The Opportunity of Adolescence:

The Health Sector Contribution

Federal/Provincial/Territorial
Advisory Committee on Population Health

October 2000

Artist Statement

"As children become adolescents and then adults, they are faced with increased challenges. This is represented by a greater use of detail in each metamorphic stage of the cover image. The alternating wing designs and coloured squares show that every transition into adulthood is different, while the overall form of the quilt unites adolescents in their shared experience"

Meaghan Haughian, youth, creator of cover art image

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In October 1999, the following individuals participated in a one day session to provide the ACPH with a variety of perspectives on the experiences of and issues for youth in Canada today:

Dr. Miriam Kaufman	Hospital for Sick Children, Toronto
Dr. Simon Davidson	Children's Hospital of Eastern Ontario, Ottawa
Dr. Roger Tonkin	McCreary Centre Society, Burnaby
Dr. Tullio Caputo	Carleton University, Ottawa
Ms. Elizabeth O'Neill	Big Brothers/Big Sisters, Edmonton
Mr. Harvey McCue	Private Consultant, Ottawa
Dr. Sylvie Jutras	Université du Québec à Montréal, Montréal

This day was instrumental in developing the framework for the paper and the ACPH wishes to express its sincere appreciation to these individuals for their support at a critical stage in conceiving the structure and content of the paper.

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1.0 Executive Summary

Adolescence is a time of life characterized by enormous growth and development. Adolescents are at an important stage in developing lifelong skills that will enable them to make good decisions about lifestyle, learning, relationships and self-sufficiency. The health and well-being of adolescents is significantly influenced by the determinants of health, such as access to health services, personal health and coping skills, social supports, income, physical environment, and biological and genetic endowment. In collaboration with youth and other sectors, there are many opportunities for the health system to ensure that adolescents and their families have the information, resources and services they require to foster healthy physical, intellectual, emotional and social development.

Youth face two important transitions during the adolescent years. As they enter into the adolescent years, the care and support provided by their family and school changes to accommodate emerging expectations for increased responsibility and self-reliance. Adolescents have a great deal of work to do in the few short years before they reach adulthood when they are expected to be prepared to manage their own health and well-being, develop intimate relationships and participate in the workforce and community life.

Adolescents need supportive environments. Families, friends, schools, neighbourhoods, service delivery systems, the media and Internet, and their socio-economic status all influence adolescent health status, health behaviours and the use of health services. Adolescence is a time when youth take on more responsibility and become more independent in decision making. One of the important tasks is to experiment with new behaviours in the effort to understand choices and define oneself in relation to family, peers, community and future activities. Stable and supportive relationships with family and friends help adolescents to test and refine such life skills as setting goals and expectations, making smart choices, developing social competence, solving problems, dealing with conflict and contributing to community life.

Adolescents are an important element of our society. They have an abundance of positive energy, spirit and fresh ideas which often challenge the traditional norms of society. It is essential that their strengths, creativity, interests, capacities and abilities are recognized and nurtured. Adolescents seek out and respond to real opportunities to contribute to the quality of life in their schools, neighbourhoods and society. The unique vision and culture of youth has been, and will continue to be, a major contributor to positive social change.

While most adolescents in Canada are doing well, some adolescents are at risk of less than optimal outcomes. Youth who are growing up in adverse conditions, such as poverty, inadequate parental support and/or social environments that promote alcohol/drug use, unprotected sex and violence, need effective interventions that promote their capacity to “beat the odds.” As the

number of factors that place an adolescent at risk increase, they have a negative multiplier effect on the youth's health and social outcomes, necessitating comprehensive strategies to foster resilience. Vulnerable youth who are provided with a supportive and flexible environment can better access the resources they need to develop their abilities to face life challenges successfully.

Purpose

The paper provides extensive information about the specific health issues for adolescents. Using the determinants of health framework, the paper describes the current health status for adolescents and identifies areas where certain youth have greater needs for information and support. The paper considers the importance of gender, ethnic and cultural differences in adolescent development and behaviours. It identifies opportunities for the health sector to take action to promote the healthy development of adolescents, building on the health sector's previous investments in early child development.

What the Health Sector Can Do

Ensuring that today's adolescents grow up in an environment that fosters healthy physical, intellectual, emotional, social and spiritual development will enable them to become tomorrow's capable parents, caregivers, workers and citizens. The health sector has been successful at putting early childhood development on the social and political agenda. The health sector must now protect and enhance this initial investment by also investing in the adolescent period.

Five strategic directions have been identified to support the health sector in more effectively meeting the needs of adolescents and their families. Focussing on these strategic directions enables governments to build on their previous investment in early child development and to contribute to healthy development across the lifespan.

1. Improve the Availability and Accessibility of Health Services in Key Areas

To achieve their developmental milestones, all youth must have access to a wide range of confidential, youth-friendly health services which are accessible in both urban and rural settings. A number of concrete suggestions have been outlined in this paper that would greatly improve the availability and accessibility of services for youth. Specific programs and services can be created (e.g. outreach programs for vulnerable youth, peer mentoring programs, parent support groups), expanded (e.g. provide specific benefits not currently insured by our health system) or revised (e.g. remove legislative barriers that create barriers to access). Services can be provided in locations that are more accessible to youth (e.g. outreach programs, in schools, in malls, through the Internet). Finally, improving services in key health issue areas that have been identified in this paper (e.g. mental

health, health promotion, tobacco and substance use, family violence, sexual health, injuries) can also contribute to adolescent health and well-being.

Policy Challenge: Improve the availability and accessibility of services to youth in key health issue areas, in youth-friendly locations that support confidentiality, and by establishing, expanding and/or revising specific programs and services.

2. Provide Supportive Environments for Youth

The social and physical environments, as well as the education system, are important determinants of adolescent health. Families, peers, schools, communities, media and communications, and the natural and built environments significantly influence adolescent health and the personal health practices of youth. These environments involve multiple sectors such as education, social services, housing and environment. There are specific strategies identified in this paper that the health sector can undertake to better support families and youth.

Policy Challenge: The health sector must enhance services and supports to adolescents and families that promote healthy development within the family and work more closely with other sectors to develop joint strategies that support healthy environments for youth within the home, school and community.

3. Involve Youth

The importance of working directly with adolescents to improve their health was a key priority identified in the comprehensive health report *Toward a Healthy Future: Second Report on the Health of Canadians*. Youth have clearly articulated their desire to influence policies and services which are developed to support the safe and successful transition from childhood through to adulthood. Experts in adolescent development also support youth involvement and have outlined the benefits to both youth and society when opportunities are provided for youth to contribute to policy and program development and service delivery. Policymakers and experts need to consult with youth to determine their response to the desired directions and strategic directions outlined in this document.

Policy Challenge: The health sector must establish mechanisms through which youth can actively participate in identifying health issues that are important to them, in establishing priorities and developing strategies that will effectively meet their health needs.

4. Intersectoral Collaboration

Many of the determinants of health lie outside the direct mandate of the health system. It is important that the health sector initiate discussion with other sectors, such as education, social services, economic, recreation, justice and housing. To increase the understanding of how policies and programs of specific sectors affect adolescent health and to assist youth by making healthy choices the easy choices, it is necessary to establish a clear role for health in these areas and to develop comprehensive strategies that foster healthy adolescent development. Some specific areas for collaboration have been identified in this paper.

Policy Challenge: The health sector must identify opportunities to work more closely with other sectors, particularly education and social services, and collaborate in developing joint strategies that support the healthy development of adolescents.

5. Increase the Knowledge Base on Adolescent Health and Well-Being

To support healthy adolescent development, it is essential to have reliable, timely data on adolescents on all the determinants of health. Existing information must be comparable, linked regionally and made available on a national basis. Research, program evaluation and monitoring are necessary to increase our understanding of the conditions that support youth to choose healthy risk behaviours over risk behaviours that have a greater chance of having lifelong negative health consequences. It is necessary to learn which models are the most effective and which approaches work best in specific situations.

Policy Challenge: The health sector, in collaboration with other sectors, must undertake research on adolescent health which collects data across all determinants, improves knowledge about interventions that promote healthy adolescent development, and provides practical information to practitioners, policymakers and individuals.

2.0 Background to This Report

In Canada and around the world, there is much discussion about how adolescents can be supported to navigate the transition from childhood through adolescence and into adulthood by making healthy choices in all aspects of their lives.

This paper identifies key opportunities for action which respond to the request of Federal/Provincial/Territorial (F/P/T) Ministers and Deputy Ministers of Health for their sector to facilitate a cross-sectoral collaboration on adolescent development and for recommendations on how the health sector can support and contribute to healthy adolescent development and the National Children's Agenda.[a]

This paper builds on, and incorporates aspects of, two reports of the F/P/T Advisory Committee on Population Health, *Building a National Strategy for Healthy Child Development* (March 1998)[1] and *Investing in Early Child Development: The Health Sector Contribution* (September 1999).[2] It underscores the critical importance of a population health approach that emphasizes the key determinants of healthy adolescent development. The paper relies heavily on the data presented in the landmark report *Toward a Healthy Future: Second Report on the Health of Canadians*.[3] Unless otherwise indicated, the data presented in this paper come from this report.

The education, health and social services sectors are the primary points of public contact for adolescents and their families. There are valuable opportunities for the health sector to take action to more effectively meet the needs of adolescents and their families and to work across health disciplines and with other sectors and jurisdictions to improve the health and well-being of all adolescents.

3.0 Context for This Report

Investing in adolescent development enables governments to protect and build on their previous investment in early child development and to contribute to an overall strategy that supports healthy development across the lifespan. While the health of adolescents is a key element in the social and economic fabric of society, the developmental needs of adolescents are often absent from public policies, surfacing most frequently when adolescents behave in troubling ways. The costs to individuals, families, communities and governments are substantial when adolescents fail to make a healthy transition from childhood through to adulthood.

a The National Children's Agenda was developed by the F/P/T Council of Ministers on Social Policy Renewal and national Aboriginal organizations. Quebec agrees with the objectives of the National Children's Agenda. However, the Government of Quebec has decided not to participate in its development because it wishes to assume full control over programs aimed at families and children within its territory. Furthermore, Quebec has not signed the Social Union Framework Agreement. Consequently, any references to joint F/P/T positions in this text do not include Quebec.

There are windows of opportunity at transition stages of development which can help influence future development and overcome earlier disadvantages. Adolescence is one of these opportunities and should neither be lost nor left to chance.

3.1 Population Health Approach

A population health approach is crucial to addressing the key determinants of healthy child and adolescent development. ***Population health*** recognizes that many factors, in addition to the health system itself, exert a strong influence on health. These factors, known as ***determinants of health,*** include income and social status, social support networks, education, living and working conditions, physical environments, biology and genetic endowment, personal health practices and coping skills, healthy child development, health services, gender and culture. A framework based on the determinants of health examines the way in which these factors interact to influence the health of individuals, families, communities and society.

> **"[as]** ***substantial inequalities in health…are associated with social, economic and cultural factors, a framework based on the determinants of health allows consideration of the dynamic interplay of many other factors that common sense alone tells us are important.*****"**
>
> Fraser Mustard, 1991, Canadian Institute of Advanced Research, *The Determinants of Health*

There is a demonstrated link between income level, education and health status. The rich are healthier than the middle class, who are in turn healthier than the poor. As adults, the well educated are healthier than the less educated, and the employed are healthier than the unemployed. Gender is a fundamental influence on health and interacts with all other determinants. Adolescent girls are more vulnerable than adolescent boys to the early onset of smoking.[4] Adolescent boys are more prone than adolescent girls to injury[5] and behavioural problems.[6] The interaction among these determinants in the population health context influences health outcomes for individuals, families, communities and society.

3.2 Intersectoral Collaboration

There has been a renewed emphasis on finding ways to link the various sectors that have an influence on the development of adolescents. "Intersectoral action makes possible the joining of forces, knowledge and the means to understand and solve complex issues whose solutions lie outside the capacity and responsibility of a single sector."[7] There are many opportunities to engage the health, education, social services, recreation, housing, culture and justice sectors in joint strategies to achieve shared goals. Among the significant potential benefits of collaboration are the "enhanced capacity to tackle and resolve complex health and social problems which have eluded individual sectors for

decades; pooling of resources, knowledge and expertise that will allow partners to address problems more effectively; reduced duplication of effort and new ways of working together that will enable partners to contribute to improvements in social cohesion; and increased opportunities for sustainable human development and a more dynamic and vibrant society."[7]

Health initiatives to promote the health and well-being of adolescents must be undertaken in collaboration with education, social services and other sectors. As most youth spend a significant portion of their time in the school environment, the education sector has a particularly important role to play in the healthy development of adolescents and is a key partner in developing strategies for youth and their families. The social services sector is another important partner, particularly in its role to support adolescents who are experiencing difficulties in family life.

Each sector has the responsibility for initiating discussion and providing leadership to engage others in collaborative efforts to better meet the needs of adolescents. Across the nation and in every sector, there have been many activities to restructure government ministries, change how ministries work together and/or refocus publicly funded programs and services. The reorganization of governments provides new opportunities for sectors to work together. Focussing on the determinants of health, the health sector is well positioned to act as a catalyst in the identification of policy, planning, service delivery and research needs related to adolescent health and development.

3.3 Involvement of Youth

A theme emerging from many of the consultations with youth is their desire to influence the decisions that are made for and about them. However, there are often significant gaps between what individuals, families, communities and governments identify as key issues for youth and what youth themselves see as important. There is general agreement from governments and policymakers that, to close this gap, youth need to be involved in identifying both problems and solutions, and in providing input to policy and program decisions related to their health and well-being.

The perspective of adolescents is valuable and needs to be included. There are three key elements that appear to build the capacity of youth and aid them in becoming healthy adults: valuing and respecting youth; supporting youth in developing knowledge and decision-making skills; and creating positive

> *"**Young people deserve love and respect for who they are. They are also central to Canada's investment in its future as a caring and productive nation.**"*
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> F/P/T Advisory Committee on Population Health, 1999, *Toward a Healthy Future, Second Report on the Health of Canadians*

futures for youth.[8] It is essential that policymakers and service providers provide opportunities for the involvement of, and participation by, youth in decisions and policies that affect them.

4.0 Who Are They?

Although the adolescent period is normally considered to include those between the ages of 13 and 18, there are many "adolescents" whose chronological age places them outside this traditional age range. While they may be as young as 10 or older than 18, these individuals look and act as if they are adolescents.

Adolescence is a time of life characterized by intense growth and development. The bodies of adolescents are rapidly changing, with increases in height of up to 25% and body weight by up to 100%. In addition to their physical and sexual development, adolescents are assuming more responsibility for making decisions and becoming more independent. Relationships with their families and friends take on new dimensions.

This is an important period for the development of self-esteem. Adolescents begin to define themselves in relation to their community, culture and ability to influence the future. They are developing social and civic skills. They are acquiring the capacity to communicate their ideas and feelings effectively. They are refining their ability to resolve conflicts. They are working to make meaningful contributions and shape how their community or school functions, focussing on local social issues or those broad societal issues that will affect their future. They have a passion and an emerging sense of personal power that needs to find a voice.

Adolescents spend a significant portion of their time in school as they strive to acquire an education, developing the academic skills and personal habits that are important to lifelong learning and workforce participation. Adolescents are busy seeking their own identity and are exploring questions like "Who am I?", "How can I change the things I don't agree with?" and "What would I like to be?" In their quest to establish their own identity, adolescents begin to experiment with new behaviours. They are developing personal values and the ability to make healthy choices with respect to sexuality, the use of alcohol, tobacco and other drugs, eating habits, physical activity, and relationships. Parents, teachers and the media/communications influence how youth view taking risks and developing lifestyle habits. Gender and culture are particularly important to the formation of their identity. Adolescence is also marked by an intense need to belong. Peer norms, beliefs and behaviours have a powerful influence on choices and development.

While all adolescents are vulnerable and face a degree of risk, some are at greater risk of poor health outcomes because of the cumulative impact of multiple risk factors.[9] While there are

factors in a youth's environment and background that increase the risk of an adolescent running into difficulty (e.g. poverty, family violence), there are also factors that protect and support the young person to overcome these odds (e.g. effective parenting, positive peer relations). The health sector can make a significant contribution to the health and well-being of Canada's adolescents by enhancing the conditions that foster healthy human development and promote resilience, enabling more vulnerable adolescents to become healthy, successful adults.

A quick snapshot of adolescents in Canada today includes the following facts:

4.1 Population

- In 1998, 4,069,981 youth were between the ages of 10 and 19, representing 13.4% of the population. Of this number, 51% (2,088,886) were boys and 49% (1,981,095) were girls.[10]

- In 1996, there were 157,340 Aboriginal youth between the ages of 10 and 19, which formed about 19.6% of the total Aboriginal population (includes those who self-identified as North American Indian, Métis, Inuit or other).[11]

- According to the 1996 Census, approximately 13% of youth between 10 and 19 were members of a visible minority.[11]

4.2 Family Structure

- In 1996, most youth between the ages of 10 and 19 lived with two parents, who were either married or living common-law. Approximately 77% lived with two parents while 17% lived in lone-parent families.[11]

- About 30% of Aboriginal children 15 or under live in a lone-parent family.[12]

4.3 Where They Live

- In 1996, most youth (approximately 75%) between 10 and 19 years of age lived in urban areas. While 97% of visible minority youth lived in urban centres, only 47% of Aboriginal youth lived in urban areas.[11]

- In most cities, homeless youth account for approximately 10% to 30% of the homeless population and youth homelessness appears to be on the rise.[13]

- In 1996, Aboriginal children living away from their parents numbered more than 1 in 10, roughly 7 times the rate of non-Aboriginal children.[12]

- In 1997, 19.6% of children under the age of 18 lived in poverty.[14]

- Aboriginal youth are 1.9 times more likely than any other Canadian youth to live in a low-income household.[12]

- In 1997, the poverty rate for young women aged 18 to 24 was 26.6%; for young males, it was 20.2%.[14]

4.4 Language

- In 1996, 8.1% of youth aged 15 to 24 lived in families in which neither official language was used in the home.[15]

4.5 Youth With Disabilities

- In 1991, the most recent year in which national data were collected, approximately 166,400 youth between 10 and 14 reported having a disability. About 100,700 of these were males (10.6%) and 65,700 were females (7.3%).[16]

5.0 How Are They Doing?

In order to consider strategies to improve health outcomes for adolescents, it is essential to understand the current situation and discover how things have changed over time. Using the determinants of health approach, the following section identifies important areas of adolescent health and well-being.

5.1 Healthy Child Development

- In 1994–95, the majority of children and youth in Canada were physically, emotionally and socially healthy.[17]

- Ninety percent (90%) of brain growth occurs in the first three years of life, whereas only 15% to 20% of physical growth occurs during those years.[18]

- In 1996–97, 15% of children arrived at school with low cognitive scores and 14% scored high on measures that would indicate a behavioural problem.[3]

5.2 Health Services

- Although health professionals once had a very strong and valuable role within the school environment, the provision of direct public health services to schools has declined significantly.[19]

- For many problems (e.g. feeling depressed, problems with drugs or alcohol, problems with friends or family), youth are least likely to seek help from a professional (e.g. health professional or teachers/school staff).[20]

- Only one in six Canadian children with mental health problems receives mental health services.[21]

5.3 Personal Health Practices and Coping Skills

- Although there was little increase in the rate of smoking among adolescents between 1994 and 1997, girls between 12 and 17 years of age continued to smoke at much higher rates than boys of the same age during this period.

- Adolescents do not use condoms consistently and many report having unplanned intercourse while under the influence of alcohol or other drugs.

- The 1990s saw a resurgence in adolescent multiple drug use.

- The rate of teen pregnancy increased from 41 per 1,000 in 1987 to 47 per 1,000 in 1995.

- Since the early 1990s, there have been significant increases in suicide rates among youth aged 10 to 14.[22]

5.4 Social Environment

- In 1996–97, adolescents and young adults were the most likely age group to report that they had high levels of support.

- Youth rates of volunteering with charitable organizations have risen substantially, from 18% in 1987 to 33% in 1997.

- Although adolescence is characterized by growing independence from parents, the proportion of young adults aged 20 to 24 still living at home increased from 43% in 1981 to nearly 57% by 1996.[23]

5.5 Education

- Adolescents with strong connections to school are least likely to engage in behaviours that increase risks to their health.[20]

- Although most students report feeling safe in school, rates of bullying behaviour increased slightly between 1994 and 1998.[24]

- Although there are currently no national trend data, skipping classes increases with each grade level. In 1998, 20% of females and 22% of males in Grade 10 skipped three or more days of the current term.[24]

5.6 Income

- In 1997, unemployment was the highest among youth between the ages of 15 and 24.[25]

- In 1996, children under the age of 18 were the most likely (21%) to be classified as low-income.[25]

5.7 Physical Environment

- Between 1990 and 1998, there was a reduction in the consumption of nutritious foods and an increase in the consumption of less nutritious foods between Grade 6 and Grade 10.[24]

- In 1995, approximately 1.4 million Canadian children were exposed to environmental tobacco (second-hand) smoke in their homes.

5.8 Biology and Genetic Endowment

- Approximately 37% of adolescent males and 33% of adolescent females between the ages of 12 and 14 report having a chronic health condition (e.g. asthma, attention deficit disorder).[26]

6.0 How Do We Know If They Are Doing Well?

At the end of adolescence, individuals are expected to take on the responsibilities of adult life. Traditionally, the transition to full adulthood has been marked by the young person joining the workforce. Youth making the transition to adulthood today are doing so in a very different environment than their parents as access to full-time, meaningful and well-paying employment has been reduced. Consequently, many young Canadians are living at home longer, marrying later and postponing parenthood.

The transition to adulthood is a complex and uncertain phase for adolescents. Some adolescents, because of adverse conditions, will require additional support to develop the social, emotional and behavioural competencies expected of young adults. Adolescents who are well prepared to enter adult life have the knowledge and skills to achieve the following:[27]

6.1 Manage Their Personal Health and Well-Being

The decisions that individuals make have a significant influence on their lifelong health outcomes. Youth who are well prepared to make healthy choices related to nutrition, exercise, tobacco, alcohol and drug use, and sexuality will have enhanced physical and mental health. Youth who have developed effective coping skills will be able to adapt to life's challenges in a positive way.

6.2 Develop Intimate Relationships and Family Life

Positive relationships with peers, family members and other adults prepare youth for intimacy and family life. Young people who have positive self-esteem, good decision-making skills, autonomy and a sense of emotional commitment are more likely to be successful in their intimate relationships.

6.3 Participate in the Workforce

Youth who have achieved their educational potential and have acquired the necessary skills, experience and work habits are better able to participate effectively in the workforce. Given the dynamic economy, youth must be prepared to commit to lifelong learning, develop entrepreneurial skill and continually adapt to the opportunities and expectations of the workforce.

6.4 Participate in Community Life

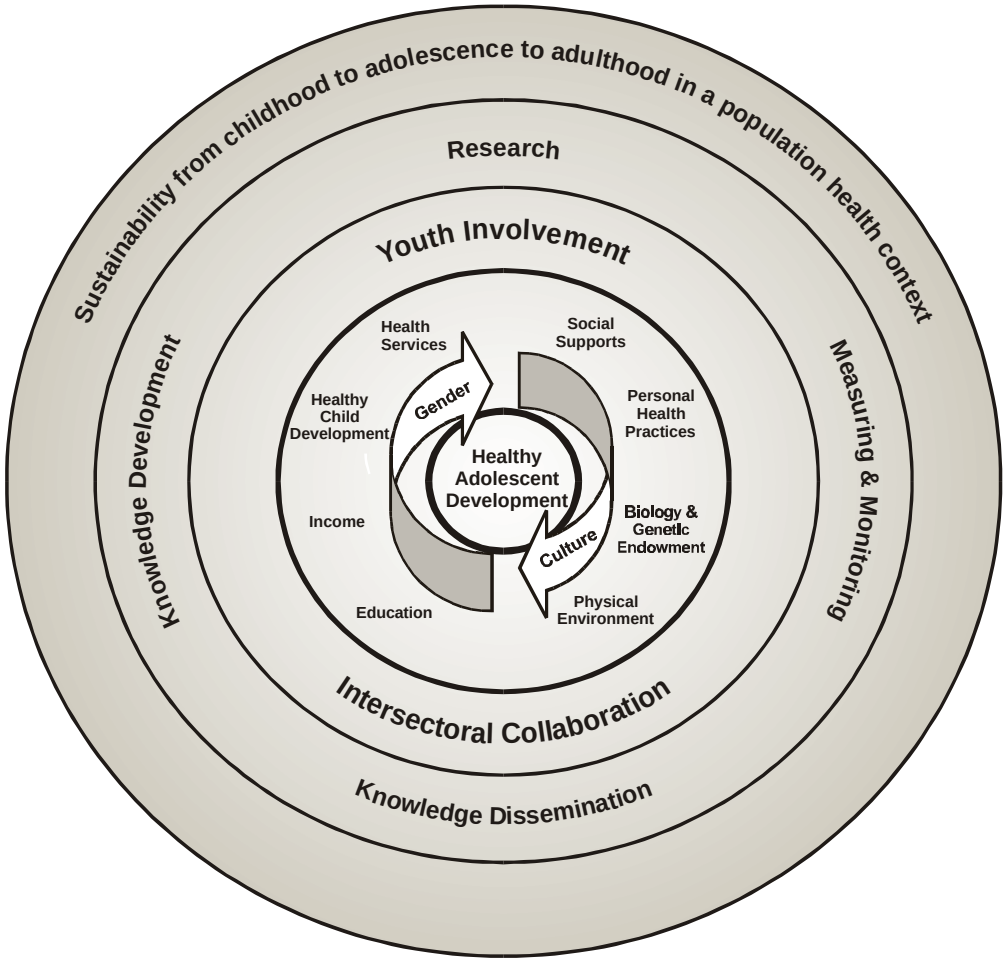
Participation in social networks acts as a buffer to health problems and creates a sense of well-being. Involvement in leadership and community service activities provides youth with the opportunity to develop the skills and attitudes needed to effectively contribute to their community. Such involvement can lead to healthier individuals and communities.

7.0 Factors That Influence Adolescent Development and Health Outcomes

Various determinants of health are particularly influential for healthy adolescent development, including the health system; social support networks (families, peers, community); the education system; personal health practices and coping skills; the socio-economic environment; the physical environment; and biology and genetic endowment. Other factors, such as gender and culture, are powerful determinants of health which operate across all environments.

The following framework illustrates the dynamic interplay of these determinants that influence health. Collaborative efforts across sectors and involving youth in decisions that affect their health and well-being must be undertaken in order to realize good health outcomes for adolescents. Mechanisms providing a solid evidence base on which to better understand and act on the interplay of these determinants is a critical component that supports the sustainability of health throughout the lifespan.

Framework for Healthy Adolescent Development



7.1 Healthy Child Development

The importance of healthy child and youth development to good health later in life is well documented. In particular, prenatal and early childhood experiences have powerful and long-lasting effects on health. Good nurturing, good nutrition and good health early in life create a foundation for positive brain development.

Healthy child development is largely influenced by and influences other determinants of health. Children who live in low-income families, in poor housing, or are exposed to tobacco and/or alcohol in utero are at increased risk for developing poor health outcomes. Children are more likely to have positive health outcomes as adults if they are exposed to healthy nurturing early on (e.g. parents reading to their child), are securely attached and are ready to learn once they begin school.[28]

7.1.1 Early Child Development

The period of development up to six years of age is critical to future health and development. Brain development that takes place in the first three years of life is rapid and extensive. Ninety percent of brain growth occurs in the first three years of life, whereas only 15% to 20% of physical growth occurs during those years.[18] Trillions of synapses are developed in response to stimuli that a baby's brain receives through its environment. Thus, having the right balance of inputs to the brain is key during the infancy stage of life.[29]

Although negative experiences in the early years have long-lasting effects that can be difficult to overcome later in life, good nutrition and nurturing support optimal early brain and physical development as well as later learning and behaviour. There is mounting evidence that quality, early child development programs that involve parents benefit both children and their families.[28]

In September 1999, F/P/T Ministers of Health released the paper *Investing in Early Child Development: The Health Sector Contribution*.[2] The paper recaps some of the current understandings about early child development, reviews the contributions of the health sector to the generally good health of Canadian children, and outlines areas in which the health sector can take the lead or make a significant contribution to healthy developmental outcomes for young children. A significant component of the discussion is the description of an integrated system of community-based services and supports for young children and their parents. Other important areas for investment include access to quality health care and public health services, parenting education, skills development and support, injury prevention and environmental health, as well as research, measuring and monitoring.

To ensure that children are well prepared for the transition into adolescence, it is essential that young children and their families have the supports and services needed to lay this critical foundation for health across the lifespan.

***Opportunities for Action**:*

- Continue to actively participate in the National Children's Agenda process
- Strengthen intergovernmental and intersectoral approaches to early child development as per the recommended actions outlined in *Investing in Early Child Development: The Health Sector Contribution*

7.2 Health Services

Health services are an important contributor to population health, particularly those which maintain and promote health and prevent disease and injury. Services that educate adolescents about health risks (e.g. teen pregnancy, sexually transmitted infections [STIs], smoking) and healthy choices (e.g. wearing seatbelts and bicycle helmets) and that encourage youth to adopt lifelong healthy living practices (e.g. nutrition, exercise) make a vital contribution to adolescent health and to continued health across the lifespan.

A strong, universal health care system is essential to good health outcomes. Action is needed in three priority areas to improve experiences for adolescents when accessing health care and public health services. These include accessibility and availability of services, confidentiality, and services that are youth-focussed and youth-friendly.

7.2.1 Accessibility and Availability of Services

At times, adolescents encounter difficulty when trying to access services they need. As one example, the rate of some mental illnesses is high among adolescents (e.g. depression, anxiety, eating disorders), and yet the number of adolescents receiving treatment and services is often very low. Youth cite harassment, fear, stigmatization and peer pressure as reasons for low rates of mental health service utilization. Some adolescents are turned away from programs because they are considered too young and/or do not meet the criteria for entering a particular program (e.g. in-patient alcohol/drug treatment programs). Language and cultural barriers also make accessibility difficult for some youth. For those living in rural, remote or on-reserve communities, many programs and services for youth simply do not exist.

Opportunities for Action:

- In partnership with youth and other sectors, develop alternative health care models that eliminate barriers to services and are focussed on adolescent

needs (e.g. youth-oriented services provided through adolescent clinics, outreach services, school-based services, services in malls)

< Improve access to and availability of services for adolescents in rural and remote areas, as well as in Aboriginal communities both on and off reserve

< Examine ways to improve access to non-insured health services (prescription drugs, dental care, contraceptives, optical care)

7.2.2 Confidentiality

Confidentiality is a very important concern for youth. During adolescence, young people begin to assume more independence. Part of this process involves exerting more control over decisions related to their health, including when, where and how they access health information, programs and services. When making contact with the health care system, youth are not always guaranteed confidentiality. Provincial and territorial regulations, legislation and practice guidelines may cause some adolescents to be refused access to a service unless they have the explicit permission of a parent or guardian.

Opportunities for Action:

< Improve confidentiality for youth within the health care system by using new technologies that promote self-access (e.g. health information and services accessed through non-traditional venues like malls, the Internet, tele-health, recreation centres, drop-in centres, schools)

< Remove legislative, regulatory and practice barriers that restrict access to health services and supports because of age and/or issues of consent

7.2.3 Services That Are Youth-Focussed and Youth-Friendly

When asked who they would go to about problems such as depression and drugs or alcohol, professionals (e.g. health professionals or teachers/school staff) are rated last, behind peers and parents. However, when needing birth control, professionals rank at the top.[20] Although the reasons for adolescents' decisions relating to seeking help are complex, their reluctance to seek out health professionals may be associated with their inaccessibility (e.g. outside normal school hours) or because many health professionals are uncomfortable working with adolescents and/or have inadequate formal training on adolescent development. A health system that is sensitive to youth and responds

appropriately to their health needs (e.g. sexuality, reproductive health, mental health) is vital.

Advances in medical treatment, technology and support services mean that many more youth with disabilities are living with their families and attending school in their community. Promoting the healthy development of these youth and supporting them in taking responsibility for their own health presents unique challenges.

It is important that culturally appropriate approaches be implemented to address health issues facing youth. For example, the traditional infrastructure that would have supported Aboriginal youth has been eroded. The role of the extended family and traditions of mentoring by older males and females in the community also have been significantly reduced. Culturally appropriate services need to be developed in coordination with these groups to ensure that services are relevant to youth.

Very few health and social service programs have been set up specifically to reach out to marginalized youth. Service delivery to marginalized youth is particularly important because of the high risks and often negative long-term health outcomes they experience. Additional effort is required to reach this population to reduce the likelihood of difficulties across the lifespan.

Services need to be adaptable to enable adolescents to obtain information, support and services that are appropriate to their stage of development and learning style. This is particularly true for new immigrant and refugee youth who are adapting to a new country and culture at the same time as they take on the developmental tasks of adolescence.

Opportunities for Action:

< Involve youth, particularly marginalized youth, in identifying health issues relevant to them and strategies to ensure services that are accessible and youth-focussed

< Develop and implement comprehensive adolescent health policies incorporating gender and ethnocultural perspectives

< Support the creation of inter-agency, multisectoral committees at the community level to focus exclusively on the health and behavioural challenges of adolescents, with special emphasis on efforts to change

attitudes about especially stigmatized groups (e.g. those experiencing racism, persons with disabilities, victims of violence, gay/lesbian/bisexual youth), to reach out to high-risk adolescents and to ensure confidentiality

< Incorporate adolescent health and development as a separate educational component for health professionals who are in training and in continuing education curriculum

7.3 Personal Health Practices and Coping Skills

An individual's health is influenced by a broad range of personal health practices. During adolescence, young people begin to make important decisions related to their personal values, lifestyles, alcohol, tobacco and other drugs, sexuality and other behaviours.

Health promotion and prevention strategies in these areas are critical to ensure that adolescents make informed decisions about their health, reduce harm and prevent costly problems from occurring. When adolescents do experience difficulties, services must be in place to meet their specific needs in a timely manner.

Adolescents use varied strategies to understand and manage the challenges they face. It is normal for youth to experiment with a number of behaviours. In doing so, they need to be equipped with accurate information so that they can learn skills that will enable them to develop their personal identity and deal effectively with the demands and challenges of everyday life. When parents, peers, schools and communities work together to ensure that healthy choices are the easy choices, youth are more able to practise smart risk taking and act in ways that enhance their health and well-being. They must also have appropriate information about their own development in order to recognize typical behaviour, as well as behaviour that is outside normal boundaries. Finally, resources and services must be accessible and available to them. By informing and supporting adolescents, they are able to try out new behaviours in a healthy and appropriate way.

Opportunities for Action:

< In collaboration with other sectors, implement strategies that make the healthy choices the easy choices

< Involve youth in the development of information campaigns and prevention programs

< In collaboration with other sectors, develop and implement harm reduction strategies that address youth risk-taking behaviours

7.3.1 Alcohol, Tobacco and Drug Use

By Grade 10, more than 90% of adolescents have tried alcohol.[24] In 1998, 43% of adolescent males and 42% of adolescent females reported being "really drunk" on two or more occasions. Excessive alcohol consumption that begins early in life has been associated with health problems such as chronic liver disease and cirrhosis, traffic injuries and death. In 1996–97, adolescents 18 to 19 years of age were most likely to drive after drinking too much.[25] Motor vehicle crashes are a leading cause of death among adolescents in Canada.

Smoking rates have increased substantially among adolescents, particularly girls, in the last 10 years. Adolescent girls are now more likely than adolescent boys to smoke. Many young women report that they smoke to alleviate stress.[4] Adolescents living in low-income situations have higher smoking rates than those in higher income brackets.[30] The age of onset for tobacco use is substantially younger among Aboriginal children in some communities.[31]

The 1990s have seen a resurgence in multiple drug use by adolescents. Experimentation with illicit drugs such as hallucinogens, stimulants, barbiturates, cannabis and Ecstasy is highest among youth, and the use of cannabis is increasing dramatically.[32] Gasoline, glue and other inhalants continue to be used by some youth. Experimentation with over-the-counter and prescription drugs is also seen in some adolescents.

Of particular concern is the substantially younger age of onset for the use of tobacco, alcohol and other substances (e.g. solvents, cannabis) within Aboriginal populations and the early age at which Aboriginal children and youth are entering treatment facilities. The highest rates of substance use are among low-income and homeless youth.[33]

Opportunities for Action:

- Develop broad and innovative programs for screening, risk assessment and treatment

- Further the implementation of the National Strategy to Reduce Tobacco Use in Canada, with particular emphasis on improved access to, and implementation of, smoking prevention and cessation programs

- Develop services and improve access to age-appropriate and culturally sensitive drug, alcohol and substance abuse programs (e.g. in rural

communities, for younger adolescents, low-income and homeless youth, Aboriginal youth)

< Examine the effectiveness of existing regulations on the advertising and sale of tobacco and alcohol to under-age youth

7.3.2 Nutrition

Eating nutritious foods and well-balanced meals can significantly improve health outcomes for youth. In 1998, while more than 75% of youth in Grade 6 reported that they ate fruit and vegetables daily, this declined to 70% by Grade 10.[24] The same study found that between 1990 and 1998, there was a slight reduction in the consumption of nutritious foods and an increased consumption of less nutritious foods (e.g. french fries, hamburgers, hot dogs, potato chips, full-fat milk) between Grade 6 and Grade 10. Some population groups experience difficulty in having sufficient, healthy food. Low-income households are the most likely to report running out of food, using a food bank and not always having enough food to eat. Some Aboriginal and Inuit communities experience serious problems with food shortages. In 1998, more than 250,000 children and youth under the age of 18 relied on food from food banks.

Opportunities for Action:

< Work with the education sector to enhance curriculum related to nutrition and active living

< Work with other sectors to enhance food security for youth living in low-income situations

7.3.3 Mental Health and Coping Skills

The adolescent period brings about a variety of changes and challenges that have an impact on the mental, emotional and spiritual health and development of youth. The changes, both internal (involved in the developmental process itself) and external (social, economic, cultural), combine to create undue stress and pressures on youth. Recent research presents a troubling picture of the psycho-social well-being of Canada's youth. The proportion of youth who felt "very happy" with their life declined sharply between Grade 6 (52%) and Grade 10 (30%). By Grade 10, over one third of girls and one fifth of boys indicated that they felt depressed at least weekly.[24]

In 1994, research demonstrated that 25% of youth between the ages of 15 and 24 met the criteria for a mental health problem.[34] Data also indicate that the adolescent period is critical for the emergence of mental health disorders. Young Canadians are most likely to report high levels of stress and distress and exhibit signs of depression.[22] Almost 22% of the Canadian population aged 12 or older is either depressed, distressed, or both.[22] Although rates are not available specific to youth, only one in six Canadian children with mental health problems is reached by mental health services.[21]

Suicide is the second leading cause of death among Canadian youth aged 10 to 24. The high levels of suicide and suicide attempts among young Canadians clearly demonstrate that much more can be done to enhance personal resourcefulness and to create supportive environments for youth. The disproportionately high levels of suicide among Aboriginal youth reflect a need for culturally appropriate and multi-layered interventions.

Youth engage in varied coping strategies focussed on problems (e.g. seeking support, problem solving) and on emotions (e.g. escape-avoidance, accepting responsibility). The strategies that youth use influence the support that they receive and moderate the impact of stresses on their health and health behaviours. Long-term studies on resilience demonstrate that despite challenges and vulnerabilities experienced by youth, they possess the resources and abilities to face these life challenges with success if provided with a supportive and flexible environment.[35] The protective factors and processes that foster resilience in children continue to be effective in supporting adolescents. These findings have important implications for interventions for youth as they strongly suggest that approaches that foster resilience should not be intermittent, but need to be available throughout all stages of development.

Opportunities for Action:

- Develop a mental health service delivery model and infrastructure that is multidisciplinary and can facilitate mental health promotion and processes for early identification, assessment and treatment for adolescents

- Increase access to youth-oriented mental health services (e.g. crisis intervention, counselling, peer support programs)

- Increase access to successful mental health promotion programs that support and educate youth in areas such as self-help and self-responsibility, coping skills, self-esteem, how to foster, maintain and

improve mental health, and when and how to seek assistance for identified problems such as depression and anxiety

< Develop mentoring, peer counselling and intervention initiatives in communities experiencing high rates of suicide

< Promote the use of healthy images of youth related to gender, body image and youth empowerment

7.3.4 Supporting Safe and Healthy Sexual Practices

Sexuality is a natural and healthy part of life and becoming a sexually healthy adult is an important developmental task of adolescence.[36,37] It is therefore not surprising that one of the most significant changes for many young people is an increasing awareness of sex and sexuality, and the beginning of sexual behaviour and sexual relationships. Although parents are the primary educators of their adolescent's regarding healthy sexual development, the health and education sectors also play important roles in this regard.

Sexuality education competes with several other issues for attention within schools and working in schools has been a decreasing priority for public health systems. Adolescents have expressed frustration with the narrow scope of the sexuality education they currently receive.[19] Many have expressed a need for a broader approach, including topics such as sexual orientation, date rape, negotiation with sexual partners and sex behaviours.[19]

Youth in many communities express concerns about access to condoms and the lack of privacy and confidentiality. These may be contributing factors to the reality that adolescents do not use condoms consistently and many report having unplanned intercourse while under the influence of alcohol or other drugs. Adolescents continue to be at high risk for HIV, STIs and unintended pregnancy.[19] Reported rates of chlamydia in adolescent girls are 5.7 times the national rate for all women.[38]

In 1995, there were 38,502 teenage pregnancies (47 per 1,000) and 23,657 live births. The rate of pregnancy for Aboriginal girls under the age of 15 is approximately 18 times higher than in the general Canadian population.[39] Pregnancy prevention programs that are congruent with the cultural belief systems of specific populations need to be accessible and available to youth.

Opportunities for Action:

- Develop sex education programs that are culturally appropriate for youth, in collaboration with parents and the communities in which they live
- Provide sexual health services and supports to marginalized youth who are unable or unwilling to access mainstream services
- Provide sensitive and confidential sexual and reproductive health care services that are affordable and available to adolescents (e.g. contraceptives, planned parenting services, prenatal counselling)

7.3.5 Unintentional Injuries

Unintentional injuries are still the leading cause of death among children and youth, as well as a tragic and costly cause of disabling conditions among young Canadians.[40] Boys and young men experience more unintentional injuries and more severe injuries than girls and young women.[5] Adolescents are much more likely than other children to die from injuries due to motor vehicle crashes, which account for nearly half of the injury deaths in this age group.[41] The rate of unintentional injuries for Aboriginal youth is 3 times higher than the national rate.[42] Aboriginal young people are at higher risk for early deaths from drowning and other causes.

Opportunities for Action:

- Enhance intersectoral collaboration to identify priorities and develop strategies for injury prevention, expand existing successful injury prevention programs, and involve youth in the development of comprehensive injury prevention programs
- Increase the understanding of gender and age differences in risk-taking behaviour and develop strategies that respond to these differences

7.4 Social Environment

The social environment of individuals has a significant impact on their health and well-being. These include families, peer groups, communities and the media. Social support is a resource for coping, and influences health, health behaviour and use of health services.[43,44] While supportive social environments have been found to be associated with positive health outcomes, those which are compromised (e.g. by violence) produce the

opposite effect. Premature death rates,[45] depression, complications in pregnancy, and disability from chronic diseases are among some of the negative health outcomes that have been noted.[46]

The quality of an individual's social environment can be greatly influenced by other determinants. For example, low-income families are more likely than high-income families to experience chronic stress, parental depression and poor family functioning.[47] People living in poverty are more isolated and report smaller social networks and less social support.[48] Adolescents who are depressed tend to withdraw from their friends.[24]

7.4.1 Families

Being the parent of an adolescent is a challenge and a great responsibility. Extensive research demonstrates that a close, secure relationship between youth and their parents fosters healthy development in adolescence. Adolescents who live in supportive families and have good relations with their parents experience fewer mental health problems, are rated by their peers as less anxious and less hostile, have more positive attitudes about safe sex, and girls have lower rates of risky sexual behaviour and fewer pregnancies.[49] Parenting style has been linked to healthy developmental outcomes for youth. Warm, supportive parents who set appropriate, clear rules and expectations, and engage their adolescents in relevant decisions, promote positive growth and development.[49,50] Parents who encourage good study habits, value school, and who work closely with teachers to promote acceptable behaviour and satisfactory work, contribute to achievement and increased length of time in school.[51,52]

> "***Give me an opportunity to voice my opinions in making family decisions (because usually my ideas are ignored or not considered seriously).***"
>
> Denise, age 14

Most adolescents report having healthy relationships with their parents. Studies have found that at this stage contact between parents and their adolescent children begins to decrease.[49] While adolescents typically spend greater periods of time with their peers, the importance of maintaining positive parent–adolescent relationships is essential to the adolescent's emotional and psychological well-being.[49] Although spending time with youth may be a challenge for some parents, the majority find different ways to do so (e.g. family outings, having a discussion, watching television or playing sports together).[53]

Many parents are challenged by the growing independence and autonomy of their adolescents. Even though youth want and need guidance and support from parents, conflicts can emerge around issues of trust and behavioural expectations.[24]

> ***"Accept the fact that I am growing up and I need to explore the world with and without you. Put some of your fears behind you and let me take chances that are healthy for me. I can't always be right by your side and under your wing. I need to learn how to be a good leader to myself."***
>
> Trisha, age 16

Parent–child relations can be compromised in times of extreme stress, such as during a family break-up (e.g. parental separation, divorce, death of a parent). Almost one in five adolescents (17%) between the ages of 10 and 19 lived in a lone-parent family in 1996. Adolescents who live in lone-parent families have lower self-esteem and depression and are more likely to engage in risk-taking behaviours such as smoking and drug use.[54] A significant portion of adolescents in two-parent families are living in blended families. In some circumstances, in both affluent and economically disadvantaged families, parents or other adults are unable or unwilling to meet the needs of their adolescent which can result in temporary or permanent removal of the youth from the home. Although Aboriginal youth are disproportionately represented in the foster care system, many Aboriginal communities and families are working hard to recapture and strengthen their cultural identity. While foster care can have adverse consequences on youths' well-being, the presence of a significant adult in a youth's life can promote resilience. With support and resources, even vulnerable or at-risk adolescents can do well in spite of adverse conditions.

Adolescent pregnancy presents significant challenges for young parents and their children. Many negative outcomes have been linked with adolescent pregnancy, including low educational achievement, poverty and poorer social outcomes.

Although pregnancy rates among adolescents have remained relatively stable in recent years, the 1995 rate of 47 per 1,000 is cause for concern. Strategies identified as effective in reducing unplanned and unwanted pregnancies include the combination of high-quality sexual health education programs, access to contraception and confidential clinical services.

Opportunities for Action:

- Develop resources for parents that focus on the adolescent period and family-based strategies that positively influence healthy adolescent development

- Improve the accessibility and availability of parent support groups where families can share information, resources and experiences about their developing adolescents

- Provide youth with information on alternate choices to parenthood (e.g. adoption) and provide services to support them in the choice they make

7.4.2 Family Violence

The exposure of youth to various forms of violent and abusive behaviour has significant and lifelong health and behavioural impacts. Injuries that can result include fractures, head injuries, bruises, burns, STIs, pregnancy, and a broad range of other difficulties including depression, intellectual impairment, anxiety and substance abuse.

It has been estimated that approximately 50% of Canadian families are affected by some kind of abuse among their members.[55] Adolescents who have grown up in violent homes – in which they were exposed to physical, emotional and/or sexual abuse by one parent against the other and/or in which they themselves have been the victims – may not escape these patterns. Adolescents often attempt to intervene to protect their mothers from abuse, which may lead to escalated attacks on themselves. During this period, adolescents may also become abusive not only toward their already victimized parent but toward others.

With growing physical independence, adolescents often absent themselves from the home for longer periods in order to escape such situations, thereby making them more vulnerable to negative influences from peer groups, gangs and those who prey on impressionable youth for the purpose of sexual exploitation. Street youth have particularly high rates of a history of abuse.[56]

Opportunities for Action:

- More actively engage the health sector in strategies that respond to the impact of family violence

- In collaboration with the education sector, promote anti-violence, school-based educational programs (e.g. anger management, conflict resolution) and public awareness campaigns to counteract media messages that violence is appropriate in some situations

- In collaboration with the social services, education and justice sectors, ensure that services are available to youth experiencing family violence

7.4.3 Peers

As youth strive toward independence and personal autonomy, they tend to decrease time spent with family members and increase contacts with peers of a similar age. Through interactions with their peer group, adolescents develop, test and refine life skills such as problem solving, communication and coping with pressure and stress. Adolescents who have supportive and responsible friends are more likely to be confident, to feel good about school, to get along with their parents and to feel healthy.[24] Peer support is particularly important during adolescence.[57] Support from peers has been linked to enhanced social competence.[58] Adolescents involved in formal mentoring programs are less likely to use alcohol and to skip classes.[59]

Experimentation is a normal part of adolescent development. The peer group is the most decisive predictor of risk behaviour in adolescence, as it is the primary environment in which experimentation takes place.[24] While involvement with a peer group can improve communication skills, it can also increase health-risk behaviours.[60] Consequently, youth need to be educated and equipped with the knowledge required to make healthy choices.

Gangs are most attractive to youth who lack social competence, are vulnerable (e.g. youth experiencing abuse) and/or who are homeless. The gang often meets the youth's need to belong and provides them with a sense of community. Gang membership often requires youth to engage in excessive and multi-risk–taking behaviour such as substance abuse, criminal and violent activities. Participation in youth gangs can have devastating effects on health outcomes. It is critical that adolescents who are particularly vulnerable and may be susceptible to gang influences are provided with alternative forms of support.

Parents play a significant role in reducing the likelihood of their adolescents' involvement in antisocial and delinquent activities. For example, research has

found that consistent parental supervision and parental initiative in teaching responsible decision making reduce the likelihood of engagement in antisocial and criminal activities associated with gang membership.[49]

Opportunities for Action:

- Increase parental knowledge and awareness of the important influence they have in their adolescents' interactions with peer groups and subsequent health outcomes

- Promote school and community-based programs that involve peer mentors and peer support groups, particularly for vulnerable youth

7.4.4 Youth Homelessness

Although there are currently no national data on the homeless population, it is estimated that between 10% and 30% of the homeless population are youth and that there has been an increase is the number of homeless youth in recent years. Homelessness presents obvious risks to good health. Almost 50% of street youth in Vancouver report fair or poor health.[61] Street life often results in poor hygiene, inadequate diet, irregular sleeping patterns, exposure to the elements, and STIs. Symptoms are often untreated due to the reluctance to visit a health care professional.[61] Street youth also tend to have higher rates of learning disabilities and attention deficit disorders.[62] Violent behaviour, involvement in the sex trade, and substance use are also common behaviours that pose serious health risks to homeless youth.

Homeless youth are often transient and this increases the likelihood of living in unsafe environments such as rooming houses or abandoned buildings. Furthermore, transiency makes attending school on a regular basis extremely difficult, if not impossible. Transiency, negative experiences with services (e.g. foster care) and a lack of youth-friendly services often contribute to alienating homeless youth from the services that they need. Outreach services are needed to engage these youth. Homeless youth in Canada report that finding support is their biggest challenge.[63]

Opportunities for Action:

- In collaboration with other sectors, develop and expand outreach and storefront services for vulnerable youth

- Develop intersectoral response teams to quickly engage and support high-risk youth who are seeking help to change their lives

7.4.5 Communities

The quality of community environments has an impact on adolescent development. Communities that promote civic vitality provide an environment in which adolescents can grow and refine skills, and support opportunities and initiatives which include youth in decisions that affect them. These communities also advocate for youth through organizations, committees and advocacy groups.[64] As of 1998, 21 of 22 Canadian cities had Youth Advisory Committees in place or provided forums and ad hoc committees encouraging youth to express their views.[64] These initiatives can reduce feelings of alienation often expressed by youth who are excluded from the decision-making process.

A positive by-product of youth participation is an increase in the proportion of youth who volunteer, up from 18% to 33% between 1987 and 1997. Community service and volunteer work provide opportunities for youth to develop meaningful roles within their communities to use their current knowledge, and to gain practical experience in preparing for their entry into the workforce. These opportunities promote positive, supportive attachments with peers and adults outside of their immediate families. One strong predictor of resilience in youth who succeed despite adverse circumstances is a supportive adult in their life.[35]

***Opportunities for Action*:**

- Establish mechanisms for youth to assess needs and inform their community about issues, expectations, opportunities and solutions

- Provide enhanced opportunities for youth participation in developing policies and programs

- Evaluate the effectiveness of various mechanisms for youth participation (e.g. advisory committees) in the ability of youth to influence the policy process

7.4.6 Media and Communications

The media and the Internet can be important sources of information about a broad range of issues that affect the health of adolescents. Educational programming, interactive Web sites, and the exchange of e-mail are vehicles that can assist youth

in obtaining health information and support. Information about issues that affect health (e.g. smoking, alcohol/drug use) can be obtained through public awareness campaigns, media messages and educational programming on television. Interactive Web sites can be accessed on a wide variety of topics such as interpersonal relationships, sexuality and body piercing. Chat rooms and e-mail are also accessible vehicles of support for youth with chronic conditions or disabilities and for youth isolated in rural areas.[65] Support provided through Internet resources has also enhanced health-related outcomes for adolescent mothers in low-income situations.[66]

However, the media and the Internet can also pose considerable harm to youth. Television programs often glamorize violence and promote unrealistic body shapes, smoking, drinking and other unhealthy behaviours. The Internet is also becoming a vehicle for sexual predators to entice youth into dangerous situations.

Parents, educators and professionals need to be aware of these influences and their potential to influence a young person's behaviours and lifestyle choices. Youth must be aware of the benefits and risks that they face from media messages and use of the Internet.

Opportunities for Action:

< Make health information that youth need (e.g. healthy nutrition, sexual health) readily available on the Internet

< Support the development of media awareness curriculum to educate youth about the potential health benefits and risks posed by the media and the Internet

7.5 Education

Education significantly influences health outcomes across the lifespan. Research has often found that health status improves with one's level of education.[67] Individuals with higher levels of education are more likely to engage in healthy behaviours (e.g. practise methods of avoiding STIs, exercise regularly, use safety equipment), know the risks for heart disease and are more likely to rate their health as "excellent."

Level of education and its influence on health is also closely linked to a number of other determinants. Higher levels of education are associated with increased labour force participation and higher income. Studies have linked improved health status (e.g. life expectancy, fewer diseases, reduced infant mortality) with higher levels of income.[68,69]

The level of education attained by a parent has been linked to their child's school readiness[17] as well as mathematical achievement and verbal ability in school.[70]

7.5.1 The School Environment

The school environment is an important setting where youth practise intellectual, emotional and social competencies and continue to develop important skills needed for adult life. Interactions with peers and teachers provide opportunities to develop and refine an adolescent's sense of identity and direction, ability to reason and use abstract thought, and to develop critical thinking, problem-solving and communication skills. Participation in extra curricular activities, such as recreation, volunteering and mentoring, also provide opportunities to practise citizenship, partnership and leadership roles and to assume more responsibilities. A positive and enriching school environment can help to strengthen these competencies and skills.

In contrast, a school environment that is perceived as unsatisfactory or unsafe can contribute to adjustment difficulties and disengagement from school (e.g. skipping classes, dropping out). Adolescents who drop out of high school before graduation are more likely to come from low-income families or communities where the completion of high school is not considered very important. Adolescents who do not complete high school face an increased likelihood of poor health, delinquency, crime, substance abuse, economic dependency and a lower quality of life.[51] Skipping classes has been associated with a number of health-risk behaviours including drug use, smoking and having been drunk.[24] Males, Aboriginal youth, low-income youth and those with learning disabilities are more likely than others to drop out of school.[51] Bullying, harassment, threats and assault are of growing concern for many adolescents and contribute to the high numbers of adolescents who feel unsafe at school.[20,24,71] In addition, as adolescents progress through school, the level of satisfaction with the school setting continues to decrease, with girls consistently indicating higher levels of satisfaction than boys at all grade levels.[24]

Opportunities for Action:

< Work with the education sector to develop comprehensive school health programs which support healthy adolescent development in a safe environment

< Work with the education sector to develop and implement strategies within the school setting to respond to youth at risk for dropping out or poor academic achievement, to respond to traumatic events and to create a positive school environment

7.5.2 Health-Related Curriculum

Life skills management and physical education are the main forum within the school setting where adolescents learn about their development, general health and healthy behaviours, and are able to engage in a regular routine of physical activity.

Most schools provide a basic level of education about physical and sexual development as well as information and discussions on specific topics affecting adolescent health (e.g. tobacco/alcohol/drug use, sexuality, nutrition, hygiene, exercise). Although knowledge about health and healthy behaviours among the adolescent population is generally high, many youth continue to engage in a number of risky behaviours which suggests that current education strategies may not be as effective as they could be. Continual learning throughout the adolescent period about health and health practices can assist adolescents in making informed decisions about their behaviour.

Regular physical activity offered through physical education classes or throughout the curriculum directly benefits the health of adolescents as it is associated with better overall health and higher levels of academic achievement.[72] However, only about 40% of Canadian children and youth are physically active enough to meet recommended levels for healthy development.[72] The high costs of participating in sports and recreation activities (e.g. cost of travel and equipment, user fees) also create additional barriers for many families.[73]

After Grade 9 or 10, physical education classes are often offered as electives, not as part of the core curriculum. This may contribute to the low levels of physical activity of many adolescents and high numbers of youth who engage in risky behaviours.

Opportunities for Action:

< Advocate that physical education become part of the core curriculum throughout high school

- Improve the availability and quality of health and life skills curriculum provided to adolescents in school

7.5.3 Health Professionals Within the Education System

Health professionals, such as public health nurses, psychologists, speech pathologists, audiologists and counsellors, provide a broad range of health services within the education system. Health professionals conduct screening and risk assessments, provide support, counselling and guidance, and have, in the past, played active roles in educating adolescents about a broad range of health issues (e.g. sexuality, reproduction, nutrition).

However, access to health services within the school setting has been seriously eroded in recent years, with interventions focussing on the provision of tertiary, rather than primary prevention services. For example, public health nurses, psychologists, speech pathologists and counsellors are often accessible only to those already exhibiting problems. These professionals are also difficult to access, given that there is often only one health professional assigned to several schools, leading to substantial waiting lists. Adolescents who do not have access to these services when needed are at a disadvantage.

Opportunities for Action:

- Enhance access to health professionals and health services within the education system (e.g. provide primary prevention service, outreach services for vulnerable youth, a more active role in health education)

- Support collaboration between health and education professionals to promote school-based peer support programs

7.6 Income

By the adult years, research shows a direct correlation between level of income and health status, with people at each level of income having better outcomes than the preceding level.[74] Socio-economic status and the income gradient (i.e. gap between the rich and the poor) are also significant factors in predicting population health outcomes. The larger the gap, the more likely it is that the resulting inequity creates significant social problems, especially for youth.

In 1997, 19.6% of children under the age of 18 lived in poverty.[14] Those youth who have grown up in poverty have experienced poverty's multiplier effect on other risk factors.

The family's income level is related to the parents' educational level, which is a predictor for the children's readiness to learn at school entry, which is a predictor for the level of academic and behavioural adaptation, which is a predictor for success in school, graduation and employment.

7.6.1 Access to Adequate Income and Inequality

For those youth who grow up in low-income families and in families living in poverty, access to the basic necessities such as medication, school supplies and fees, transportation and recreational activities is difficult. For Aboriginal children and youth, for those youth who have moved to life on the street and for adolescent parents, the struggle to maintain adequate housing and nutrition while continuing in school is particularly challenging.

Many adolescent parents live in poverty and raise their children in poverty. The cycle of risk factors associated with poverty often persists for the next generation. Low birth weight and infant mortality are more prevalent in families and neighbourhoods at the low end of the income scale. Youth living at a low-income level are at higher risk for complications during pregnancy and giving birth. Their age-based risk factor is further exacerbated by inadequate access to prenatal support, nutrition, and education on the negative impacts of smoking and drinking.

Youth often feel out of place in a school setting where the right clothes, school supplies, access to "disposable income" and participation in extracurricular activities are an important contributing factor to fitting in with the peer group. Many students work part time and as a result have less time to concentrate on school work. For those students who work either to support their family or to provide clothes for themselves and to cover school fees for extra activities, work is a necessity.

Research has demonstrated that the risk factor of poverty can be ameliorated by the protective factor of good parenting. Supportive and engaged families, neighbourhoods, schools and peers also provide youth with "social capital" which is known to enhance positive health and socio-economic outcomes.[75]

Opportunities for Action:

< Provide non-insured health benefits for youth living in low-income families and for youth who are living on their own or "on the street" (e.g. prescription drugs, optical care, contraceptives, dental care)

- Provide education and support youth to delay pregnancy until after they have completed high school

- Provide prenatal nutrition and vitamin supplements for pregnant adolescents and provide support to adolescent mothers to stop smoking and drinking

- Provide comprehensive outreach services to adolescent parents, including information and resources to facilitate healthy child development, and support to complete their high school education and build a sustainable system for the new family

7.7 Physical Environment

The physical environment encompasses both the natural and the human built environment. The quality of air, water and food, the condition (construction and maintenance) of the housing and schools in which people live and learn, the quality of consumer products and the environment in which individuals work and recreate all influence an individual's health.

Other determinants of health interact with the physical environment and contribute to health. A neighbourhood where individuals feel safe and that has ample green space can encourage a regular routine of physical activity, which in turn is associated with reduced risks for chronic diseases and a myriad of other health-related benefits.[76] Substandard equipment in playgrounds is associated with unintentional injuries. Low-income families are the most likely to live in substandard housing.

7.7.1 Housing

Most youth in Canada live in safe and affordable housing. However, increasing numbers of youth find themselves living in substandard housing. A lack of affordable housing increases the likelihood of families living in substandard housing where exposure to lead paints, damp walls and ceilings, crumbling foundations, corroded pipes or inadequate heating and ventilation is high.[77] Substandard housing also increases the risk of exposure to a variety of indoor air quality hazards, including mould or the presence of toxic substances such as asbestos.[78]

The communities in which substandard housing are located can also pose health risks to individuals. This type of housing is often located close to industrial areas where there is high-density traffic, little green space and increased amounts of pollutants in the air.

Opportunities for Action:

- Strengthen the role of public health inspectors and enforce minimum standards for housing
- Advocate for the increased availability of safe and affordable housing for low-income families

7.7.2 Sun Exposure

In Canada, the most serious exposure to the sun occurs during the summer months, while individuals are involved in outdoor work and leisure activities. Approximately 80% of an individual's lifetime exposure to the sun is experienced before the age of 18.[79]

Being tanned is often perceived to be attractive and is associated with health and fitness. Adolescents who are responsive to these images often intentionally expose themselves to the sun to develop and maintain a tan. Adolescents who are outdoor sports enthusiasts have an increased exposure to excessive sunlight. Unfortunately, excessive exposure to UVA/UVB radiation may cause skin cancer, depression of the immune system and an increased risk of developing cataracts.

Opportunities for Action:

- Promote protective measures (e.g. wearing protective clothing, staying in the shade and avoiding midday sun, using 15+ sun screen, wearing sunglasses and a hat)
- Educate youth about the harmful effects of UVA/UVB rays

7.7.3 Air and Water Quality

Second-hand smoke or environmental tobacco smoke (ETS) is associated with heart disease, lung cancer later in life and is a contributing factor to low birth weight babies. It has been estimated that almost 1.4 million Canadian children were exposed to ETS in their homes in 1995. Many municipalities have

restrictions on smoking in public places. However, in restaurants and malls often frequented by youth, the most common restrictions on smoking are designated, unventilated smoking areas which do not adequately protect the non-smoker.

Many Aboriginal people who live on reserves do so in conditions of extreme poverty. Inadequate water treatment systems contribute to the poor quality of drinking water, which increases exposure to waterborne diseases. Other risk factors such as poor nutrition, inadequate sanitation, substandard housing, contaminated food and indoor and outdoor environmental contaminants make Aboriginal children and youth highly vulnerable to the toxic effects of environmental contaminants.[80]

Opportunities for Action:

- Further the implementation of the National Strategy to Reduce Tobacco in Canada, with particular attention to policy and legislative activities to protect individuals from exposure to second-hand smoke

- Work with appropriate government departments to improve air and water quality in compromised communities

7.8 Biology and Genetic Endowment

Research in a variety of fields, including the social sciences, biology and epidemiology, is documenting links between the determinants of health and biological pathways. Biological factors and genetics play an influential role on health status. A person's height, skin and eye colour are all biologically determined. Biological factors can have both positive and negative effects on health outcomes. While a family history of diabetes, cancer, schizophrenia, heart disease or birth defects increases the chances of an individual developing the same condition, there is increasing evidence that the effects of heredity are strongly moderated by the physical and social environments.

Biological and genetic factors are also closely related to a number of other determinants. An individual's personal income can be greatly affected if she or he has a chronic health condition, such as schizophrenia or cerebral palsy. Youth with special needs may struggle to obtain a good education or to keep employment, especially if they require specialized care or are living in an institutional setting. Within the context of the social environment, biological and genetic risk factors can limit the kinds of environments in which some children can participate. Some schools and recreational facilities are not be able to accommodate youth with disabilities.

7.8.1 Youth Who Have Chronic Health Conditions, Developmental, Behavioural and Physical Challenges

Although most adolescents in Canada are healthy, some live with disabilities that limit their activity and compromise their general health. Although youth with disabilities face many unique challenges, with sufficient support they can have a full and active life. The degree and severity of a disability is influenced by access to services for the condition, the effectiveness of those services and accommodations by parents, schools and communities.[51] In 1995–96, approximately 151, 858 adolescent males (7%) and 162,788 adolescent females (8%) between 10 and 19 years of age reported having a disability.[26]

Attention deficit disorder (ADD) and attention-deficit hyperactivity disorder (ADHD) are disorders which first become apparent in the toddler years but often persist into adolescence or even adulthood.[51] Genetic factors, prematurity and developmental immaturity are significant risk factors for acquiring these disorders.[51] While ADD and ADHD are most evident during the preschool and early elementary years, they often result in secondary conditions which affect health and development through adolescence, such as aggression, early school leaving and later substance abuse.[51]

Fetal alcohol syndrome (FAS) and fetal alcohol effects (FAE) can affect the ability of an individual to lead a healthy life and to accomplish the developmental tasks required of adolescence. These conditions are associated with alcohol use during pregnancy which can lead to life-long health deficits such as mental and physical disabilities. Adolescents with FAS/FAE face special challenges, as they often experience learning disabilities and behavioural problems which can lead to difficulties with making friends, with peer groups and attaining lower educational achievement. While there are no statistics regarding the extent of this condition in Canada, further work in this area would assist professionals and those affected by FAS/FAE to better understand and develop effective responses to these conditions.

Chronic health conditions, such as arthritis, asthma, epilepsy, allergies and others, are common among youth in Canada. Recent data show that among adolescents between the ages of 12 and 14, 37% of males and 33% of females reported having a chronic condition.[26] The rate increased with age; 40% of males and 49% of females aged 15 to 19 years reported having a chronic condition. Youth with chronic health conditions often require additional supports and services to manage their health.

Opportunities for Action:

- Increase support to adolescents and their families to manage chronic health conditions and the care related to their disability

- Provide support to enable adolescents and their families to develop plans for the transition to adulthood

- Promote awareness of the impact of alcohol use during pregnancy through public information campaigns and inclusion in school curriculum in order to reduce the incidence of FAS/FAE

7.9 Beyond the Determinants of Health

7.9.1 Research, Measuring and Monitoring

Monitoring, measuring and reporting children's progress is a key building block of the National Children's Agenda. There is growing consensus that ongoing, reliable and timely information on the well-being and development of adolescents is needed to guide government actions. Regular measuring and reporting of how adolescents are doing in key areas of their lives and key influences on their well-being builds awareness, understanding and commitment. Monitoring and measuring efforts also allow policymakers to determine if Canada's adolescents are developing in a healthy way and to identify key priorities for action. In short, monitoring and measuring informs policy making, ensuring that actions are as focussed and effective as possible.

Current data about adolescents are often not gender-specific nor do they include hard-to-reach youth such as street youth, youth in care or Aboriginal youth living off reserve. More research is required to understand how gender and ethnocultural diversity influence development and the developmental challenges faced by Aboriginal youth. There is a lack of baseline survey data on youth culture, attitudes and behaviour, and on adult attitudes toward adolescence.

Gaps exist in our knowledge about the processes by which youth choose either risky behaviours or healthy behaviours, as well as health-enhancing behaviours during the adolescent stage of growth and development. Little is known about the protective factors which prevent youth from engaging in unhealthy lifestyle choices.

Qualitative and participatory research which allows the voices of youth to be heard is needed, especially studies in which adolescents formulate the questions and have some voice in how the results are used. Most research focusses on specific high-risk populations and their behaviours (e.g. young offenders, drug users, single teen mothers). The voices of mainstream youth need to be heard.

Opportunities for Action:

- Support data linkage between sectors and collect regionally based data to supplement national data
- Collect and analyse data on specific populations (e.g. urban Aboriginal youth, youth with disabilities/chronic conditions) and include gender and age differences
- Continue to develop, implement and evaluate models of intersectoral collaboration in the delivery of services
- Use outcome data to improve service delivery and enhance evidence-based decision making
- Support research in priority areas of adolescent health: resiliency and identity in adolescence, risk-taking and health-enhancing behavioural choices, gender-specific and ethnocultural-specific studies
- Synthesize and disseminate research on healthy adolescent development

"As children become adolescents and then adults, they are faced with increased challenges. This is represented by a greater use of detail in each metamorphic stage of the cover image. The alternating wing designs and coloured squares show that every transition into adulthood is different, while the overall form of the quilt unites adolescents in their shared experience"

Meaghan Haughian, youth, creator of cover art image

Appendix A

Opportunities for Action

Healthy Child Development

1. Continue to actively participate in the National Children's Agenda process

2. Strengthen intergovernmental and intersectoral approaches to early child development as per the recommended actions outlined in *Investing in Early Child Development: The Health Sector Contribution*

Health Services

3. In partnership with youth and other sectors, develop alternative health care models that eliminate barriers to services and are focussed on adolescent needs (e.g. youth-oriented services provided through adolescent clinics, outreach services, school-based services, services in malls)

4. Improve access to and availability of services for adolescents in rural and remote areas, as well as in Aboriginal communities both on and off reserve

5. Examine ways to improve access to non-insured health services (prescription drugs, dental care, contraceptives, optical care)

6. Improve confidentiality for youth within the health care system by using new technologies that promote self-access (e.g. health information and services accessed through non-traditional venues like malls, the Internet, tele-health, recreation centres, drop-in centres, schools)

7. Remove legislative, regulatory and practice barriers that restrict access to health services and supports because of age and/or issues of consent

8. Involve youth, particularly marginalized youth, in identifying health issues relevant to them and strategies to ensure services that are accessible and youth focussed

9. Develop and implement comprehensive adolescent health policies incorporating gender and ethnocultural perspectives

10. Support the creation of inter-agency, multisectoral committees at the community level to focus exclusively on the health and behavioural challenges of adolescents, with special emphasis on efforts to change attitudes about especially stigmatized groups (e.g. those experiencing racism, persons with disabilities, victims of violence, gay/lesbian/bisexual youth), to reach out to high-risk adolescents and to ensure confidentiality

11. Incorporate adolescent health and development as a separate educational component for health professionals who are in training and in continuing education curriculum

Personal Health Practices and Coping Skills

12. In collaboration with other sectors, implement strategies that support youth by making the healthy choices the easy choices

13. Involve youth in the development of information campaigns and prevention programs

14. In collaboration with other sectors, develop and promote harm reduction strategies that address youth risk-taking behaviours

15. Develop broad and innovative programs for screening, risk assessment and treatment

16. Further the implementation of the National Strategy to Reduce Tobacco Use in Canada, with particular emphasis on improved access to, and implementation of, smoking prevention and cessation programs

17. Develop services and improve access to age-appropriate and culturally sensitive drug, alcohol and substance abuse programs (e.g. in rural communities, for younger adolescents, low-income and homeless youth, Aboriginal youth)

18. Examine the effectiveness of existing regulations on the advertising and sale of tobacco and alcohol to under-age youth

19. Work with the education sector to enhance curriculum related to nutrition and active living

20. Work with other sectors to enhance food security for youth living in low-income situations

21. Develop a mental health service delivery model and infrastructure that is multidisciplinary and can facilitate mental health promotion and processes for early identification, assessment and treatment for adolescents

22. Increase access to youth-oriented mental health services (e.g. crisis intervention, counselling, peer support programs)

23. Increase access to successful mental health promotion programs that support and educate youth in areas such as self-help and self-responsibility, coping skills, self-esteem, how to foster, maintain and improve mental health, and when and how to seek assistance for identified problems such as depression and anxiety

24. Develop mentoring, peer counselling and intervention initiatives in communities experiencing high rates of suicide

25. Promote the use of healthy images of youth related to gender, body image and youth empowerment

26. Develop sex education programs that are culturally appropriate for youth, in collaboration with parents and the communities in which they live

27. Provide sexual health services and supports to marginalized youth who are unable or unwilling to access mainstream services

28. Provide sensitive and confidential sexual and reproductive health care services that are affordable and available to adolescents (e.g. contraceptives, planned parenting services, prenatal counselling)

29. Enhance intersectoral collaboration to identify priorities and develop strategies for injury prevention, expand existing successful injury prevention programs, and involve youth in the development of comprehensive injury prevention programs

30. Increase the understanding of gender and age differences in risk-taking behaviour and develop strategies that respond to these differences

Social Environment

31. Develop resources for parents that focus on the adolescent period and family-based strategies that positively influence healthy adolescent development

32. Improve the accessibility and availability of parent support groups where families can share information, resources and experiences about their developing adolescents

33. Provide youth with information on alternate choices to parenthood (e.g. adoption) and provide services to support them in the choice they make

34. More actively engage the health sector in strategies that respond to the impact of family violence

35. In collaboration with the education sector, promote anti-violence, school-based educational programs (e.g. anger management, conflict resolution) and public awareness campaigns to counteract media messages that violence is appropriate in some situations

36. In collaboration with the social services, education and justice sectors, ensure that services are available to youth experiencing family violence

37. Increase parental knowledge and awareness of the important influence they have in their adolescents' interactions with peer groups and subsequent health outcomes

38. Promote school and community-based programs that involve peer mentors and peer support groups, particularly for vulnerable youth

39. In collaboration with other sectors, develop and expand outreach and storefront services for vulnerable youth

40. Develop intersectoral response teams to quickly engage and support youth who are seeking help to change their lives

41. Establish mechanisms for youth to assess needs and inform their community about issues, expectations, opportunities and solutions

42. Provide enhanced opportunities for youth participation in developing policies and programs

43. Evaluate the effectiveness of various mechanisms for youth participation (e.g. advisory committees) in the ability of youth to influence the policy process

44. Make health information that youth need (e.g. healthy nutrition, sexual health) readily available on the Internet

45. Support the development of media awareness curriculum to educate youth about the potential health benefits and risks posed by the media and the Internet

Education

46. Work with the education sector to develop comprehensive school health programs which support healthy adolescent development in a safe environment

47. Work with the education sector to develop and implement strategies within the school setting to respond to youth at risk for dropping out or poor academic achievement, to respond to traumatic events and to create a positive school environment

48. Advocate that physical education become part of the core curriculum throughout high school

49. Improve the availability and quality of health and life skills curriculum provided to adolescents in school

50. Enhance access to health professionals and health services within the education system (e.g. provide primary prevention service, outreach services for vulnerable youth, a more active role in health education)

51. Work with the education sector to enhance the range of school-based peer support programs

Income

52. Provide non-insured health benefits for youth living in low-income families and for youth who are living on their own or "on the street" (e.g. prescription drugs, optical care, contraceptives, dental care)

53. Provide education and support youth to delay pregnancy until after they have completed the high school years

54. Provide prenatal nutrition and vitamin supplements for pregnant adolescents and provide support to adolescent mothers to stop smoking and drinking

55. Provide comprehensive outreach services to adolescent parents, including information and resources to facilitate healthy child development, and support to complete their high school education and build a sustainable system for the new family

Physical Environment

56. Strengthen the role of public health inspectors and enforce minimum standards for housing

57. Advocate for the increased availability of safe and affordable housing for low-income families

58. Promote protective measures (e.g. wearing protective clothing, staying in the shade and avoiding midday sun, using 15+ sun screen, wearing sunglasses and a hat)

59. Educate youth about the harmful effects of UVA/UVB rays

60. Further the implementation of the National Strategy to Reduce Tobacco in Canada, with particular attention to the policy and legislative activities to protect individuals from exposure to second-hand smoke

61. Work with appropriate government departments to improve air and water quality in compromised communities.

Biology and Genetic Endowment

62. Increase support to adolescents and their families to manage chronic health conditions and the care related their disability

63. Provide support to enable adolescents and their families to develop plans for the transition to adulthood

64. Promote awareness of the impact of alcohol use during pregnancy through public information campaigns and inclusion in school curriculum in order to reduce the incidence of FAS/FAE

Beyond the Determinants of Health

65. Support data linkage between sectors and collect regionally based data to supplement national data

66. Collect and analyse data on specific populations (e.g. urban Aboriginal youth, youth with disabilities) and include gender and age differences

67. Continue to develop, implement and evaluate models of intersectoral collaboration in the delivery of services

68. Use outcome data to improve service delivery and enhance evidence-based decision making

69. Support research in priority areas of adolescent health: resiliency and identity in adolescence, risk-taking and health-enhancing behavioural choices, gender-specific and ethnocultural-specific studies

70. Synthesize and disseminate research on healthy adolescent development

Appendix B

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