Middle Childhood:
Taking Action Together

A Paper Prepared by

The Child & Adolescent Development Task Group

of the

F/P/T Advisory Committee on Population Health and Health Security

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DEDICATION

This paper is dedicated to Dr. Dan Offord (1933 – 2004), Canada's premiere child psychiatrist and champion for school-aged children who believed in equal access, equal participation and equitable outcomes for every child.

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PREFACE

This paper is part of a series of papers prepared by the Child and Adolescent Development Task Group of the Federal/Provincial/Territorial Advisory Committee on Population Health and Health Security (ACPHHS). Earlier papers in the series include *Building a National Strategy for Healthy Child Development* (1998), *Investing in Early Child Development: The Health Sector Contribution* (1999), *The Opportunity of Adolescence: The Health Sector Contribution* (2000), and *Building An Early Childhood Development System Utilizing A Population Health Perspective: A Tool for Reviewing Current Approaches* (2003).

These are seminal papers which contributed to the policy development of the Federal/Provincial/ Territorial agenda for healthy child development. Taken together, these papers articulate the role of child development as a determinant of the health of populations. They also suggest ways in which the health sector, in collaboration with other sectors, can help get children off to a good start in life, sustain that good start through the middle years, and enhance it through the adolescent years.

The paper, Middle Childhood: Taking Action Together, brings us into the world of middle childhood and provides us with an understanding of this world and the key influences on it – family, peers, schools and neighbourhood. Most children in middle childhood are doing well; however, approximately 28% begin middle childhood and their school years with significant problems in learning and/or behaviour. This paper highlights opportunities for the child-serving sectors to take action together on middle childhood.

EXECUTIVE SUMMARY

INTRODUCTION

There are nearly three million children in Canada between the ages of six and twelve. Most of these children are doing well. However, increasing numbers are experiencing, or are at risk of experiencing, significant physical and mental health problems.

WHAT IS MIDDLE CHILDHOOD?

Middle childhood is the developmental stage between early childhood and adolescence. It is a time when children move into ever-widening social environments -- school, neighbourhood, peers -- that strongly influence their development. Middle childhood also is a time of significant emotional, social, cognitive and physical development. Children in middle childhood learn new skills, make independent decisions, and increasingly control their own behaviour and emotions.

HOW ARE CHILDREN IN THE MIDDLE YEARS DOING?

Research is prompting increased concern about the physical, emotional and social health of this significant group of children. The emerging health problems among children in middle childhood of particular concern are:

- Increasing mental health problems
- Increasing aggressive behaviour and bullying
- Increasing obesity and type 2 diabetes

Data from the National Longitudinal Study of Children and Youth is providing insights into the vulnerability and resilience of children at specific stages of development. It shows that a certain percentage of children (approximately 15%) go in and out of vulnerability. While children in the lowest income families may be more likely to have difficulties, the largest number of children who are vulnerable live in middle and upper income families. There is no socio-economic threshold above which all children do well.

WHAT INFLUENCES HOW THEY ARE DOING?

The health of populations is largely determined by complex interactions between personal characteristics, social and economic factors, and physical environments. These influences are referred to as the "determinants" of health. Strategies to support and improve the health of children during the middle years must address a range of factors that influence health including families, schools, peers and other supportive people, neighbourhoods and communities, and media and technology. The research indicates that all of these factors can positively or negatively influence child development.

HOW CAN HEALTH AND OTHER SECTORS COLLABORATE TO IMPROVE THEIR HEALTH AND FUTURE WELL-BEING?

The population health approach emphasizes the links between health status and health determinants, and promotes intersectoral collaboration and evidence-based strategies. There are a number of policies and services that will improve the health status and determinants for middle childhood. The

Health Sector has opportunities to provide direct and indirect leadership to enhance the current health and future well-being of Canadian children in their middle years.

Health Status: The Need For A Mix Of Universal, Targeted & Clinical Approaches

Action 1: Identify the existing universal, targeted and clinical strategies used within jurisdictions to support middle childhood.

Action 2: Devise an explicit mix of strategies to support children in the middle years that includes universal approaches (benefiting all children and promoting positive development), targeted approaches (building resilience and preventing new vulnerability), and clinical approaches (addressing long-term vulnerability).

Health Determinants: Supporting Families, Schools & Communities

Action 3: Support research that assesses parental understanding of middle childhood and that identifies the knowledge and skills parents feel they need to be effective parents of children in the middle years.

Action 4: Devise comprehensive, coordinated and collaborative policies and programs that benefit families and parents. Examples include strategies that provide financial support for families; quality before and after school programs for children; and flexible working arrangements.

Action 5: Review the continuum of programs across Canada that support parenting (i.e. universal, targeted & clinical) and promote the local availability of a mix of such programs.

Action 6: In the context of the Pan-Canadian Intersectoral Healthy Living Strategy, support schools in their efforts to create the conditions that promote the physical health of children in the middle years, including policies and programs that promote an understanding and practice of good nutrition, and of regular physical exercise.

Action 7: Support schools in their efforts to create the conditions that promote the mental health of children in the middle years, including a mix of evidence-based universal, targeted and clinical programs that promote positive social relationships, behaviour, and emotions.

Action 8: Promote the mapping of neighbourhood and community assets (e.g. parks, libraries, recreational facilities) that support the healthy development of children in the middle years.

Action 9: Promote the requirement that planning by local governments include a focus on human development that addresses how civic space is to be used to support healthy child development and family life.

Intersectoral Collaboration & Evidence-Based Strategies

Action 10: Provide leadership in promoting and supporting intersectoral collaborations that have a direct benefit to children in their middle years, as well as their families, schools, neighbourhoods and communities.

Action 11: Continue and expand the capacity of the National Longitudinal Survey of Children and Youth, to provide the basis of research regarding middle childhood in Canada.

Action 12: Develop tools to monitor outcomes for children as they move through the middle years, comparable to the Early Development Instrument used to monitor outcomes for younger children.

Action 13: Based on the existing mechanisms for reporting on progress through the Early Childhood Development Communiqué of the National Children's Agenda, F/P/T jurisdictions develop a process for continuing this work into the middle childhood years.

Societal influences – Media and Technology

Action 14: Support and promote further research on the societal impact of media and technology on the development of children in the middle childhood years.

CONCLUSION

Canada is facing the major challenge of how best to support the developmental needs of all children in middle childhood, while also improving the life prospects of those that are vulnerable. The health sector is well positioned to lead the effort to address this challenge by taking action together. While we live in a time of limited resources, the cost of inaction will be greater than the cost of action – as more children move into vulnerability and become adolescents and adults with ongoing serious health and social problems.

In 1999 the Government of Canada made a commitment to the National Children's Agenda – and, in partnership with the provinces and territories launched the Early Childhood Development Initiative. In 2004, the first group of young children to benefit from that Initiative is now turning five. It is time to act.

Middle Childhood: Taking Action Together

INTRODUCTION

There are nearly three million children in Canada between the ages of six and twelve. Like all Canadian children they are increasingly diverse. They are more likely than in the past to be Aboriginal, be born in other countries, and be a visible minority. They also are more likely to speak different languages, live in lone-parent families, and reside in large cities.

Most of these children are doing well. However, increasing numbers are experiencing, or are at risk of experiencing, significant physical and mental health problems. This paper focuses on children in middle childhood by addressing four questions: What is middle childhood? How are children in the middle years doing? What influences how they are doing? and How can the health sector in collaboration with other sectors improve their health and future well-being?

WHAT IS MIDDLE CHILDHOOD?

Middle childhood refers to the years between early childhood and adolescence; in other words, between approximately six and twelve years of age. It is a time of significant emotional, social, cognitive and physical development. In middle childhood, children strive to achieve competence, autonomy and to relate to others. They learn new skills, make independent decisions and increasingly control their own behaviour and emotions. Biological and cognitive changes transform their bodies and minds. Social relationships and roles change dramatically as they enter school, join clubs and activities, and become involved with peers and adults outside their families. Erik Erikson emphasized the importance of middle childhood as a time when children move from home into wider social contexts that strongly influence their development.

Cognitively, children begin to reason around the age of six, and as they move through the middle years they develop key conceptual skills. They acquire fundamental skills such as reading and arithmetic. They also develop skills of self-awareness and the ability to see the perspective of others. As they approach early adolescence their ability for abstract thought increases and they become increasingly able to consider the hypothetical as well as the real. Socially, in middle childhood, children spend less time under the supervision of their parents, come increasingly under the influence of other adults and spend more time with peers.

There are two particularly significant developmental transitions for children in middle childhood. At the beginning of middle childhood they enter the formal education system. This is an important social transition as well as a key event for their cognitive development. This also marks the time when every child has the opportunity to benefit from universal policies and programs through a publicly mandated education system. At the other end of the middle years, children transition into adolescence, where they face the biological transformations of puberty, along with the increasing social pressures of community and peers.

Children's experiences in their middle years are variable depending on a number of factors – genetics and biology, home and family life, community and friends. Children transition into adolescence at varying ages. For many children, the experiences traditionally associated with the "teen" years are happening earlier, in the middle childhood years.

HOW ARE CHILDREN IN THE MIDDLE YEARS DOING?

Traditionally, children in their middle years have been considered to be among the healthiest group in our population. For example, they have the lowest mortality rates of all children and youth and they have lower physical morbidity rates than most. In the past, death and morbidity as a result of injuries were the major health concerns for this age group – and policy and regulatory actions in Canada and around the world have helped to address these health problems.

While the middle years may have been considered the "calm years" with important developmental milestones but little "drama," new research is prompting increased concern about the physical, emotional and social health of this significant group of children. It is time to "re-discover" this age group, and to understand the changing context of their lives and the new challenges they face.

Cause For Concern: The New Morbidity

There is evidence of what has been referred to as a "new morbidity" among children in middle childhood, and it is very disturbing indeed. In fact, many experts hypothesize that this cohort of children will be the first generation to have poorer health status as adults than their parents, if measures are not taken now to address their developmental needs. The emerging health problems among children in middle childhood of particular concern are:

- Increasing mental health problems
- Increasing aggressive behaviour and bullying
- Increasing obesity and type 2 diabetes.

Increasing Mental Health Problems

Children in this age group are increasingly experiencing mental health problems. The results of two major population-based studies, one in Ontario and one in Quebec, have shown that a large proportion – almost one fifth – of children in middle childhood have at least one mental health problem.[1] According to parents of 4 to 11 year-olds, as reported in the National Longitudinal Survey on Children and Youth (NLSCY), approximately one in ten of their children have a hyperactivity or emotional disorder.[2] Older children are more likely to be described as having emotional disorders than were younger children, and boys are more likely than girls to be identified with one or more problems.

"It should be kept in mind that the leading group of conditions that lower life quality and reduce the life chances of Canadian children and youth are emotional and behavioural problems and learning difficulties."

Dr. Dan Offord, Canadian Institute of Child Health's (CICH) Profile

When we look at the emotional well-being of older school-age children, we see that some feel their lives are stressful, some feel lonely, and some have thoughts of suicide. According to a national survey of school-aged children (the Health Behaviour in School-Aged Children study), 25% of children in grades 6 and 8 said they were depressed once a week or more.[3] The proportion of youth who felt

[1] Canadian Institute of Child Health (CICH). *The Health of Canada's Children: 3rd Edition.* Ottawa: CICH, 2000.
[2] Offord DR and Lipman EL. Emotional and behavioural problems. In Human Resources Development Canada and Statistics Canada: *Growing Up in Canada. National Longitudinal Survey of Children and Youth*, 1996.
[3] King AJC, Boyce WR, King MA. Trends in the Health of Canadian Youth: Health Behaviour in School-aged Children, 1999.

"very happy" with their life declined sharply between these two grades. The majority said that they like themselves, however, a substantial number agreed with the statement "I often wish I were someone else." According to the National Longitudinal Survey on Children and Youth about 7% (44,000) of 12- and 13-year-olds have seriously considered suicide – almost twice as many girls (8.4%) as boys (4.6%).[4]

Increasing Aggressive Behaviour And Bullying

Many children are bullied, or are victims of bullying, during this period in their lives. Fifteen per cent of Canadian children report bullying others more than twice a school term, while nine percent of children report bullying others on a weekly basis.

Boys are more likely to be bullies than are girls, and older boys are more likely than younger boys to bully. Research based on the National Longitudinal Survey on Children and Youth has demonstrated that about one in seven boys in Canada between the ages of 4 and 9 (14%) bully others, as do about one in eleven (9%) girls. Seventeen per cent of boys aged 10 and 11 report that they bully, as do 9% of girls. About one in 20 (5%) of boys between 4 and 11 are victimized by others sometimes or often. For girls, approximately 1 in 14 (7%) are victimized.[5]

Bullying and victimization between and among children are anti-social behaviours with serious implications for the social, psychological and emotional development of all those involved: bullies, victims and their peers. Children who are bullies may have other anti-social behaviours such as physical aggression, indirect aggression, hyperactivity and criminal activity. Children who are victims also may exhibit behaviour problems, in addition to anxiety, depression, unhappiness, and emotional problems.

Increased Obesity And Type 2 Diabetes

Children in middle childhood are becoming increasingly overweight and obese. In fact, the prevalence of being overweight or obese for these children has doubled in recent years. Research by Mark Tremblay and J. Douglas Willms demonstrated that between 1981 and 1996, the prevalence of being overweight among boys 7 to 13 years increased from 15% to 29%, and among girls from 15% to 24%.[6]

The health risks of excessive weight in childhood are significant. In recent years Type 2 diabetes, previously considered an adult disease, has been increasingly diagnosed among children in their middle years – and most notably among Aboriginal children. The incidence appears to be increasing at a rapid rate.[7] Because the duration of high blood sugars is correlated with diabetes-related complications, there is a real concern that this early onset of diabetes will lead to an increased risk of early onset of serious complications. High blood pressure is becoming more common in severely overweight children. Excessive body mass during childhood is associated with increased risk of being overweight in adulthood, with the resultant health problems. Furthermore, these children may have an undesirable body image and poor self-esteem.

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[4] National Longitudinal Survey of Children and Youth. Cycle 2 (1996/1997) data released July 6, 1999.

[5] Craig W, Peters RD and Konarski R. Bullying and Victimization Among Canadian School Children. Ottawa: Human Resources Development Canada, 1998.

[6] Tremblay MS and Willms JD. Secular trends in the body mass index of Canadian children. *Canadian Medical Association Journal*, 163(11):1429-1433, 2000.

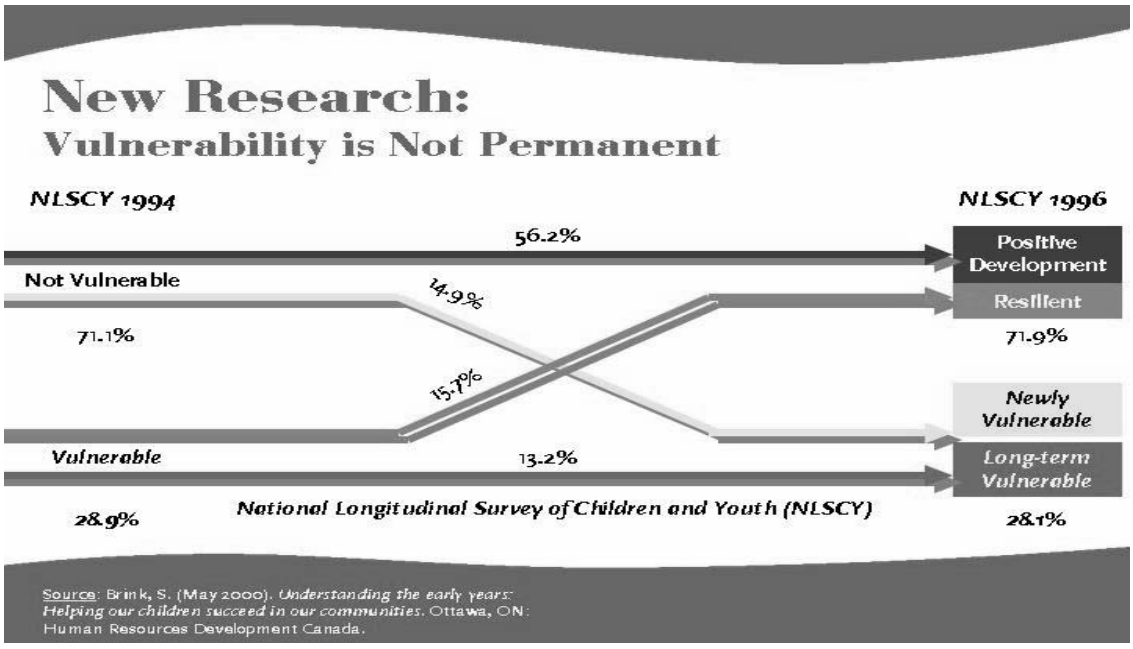
[7] Tremblay MS and Willms JD. Secular trends in the body mass index of Canadian children. *Canadian Medical Association Journal*, 163(11):1429-1433, 2000.

Regular physical activity is an important contributor to the health and well-being of children. Daily exercise builds cardiovascular endurance, reduces the risk of chronic diseases, and the practice may continue as a valuable habit into adulthood. The Canadian Fitness and Lifestyle Research Institute says that over half of school-aged children aged 5 to 17 are not active enough for optimal growth and development.[8] The problem is worse for girls than for boys, and Canadian children become less active as they get older.
The Health Behaviour in School-Aged Children (HBSC) study found that between 1990 and 1998 there was a consistent decline in how often school-aged children exercised.

Vulnerability and Resilience: The Gradient Effect

Data from the National Longitudinal Survey on Children and Youth (NLSCY) (1994-) is being used to confirm the developmental outcomes of children at specific stages of development, from birth to adulthood. Dr. Doug Willms utilizing this NLSCY data, developed a Vulnerability Instrument which measures learning and behavioural problems/delays relative to other children of the same age group. Children with poor outcomes on the learning and/or behavioural index are said to be vulnerable if they have at least one significant poor outcome that cannot be overcome with adult intervention.[9]

Prior to the NLSCY and the Vulnerability Instrument, predictions of outcomes were based on broad risk factors only - such as low income, lone parent - not on identifiable problems affecting the individual child.



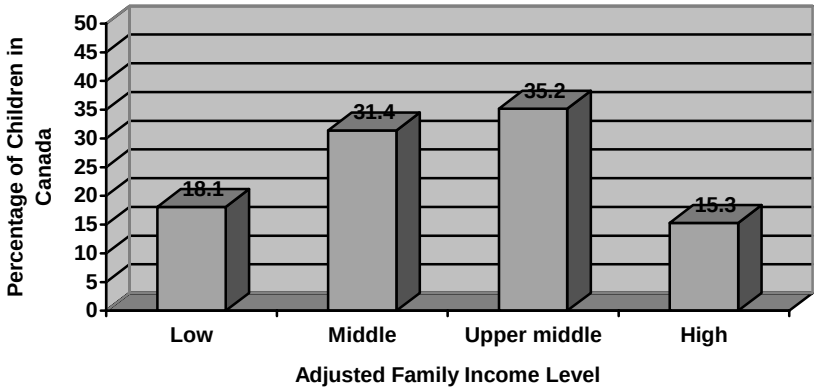
[8] Canadian Fitness and Lifestyle Research Institute. Physical Activity Monitor: 2001. Ottawa: Canadian Fitness and Lifestyle Research Institute, 2001.
[9] Willms JD. Editor. *Vulnerable Children*. Edmonton: University of Alberta Press and Applied Research Branch, Human Resources Development Canada, 2002.

A second major breakthrough in our understanding of healthy child development resulted when NLSCY findings on the varying trajectories of children were analyzed. Approximately 56% of children show no developmental delays in behaviour or learning and remain resilient year after year. The analysis is clear that the prevalence (28%) of vulnerable children remains the same over the years, but the children are not the same. Approximately 16% of children identified as vulnerable at one point in time were provided with sufficient interventions to be considered resilient 2 years later; conversely, 14.9% of resilient children encountered sufficient negative conditions to be identified as vulnerable at a second point in time. From year to year, about 13% of Canadian children continue to be vulnerable over the long term.[10]

The gradient effect – difference in health status between income groups – is evident from birth and throughout childhood into adulthood.

The third major finding, based on the research of Willms and others, is that while children in the lowest income families may be more likely to have difficulties, there are large numbers not doing well in the three highest quartiles of adjusted family income. There is no socio-economic threshold above which all children do well. Furthermore, because of the size of the middle class, the largest number of vulnerable children are in middle and upper income families. Dr. Dan Offord has described the "casualty class" as children in middle and upper income groups who move into bad periods. If not supported with some kind of intervention, they will continue in a downward fashion. Targeting programs to the lowest income group, therefore, misses the majority of vulnerable children.

Most Vulnerable Children Live in Middle Income Families
Distribution of Vulnerable Children



Source: Human Resources Development Canada, Applied Research Branch, 2000

The size of the gap between the lowest quartile group and the highest quartile group is a measure of the health of the population. Countries with flatter gradients have higher overall health of the popu-

[10] Brink S. Understanding the early years: Helping our children succeed in our communities. Ottawa: Human Resources Development Canada, 2000.

lation, better education outcomes, and better economic status. Public health services, universal public education, social service programs, recreation programs, and civic communities all combine to determine the impact of income on the developmental trajectory of the child.

We know that children growing up in low income households are at risk; yet many of these children's developmental trajectories are as positive as those in higher income families. What we don't yet understand is the mechanism through which family income affects children's developmental trajectories, their resilience and/or their vulnerability.

WHAT INFLUENCES HOW THEY ARE DOING?

The Determinants Of Health

Our understanding of what is meant by health – and what keeps children healthy – has evolved over the past thirty years. It is now recognized that health is largely determined by complex interactions between individual characteristics, social and economic factors, and physical environments. These influences are referred to as the "determinants" of health. Therefore, strategies to improve and support the health of children during the middle years must address a range of factors that determine health.

Family

The family continues to play an important role in the healthy development of children in middle childhood. However, families are under increasing stress as they struggle to manage economically, and to cope with their work and family life. Greater proportions of families are experiencing challenges in balancing their roles of employee and parent. A recent poll conducted by Invest in Kids found that 90% of parents of young children were worried about their parenting skills and felt inadequate – we have no reason to believe that this dramatically changes when their children turn six.[11]

Schools

Research indicates that schools are critically important to children's healthy development. Success in school is an important component of the ability to participate fully in contemporary society. According to J. Douglas Willms, a number of protective factors for children's development have been identified in schools: the importance of a positive school environment; close contact between teachers and students; inclusive extracurricular activities; and ongoing contact between parents and teachers. Positive attitudes are also important - on the part of the child, the teacher, and parents. Data from the National Longitudinal Survey on Children and Youth (NLSCY) demonstrate that the key elements of a good school are realistic expectations; a warm and caring environment; and connectedness. All of these things make a difference for children.

Peers And Other Supportive People

The quality of children's social relationships during the middle years is important in enabling children to deal with stresses in their lives. People other than parents do make a difference. Research based on the National Longitudinal Survey on Children and Youth has shown that good relationships with siblings, friends and teachers seemed to provide a buffer for 10-year-olds against the im-

[11] Invest in Kids Foundation. *Highlights from Invest in Kids Foundation's Parent Poll: A National Survey of Parents with Children Under 6*. Toronto: Invest in Kids, 1999.

pact of a risky environment.[12] Those with good connections to people in addition to their parents have much lower levels of behavioural difficulties than those with poor relationships. Of the three types of relationships studied, those with teachers had the strongest associations – good relationships with teachers were associated with lower levels of difficult behaviours at all risk levels, particularly for boys. Along with the quality of relationships, the number of close relationships that were protective varied for children of different ages. Six-year olds needed only one close relationship – teacher, friend or sibling. By age ten, one close relationship was not enough.

Neighbourhood And Community

During the middle years, children increasingly move out into their neighbourhoods and communities – and these have a significant influence on their development. They include social networks and support, the physical environment (such as housing and play spaces), infrastructures, and the socio-economic environment. In addition, children in middle childhood are increasingly exposed to systems outside the family: the school, the health care system, and social services. These systems are also changing, and some are under strain. For example, school systems are under increased pressure with fewer resources. The health care system is under stress – affecting prevention services and raising questions about who will provide "care." Social services are not always organized with the needs of individual children and families in mind.

Media And Technology

Children in the middle years are accessing the Internet in increasing numbers. They watch large amounts of television. They are increasingly playing computer and video games. Children have access to a world of information through this technology, without the emotional maturity to actually understand it. This leaves a number of unanswered questions. What impact does this information have on their emotional and social well-being? Are children less safe today than they were a decade or two ago because they can access information on the Internet and connect with people in "chat rooms?" Is their health threatened because they have earlier access to aspects of teen culture? How have technology and media influenced risk-taking behaviour and lifestyle choices in the middle years?

HOW CAN HEALTH AND OTHER SECTORS COLLABORATE TO IMPROVE THEIR HEALTH AND FUTURE WELL-BEING?

The population health approach emphasizes the links between health status, health determinants, and related policies and services. The health status of children in the middle years was described in the section *How Are Children In The Middle Years Doing?* Some of the important health determinants for this age group were identified in the section *What Influences How They Are Doing?* This section recommends a number of policy and service strategies intended to improve the health status and determinants for middle childhood. Consistent with the population health approach, many of these strategies are multi-sectoral and collaborative in nature. The Health Sector has opportunities to provide direct and indirect leadership in these efforts to enhance the current health and future well-being of Canadian children in the middle years.

[12] Jenkins J and Keating D. Risk and Resilience in Six- and Ten-Year-Old Children. Working Paper W-98-23E. Ottawa: Applied Research Branch, Human Resources Development Canada, 1998.

Health Status: The Need For A Mix Of Universal, Targeted And Clinical Approaches

The most pressing challenge with regard to the health status of children in the middle years is to reverse the current trends towards increased physical and mental health problems. However, given that the greatest number of vulnerable children are in the middle and upper classes, and that a percentage of children move in and out of vulnerability, this cannot be achieved by simply targeting policies and services towards specific groups of children. The most effective way to meet the needs of all children in their middle years is to provide a mix of strategies that reach children who are "healthy," those who move in and out of vulnerability due to the challenges they face, and those who have special needs and live with long-term vulnerability.

The best mix of strategies that will flatten the socio-economic gradient, maximize the potential of every child, and improve children's trajectories over time is one that:

- Promotes the positive development of all children (universal)
- Builds resilience and prevents new vulnerability among those at risk (targeted)
- Supports the normative and unique needs of those with special needs (clinical)

Universal
In universal initiatives all children (and their families) in a geographic area or setting, receive the benefit. A characteristic of universal programs is that individual families do not seek help and no one is singled out for the intervention.

Targeted
In targeted programs, individual families and their children do not seek help. Children are identified as needing additional supports because it is determined that they have increased vulnerability due to either their personal characteristics or the characteristics of their environments.

Clinical
The major characteristics of clinical programs are that they are child-centred and case based, provided by professionals, and sought out by parents or by others on their behalf.

While all three approaches – universal, targeted, and clinical – have their merits, limited resources usually restrict the extent to which all of them can be applied. Under such circumstances there is a need to make the most strategic use of the resources that do exist. It makes sense, therefore, to begin by emphasizing universal strategies. These not only reach the greatest number of children, but they also are most apt to focus upon the conditions that all children require to thrive. Once these conditions are in place, then it is a matter of aligning the targeted and clinical strategies to build upon and/or complement the universal strategies. If the primary needs of children are not addressed through universal strategies, then the targeted and clinical strategies are essentially being asked to do both.

The way for jurisdictions to achieve the best mix of universal, targeted and clinical strategies is to begin by identifying their existing strategies by type, and to then decide on the most effective mix of strategies given the unique characteristics of their jurisdiction. The health sector with its understanding of population health and its tradition of combining universal, targeted, and clinical strategies is well positioned to promote, lead, and contribute to such an exercise.

Action 1
Identify the existing universal, targeted and clinical strategies used within jurisdictions to support middle childhood.

Action 2
Devise an explicit mix of strategies to support children in the middle years that includes universal approaches (benefiting all children and promoting positive development), targeted approaches (building resilience and preventing new vulnerability), and clinical approaches (addressing long-term vulnerability).

Health Determinants: Supporting Families, Schools And Communities

To improve the health status of children in the middle years, it is necessary to support and strengthen the conditions that contribute to their health and well-being. The most important of these conditions are the family, the school, and the neighbourhood/ community – all of which have been undergoing dramatic changes.

Supporting Families
According to recent research from the National Longitudinal Survey on Children and Youth (NLSCY) investments in family income and positive parenting are the two most important preventative and protective policy levers we have for improving all children's outcomes during middle childhood.[13]

The duration of poverty and the age of the child are key factors that determine outcomes. The younger the child and the longer the period of poverty, the more significant the impact on the child's development. As a result of these findings, there was a change in government policy in 2001 to expand the number of days of parental leave after the birth of the child.

Data from the NLSCY shows that parenting style is the variable most closely associated with vulnerability in children. Conversely, positive parenting is also the most important protective factor against vulnerability.

The research clearly demonstrates that positive, effective parenting results in improved developmental trajectories of children. Data from the vulnerability index shows that children who are deemed to be highly vulnerable are four times more likely to live with parents who rank lowest in parenting skills.[14]

When researchers compared other variables, such as family income, parental resources and community resources, the scale for ineffective parenting styles was the strongest influencing variable of children's outcomes. The NLSCY research shows that positive parenting reduces children's risk for

[13] Applied Research Branch, Human Resources Development Canada. A Special Edition on Child Development. *Applied Research Bulletin*, Fall, 1999.
[14] Ross D, Roberts P and Scott K. Variations in Child Development Outcomes Among Children Living in Lone-Parent Families. Ottawa: Human Resources Development Canada, 1998.

poor outcomes by 25 – 52%. Ineffective parenting is the result of many interconnected variables including depression of the mother, family income, and availability of social support networks.[15]

Evidence also demonstrates that families are struggling in their efforts to balance their work and family life. Most children in their middle years do not have parents at home during the day. Either they live in two-parent families with both parents working, or they are in single-parent families with a working mother. According to the Canadian Council on Social Development, nearly 80% of women, with children 6 to 15, are in the labour force.[16]

Researchers Duxbury and Higgins have found that the conflict between work and family life increased markedly over the 1990s – which means a greater proportion of parents are experiencing greater challenges in balancing the roles of parent and employee.[17] While it might appear that these changes pose less of a challenge once children have reached school-age, school hours are not set to coincide with work hours. According to the Canadian Institute of Child Health, the absence of good before and after school programs for children under 12 has created many "latch-key children." Parents are concerned about this situation. A Boys and Girls Club Canada commissioned study of Canadian parents of children aged 6 to 14 found that two out of three parents are "very concerned" about their child's safety. That figure rises to three-quarters in families where parents work full-time and have no one at home to care for the children.[18]

Many parents can benefit from support in raising children. Research from across Canada has provided examples of programs that offer parents that support. Those that are most effective are multi-level, parenting and family support strategies that aim to prevent severe behavioural, emotional and developmental problems in children. Such programs enhance the knowledge, skills and confidence of parents. They include a mix of universal parent information, including information about parenting through coordinated media and promotional messages; primary health care interventions; and progressively more intense targeted and clinical interventions for children moving into vulnerability. Such tiered, multi-level strategies recognize that parents have differing needs and desires regarding the type, intensity and mode of assistance they may require.

Action 3
Support research that assesses parental understanding of middle childhood and that identifies the knowledge and skills parents feel they need to be effective parents of children in the middle years.

Action 4
Devise comprehensive, coordinated and collaborative policies and programs that benefit families and parents. Examples include strategies that provide financial support for families; quality before and after school programs for children; and flexible working arrangements.

[15] Ross D, Roberts P and Scott K. Variations in Child Development Outcomes Among Children Living in Lone-Parent Families. Ottawa: Human Resources Development Canada, 1998.
[16] Canadian Council on Social Development (CCSD). *The Progress of Canada's Children: 2002*. Ottawa: CCSD, 2002.
[17] Duxbury L and Higgins C. Work-Life Balance in the New Millennium: Where Are We? Where Do We Need to Go? Ottawa: Canadian Policy Research Networks, 2001.
[18] Boys and Girls Clubs of Canada. New Study on After School Reveals Child Safety Top Concern Among Canadian Parents. Media Release. August 27, 2001.

Action 5

Review the continuum of programs across Canada that support parenting (i.e. universal, targeted and clinical) and promote the local availability of a mix of such programs.

Supporting Schools

Children who are involved and feel strongly connected to their schools do better academically and socially. According to the Applied Research Branch, Human Resources Development Canada, late elementary school is a good fit for girls. Schools recognize the successes of girls at this point, identify factors that facilitate their achievement, and support their accomplishments. The "fit" for boys with school, however, is not as positive. Teachers perceive boys as doing less well than girls in their schoolwork. Girls tend to view their teachers as more supportive of their efforts than do boys. For girls, teacher support, parent support, and positive school attitudes all contribute to their academic success. For boys, only parent support is an important predictor, with teacher support and personal attitudes playing less significant roles.[19]

Schools are a major setting for activities to promote mental health and prevent the development of unhealthy outcomes and behaviours. They can help develop social and emotional competence, which have been recently identified in research to be critically important to healthy child development in the middle years. Schools are universal and therefore can provide access to programs for all children on a consistent basis over the majority of their formative years. Schools also provide the opportunity to provide programs that can ameliorate problems/delays experienced during the early years.

"An effective school health progamme can be one of the most cost effective investments a nation can make to simultaneously improve education and health." WHO Director-General, April 2000.

There are good examples of effective school-based universal programs that support children in the middle years. These include programs that promote mental health through building self-esteem, self-confidence and promoting pro-social behaviour. For example, universal, school-based mental health programs that focus on increasing empathy in children in the middle years have resulted in a decrease in aggressive behaviour and an increase in more socially positive behaviour. These programs are based on recent research examining the links between children's social and emotional understanding and their behaviour. The basic premise is that childrn may receive a great deal of knowledge in school, but they are not always able to connect this kenowledge to their feelings. Strategies to help them make these links form the basis of the programs.

The "*school as hub"* model is another approach that has shown success. The school becomes a hub of services and supports for the neighbourhood it serves, thereby providing two primary functions: educating children and nurturing their intellectual, spiritual, social, emotional and physical development; as well as serving as a centre within the community for the delivery of appropriate social, health, recreation, culture, justice and other services for children and families.

[19] Connolly JA, Hatchette V and McMaster LE. School Achievement of Canadian Boys and Girls in Early Adolescence: Links with Personal Attitudes and Parental and Teacher Support for School. Ottawa: Human Resources Development Canada, 1998.

Schools also provide the venue for promoting healthy living among children in middle childhood. Research has demonstrated that models of "healthy schools" create school environments that enhance the healthy development of children and their families – both physical and emotional. The schools work in partnership with community resources and service providers. They use a population health focus that recognizes determinants of health; acknowledges the influence of family, neighbourhood and community partners; complements existing services and supports; and recognizes the interdependence of health and learning. They also encourage partnerships and community development; use a healthy schools/healthy community approach; and incorporate the principles of best practices and evidence.

In September 2002, Federal/Provincial/Territorial (F/P/T) Ministers of Health released a communiqué outlining their plan to work together on short, medium and long-term pan-Canadian healthy living strategies. The Integrated Pan-Canadian Healthy Living Strategy will focus its efforts on nutrition and physical activity and their relationship to healthy weights.

Following signification consultation with stakeholders across the country, F/P/T Ministers agreed on a working framework and an Intersectoral Healthy Living Network began work on identifying expected outcomes and an intersectoral funding mechanism. Children and youth were identified as a priority group.

F/P/T Health Ministers are working in partnership with the Council of Ministers of Education Canada and F/P/T Ministers for Sport, Fitness and Recreation to advance the healthy living agenda for children and youth. A group of F/P/T Health Deputy Ministers and P/T Education Deputy Ministers are meeting to develop an integrated approach to health-promoting schools, with the priority focus on healthy weights through improved nutrition and physical activity in the school context.

Action 6
In the context of the Pan-Canadian Intersectoral Healthy Living Strategy, support schools in their efforts to create the conditions that promote the physical health of children in the middle years, including policies and programs that promote an understanding and practice of good nutrition, and of regular physical exercise.

Action 7
Support schools in their efforts to create the conditions that promote the mental health of children in the middle years, including a mix of evidence-based universal, targeted and clinical programs that promote positive social relationships, behaviour, and emotions.

Supporting Neighbourhoods And Communities
There is increasing evidence from the National Longitudinal Survey of Children and Youth that supportive communities are critical to the well-being of children. Supportive communities are safe and secure. They include outdoor play spaces that are not only safe, but also conducive to child development. They offer structured recreation programs and access to civic assets such as libraries and programs and activities in the arts. Beginning in the 1980's, the emerging consensus in the literature has been that neighbourhoods "matter" for children.

The composition of children's neighbourhoods is very important as well. Research by Dr. Clyde Hertzman has demonstrated that children from families with low income and low education, who

live in mixed-income or more affluent neighbourhoods, have better developmental outcomes than those living in low socio-economic neighbourhoods. And, improving conditions for the least well-off children has a ripple effect of improving conditions for the most well-off children.[20]

In a civic community, children are safe playing outside during the day; there are adults in the community who the children can look up to; and adults look out for the well-being of the children in their community.

It is increasingly recognized that living in a community where people are connected and supportive of each other contributes to the healthy development of children. According to the Applied Research Branch of Human Resources Development Canada, regardless of socio-economic status, 72% of children in civic communities are in organized sports, compared to 42% in non-civic communities.[21] And, poor children living in a good, civic community are more apt to engage in supervised sports than children living in a doubly disadvantaged situation: being poor and living in a less civic community. Civic communities mitigate the harmful effect of being poor and increase children's opportunities to reap the benefits of participation.

Civic communities, however, do not just happen; they require an intentional community infrastructure. Recent research by the Canadian Policy Research Networks and the Canadian Council on Social Development has indicated that there is a "patchwork" of policies and services for children in the middle years and that many communities lack adequate infrastructures to support healthy child development.[22] Building and sustaining a comprehensive community infrastructure that supports all children is therefore critical. Local governments need to consider the social use of space, not just the type of space. One way to do this is for local governments to assess their civic assets for children and to include a human development component to their planning processes for the use of civic space.

Action 8
Promote the mapping of neighbourhood and community assets (e.g. parks, libraries, recreational facilities) that support the healthy development of children in the middle years.

Action 9
Promote the requirement that planning by local governments include a focus on human development that addresses how civic space is to be used to support healthy child development and family life.

[20] Hertzman C, McLean S, Kohen D, Dunn J and Evans T. *Early Development in Vancouver: Report of the Community Asset Mapping Project*. Vancouver: Human Early Learning Partnership, 2002.
[21] Offord D, Lipman E and Duku E. *Sports, the Arts and Community Programs: Rates and Correlates of Participation.* Ottawa: Human Resources Development Canada, 1998.
[22] Canadian Council on Social Development (CCSD). *The Progress of Canada's Children: 2001*. Ottawa: CCSD, 2001. Mahon R and Beauvais C. *School-aged Children across Canada: A Patchwork of Public Policies*. Ottawa: Canadian Policy Research Networks, 2001.

Health Policies And Services: Intersectoral Collaboration And Evidence-Based Strategies

There are two prominent challenges in relation to health policies and services, neither of which is unique to middle childhood. The first is addressing the paradox that in order to improve the health status of children in the middle years it is necessary to rely on important contributions from outside of the health sector. The second is that in order to make the most strategic use of limited resources it is necessary to anchor decisions in evidence.

Intersectoral Collaboration And Action

It is a paradox of population health that many of the important determinants of health are outside of the health domain, and therefore improvements in health status require the collaboration of non-health sectors. This is particularly the case for children in the middle years, as their environment expands from that of family to include school, neighbourhood and community. Given the increasingly complex interaction of influences on children's growth and development, it is important for all sectors to act together to promote healthy child development in the middle years. Clearly the health sector cannot address these complex influences on its own. The health sector can, however, take a leadership role through its experience and expertise in intersectoral collaboration and action.

As described in the ACPHHS paper *Intersectoral Action…Towards Population Health* 1999) "intersectoral action makes possible the joining of forces, knowledge and means to understand and solve complex issues whose solutions lie outside the capacity and responsibility of a single sector."[23] It is both a strategy and a process, and can be used to promote and achieve shared goals in many areas including policy, research, planning, practice, and funding. It may take different forms such as co-operative initiatives, alliances, coalitions or partnerships. Intersectoral action has two dimensions: a horizontal dimension that occurs across different sectors at a given level (e.g. partners in the health, education and social service sectors at the community level); and a vertical dimension that links different levels within each sector (e.g. local, provincial and federal government partners within the health sector).

There is ample evidence that intersectoral action for health works. There are many successes at international, national and local levels. For example, publicly funded immunization programs that involve the health, education and social services sectors in Canada have been successful in reducing the incidence and prevalence of many communicable diseases and their complications. The health sector has a wealth of experience with these kinds of collaborative efforts.

Action 10

Provide leadership in promoting and supporting intersectoral collaborations that have a direct benefit to children in their middle years, as well as their families, schools, neighbourhoods and communities.

Research And Evidence-Based Decisions

Research is critical to evidence-based decision-making and should be geared to inform public policy. It is important to promote evidence-based programs that support healthy development among

[23] Federal, Provincial and Territorial Advisory Committee on Population Health. *Intersectoral Action…Towards Population Health*. Ottawa: Health Canada, 1999.

children in middle childhood. It also is important to use research findings to develop models to better link home, school and community.

The effects of Canada's policies on the development of children must be carefully monitored and reported in order to gauge success and to change course when needed to improve conditions for children and families. The Early Development Instrument has provided us with information on the transition into middle childhood. Comparable tools now need to be developed to measure the transition through the middle years and into adolescence. The National Longitudinal Survey of Children and Youth continues to provide baseline data with which to compare future outcomes.

In 1999, Canada's Federal/Provincial/Territorial governments conducted a public dialogue with Canadians on the *National Children's Agenda: Developing a Shared Vision for Canada's Children*. As a result, jurisdictions agreed to work towards four goals. All children will be: physically and emotionally healthy; safe and secure; successful at learning; and socially engaged and responsible. It was agreed that progress in achieving these goals would be measured through a set of indicators and that each Federal/ Provincial/ Territorial jurisdiction would report to their public on a regular basis.

This work was supported through a Federal/Provincial/Territorial committee jointly chaired by Health and Social Services. In 2000, First Ministers under the Social Union Framework Agreement, signed the Early Childhood Development Communiqué indicating agreement on the above and agreeing on the first priority age group, early childhood development.

That historic agreement is now four years old and many people across the country are recommending that this work be continued into the middle childhood years.

Action 11
Continue and expand the capacity of the National Longitudinal Survey of Children and Youth, to provide the basis of research regarding middle childhood in Canada.

Action 12
Develop tools to monitor outcomes for children as they move through the middle years, comparable to the Early Development Instrument used to monitor outcomes for younger children.

Action 13
Based on the existing mechanisms for reporting on progress through the Early Childhood Development Communiqué of the National Children's Agenda, F/P/T jurisdictions develop a process for continuing this work into the middle childhood years.

***Societal Influences – Media and Technology*:**
Children in the middle years have access to a world of information without the emotional maturity to clearly understand all of it. Children spend many hours watching increasingly graphic, violent television and playing computer and video games, often without adult supervision. The impact on children of this exposure leaves us with a number of unanswered questions.

What impact does this information have on their physical, emotional and social wellbeing? Is their lack of social interaction and physical activity contributing to diminished health status? Are children less safe today than they were a decade or two ago because they can access information on the

internet and connect with people in "chat rooms?" Is their development threatened because they have earlier access to aspects of teen culture? How do technology and media influence risk-taking behaviours and lifestyle choices in middle childhood?

Action 14
Support and promote further research on the societal impact of media and technology on the development of children in the middle childhood years.

CONCLUSION

Middle childhood is a critical time of transition. It offers the opportunity to sustain those children who got off to a good start in early childhood, as well as to improve the prospects of those children who are vulnerable. It also is a developmental stage for which there are increasing concerns. Our children are facing a number of serious threats to their current health and future well-being. They are experiencing changes and stresses within their families, their schools, their communities, and their relationships with peers and other adults. Children from all socio-economic groups are affected by these stressors and are vulnerable – with the largest number of vulnerable children being in the middle class.

As a result, Canada is facing the major challenge of how best to support the developmental needs of all children in middle childhood, while also improving the life prospects of those that are vulnerable. This paper has offered some suggestions on ways to address this challenge by taking action together. While we live in a time of limited resources, the cost of inaction will be greater than the cost of action – as more children move into vulnerability and become adolescents and adults with serious health and social problems. The health sector is well positioned to lead the effort to address these challenges. In 1999 the Government of Canada made a commitment to the National Children's Agenda – and, in partnership with the provinces and territories launched the Early Childhood Development Initiative. In 2004, the first group of young children to benefit from that Initiative are now turning five. It is time to act.

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