1992 (13 per 100,000 population) was almost twice that of 1970. While young women are more likely to attempt suicide, young men are more likely to succeed and the suicide rate for First Nations youth is almost five times higher than the national average. It has been estimated that for every suicide there are between 10 and 100 attempted suicides.

It is estimated than only one in six Canadian children with mental health problems actually receives support. Efforts need to be directed towards more effective and accessible primary prevention strategies and programs. Programs and services are needed that can reach people with the appropriate training and support, not only when they are in crisis, but long before, in order to have an impact on their individual capacity and coping skills.



Genetic and Biological Factors

The basic biology and the dynamic, organic nature of the human body are fundamental determinants of health. Biological risk factors are those innate or acquired characteristics of the child that place them at risk of poor health. These factors can affect healthy child development at several levels: from the simple biological fact of the sex of the child, to relatively common genetic variants (such as those associated with attention deficit disorder), to brain damage, as the result of an accident.

No one risk factor can be studied in isolation. Their interaction within the environment is dynamic and complex. For example, unemployment and cultural displacement may lead to alcohol abuse which, for a pregnant woman, may lead to fetal alcohol syndrome in her child. Fetal alcohol syndrome has been associated with learning problems, poor growth and disruptive behaviour.

Numerous risk factors have been identified

There is a wide range of biological and genetic risk factors that affect child development. Many genetic and chromosomal syndromes are associated with specific medical conditions and learning disabilities, most developmental disabilities have a biological basis with strong genetic cause, and all of the psychiatric disorders of childhood have a strong genetic component. Children who have a variety of physical, mental, learning and developmental disabilities can benefit from early diagnosis and intervention.

More and more substances are being identified as having harmful effects on the potential physical and cognitive development of the fetus, including alcohol, tobacco and illegal and prescription drugs. There is accumulating evidence that stress during pregnancy, as well as maternal and early infant nutrition can affect the development of the fetal and infant brain, with potential negative effects including neural tube defects, spina bifida, anencephaly and still birth.

Acute and chronic medical illnesses and conditions of the brain and nervous system, including head injuries, meningitis, diabetes and childhood cancer, are associated both with very specific impacts on health, and with secondary consequences such as increased risks of emotional and behavioural problems.

Bio-medical advances raise social and ethical concerns

The prevalence of serious childhood medical conditions in Canada is relatively stable. Advances in medical science have, however, increased both the chances of survival for some children (premature babies, children with heart defects and children with such diseases as cystic fibrosis, cancer and diabetes) and our ability to make diagnoses for others (children with pervasive developmental disorders including autism and attention deficit disorder). These factors, combined with de-institutionalization for persons with psychiatric and developmental disabilities, have led to a greater demand for clinical and social services to meet the needs of this population at all stages of life. They have also led to a greater recognition of the rights of persons with disabilities. Other bio-medical advances will continue to raise controversial issues about family planning, disability insurance, confidentiality and genetic stigmatization. Policies will need to be developed to deal with these and other important ethical and social issues that surround persons with disabilities.

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Health Services and Social Services

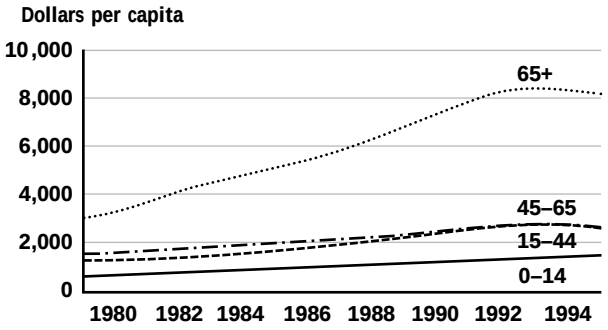
Health and social services are designed to promote and maintain optimum well-being. Children's health services include those provided by doctors, nurses, pharmacists, dentists and other health-care professionals, and focus on both their physical and mental health and development. Social services consist of a wide variety of programs, services and supports that address both the basic needs of children (including the need for protection) and aspects of their social and psychological development (such as behaviour and relationships).

Services play an important role

Throughout childhood, there are opportunities to provide the conditions and supports that keep children on healthy developmental pathways. Health and social services are essential to promoting this positive development. If opportunities are missed, or if children are disadvantaged in some way, services can help reduce the risk of negative consequences, and in many instances ameliorate those that do occur. Having a continuum of services and supports ranging from promotion and prevention at one end, to treatment and long-term care at the other, allows health and social services to contribute to healthy child development at all points of well-being.

Healthy child development is supported in different ways at various life stages. Health and social services provide a variety of resources, information and supports for non-pregnant women that can have a positive impact on future pregnancy, fetal development and maternal health. Once a child is born, health and social services have an impact on healthy development through such activities as screening and support immediately after delivery, infant stimulation programs, home-visiting programs that support effective parenting, and quality child care. As a child moves towards school age, health and social services often become more situation specific, often used on an as-needed basis. Those who are at risk, or who have special needs, draw upon a variety of specialized services that are designed to encourage and support their healthy development.

Per capita total health expenditures by age group, Canada, selected years, 1980 to 1994



Source: Health Canada (1996). *National Health Expenditures in Canada 1974–1994: Summary Report.* Catalogue No. H21-99/1992-2. Ottawa: Health Canada.

Availability of services varies

In Canada there is a significant difference in the availability of health and social services. Health services are available (although not always accessible) to all children, including those at risk and those with special needs. Social services, on the other hand, are not universally available to young people and their families. They tend to be targeted towards those at risk and those with special needs and are restricted in availability by fixed levels of funding. Availability of service largely depends on factors such as severity of need and competing demands. Both health and social services are, by and large, the responsibility of provincial/territorial and local governments and show considerable diversity across the country.

Two of the most recent trends across all jurisdictions are a focus on systems change and fiscal restraint. Population health, with its emphasis on broad health determinants, has become a very useful framework for understanding both the factors that influence health and the opportunities for improving health status of the population as a whole. This change in perspective has resulted in a renewed emphasis on early child development that has included the introduction of new programs and a shift in the use of existing resources.

Fiscal restraint has forced us to look at when and where services are provided. It has drawn our attention to the fact that it is usually cheaper to establish and support healthy development than it is to intervene in crisis situations. Funders and consumers are also putting increased pressure on service providers to find approaches that respond to the full range of unique needs of those that require health and social services, particularly during childhood and adolescence.

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Culture

Although it is often overlooked, culture is an important determinant of health. It refers to a shared identity based on such factors as common language, shared values and attitudes, and similarities in ideology. Some people face additional health risks due to marginalization, stigmatization and lack of access to culturally appropriate services. Culture-specific practices can also have an impact on the overall health of a population.

Impact on health

There is a lack of research and information about the impact of culture on health practices for both children and adults. We do know that minority groups often experience higher degrees of stress from a variety of sources, including economic circumstances, social and personal isolation, negative attitudes, and threatened or actual violence. Other factors play a role, including traditional beliefs about the causes of illness, attitudes towards caregivers and family values about care. There is considerable evidence that physicians' awareness of cultural issues can positively affect the patient-physician relationship and contribute to positive health outcomes.

Discrimination plays a role

Many minority groups in Canada report experiencing racism and discrimination. One study of the Chinese community in Toronto found that perceived discrimination correlated with various psychological symptoms such as nervousness, sleep problems, headaches, moodiness and a degree of worry.

Cultural background has also been shown to affect socio-economic status, education and occupation with European immigrants faring better in the Canadian labour market than their Black and Asian counterparts. Language and communication challenges cause a disproportionate number of children from certain cultural groups to be placed in special and vocational education classes, limiting the future education and careers of these children.

In 1996, Canada's visible minority population totalled 3,197,480, representing 11.2% of the total population (28,528,125). In that same year, 28% of the population identified themselves as having a background other than British, French or Canadian.

Aboriginal children are at higher risk

Ignoring cultural context can have a devastating affect on a child's healthy development. Aboriginal children (including First Nations, Inuit and Métis) have much higher rates of suicide and injury-related mortalities; they are more likely to be exposed to contaminants, to drop out of school and to come from low-income families that suffer from high rates of unemployment.

Given Canada's increasingly diverse population, cultural influences on health will remain an important consideration for practitioners, researchers, and policy makers within many sectors. We will need to broaden our understanding of these cultural influences and be aware of our own values and beliefs when we work with children, young people and their families.

Distribution of visible minority population[a] by age, Canada, 1996

	Total	0–14	15–24	25–44	45–64	65–74	75+
	Number						
Total population	**28,528,125**	**5,899,200**	**3,849,025**	**9,324,340**	**6,175,785**	**2,024,180**	**1,255,590**
Total visible minority population[b]	3,197,480	778,340	521,060	1,125,730	581,275	129,415	61,655
Black	573,860	170,870	96,895	186,995	94,520	16,025	8,555
South Asian	670,590	168,585	107,465	230,245	127,355	26,425	10,505
Chinese	860,150	171,110	135,580	299,815	177,980	50,680	24,990
Korean	64,840	12,115	15,525	19,475	14,610	1,765	1,340
Japanese	88,135	12,545	11,830	20,850	14,670	5,280	2,965
Southeast Asian	172,195	49,295	28,380	68,210	20,195	4,895	1,785
Filipino	234,195	50,985	33,995	90,100	45,370	8,845	4,900
Arab/West Asian	244,665	60,850	37,040	95,005	39,995	8,185	3,630
Latin American	176,975	46,530	31,575	68,500	25,190	3,670	1,500
Visible minority[c]	69,745	15,065	11,015	27,690	12,995	2,160	915
Multiple visible minority[d]	61,575	20,385	11,755	18,945	8,425	1,480	575

a. The *Employment Equity Act* defines the visible minority population as persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour.
b. The visible minority groups are based on categories used to define the visible minority population under the Regulations to the *Employment Equity Act*.
c. Not included elsewhere. Includes Pacific Islander group or another write-in response likely to be a visible minority (e.g. West Indian, South American).
d. Includes respondents who reported more than one visible minority group.

Source: Adapted from the Statistics Canada Web site: www.statcan.ca

Gender

Gender is biologically determined and hormonally regulated, but a person's concept of gender is influenced through the interaction of peers, parents, media and other socio-cultural factors. While gender has a very important biological component, it also includes the array of roles, personality traits, attitudes, behaviours, values, and status that society ascribes to people based on their sex.

Male and female developmental differences

The biological and genetic differences between males and females have a strong influence on children's health and development. Overall, girls develop faster than boys, an advantage that continues throughout early childhood. By the time they enter school, girls are, on average, developmentally almost one year ahead of boys.

Girls and boys also have different sexual and reproductive experiences and risks because of their physiological differences. Women are at greater risk of acquiring certain sexually transmitted diseases. They carry an extra burden for sexual and reproductive health since menstruation, unwanted pregnancy and the risks associated with oral contraception all have a stronger impact on both their bodies and their lives.

Boys and girls are treated differently

Early socialization plays an important role in the acquisition of gender-based behaviours and attitudes among children. Young boys and girls interact differently with their parents, as do their parents with them. Boys are more likely to be in conflict with their parents. Fathers are more tolerant of physical aggression in boys, and mothers are more likely to talk about emotions with their daughters. While there is an increasing awareness about the impact of gender-based expectations on children's development, a number of studies have found that teachers tend to react differently to boys' and girls' problem behaviours.

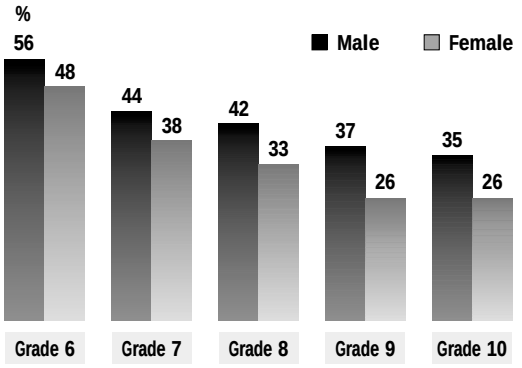
Gender identity is strongly influenced by all aspects of the social environment, including media, literature and experience. These influences have a powerful impact on youth behaviour, attitudes, and expectations, especially concerning issues such as

Early socialization plays an important role in the acquisition of gender-based behaviours and attitudes among children. Young boys and girls interact differently with their parents, as do their parents with them.

safe sex, sexual activity and violence. Girls are often conditioned to assume a submissive role and may not feel able to insist on safe sex practices. While children who witness violence in the home are more likely to be involved in violent relationships as adults, boys are more likely to be perpetrators. Girls are much more likely to be sexually abused and are more often the victims of assaults by family members.

There are a variety of gender-related differences in the health status of children in Canada. Young men have higher rates of injury, death and disability and a higher incidence of learning and conduct disorders. Young women are more likely to attain lower levels of education, have a lower income, be single parents, and to have lower levels of both self-esteem and feelings of personal competence. Female adolescents score consistently lower than males on all indicators of well-being. They are particularly concerned with body image and are more likely to report wanting to lose weight. Yet boys are more likely to engage in physical activity, with adolescent boys spending about 50% more energy on their physical activities than adolescent girls.

Proportion of students in grades 6 to 10 who report feeling "very happy" about their lives, by grade and sex, Canada, 1997–98



Source: A.J.C. King, W. Boyce and M. King (1999). *Trends in the Health of Canadian Youth*. Catalogue No. H39-498/1999E. Ottawa: Health Canada, p. 45.

Women's educational level is increasing

Adolescent males are more likely to drop out of school, while girls are more likely to drop in their level of school performance as they move into adolescence, especially in maths and sciences. Overall, women's education level is increasing — in 1992–93, they represented 53% of all undergraduate students, 46% of all master's degree students and 35% of all doctoral students.

Gender is inherent in all other determinants of health, creating gender specific patterns that have an important impact on healthy child development. Measures need to be adopted at all ages and stages of development to encourage children to develop a positive, healthy sense of self that includes a critical examination of the gender roles and stereotypes of their culture.

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The Challenges

We all want the best for our children. It is a challenge that, in a changing world, is growing more and more complex, and is neither predictable nor assured. Children at all income levels and in all ethnic groups face a combination of opportunities, stresses and threats that were inconceivable just 50 years ago. Most of our children are growing up healthy, and numerous indicators of their well-being reveal many successes — including infant mortality rates that are at a record low and test scores in reading and science that are among the highest in the world. But a number of other indicators paint a picture of shortcomings — such as increased violence and suicide among youth.

Understanding the forces that shape young people's health involves a look at the determinants of health, including the economic, physical, family, school, community and workplace environments. This understanding is key to our being able to take action and make decisions that will lead to the improvement of the situation for Canada's children and their families.

The population health approach suggests that the well-being of our children cannot be achieved by concentrating on the health-care system alone, but must also be associated with changes in areas that have traditionally been outside the health sector. These factors, or "determinants" of health, as outlined in the previous chapters, have a profound power to influence the health of our children. We are in the middle of a shift in perspective. We are moving from viewing health as the absence of disease to a dynamic equilibrium created by a balance of the factors or determinants.

The current health care system is, however, still dominated by the traditional medical model. Making changes that will allow us to be more effective in addressing the health of Canadian children requires a broad, coordinated approach to children's policy issues. An approach that will stretch and test our usual way of doing business.

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