Healthy Aging in Canada:
A New Vision, A Vital Investment
From Evidence to Action

A Background Paper
Prepared for the
Federal, Provincial and Territorial
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Executive Summary

Each of us is aging. And as a population, Canada is aging faster than ever before. Today, people aged 65 and over make up some 13 percent of the Canadian population. By 2031, there will be approximately 9 million seniors and they will account for 25 percent of the total population (Statistics Canada, 2005).

Older Canadians are living longer and with fewer disabilities than the generations before them. At the same time, the majority of seniors have at least one chronic disease or condition. Our health care system primarily focuses on cure rather than health promotion and disease prevention. A focus on the latter is needed in order to help people maintain optimal health and quality of life. Doing so is also one way to manage health system pressures.

If we are to reap the benefits of the many contributions that seniors make to their families, communities and nation, and to curb health care costs associated with chronic disease, healthy aging must move to the forefront of the social policy agenda. If left unaddressed, the aging of the population will have far-reaching social, economic and political impacts (Statistics Canada, 2005) that will far outweigh the cost of investing in healthy aging now.

A Vital Investment

In addition to the demographic and political imperatives of an aging population, there are several key reasons to invest in healthy aging:

1. Seniors make a significant contribution to the richness of Canadian life and to the economy. Older people provide a wealth of experience, knowledge, continuity, support and love to younger generations. The unpaid work of seniors makes a major contribution to their families and communities. Some 69 percent of older Canadians provide one or more types of assistance to spouses, children, grandchildren, friends and neighbours (NACA, 2001). Older Canadians make an important contribution to the voluntary sector and to the paid economy. More than 300,000 Canadians 65 or older were in the labour force in 2001 (Statistics Canada, 2001). Working longer requires good health.

2. Healthy aging can delay and minimize the severity of chronic diseases and disabilities in later life, thus saving health care costs and reducing long-term care needs (Laditka, 2001). Chronic diseases account for an enormous human and economic burden in Canada. The prevalence increases with age and is highest among older people in vulnerable communities (e.g., Aboriginal and economically disadvantaged groups) (Public Health Agency of Canada, 2005a). Chronic diseases are responsible for 67 percent of total direct costs in healthcare and 60 percent of total

indirect costs ($52 billion) as a result of early death, loss of productivity and foregone income (PHAC, 2005a).

3. The evidence compels us to build on existing opportunities, to put in place interventions that are known to be effective, and to show leadership by supporting innovative approaches. Experience provides us with some models and successful interventions that can be replicated in different settings. In addition, there are opportunities to build on existing strategies in aging and healthy living that are already underway in most provincial/territorial, federal and local jurisdictions.

4. Canadians of all ages believe that efforts to enable seniors to remain healthy and independent are "the right thing to do". Established values such as independence and interdependence, social justice, and respect for families with multiple generations help to define Canadian society.

A New Vision

The evidence is clear. Older adults can live longer, healthier lives by staying socially connected, increasing their levels of physical activity, eating in a healthy way, taking steps to minimize their risks for falls, and refraining from smoking. But there are real environmental, systemic and social barriers to adopting these healthy behaviours. Some relate to inequities as a result of gender, culture, ability, income, geography, ageism and living situations. These barriers and inequities need to be and can be addressed now.

It is time for a new vision on healthy aging – a vision that:

- ***values and supports the contributions of older people***
- ***celebrates diversity, refutes ageism and reduces inequities***
- ***provides age-friendly environments and opportunities for older Canadians to make healthy choices, which will enhance their independence and quality of life.***

Three key mechanisms can be used to pursue the new vision for healthy aging:

1. ***Supportive environments*** refers to creating policies, services, programs, and surroundings that enable healthy aging in the settings where older Canadians live, work, learn, love, recreate and worship.

2. ***Mutual aid*** refers to the actions people take to support each other emotionally and physically, and by sharing ideas, information, resources and experiences. Encouraging mutual aid means recognizing and supporting seniors' efforts in volunteerism, self-help groups, caregiving, and the informal support family members provide to each other.

3. ***Self-care*** refers to the choices and actions individuals take in the interest of their own health; for example, an older person choosing to get active, to join a community organization or to safety-check his or her home.

Five Key Focus Areas

While recognizing that healthy aging depends on all of the broad determinants of health (including income, housing, protection from abuse etc.), in 2005 the Federal, Provincial and Territorial Ministers Responsible for Seniors endorsed the need for action on five key issues, based on their impact on seniors health, the availability and effectiveness of interventions, the costs associated with treatment for health problems associated with these factors, and their potential to reduce health inequities. These areas of focus are social connectedness, physical activity, healthy eating, falls prevention and tobacco control.

Part II of this paper addresses each of these focus areas is addressed in this paper: what we know and don't know, promising practices and directions for policy and practice.

> A key aim of government policy should be to enable and encourage people to stay physically active throughout the life course, to remain socially connected in later life, to establish healthy eating patterns and have access to healthy food choices, and to refrain from risky behaviours such as smoking, overeating and activities that can lead to falls and injuries (WHO, 2005).

Moving Ahead

Investing in healthy aging is not an "either-or proposition" that sets up competition for resources between the young and old. Rather, it is part of *a life course* that makes strategic investments at different transitions related to age, and fosters *intergenerational support and solidarity.*

The final chapter in this report provides some suggestions for moving ahead. It is hoped that a variety of stakeholders in various jurisdictions will consider these opportunities and others, and put plans in place to work toward the new vision for health aging.

Through a combination of political will, public support and personal effort, healthy aging with dignity and vitality is within reach of all Canadians.

1. Setting the Stage

About This Paper

Purpose

Canada is undergoing an unprecedented demographic shift that brings healthy aging to the forefront of the social policy agenda. This paper describes a strong new vision for healthy aging in Canada and suggests five key focus areas for action (the what). It provides the rationale and evidence for investing in healthy aging (the why). Lastly, it describes a framework for action and suggests some key opportunities for moving ahead (the how).

Structure

The paper is divided into three parts:

Part I: Introduction provides some background information about seniors and their health, describes a new vision for healthy aging and makes the case for investing in healthy aging now.

Part II: Key Areas of Focus summarizes what we know and don't know and suggests the implications for policy and practice in five key areas of focus: social connectedness, physical activity, healthy eating, falls prevention and tobacco control.

Part III: Achieving the Vision suggests a framework for taking action to achieve the vision and suggests some possible steps for moving forward.

Appendix A provides additional information on some—but certainly not all—existing opportunities that can be built on.

Promising practices are described throughout the text and "Spotlights" are used to provide information about selected programs and groups. Appendix B provides some additional examples.

Audience

This paper is written for people who develop, influence and implement policies and practices that affect the well-being of Canadians aged 65 and over. These include ministers responsible for seniors, and other government decision-makers at all levels and in a variety of sectors; the nongovernmental sector (including seniors' groups); service providers in health, recreation, housing and social development; and older Canadians themselves.

Foundations and Limitations

This paper builds on several strategic planning initiatives undertaken by the Federal, Provincial, and Territorial Ministers Responsible for Seniors and draws on the substantial work already underway in many different jurisdictions. The evidence quoted in this paper comes from reliable sources. Wherever possible, it is drawn from meta-analyses and consensus summaries.

This paper does not provide a comprehensive inventory of existing programs and policies, but concentrates on an analysis of promising options that can be applied in different jurisdictions and through collaborative mechanisms.

While recognizing that healthy aging is dependent on many determinants (including income security, education, etc.), this paper concentrates on five key issues in healthy aging: social connectedness, physical activity, healthy eating, falls prevention and tobacco control. In May 2005, the Federal, Provincial, and Territorial Ministers Responsible for Seniors endorsed these five issues as key determinants of healthy aging, based on their impact on seniors health, the availability and effectiveness of interventions, the costs associated with treatment for health problems associated with these factors, and their potential to reduce health inequities.

How Old is "Older"?

Chronological age can be a poor predictor of the growth and declines that are associated with aging. Indeed, studies show that a privileged, active 70-year old man with a healthy weight can have the cardiovascular capacity of an inactive, overweight man who is 10 to 15 years younger (Shephard, 1998). On the other hand, consistent age-based criteria are required for data collection and policy development.

This paper uses the terms "senior", "older person" and "older adult" to describe someone who is age 65 and over. However, this age group is far from homogeneous.

What Does Canada's Older Population Look Like?

In Canada, "seniors" are typically described as all men and women age 65 and over. In fact, this large and growing population is a highly diverse group. Women and men experience aging in different ways. Clearly, there are significant differences between life at age 65, compared to age 75 and 85-plus. These age groups are also heterogeneous, reflecting diverse values, educational levels and socioeconomic status.

Aging may also reflect levels of independence and dependence. Most older Canadians (over 90 percent) live independently in the community and want to remain there. This will require a shift in priorities away from treatment and acute care toward health promotion, prevention, healthy aging and community support.

Seniors who need long-term care can still benefit from healthy aging initiatives adapted to their needs, strengths and interests (Health Canada and PAHO, 2002). Currently, only 7 percent of seniors live in long-term care facilities, although this increases to 14 percent for those over age 75. This proportion is expected to grow as the number of very old (80-plus) seniors continues to increase (NACA, 2005b).

Canada is in a unique position, due to immigration and Aboriginal Peoples, in terms of ethnic, racial and linguistic diversity among the older population. Immigrant and Aboriginal seniors offer a valuable resource to Canadian society and should be encouraged to be active participants at all levels of organizations and initiatives that focus on healthy aging.

Cultural Diversity Among Canadian Seniors: Some Facts and Figures

- In 2001, 19.4 percent of the immigrant population in Canada was over 65: this number is significantly higher than the national average of 13 percent (NACA, 2005a).
- Currently, seniors make up a relatively small proportion of Canada's Aboriginal population. However, the number of Aboriginal seniors is expected to triple between 1996 and 2016 (Government of Canada, 2002).

What is Healthy Aging?

"Health" refers to physical, mental and social well-being; therefore policies and programs that promote mental health and social connections are as important as those that improve physical health status. Health is seen as a positive resource for everyday living, not the objective of living or the absence of disease (WHO, CPHA, DHW, 1986). This goal aims to optimize the well-being of all Canadians as they age, including those who are frail, disabled and in need of care.

Promoting good mental health is increasingly recognized as a priority in policy and program development for seniors. By working to increase self-efficacy, self-esteem, coping skills and social support, mental health promotion empowers people and

communities to interact with their environments in ways that enhance emotional and spiritual strength. It fosters individual resilience and mutual aid. Mental health promotion also challenges discrimination against those with mental health problems, and fosters respect for culture, equity, social justice and personal dignity.

Policies and interventions to promote healthy aging also need to pay particular attention to the links between mental health and other factors. For example, depression following the loss of a loved one or as a result of chronic pain may lead to poor nutrition and visa versa (i.e., unhealthy eating can lead to depressed feelings).

Maintaining independence as one grows older is a key objective for both individuals and policy makers. Dependency is highly related to the presence of chronic conditions and pain (Gilmour and Park, 2006). This suggests that supporting activities and choices that help seniors delay and manage chronic diseases and pain (such as appropriate physical activity) may reduce dependency associated with chronic conditions, and ultimately enhance seniors' ability to continue living in the community.

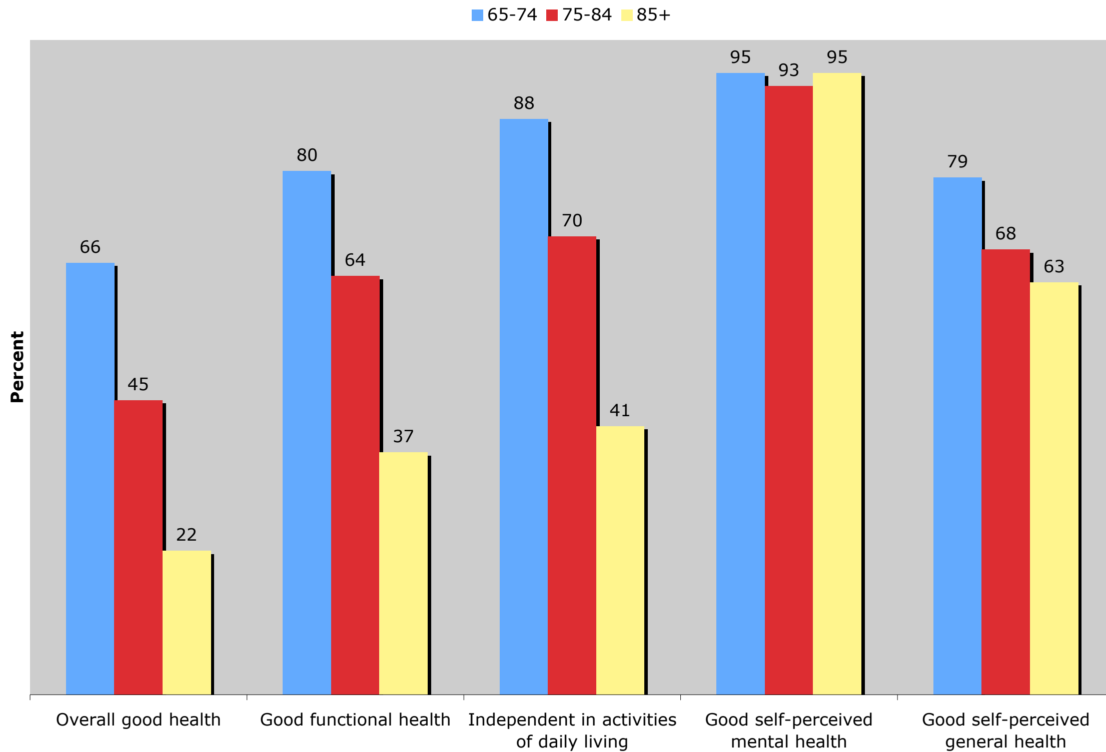
In light of this holistic understanding of health, healthy aging is defined as follows:

> **Healthy aging** is "a lifelong process of optimizing opportunities for improving and preserving health and physical, social and mental wellness, independence, quality of life and enhancing successful life-course transitions" (Health Canada, 2002). This definition takes a comprehensive view of health that includes physical, mental, social and spiritual well-being.

How Healthy are Older Canadians?

Today, men who survive to age 65 can expect to live an additional 17.4 years; women can expect an additional 20.8 years (Statistics Canada, 2005). The majority of seniors perceive that their health is generally good although the percentages with overall good health, good functional health, and independence in activities of daily living declines sharply with age (Figure 1.1). Men are more likely (59 percent) than women (52 percent) to have overall good health.

Figure 1.1
Percentage of People in Good Health, by Age Group, Household Population, Aged 65 and Over



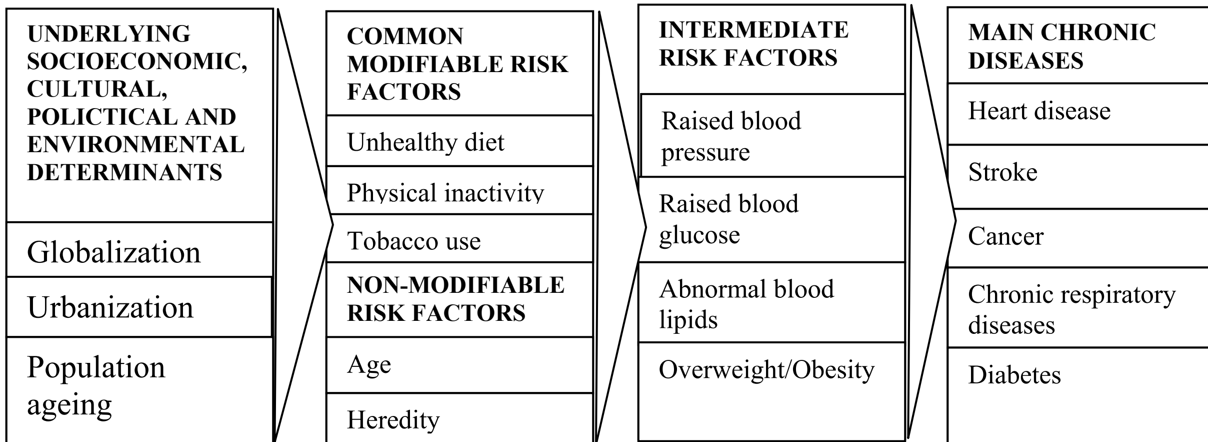
Source: 2003 Community Health Survey. Shields M, Martel L. (2006). Healthy living among seniors. Health at Older Ages. *Health Reports*, 16, Supplement. Statistics Canada, www.statcan.ca/english/freepub

Poor health and disability in older age is largely a consequence of chronic diseases and conditions (such as problems with vision and hearing) and injuries resulting from falls. The majority of seniors living in the community (81 percent) have at least one chronic condition and 33 percent have three or more chronic conditions (compared with 12 percent of younger adults) (Gilmour and Park, 2006).

Chronic diseases are the result of a complex web of causation. Research has identified a number of interrelated factors that are associated with the development of a disease (Harvey et al, 2002). Figure 1.2 shows how three modifiable risk factors – unhealthy diet, physical inactivity and tobacco use – in combination with the non-modifiable risk factors of age and heredity, explain the majority of most chronic diseases. These risk factors are expressed through the intermediate risk factors of high blood

pressure, raised glucose levels, abnormal blood lipids and overweight and obesity. However, the underlying determinants of chronic diseases (the causes of the causes) are a reflection of the social, economic and physical environments that impact on health and healthy aging (WHO, 2005).

Figure 1.2: Causes of Chronic Diseases



Source: WHO (2005). *Preventing Chronic Diseases: A Vital Investment*

Aging is an important marker of the accumulation of modifiable risks for chronic disease. The impact of risk factors begins early in life and increases over the life course (WHO, 2005). Policies and strategies for chronic disease and injury prevention that create supportive environments for social engagement, enjoyable physical activity, healthy eating, safe living and non-smoking are highly cost-effective and can have a positive impact on the health of all ages, and seniors in particular (PHAC, 2005a).

Seniors and Chronic Diseases: Some Facts and Figures

- Senior women are more likely than men to have arthritis/rheumatism, cataracts/glaucoma and back problems. Rates of heart disease, diabetes, cancer, the effects of stroke, and Alzheimer's disease/dementia are higher among senior men (Gilmour and Park, 2006).
- Between 10 and 15 percent of seniors in the community suffer from depressive symptoms and/or clinical depression (Conn, 2002).
- Late-life dementias, which include Alzheimer's disease, affect 8 percent of seniors over the age of 65 and more than 25 percent of those over the age of 80. Dementia is considered to be one of the greatest public health challenges of the coming generation (Canadian Study of Health and Aging Working Group, 1994).

2. A Vital Investment

Canada's population is aging quickly. In fact, Canadians aged 65 and over will become more numerous than children under age 15 around the year 2015. This unprecedented demographic shift will have far-reaching social, economic and political impacts (Statistics Canada, 2005a).

The Demographic Imperative

In 2005, there were some 4 million Canadians over the age of 65. Due to the aging of the large baby boomer population, by 2031, there will be approximately 9 million Canadians aged 65 and over and they will account for 25 percent of the total population. This will be almost double the current proportion of 13 percent (Statistics Canada, 2005a).

Canada's older population is also aging. Between 1991 and 2001, the population aged 80 and over soared by 41 percent to 932,000. It is expected to increase an additional 43 percent from 2001 to 2011. By then, it will have surpassed an estimated 1.3 million. (Statistics Canada, 2005a). Because women generally live longer than men, women dominate the senior population, especially after age 80.

More Sound Reasons to Invest in Healthy Aging

In addition to the demographic and political imperatives of an aging population, there are other important reasons to invest in healthy aging:

1. Seniors make a significant contribution to the richness of Canadian life and to the economy. Older people provide a wealth of experience, knowledge, continuity, support and love to younger generations. The unpaid work of seniors makes a major contribution to their families and communities. Some 69 percent of older Canadians provide one or more types of assistance to spouses, children, grandchildren, friends and neighbours (NACA, 2001). Many grandparents care for their grandchildren on a part- or full-time basis; and increasing numbers of Canadian grandparents are raising their grandchildren on their own (Statistics Canada, 2001a). As caregivers to spouses, family, friends and neighbours, seniors are a vital force in reducing health care and social service costs. Civil society programs benefit from the voluntary contributions of a large and growing number of retired seniors with valuable knowledge and skills. In addition, seniors are the largest per capita donors to charity (NACA, 2001).

An Essential Economic Contribution

In 1998, some 42 percent of Canadians aged 55-64 and 44 percent of Canadians over 65 spent an average of 2.2 hours a day as volunteers. The economic value to our communities is thought to be $60.2 billion each year (Statistics Canada, 1998).

It has been estimated that it would take almost 300,000 full-time employees at a cost of $6 billion per year to replace the work of the 2.1 million Canadians who care for seniors with long-term health problems (Keating et al, 2005). The majority of these caregivers are middle-aged and older women.

Older Canadians also make an important contribution to the paid economy. More than 300,000 Canadians 65 or older were in the labour force in 2001 (Statistics Canada, 2001). As demographic shifts reduce the ratio between the proportion of employed and unemployed Canadians (i.e., children and retired people), governments and some employers are encouraging individuals to work longer. Remaining in the workforce and actively participating in civic affairs depends, in large part, on staying in good health.

2. ***Healthy aging can delay and minimize the severity of chronic diseases and disabilities in later life, thus saving health care costs and reducing long-term care needs (Laditka, 2001).*** Chronic diseases account for an enormous human and economic burden in Canada. The prevalence increases with age and is highest among older people in vulnerable communities (e.g., Aboriginal and economically disadvantaged groups) (Public Health Agency of Canada, 2005a). Chronic diseases are responsible for 67 percent of total direct costs in healthcare and 60 percent of total indirect costs ($52 billion) as a result of early death, loss of productivity and foregone income (PHAC, 2005a).

At a population level, even small decreases in the key modifiable risk factors for chronic disease can have a large effect in preventing the transition from low to high risk (Rose, 1992). Practicing positive lifestyle behaviours can also help seniors manage chronic conditions, allowing them to live more years independently and in good health. For example, even modest rates of physical activity have been shown to stave off functional declines in people with osteoarthritis (Feinglass et al, 2005). Appropriate physical activity also helps with pain management (Arthritis Society, 2005).

Diagnosing, treating and managing chronic conditions are expensive. In 2003, seniors' health care needs accounted for more than 44 percent of all provincial government health spending, as well as 90 percent of expenditures in long-term care institutions (CIHI, Statistics Canada, 2005). These costs can be controlled and reduced when older people remain healthy enough to live in the community in a variety of supportive living arrangements. Experts believe that the health care costs of population aging will be manageable within the context of a growing economy – especially if the mental and physical problems due to chronic diseases and injuries can be prevented or delayed until the very end of life. This phenomenon, referred to as the "compression of morbidity" can be a direct outcome of healthy aging and its many benefits (WHO, 2005).

Costs and Savings Associated with Falls

Some 40 percent of admissions to nursing homes occur as a result of falls by older people (PHAC 2005). It is estimated that fall-related injuries in Canada among those 65 and older cost the economy $2.8 billion a year (Scott, Peck and Kendall, 2004). The Public Health Agency of Canada estimates that a reduction in falls by 20 percent could result in 7,500 fewer hospitalizations and 1,800 fewer permanently disabled seniors; as well as national savings of $138 million annually (PHAC 2005).

3. ***The evidence compels us to build on existing opportunities, to put in place interventions that are known to be effective, and to show leadership by supporting innovative approaches***. Experience provides us with some models and successful interventions that can be replicated in different settings. In addition, there are opportunities to build on existing strategies in aging and healthy living that are already underway in most provincial/territorial, federal and local jurisdictions. Some of these promising practices and opportunities are explored in the chapters that follow and in the appendices to this report.

Canada's capacities in community-based research as well as new opportunities for collaborating with the World Health Organization provide opportunities to develop further knowledge and show leadership at provincial/territorial, national and international levels.

4. ***Canadians of all ages believe that efforts to enable seniors to remain healthy and independent are "the right thing to do".*** Established values such as independence and interdependence, social justice, and respect for families with multiple generations help to define Canadian society. Further, as a signatory of the 2002 International Plan of Action on Ageing, Canada has made a clear commitment to "enhancing life-long physical and mental health and well-being, maintaining independent living and expanding the participation of older persons in society" (United Nations, 2002).

Investing in healthy aging is not an "either-or proposition" that sets up competition for resources between the young and old. Rather, it is part of *a life course approach* that seeks to improve well-being at various life stages by making strategic investments at different times and transitions related to age (e.g., childhood, entering school, adolescence, parenthood, menopause, older age, etc.)

Critical periods for both biological and social development include in utero, the first six years of life, the transition from school to the workforce, parenthood, retirement, menopause for women, role changes in older age, the onset of chronic illnesses or age-related declines, and the loss of family members and friends in later life. Policies that reduce inequalities protect and support vulnerable people at these critical times (Bartley et al, 1997).

It is never too late to invest in people's health. For example, with the assistance of interventions that are tailored to them, seniors who smoke can learn to quit and thus enjoy the immediate and long-term health benefits of a smoke-free lifestyle (Health Canada, 2002c). In addition, investments in an "age-friendly" environment usually benefit the old and young at the same time.

A Society for All Ages

An intergenerational approach fosters the purposeful and ongoing exchange of resources and learning among older and younger generations for both individual and social benefits (UNESCO, 2002). The International Year of Older Persons (1999) introduced the theme "A society for all ages," which was endorsed by the F/P/T Ministers Responsible for Seniors. This intergenerational approach addresses the growing tendency to isolate different age groups, particularly at the beginning and later stages of life, and encourages intergenerational programs, practices and policies. These initiatives have become increasingly popular because the benefits to old and young participants are visible and immediate. All of the key informants who were interviewed in the preparation of this paper recommended increased support for intergenerational activities to enhance healthy aging.

3. A Vision for Healthy Aging

Each of us is aging. And as a population, Canada is aging faster than ever before. Today, there is a more informed recognition of the important contribution that older people make to their families, communities and nation. There is also a growing understanding of the diversity of Canadian seniors in terms of age groupings, levels of independence, and ethnocultural backgrounds.

Today, older Canadians are living longer and with fewer disabilities than the generations before them. At the same time, the majority of seniors have at least one chronic disease or condition.

Our health care system primarily focuses on cure rather than health promotion and disease prevention. Redirecting attention to the latter is required in order to enable older Canadians to maintain optimal health and quality of life. It will also help to manage health system pressures.

The evidence is clear. Older adults can live longer, healthier lives by staying socially connected, increasing their levels of physical activity, eating in a healthy way, taking steps to minimize their risks for falls, and refraining from smoking. But there are real environmental, systemic and social barriers to adopting these healthy behaviours. Some relate to inequities as a result of gender, culture, ability, income, geography, ageism and living situations. These barriers and inequities need to be and can be addressed now. Through a combination of political will, public support and personal effort, healthy aging with dignity and vitality is within reach of all Canadians.

Ageism and Healthy Living

Ageism—discrimination based on age, especially prejudice against older people—is common in all societies. Ageism occurs when people believe that enabling and promoting healthy living among seniors is unimportant or too late to make a difference. For example, it is widely recognized that promoting activity is important for children and youth. There are many initiatives designed to do just that. But there is a prevailing attitude that it is not as important to be physically active in later life - that it may be too late, that the cost is prohibitive, and that the benefits aren't as great at this stage of life. This prejudice reflects our minimized expectations of older adulthood and misconceptions about seniors' ongoing and future participation and roles in society.

A New Vision

It is time for a new vision on healthy aging – a vision that:

- ***values and supports the contributions of older people***
- ***celebrates diversity, refutes ageism and reduces inequities***
- ***provides age-friendly environments and opportunities for older Canadians to make healthy choices, which will enhance their independence and quality of life.***

Building on a Solid Foundation

This vision for healthy aging builds on several key concepts and plans previously endorsed by the Ministers Responsible for Seniors:

The National Framework on Aging sets out an overall vision: "Canada, a society for all ages, promotes the well-being and contributions of older people in all aspects of life" (Health Canada, 1998). The vision for healthy aging seeks to further specify how this will play out by providing age-friendly environments and opportunities for older Canadians to make healthy choices, which will enhance their independence and quality of life.

Five principles identified by the National Framework on Aging underpin this vision: dignity, independence, participation, fairness and security (Health Canada, 1998). These principles provide a common set of values for all jurisdictions that are consistent with the United Nations principles for older persons (United Nations General Assembly, 1991).

Planning for Canada's Aging Population: A Framework, was developed by the F/P/T Committee of Officials (Seniors) to guide governments across Canada as they develop policies and programs for their aging populations. It outlines three pillars for action: health, wellness and security; continuous learning, work and participation in society; and supporting and caring in the community. The vision and framework for action presented in this document builds specifically on the pillar related to "health, wellness and security".

Reducing Inequities

Achieving this vision of healthy aging will require strategies to address the needs of all older Canadians, as well as explicit efforts to reduce inequities in health and well-being.

An important step in reducing inequities in health is to decrease socioeconomic disparities. Providing all seniors with incentives to make healthy choices, and

making low- or no-cost programs and services available to those who have low levels of education and low income levels will enable greater access to and involvement in healthy aging initiatives.

A recent report from the National Advisory Council on Aging (NACA, 2005) makes a number of recommendations for policies related to taxation, income support, lifelong learning, housing and long-term care that aim to alleviate poverty and socioeconomic disparities among seniors. Implementing these reforms is part of a comprehensive strategy to enhance healthy aging.

The average life expectancy of Aboriginal people remains significantly lower than the Canadian average. Also, among Aboriginal seniors, the prevalence of certain chronic conditions such as heart problems, hypertension, diabetes, and arthritis is often double or triple the rate reported by Canadian seniors overall (Government of Canada, 2002). As a result, Aboriginal people are often seen to age earlier than non-Aboriginal people and considered to be "seniors" earlier than age 65.

Premature aging, high rates of chronic diseases and low levels of life expectancy among older Aboriginal people represent a particular challenge that must be dealt with through culturally-sensitive policies and interventions. These should be spearheaded by Aboriginal peoples themselves, and supported by policymakers and service providers.

In the past, most immigrants came from the UK and other European countries. Today, many older immigrants and refugees come from regions such as East and West Asia, South America and Africa. These newcomers may not speak English or French, and may be vulnerable to isolation. For example, older women who come to Canada to take care of grandchildren are one of Canada's most isolated groups, placing them at greater risk for depression and loneliness (Taylor et al, 2003; Kobayashi, 2003). Some ethnic groups are at higher risk for certain chronic diseases, and for mental health concerns related to displacement and experiences in their homeland. In 2005, 7.2 percent of seniors were members of a visible minority. They may be particularly vulnerable to social exclusion based on racism as well as ageism, and may have different social and health needs than those who grew old in Canada (NACA, 2005a; Government of Canada, 2002; Durst, 2005).

Inequities Among Seniors: Some Facts and Figures

- In 1999, 30 percent of seniors with household incomes of less than $20,000 saw themselves as being in "fair" to "poor" health and 69 percent were physically inactive. In comparison, only 20 percent of seniors with incomes over $20,000 rated themselves in poor health and 58 percent were inactive (NACA, 2001)
- Seniors with low incomes have increased odds of institutionalization in long-term health care facilities (Trottier et al, 2000).
- Among seniors with disabilities, those with low incomes are more functionally incapacitated than those with higher incomes (Raina and Wong, 2002).
- Almost one in five seniors lives near the poverty line. Poverty is most common among seniors living alone (especially women who are divorced or separated), women over the age of 80, visible minorities and immigrants (NACA, 2005 and 2005a).
- Older women are more vulnerable to poverty and older women's health appears to be more vulnerable to the effects of poverty than is men's health (Plouffe, 2003).

4. Social Connectedness and Healthy Aging

Social connectedness has a positive effect on health. People who remain actively engaged in life and connected to those around them are generally happier, in better physical and mental health, and more empowered to cope effectively with change and life transitions. Distress, isolation and social exclusion increase substantially the risk of poor health and loneliness, and may even act as predictors of death (Wilkins, 2006; WHO, 2003). There is little standardization when it comes to deciding on definitions of the various social factors that affect healthy aging. In this chapter the umbrella of social connectedness includes a discussion of several elements: social support, social networks, social engagement and supportive social environments.

Elements of Social Connectedness

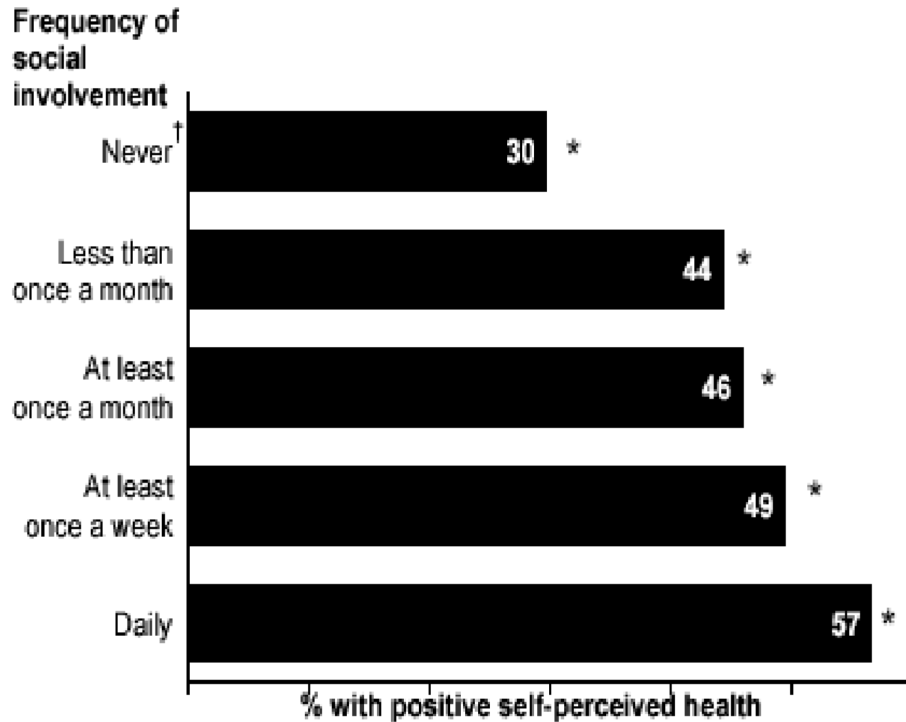
Social Support

Typically, social support is provided by family, friends, neighbours and members of local organizations such as faith groups. It provides older adults with the 'people resources' they need to feel as though they belong to a society that values and appreciates them. Social support is a critical component of mental health promotion. It enables seniors to improve their self-efficacy, self-esteem and coping skills, as well as their overall quality of life. These capacities, in turn, help older adults negotiate the activities of daily living, cope with life transitions and loss (Powell 2004), and interact with their environment with greater ease, confidence and comfort (Government of Canada, 2005).

Social support also has the potential to inspire active living and other healthy behaviour patterns and choices. Studies show that family members and peers may be particularly influential in encouraging people to make healthy changes in their exercise and eating practices (Dietitians of Canada, 1998). The beneficial health effects of social support may also be greater for seniors with disabilities as compared to those without disabilities (Government of Canada, 2005).

Daily social support and involvement has been shown to influence positive self-perceptions of health among seniors living in health care institutions (See Figure 4.1). In particular, having positive self-perceived health was strongly related to being close to at least one staff member. This relationship was true even after controlling for other confounding variables (Ramage-Morin, 2006).

Figure 4.1
Percentage with Positive Self-Perceived Health, by Frequency of Social Involvement, Institutional Population aged 65 or older, Canada Excluding Territories, 1996/97



* Significantly different from estimate for reference category
Source: 1996/97 National Population Health Survey, in Ramage-Morin, PL (2006). Successful Aging in Health Care Institutions.

Social Networks
There are noticeable differences in the social networks maintained by individuals in younger and older age groups. Individuals under 30 years of age typically have larger networks of friends and acquaintances than those in older age groups. This likely reflects the fact that many of these young people have not yet married, had children and 'settled down', in addition to the fact that people tend to lose relatives and friends with advancing age (Schellenberg, 2004). In fact, seniors tend to have condensed social networks, which are characterized by increased emotional closeness but also increased vulnerability, as there are fewer people on whom to rely and the risk of loss is greater (Pushkar and Arbuckle, 2002).

What is more, for older adults, retirement, physical changes including declining health, increased disability, sensory loss, mobility restrictions, and loss of relationships are just some of the synergistic factors that can lead to a decline in

opportunities to build and sustain social networks and support (Powell 2004). These issues can be compounded by environmental barriers such as poor accessibility to public services (e.g., transport), location of residence, substance abuse, and living in poverty. For example, older adults living in rural areas can be at an increased risk for isolation given their geographic remoteness. Similarly, urban seniors in linguistic minorities may also be at an increased risk for isolation if the communities in which they live do not provide supports in languages other than English or French.

Support networks often tend to evolve into care networks when seniors become ill or frail (Keating et al, 2005). Seniors who are caregivers themselves, most of whom are women, are vulnerable to social isolation due to restrictions on their ability to socialize, and negative conditions that are sometimes the outcome of caring for a partner or family member who is ill or frail. While caregiving can by enormously rewarding, it can also be extremely draining, emotionally and physically. Extensive caregiving can be linked to depression, anxiety, helplessness, hopelessness, emotional exhaustion, low morale and distress, feelings of isolation, guilt and anger – all factors that can serve to limit one's connectedness to others (Chappell, 1999).

Social Engagement

Social engagement is an important consideration in social connectedness. The benefits of social engagement are collective as well as individualistic. In Canada, as well as several other countries, there is a growing interest in the linkages between social engagement and social capital. Social capital is defined as the "resources that emerge from the networks of social interactions based on norms of trust and reciprocity". These resources facilitate the achievement of collective outcomes expressed in terms of well-being, health, safety, democracy, or the acquisition of economic or human capital (Franke, 2003).

The 2003 General Social Survey used a variety of measures to show social engagement levels among Canadian seniors. Survey results indicate that the frequency of attendance at religious services or meetings was strongly associated with age. Almost 50 percent of older adults, 65 and older, had attended some form of religious services at least once a month during the previous year. This was the case for less than one-quarter of individuals between the ages of 15 and 35. Baby boomers were not as active in attendance as older adults, but they remained somewhat involved, at 36 percent. Immigrants aged 25 to 54 had higher rates of attendance (almost 40 percent) compared to 22 percent for people born in Canada in the same age range (Schellenberg, 2004).

Volunteering has long been considered a productive, health-enhancing, and life-satisfying activity that provides meaningful ways to be socially engaged. But only recently have researchers begun to uncover the actual effects on health status associated with volunteerism (Volunteer Canada, 2001). The health benefits for older

adult volunteers can include a decreased incidence of heart disease, diabetes, and cardiovascular disease, and improved mental health (Gerontological Society of America, 2005). In 2000, Canadian seniors contributed 179 million volunteer hours. Overall, older adults exceeded the average hour contributions for all other age groups. Canadians age 75-plus were less likely to volunteer (15 percent) than those aged 65 to 74 years (21 percent); and they also contributed fewer hours on average (265 hours compared to 272 hours) (Volunteer Canada and the Canadian Centre for Philanthropy, 2003).

Social engagement through intergenerational activities can also play a positive role in the lives of both older adults and young people if opportunities are created for all individuals to participate easily. Intergenerational volunteerism leads to multiple benefits across the generations. Encouraging individuals of various ages to come together and understand one another increases the possibility of intergenerational connectedness and fosters the reciprocity of the generations by questioning negative stereotypes of youth and older adults. After spending time with different age groups, personal views about other generations became less biased and more open (Massachusetts Intergenerational Network, 2005).

Spotlight on an Intergenerational Meals-On-Wheels Program

Santropol Roulant is an innovative, award-winning program based in Montreal that has received federal and provincial funding. Its goal is to empower people experiencing a loss of autonomy to eat well. Established and run by young people in the community, Santropol Roulant bridges the generations through an innovative meals-on-wheels program. This service is designed to provide community residents living with a loss of autonomy - the majority of whom are seniors - with hot, nutritious meals and intergenerational contact 6 days a week, year round.

Source: Santropol Roulant, Building an Intergenerational Community. Food Security at Santropol Roulant. http://www.santropolroulant.org/en/foodsecurity.html

Supportive Environments

While older Canadians have choices around social connectedness, it is important to recognize that it is an enabling environment, with family and community supports, that often makes it possible and desirable for seniors to be active participants in their communities. Decision-makers can help foster social networks for older people by supporting a range of opportunities for social engagement, including volunteerism, lifelong learning, employment, recreation and civic participation. Policies and

programs need to address the multiplicity of barriers that serve to restrict or limit social engagement among older adults in Canada.

Ethnic seniors who were not raised in Canada and who may not speak English or French may be isolated by an unsupportive environment. Some ethnic seniors leave their country of origin in adulthood to join their children who are settled in Canada (often to provide care for grandchildren). This means adapting to a new environment and moving away from familiarity, lifelong community connections, and close family and friends (Durst, 2005).

Social Isolation and Exclusion: Barriers to Connectedness

While older Canadians have choices to engage socially, they may also face barriers including social isolation, loneliness, poor access to health and social services, loss of health, marginalization and social exclusion. Ageism, which is discrimination based upon chronological age or assumed age, is a prevalent form of exclusion in all societies. The cumulative impact of even a few of these drivers interacting together, can significantly increase seniors' vulnerability, and compromise healthy aging. Exclusion disenfranchises seniors, and perpetuates isolation which impacts quality of life, lifestyle behaviours that affect health, and overall health status (WHO, 2003).

Studies have consistently found associations between loneliness and poor health (Hall and Havens, 1999; Andersson, 1998). However, the relationship between loneliness and ill-health remains ambiguous. It is unclear whether loneliness occurs as a result of poor health or if poor health is a result of loneliness (Hall and Havens, 1999).

A recent analysis found that psychological distress, which included measures for feelings of worthlessness, hopelessness and nervousness, has a strong effect on senior women, and is predictive of their mortality. Among women with high levels of psychological distress in 1994/95, the risk of dying by 2002/03 was 60 percent higher than those who reported lower distress levels. Similarly, women who reported experiencing higher levels of financial stress were also more likely to die by 2002/03 (Wilkins, 2006). Seniors who had a "strong sense of coherence" (i.e., who see life events as understandable, controllable and meaningful) were more likely to stay healthy over the following eight years (Shields and Martel, 2006).

The National Advisory Council on Aging issued a report in 2005, which highlights the social exclusion of some seniors due to low income status. While progress to reduce the proportion of seniors living in poverty has been significant, a number of unattached seniors (particularly women who are divorced and separated, members of immigrant populations or over age 80) have incomes below the low-income cut-off and remain vulnerable to exclusion (NACA, 2005).

Social Connectedness Among Older Canadians

Data from the Canadian Community Health Survey revealed that seniors who reported a strong sense of community belonging were 62 percent more likely to be in good health compared to 49 percent of seniors who felt less connected (Shields and Martel, 2006).

Generally, women tend to have more social connections than men, a factor that has been implicated in a common finding that following retirement, men are more likely than women to experience health problems (NACA, 1996). But older women have also been shown to be vulnerable to loneliness, a phenomenon which may be due, in part, to their increased longevity as compared to men, their increased likelihood to be widowed and to live alone, and their experiences living with declining health and chronic disease (Hall and Havens, 1999; Andersson, 1998). At the same time, research consistently shows that marital status has a protective effect against mortality for men but less so for women (Wilkins 2006; Wilkins, 2003). Further, men and women may understand and experience loneliness in different ways – influenced by gender and culture, among other things.

Knowledge Gaps

Social cohesion, engagement and connectedness are vital parts of healthy aging. Many researchers struggle with the definitions of these factors and how they relate to social connectedness, social exclusion and isolation. A standardization of terms and measurements is badly needed.

Additional research is required to better understand how community-based, services and programs that enhance social connectedness contribute to promoting healthy aging and reducing chronic disease, injury and health costs. We need more information on the impact of poor social, emotional and psychological health in later life on mortality and morbidity. What role does social connectedness have in stimulating and nurturing mental, emotional and physical health? (Wilkins, 2006). Similarly, more research is needed to better understand how seniors use and maintain social networks (Keating et al, 2005).

Promising Practices

A range of interventions can serve to enhance social integration and connectedness. Enhancing social connectedness among older Canadians requires intersectoral policies and interventions that recognize the primary barriers to engagement for seniors, act in mutually reinforcing and complementary ways to support Canada's aging population, and increase opportunities for involvement.

The evidence also suggests that it is important to tailor interventions to individuals or communities, recognizing that social support needs and benefits vary for different seniors (Keating et al, 2005). Unwelcomed support may serve to isolate older people further, threatening their independence and self-esteem (British Columbia Ministry of Health, 2005).

Directions for Policy and Practice

The evidence implies that policies and practices to promote social connectedness among older adults in both community and institutional settings need to:

- Create an enabling, age-friendly environment characterized by barrier-free access in both the physical and social environments, where the involvement of all community members is a valued priority.

- Address the physical, mental and emotional aspects of healthy aging. Mental health promotion—including social connectedness— is intimately related to seniors' well-being and functional status.

- Provide opportunities to enhance social engagement among older Canadians through intersectoral policies and interventions that recognize the primary barriers for seniors; reduce inequalities among older Canadians; increase opportunities for lifelong learning and voluntarism; and enable their optimal participation in community life.

- Combat ageism as it appears in the media and in policies and practices that discriminate against older Canadians. While this is especially important for enhancing social and mental well-being, addressing ageism is a critical strategy for all of the determinants of healthy aging.

- Draw on family members, friends and peers to support and encourage positive behaviour patterns and choices.

- Tailor interventions to specific groups and communities; seniors have different social support needs.

- Invest in knowledge translation that promotes awareness about emotional, psychological and financial distress, its effects on seniors and the influence it has on social connectedness.

- Provide outreach to seniors who are isolated or socially excluded, including members of minority population groups and older women with disabilities who live alone.

- Provide adequate supports to older adults who need care, to lessen the burden on their support/care networks.

- Create age-friendly environments that encourage social connectedness among and between generations.

5. Physical Activity and Healthy Aging

Benefits of Physical Activity

A solid evidence base supports the positive relationship between regular physical activity and healthy aging. Often called the "elixir" of healthy aging, regular physical activity adds vitality and quality to life. It positively affects functional capacity, mental health, fitness levels, the prevention and management of chronic diseases, and overall well-being (Health Canada, 2002a; Shields and Martel, 2006). Older Canadians who participate in regular physical activity are less likely to experience illness than those who are sedentary; and they are more able to delay some of the declines associated with aging (Colman and Walker, 2004). Engaging in physical activity with others can help seniors make connections and build social networks that promote overall health (Health Canada, 1999).

The benefits of physical activity are cumulative when sustained over time and incorporated into activities of daily living (Shields and Martel, 2006; Health Canada, 2002a). The association between good health and leisure-time physical activity is particularly strong for seniors, even when socioeconomic factors and the number of chronic conditions are taken into account. Data from the Canadian Community Health Survey show that sixty-seven percent of seniors who are active three or more times a week are in good health, compared to thirty-six percent who are infrequently active. Participating in regular physical activity is also associated with improved odds for staying healthy over time, and of recovering from poor health (Shields and Martel, 2006).

Physical activity is associated with improved mental health and psychological functioning in older adults, including self-efficacy – a belief in one's ability to complete a specific task or control one's situation (Mendes de Leon et al, 1996). It may also be an important factor in protecting against anxiety and depression, which can be triggered by the changes and losses people experience in later life (Health Canada, 2002a). While not yet conclusive, there is increasing evidence linking participation in regular physical activity with a decreased likelihood of developing dementia (Larson et al, 2006; Wang et al, 2006).

It is never too late to attain the benefits associated with regular physical activity. With appropriate levels and types of physical activity, older Canadians of all ages and abilities can experience improvements in physical, mental and emotional well-being (Health Canada, 1999; Health Canada, 2002a; BC Ministry of Health, 2005; Shields and Martel 2006).

Costs and Savings Associated with Physical Activity

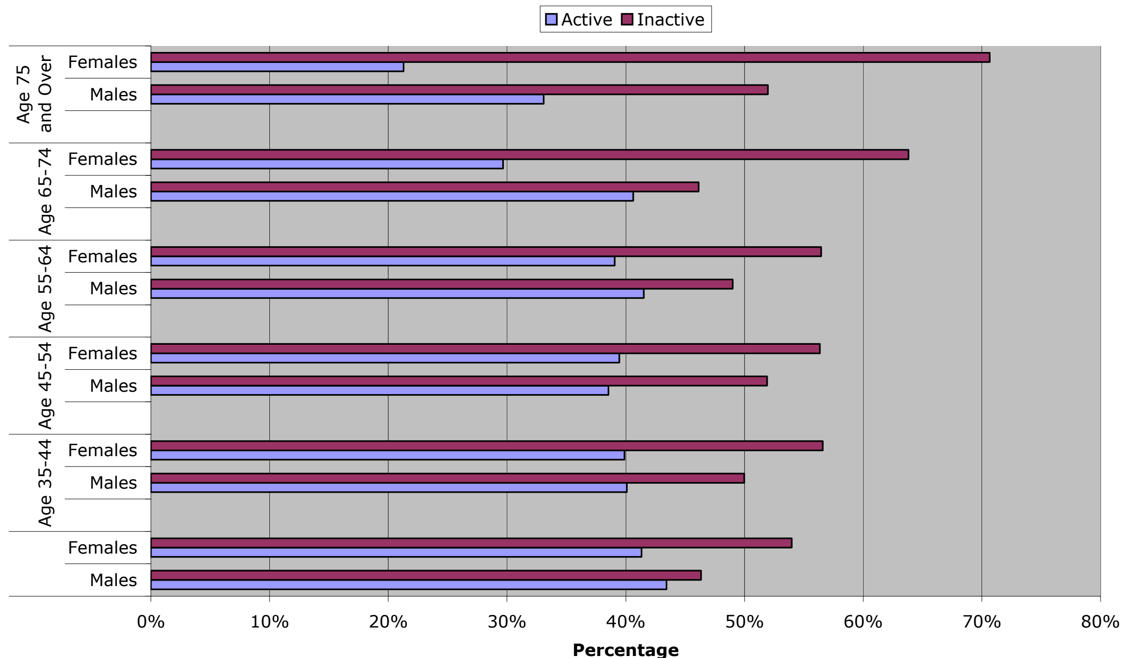
Physical inactivity represents a critical cost burden in Canada, estimated at $5.3 billion (CFLRI 2004; Katzmarzyk et al, 2000). Even modest reductions in inactivity levels could result in substantial cost savings. For example, a 10 percent reduction in the prevalence of physical inactivity has the potential to reduce direct health care expenditures by $150 million a year (Katzmarzyk et al, 2000).

Seniors with chronic illnesses and injuries are the highest users of health care and most likely to have long stays in hospital (Rotermann, 2006). Enabling and encouraging increased physical activity among this population group may be one of the most effective ways of preventing and lowering the high costs associated with acute health care services. Investing in age-friendly environments that support physical activity and active living will also enable seniors to continue to make important contributions to society and the economy.

Activity Levels of Older Canadians

Despite the remarkable benefits of regular physical activity to aging, older adults are the most inactive segment of the Canadian population (See Figure 5.1). Almost two-thirds (65 percent) do not engage in sufficient levels of physical activity to maintain or improve health (CFLRI, 2004). However, it is instructive to look more specifically at the differences in age groups and between men and women. Among women there is a dramatic decline in the percentage that are physically active and moderately active after age 65, and a significant increase in the rates of inactivity. Among men, the pattern is somewhat different. Senior men aged 65 to 74 are just as (or more) likely to be physically active or moderately active than younger adult males. Significant declines in activity levels and increases in inactivity only begin at age 75 and over.

Figure 5.1



Note: "Active" = physically active and moderately active
Source: Statistics Canada, Canadian Community Health Survey (2005b)

There are strong regional differences in physical activity levels among seniors (data not shown). The highest rates of physical inactivity are in Prince Edward Island (59 percent); the lowest rates of inactivity are in British Columbia (42 percent) (CFLRI 2004).

Some specific high-risk and hard-to-reach groups are particularly vulnerable to physical inactivity and the associated risks for health and well-being. Gender is an important factor: as shown in Figure 5.1, senior women are consistently less active than older men. Other vulnerable groups include seniors over age 80, seniors with low incomes and/or low education levels, seniors with disabilities and/or chronic health conditions, seniors who live in institutions or in isolation, and seniors who are members of ethnocultural and ethnolinguistic minority population groups (Health Canada 2002a).

Barriers to Participation

Seniors report that some of the major barriers to participating in physical activity include fear of injury, illness, disability and pain, lack of energy, motivation, skill and time, feeling ill at ease, inadequate facilities, excessive cost and lack of safe places (CFLRI, 1995). All of these factors influence one's choice to remain inactive or to become and stay active.

Other examples of barriers that have been identified by leaders in the field include:

- Weather: Long cold winters and icy surfaces make it difficult for older people to walk and resume activity out-of-doors. High levels of smog on hot summer days pose a significant risk to health and life, particularly for older people who have chronic respiratory problems.

- Inadequate support: Health professionals may not have the time, expertise or resources to address physical inactivity among their older patients.

- Caregiving responsibilities: Caring for children or a relative who is ill can restrict older people's time and ability to participate in physical activities outside the home (especially older women).

Knowledge Gaps

There is plentiful evidence supporting the positive effects of physical activity on aging. However, community-based, solution-oriented research is lacking. This type of investigation puts an innovative intervention in place (e.g., free stationary bicycles or tai chi programs in malls), documents the efficacy of the intervention, and analyses how the results may influence policies and programs that are needed to encourage an increase in physical activity levels among older adults. There is also a need for cost saving data related to seniors' participation in physical activity.

While the relationship between social inequities, barriers and involvement in physical activity is recognized, there is a need to better understand the processes underlying these inequities and how public policies can overcome them (Spence et al, 2001; O'Brien Cousins, 2005). Of particular concern is the dramatic increase in inactivity among women after they reach age 65. There is a need to determine if this is primarily due to high rates of mobility problems and pain linked to musculoskeletal conditions such as arthritis and osteoporosis, or to other factors.

Promising Practices

While personal attitudes and motivation are important, supportive social and physical environments play a major role in enabling seniors to integrate physical activity into their daily lives (Health Canada 2002a; ALCOA, 1999). Research has identified a number of key strategies for enabling older Canadians to be more active. Most notable is the success associated with comprehensive approaches that incorporate education and awareness raising, community-based initiatives and home-based interventions (Health Canada, 2002a; King et al, 1998). In other words, instead of focusing solely on the individual, it is better to intervene at multiple levels in a variety of settings. This approach recognizes that physical activity is influenced by many factors, including individual dispositions, culture, family support, community programs, climate, and physical environments (Spence et al, 2001; Craig et al, 2004).

It has been suggested that regular, moderate activity such as walking and gardening is the most important thing seniors can do to maintain mobility and prevent disability (Lacroix et al, 1993; Leveille et al, 1999). Some immediate ways to begin improving opportunities for these activities is by improving pedestrian safety and providing raised neighbourhood garden plots for seniors and others with disabilities.

Spotlight on the Active Living Coalition for Older Adults (ALCOA)

Nongovernmental organizations that represent seniors are important partners for increasing participation levels among older adults. The Active Living Coalition for Older Adults (ALCOA) has a current membership of 22 national, provincial and territorial organizations, dedicated to promoting healthy aging through active living. Together, they foster communication and collaboration among members and other related organizations and individuals, and effectively advocate for older adults and active living as a priority for policy-makers,

Source: Active Living Coalition for Older Adults (ALCOA) (1999). *Moving Through the Years: A Blueprint for Action for Active Living and Older Adults*.

Directions for Policy and Practice

The evidence implies that policies and practices to encourage and enable physical activity among older adults in both community and institutional settings need to:

- Use multi-pronged approaches that incorporate education and awareness raising, community-based initiatives and home-based interventions.

- Focus on and evaluate solution-oriented changes in the physical and social environments.

- Promote positive, safe and inclusive environments, minimize barriers and increase choices and opportunities to participate in age- and activity-friendly environments.

- Increase efforts to involve older adults with disabilities and chronic illnesses in appropriate physical activity. This will require a stronger role by health professionals.

- Adopt Pan-Canadian targets for increasing physical activity levels and reducing inactivity levels among senior women and men in different age groups, and put mechanisms in place to achieve these targets.

- Stress the mental and social as well as physical benefits of physical activity in later life, and the association of physical activity with maintaining health over the years.

Physical activity is a cornerstone of healthy aging. The challenge and the opportunity are to make it more accessible and attractive to older Canadians of all ages, abilities and interests.

6. Healthy Eating and Healthy Aging

Benefits of Healthy Eating and Risks Related to Poor Nutrition

Healthy eating patterns are integral to healthy aging. Healthy eating provides essential energy and nutrients for general well-being, the maintenance of health and functional autonomy, and a reduced risk for chronic diseases at older ages (Health Canada, 2002b; BC Ministry of Health, 2005; Dietitians of Canada, 1998).

Seniors have unique nutrition and energy requirements. Specifically, they require fewer calories but more nutrients to promote and protect health, contribute to independence, self-efficacy and quality of life (Dietitians of Canada, 1998; Health Canada, 2002b). For example, a healthy diet consisting of a high intake of fruits and vegetables is associated with protection against visual loss, cataracts, respiratory disease, and some cancers (BC Ministry of Health, 2005). A recent survey found that sixty-two percent of seniors who reported consuming fruits and vegetables at least five times a day were in good health compared with fifty-two percent of seniors who consumed fewer fruits and vegetables (Shields and Martel, 2006).

Poor nutrition in older age can result in many adverse and synergistic complications. Poor nutrition exacerbates declines in immune and sensory functions (such as macular degeneration) and worsens symptoms related to chronic diseases such as cardiovascular disease, diabetes, osteoporosis and cancer (Dietitians of Canada, 1998). Inadequate intake of B vitamins may also have a negative effect on cognitive functioning and even dementia among older adults (Calvaresi and Bryan, 2001). Skipping meals or not eating enough can cause dizziness and weakness, which, in turn, can precipitate falls with sustained injuries that may eventually lead to a loss of independence.

Poor oral health negatively affects seniors' ability to eat and digest healthy foods. This increases their vulnerability to health problems such as heart disease, pneumonia, stroke and diabetes (NACA, 2005c). Smoking also modifies the absorption of nutrients (NACA 2004).

Social isolation and eating alone, as many seniors do, is often related to unhealthy eating and poor nutrition. Older adults may develop positive attitudes towards healthy eating and nutrition through the development of supportive relationships (Dietitians of Canada, 1998).

Costs Associated with Unhealthy Eating

There is not a lot of research available on the cost burden of unhealthy eating. In an attempt to generate some estimates however, American researchers considered proper nutrition as a 'risk removal' feature for morbidity and mortality. They found that improved diets could reduce chronic heart disease and stroke mortality by at least 20 percent; cancer and diabetes could be reduced by at least 30 percent (U.S. Department of Agriculture, 1999).

Based on a similar logic, Health Canada researchers developed a rough picture of the economic burden of unhealthy eating in Canada. Using figures from 1998, they estimated that some $1.3 billion are attributable to direct health costs resulting from unhealthy eating; $5.3 billion are indirect costs, making the total estimated economic burden of unhealthy eating in Canada around $6.6 billion (Health Canada, 2003).

Healthy Eating Among Older Canadians

Based on results from several national studies, the National Advisory Council on Aging reported that some 50 percent of Canadian seniors rate their eating habits as "excellent" or "very good"; 16 percent as "fair" or "poor". Just over 40 percent of seniors eat the recommended servings of fruits and vegetables each day and 4 percent of seniors were hungry during the year because they did not have enough money to buy food (NACA 2004).

Many adults over age 50 do not have an adequate intake of nutrients, such as vitamins D, folate, calcium and iron . Most seniors do not get enough vitamin D from their diet. Moreover, approximately, 10 to 30 percent of people over the age of 50 have difficulty absorbing vitamin B12 found in food. A supplement of vitamin D and a synthetic source of vitamin B12 (supplement or fortified food) may be necessary (Institute of Medicine, 1998).

Not surprisingly, independent seniors who live in the community and who enjoy general good health have the lowest rates of poor nutrition. The prevalence of poor nutrition increases for hospitalized seniors who are already experiencing compromised health and functional status. Older adults who are functionally dependent in activities of daily living are also at a higher risk for poor nutrition (Health Canada, 2002b).

A range of interacting factors at the individual and collective levels affects the food choices of older adults in Canada. These include macro-level factors such as income, transportation, sociocultural norms, oral health, food production and marketing, and support networks. (Raine, 2005; Payette and Shatenstein, 2005). Addressing these underlying determinants is critical in encouraging healthy eating patterns (Payette and Shatenstein, 2005; Health Canada, 2002b). How seniors access, prepare and

consume foods are important factors in healthy eating and do not function in isolation of one another.

Healthy Eating and Healthy Weights

Like younger Canadians, the prevalence of overweight and obesity is increasing in the older population as a result of an excess consumption of calorie-rich foods combined with physical inactivity. Obesity rates among older adults aged 75-plus have surged, reaching 24 percent in 2004, compared to 11 percent for this same age group in 1978/79 (See Figure 6.1). However, obesity rates did not increase significantly among adults aged 65-74. Overweight tends to be higher among middle aged and older men as compared to women; however, women have higher average obesity rates compared to men (Tjepkema, 2005).

Understanding Some Terms

"Normal weight = body mass index (BMI) of 18.5–24.9
"Overweight" = BMI of 25 – 29.9
"Obese" = BMI > 30

Source: Canada's Guidelines for Body Weight Classification: http://hc-sc.gc.ca/fn-an/alt_formats/hpfb-dgpsa/pdf/nutrition/weight_book-livres_des_poids_e.pdf)

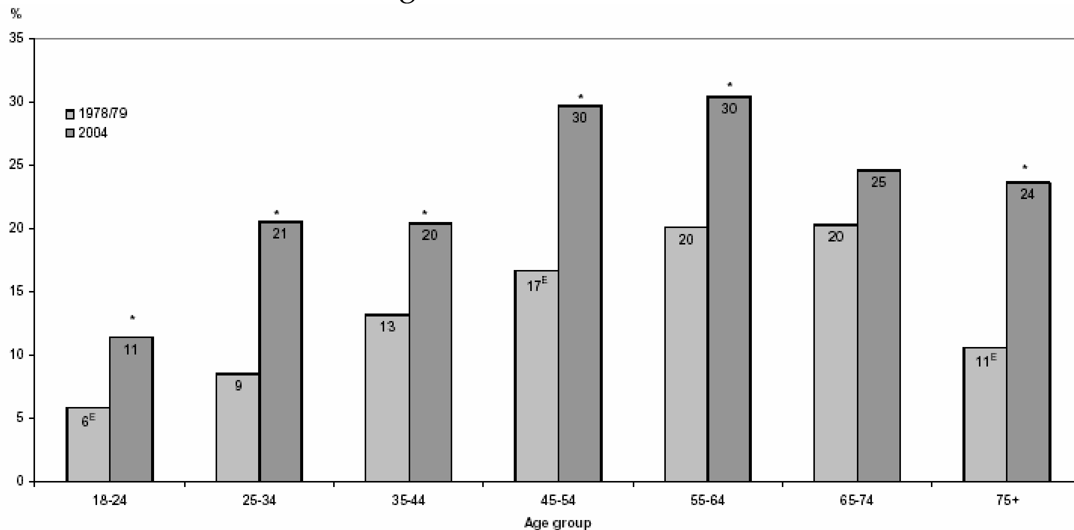
Excess body weight increases one's risks for chronic diseases, injuries and compromised health (Tjepkema, 2005; Shields and Martel, 2006). In 2005, 55 percent of seniors whose weight was in the normal weight range were in good health, compared to 46 percent of seniors who were obese. New research suggests that obesity is predictive of dependency in midlife and older age, which in turn, is predictive of eventual institutionalization. The association between obesity, disability and dependency is stronger among women than it is for men (Wilkins and de Groh, 2005).

At the same time, there is still limited consensus on optimal weights for seniors in Canada. The association of higher weight with negative health outcomes among seniors, especially over age 80 is less clear (Dietitians of Canada, 1998). Underweight seniors are less likely (37 percent) to be in good health (Shields and Martel, 2006). There also remains a significant association between underweight and dependency among seniors (Wilkins and de Groh, 2005). Weight loss amongst seniors is often

unintentional, goes unnoticed, and is the result of muscle and bone loss which can negatively impact strength, balance and endurance, subsequently escalating one's risk of injuries. For example, the percentage of seniors in the normal weight range increased with age from 40 percent among the 65-74 year age group to 62 percent for the 75-plus age group. The authors suggest that this weight loss may be attributed to declining health and frailty associated with older age (Shields and Martel, 2006).

There are questions as to whether or not the same measurements and standards for determining overweight and obesity (e.g., body mass index) should be applied in adults over age 65 given that weight is distributed differently as one ages (i.e., less muscle and more fat).

Figure 6.1
Obesity rates, by age group, household population aged 18 or older, Canada excluding territories, 1978/79 and 2004



* Significantly higher than estimate for 1978/79

Data Sources: 2004 Canadian Community Health Survey, 1978/79 Canada Health Survey. In Tjepkema (2005). Nutrition: Findings from the Canadian Community Health Survey.

Knowledge Gaps

As mentioned above, we need a better understanding of the relationship between weight and health and in the application of healthy weights measures and indicators among seniors. The evidence on nutrition and healthy eating for older adults is slow to emerge. There is a dearth of evidence around nutrition monitoring and evaluation systems, the determinants of healthy eating for seniors, and links to health outcomes

to inform policies and program development (Payette and Shatenstein, 2005). Intervention and best practice research is also needed to further explore how older Canadians can minimize risk, and ensure proper nutrition while maintaining a healthy weight and practicing routine physical activity (NACA, 2004).

Promising Practices

Limited information is available on the effectiveness of nutrition-related interventions with seniors. Upstream interventions such as nutrient fortification in foods (Health Canada, 2005), and ensuring food security[1] (WHO, 2002) have the potential to enhance the nutrition status of all ages, and seniors in particular. For instance, the addition of folate to flour and grain products, which was implemented to reduce birth defects, may also have benefits in reducing homocysteine levels in the aging population. High homocysteine levels have been associated with heart disease and an increased risk for developing Alzheimer Disease (Tucker et al, 2005).

Nutrition education interventions directly targeted to seniors are scarce, and their evaluation rare. Preventing undernutrition through the promotion of optimal nutrition and/or screening in populations at risk shows promise.

[1] [1] Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. (World Food Summit 1996)

Spotlight on Nutrition Screening

The Bringing Nutrition Screening to Seniors project began in 2000 in selected demonstration sites in diverse community settings, and involved 1,200 seniors. It found that nutrition screening was an effective and practical tool to promote awareness and early interventions among seniors by community service providers. A five-year study in Quebec called NuAge will more closely examine the role that nutrition has in healthy aging. Led by the Research Centre on Aging of the Sherbrooke Geriatric University Institute, researchers will follow over 900 men and 900 women, aged 68 to 82. This study promises to yield insightful results that will help guide advice for healthy eating habits and nutrition requirements among aging populations.

Source: Sherbrooke University Geriatric Institute (2004). NuAge Press Release: You're never too old to benefit from good eating habits!

Directions for Policy and Practice

The evidence implies that policies and practices to encourage healthy eating among older adults need to:

- Invest in further research and knowledge development to address the gaps in our understanding around the determinants of healthy eating and healthy aging, and uncover and evaluate effective interventions for seniors.

- Address the multiplicity of factors and barriers that affect older adults' food choices; their nutritional needs; the determinants of nutrition status (e.g., underlying health conditions and consumption patterns); and vulnerability to deficiencies and nutritional problems.

- Promote awareness around the linkages between healthy eating, healthy weights, and physical activity for Canadian seniors. This is important not just for today's seniors but for middle-aged Canadians who will enter into older adulthood in the next 10 to 20 years.

- Increase senior's access to oral health services as a means of improving the nutritional status of older Canadians, especially those living in rural areas and long-term care facilities.

- Prioritize healthy eating in long-term care facilities.

Healthy eating and nutrition policies should aim to promote and enable healthy choices for seniors, who have unique nutritional needs.

7. Falls Prevention and Healthy Aging

The Consequences of Falls

Unintentional injuries among older adults account for a significant burden in both human and economic terms. The major cause of injury among seniors in Canada is falls (Health Canada, 2002f). Among older adults, injuries due to falls threaten independent living, autonomy, mobility, functional ability and health status. Injuries can precipitate institutionalization and even death. If a fall does not result in an injury, it can still result in increased and on-going fear, and a curtailment of activities (such as regular exercise), both of which can have negative consequences for overall health status and function, and increase the risk for future falls (PHAC, 2005; Health Canada, 2002f). In fact, a previous fall increases the risk for another fall by three times (PHAC, 2005). Similarly, seniors who are injured from a fall seldom recover fully, and often experience chronic pain, reduced mobility, loss of independence and confidence, and a compromised quality of life (PHAC, 2005; Health Canada, 2002f).

Preventing Injuries Due to Falls

Falls prevention enhances opportunities for older Canadians to remain active and independent, enjoying a productive and engaged quality of life. But preventing injuries due to falls is complex. The risk factors are numerous and multi-faceted, interacting with one another synergistically at the biological/ medical, behavioural, environmental and socioeconomic levels. Some risk factors are directly related to the health of the individual; others relate directly to the person's environment (PHAC, 2005; Scott, Peck and Kendall, 2004).

- Biological and medical risk factors can include age, the presence of chronic or acute disease (e.g., heart disease, osteoporosis, diabetes and arthritis), physical disability, muscle weakness and poor physical fitness levels.

- Behavioural risk factors typically include risky behaviours (such as climbing up an insecure ladder), medication use (e.g., use of multiple medications), and inadequate diet and exercise. Seemingly simple, daily and ordinary behaviour choices can significantly affect one's risk of falling.

- Environmental risk factors are found within an individual's surroundings, usually in and around the home. They can include poorly placed furnishings, scatter rugs and other home hazards that threaten risk of injury. Almost half of all seniors' falls occur at home in the bathroom and on the stairs (PHAC, 2005). Risks found outside the home can include potholes in sidewalks and roads and poor

lighting. Institutional hazards are more systemic in nature but are no less important. They include poorly designed buildings and non-compliance to safety and building standards, codes or regulations.

- Low income may affect a senior's access to housing that meet safety standards, and to appropriate health and social services, including information on falls prevention. Food security issues for at-risk seniors can affect nutritional status, and subsequently increase susceptibility to an injurious fall (e.g., through dizziness).

Costs and Savings Associated with Falls

In 1998, over $980 million of the $2.4 billion in direct costs spent on falls was devoted to treating falls among seniors (Angus et al, 1998). Fall-related injuries in Canada, among those 65 and older, have been estimated to cost the economy $2.8 billion a year. One hip fracture is estimated to cost between $24,400 and $28,000 in direct health costs alone. This estimate includes costs of hospitalization, medication and health provider consultations for both treatment and rehabilitation (Scott, Peck and Kendall, 2004). Rehabilitation and recovery periods are typically longer and more cumbersome for older adults who have experienced an injurious fall – up to twice as long for falls when compared to all other causes of hospitalization for older adults. This results in a high resource burden on the health care system (BC Ministry of Health, 2005).

In another study, an average investment of $906 in a multi-strategy falls prevention program saved $3,695 due to a reduction in fall injuries (Health Canada 2002f). The Public Health Agency of Canada also estimates that a reduction in falls by 20 percent could result in an estimated 7,500 fewer hospitalizations and 1,800 fewer permanently disabled seniors; some $138 million annually could be saved nationally (PHAC, 2005).

Falls Among Older Canadians

The rate of injurious falls increases with age and the rates for women exceeded the rates for men in all age groups (see Figure 7.1). The Report on Seniors' Falls in Canada highlights some other startling figures on injuries and falls among older Canadians (PHAC, 2005):

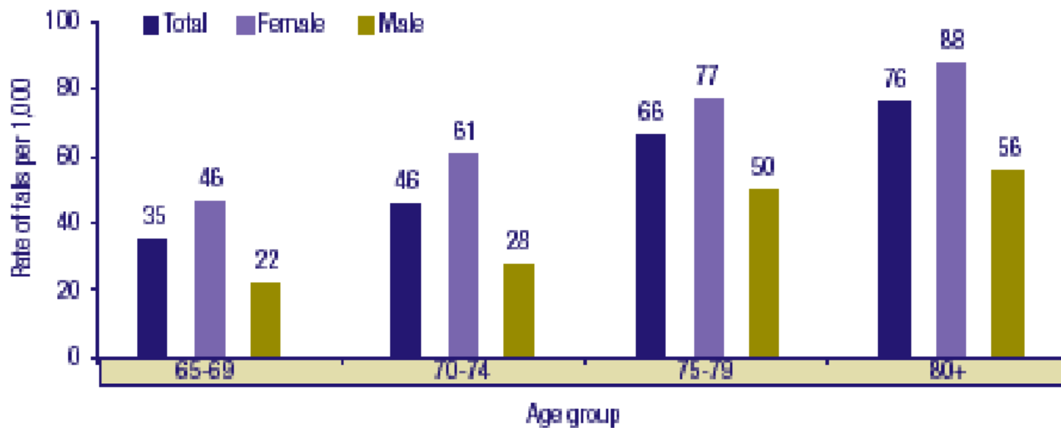
- almost 62 percent of injury-related hospitalizations for seniors are the result of falls

- the fall-related injury rate is nine times greater among seniors than among those less than 65 years of age
- almost half of seniors who fall experience a minor injury, and 5 to 25 percent sustain a serious injury such as a fracture or a sprain
- 40 percent of all nursing home admissions occur as a result of falls by older people
- falls cause more than 90 percent of all hip fractures in seniors and 20 percent die within a year of the fracture

Based on self-reports from the Canadian Community Health Survey, 37 percent of sustained injuries from falls among older adults were to the hip, thigh, knee, lower leg and ankle. Most respondents reported slipping, tripping or stumbling on a surface (44 percent); 26 percent reported falling on stairs; and 20 percent reported stumbling on ice or snow (PHAC, 2005).

Gender and advanced age are two important factors. Seniors who experience an injurious fall in Canada are more likely to be female; in the 80+ age group; widowed, separated or divorced; have a post-secondary education and have a household income of less than $15,000 (PHAC, 2005). Women typically sustain more injurious falls and have higher rates of fall-related hospitalizations. Women are also at greater risk than men for breaking a bone as a result of a fall, due, in part, to lower bone density after menopause and higher rates of osteoporosis.

Figure 7.1
Estimated Rates of Injuries Resulting From a Fall,
By Age Group and Gender, Age 65+, Canada, 2002/03



Source: Canadian Community Health Survey, Cycle 2.1, in Public Health Agency of Canada (2005). Report on Seniors' Falls in Canada.

Knowledge Gaps

The evidence shows that injury prevention is a multi-faceted and multi-sectoral concern that encompasses the broad determinants of healthy aging, and which includes a combination of interacting risk factors. At the same time, additional research is required to determine the cost effectiveness of specific interventions alone and in combination (e.g., home-based exercise programs; use of protective and assistive devices such as hip protectors; and in-depth environmental falls assessments) (Scott, Peck and Kendall, 2004).

Falls prevention is also directly related to other healthy aging issues, particularly healthy eating and physical activity. More research is needed to understand and further address the barriers to exercise, and how to motivate seniors to remain healthy and mobile (Scott, Peck and Kendall, 2004). Additionally, we know that older adults may overestimate their physical fitness levels and thereby underestimate their risk profile for injuries or the conditions that make them vulnerable to injuries (PHAC, 2005). Supplementary research in this area could be valuable in informing prevention programs as well as informing why some people access certain interventions more than others.

Promising Practices

A variety of prevention measures have been shown to be effective in reducing falls and fall-related injuries in the home, community and institutional settings. These include regular physical activity, medication review, routine vision and hearing assessments, healthy and regular eating, appropriate home and environment modifications, proper footwear, regular physician visits and information sharing about falls prevention (HEN, 2004; PHAC, 2005; VAC, 2002). Reducing or eliminating the burden of injuries due to falls among older adult Canadians requires resources and the effective combinations of interventions addressing primary and secondary prevention (Scott, Peck and Kendall, 2004).

Spotlight on *Steady As You Go* - An Effective Multi-Faceted Approach to Seniors Falls Prevention

Steady As You Go is a multi-faceted approach to falls prevention that addresses risk, behaviour and environmental factors that influence falls among community-dwelling seniors. Among older adults who had completed the program, the risk of falling was reduced in 8 out of the 9 risk areas addressed. In the four month follow-up period, the proportion of seniors who fell after having participated in the program was lower (17 percent) than those who did not participate in the program (35 percent).

Source: Public Health Agency of Canada (2005). Report on Seniors' Falls in Canada.

Directions for Policy and Practice

The evidence implies that policies and practices to promote falls prevention among older adults need to:

- Use a combination of interventions (e.g., awareness, enforcement of safe building codes, physical activity, medication reviews, etc.) to reduce the variety of risk factors associated with falls and document their efficacy and cost effectiveness.
- The majority of falls occur in the home in the bathroom or on the stairs. Focus on safety promotion and home modifications in the home, specifically on the stairs and in the bathroom.
- Tailor interventions and education materials to address the needs of low-income, older women (75-plus) who are particularly susceptible to falls.
- Establish and leverage multisectoral partnerships at the federal, provincial and municipal levels.
- Enforce standards and building codes that ensure safe environments for older adults.

The human and business case for falls prevention is clear; the return on investment for prevention is compelling. The best safeguard against injuries for older adults is to prevent their very occurrence. What is needed is a political commitment and resources to implement effective combinations of interventions all across the country.

8. Tobacco and Healthy Aging

Health Consequences of Smoking

Tobacco is associated with the development and progression of several major chronic diseases, mobility restrictions, disability and a decline in physical function—conditions that are common in later life and which can be worsened by smoking and exposure to second-hand smoke. Cigarette smoking is implicated in eight of the top fourteen causes of death for adults 65 years of age or older (BC Ministry of Health, 2005; Health Canada, 2002c). Deaths from smoking result in, on average, a loss of 15 years of expected life. In addition, seniors with heart disease, asthma and other chronic health problems are particularly vulnerable to the risks associated with exposure to second-hand smoke.

The U.S. Department of Health and Human Services report, *The Health Consequences of Smoking: A Report of the Surgeon General* found that smoking is causally related to an increased risk for hip fractures in men and women and that smoking among older adult postmenopausal women reduces bone density. Smokers have two to three times the risk of developing cataracts as nonsmokers and smokers are at an increased risk for chronic obstructive pulmonary disease (COPD). In addition to the more well-known vascular, respiratory and cancer conditions previously known to be caused by smoking, the Department also expanded the list of tobacco-related illnesses to include, for example, kidney cancer, pancreatic cancer, and periodontitis (U.S. Department of Health and Human Services, 2004). Smoking may also be associated with clinical depression; rates among smokers exceed those of non-smokers (Health Canada, 2002c). Ultimately, persistent smoking can severely limit quality of life (Lacroix and Omenn, 1992).

Despite these negative tobacco-related consequences, the evidence consistently demonstrates that quitting can enhance quality and length of life, and reduce the risk of disease, decline and death (U.S. Department of Health and Human Services, 2004; Lacroix and Omenn, 1992). One study found that cessation brought substantial protection against health risk for those aged 55 to 64, and even increasing levels of protection for those who quit earlier in life (Doll and Hill, 2004). Older smokers who quit are at a decreased overall health risk one to two years after quitting and a decreased risk of death due to smoking-related illnesses. And former smokers are found to have better physical functioning, and better quality of life when compared to persistent smokers (Lacroix and Omenn, 1992).

Compared with continuing smokers, life expectancy increases, on average, by:

- 3 years if one stopped smoking around age 60

- 6 years if one stopped smoking around age 50
- 9 years if one stopped smoking around age 40
- 10 years if one stopped smoking around age 30 (Doll and Hill, 2004).

In other words, the sooner one stops smoking, the better the long-term benefits; this phenomenon carries into older adulthood.

Costs of Smoking in Older Age

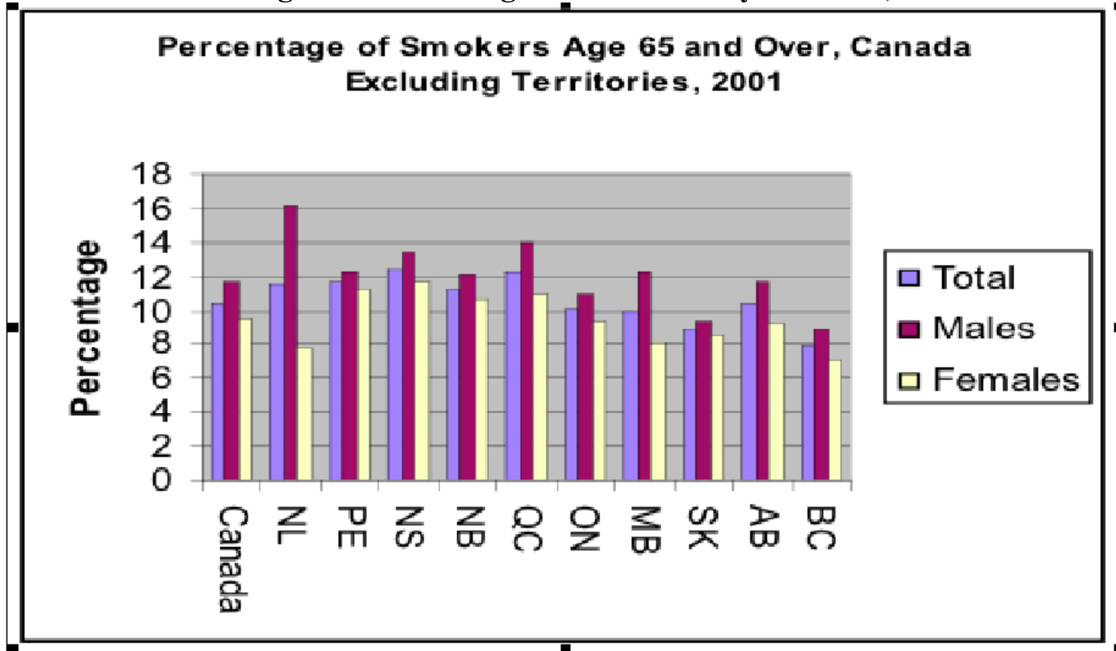
The economic burden of smoking is immense. In 2002, the burden was estimated to have risen to $15 billion a year in Canada (Health Canada, 2002d). The direct, attributable health care costs from tobacco use were estimated between $3 and $3.5 billion annually, with most of the costs spent on hospital care. Higher costs are typically attributable to older smokers as compared to younger smokers, suggesting that there is a smoking-related cost of illness and a dire need to invest in smoking cessation programs tailored to older and middle age adults (Health Canada, 2002c).

Compared to non-smokers, smokers incur more medical costs, experience compromised immune responses more often, have increased risks for complications and death following surgery, are more likely to develop respiratory complications and peptic ulcers, and have longer illness durations (U.S. Department of Health and Human Services, 2004).

Smoking Habits of Older Canadians

The Canadian Community Health Survey showed that just over 9 percent of Canadians aged 65 and over were daily smokers, compared to an average of almost 18 percent of daily smokers across all age groups (Statistics Canada, 2004). In all jurisdictions, senior women are less likely to smoke than senior men (see Figure 8.1). Regional jurisdictions vary in the percentage of older men and older women smokers. Among men, 9 percent smoke in British Columbia whereas 16 percent do so in Newfoundland and Labrador. Among older women, 7 percent smoke in British Columbia and close to 12 percent smoke in Nova Scotia. In general, smoking among older adults is much more common in the Atlantic provinces, Quebec, and Manitoba. Other surveys show that smoking rates are highest in the north. For example, in the Northwest Territories, 33 percent of seniors smoke daily (NACA, 2004a).

Figure 8.1
Percentage of Smokers Age 65 And Over by Province, 2001



Source: Statistics Canada, Statistics Canada, CANSIM, table 105-0027 and Catalogue no. 82-221-XIE. Note: Those reporting smoking daily.

Among seniors 65 to 74 years of age, about 11 percent were smokers in 2004. In the 75-plus age group, 6.5 percent were smokers (Statistics Canada, 2004). However, the seemingly lower rate of smoking in the 75-plus age group may, in fact, be attributable to the occurrence of smoking-related deaths among smokers in the 65 to 74 age group (BC Ministry of Health, 2005).

Seniors have the highest overall former smoker rate (53.5 percent) compared to all other age groups (Statistics Canada, 2004). This suggests two important trends: first, many older adults in Canada are former smokers; and second, there has been an impressive rate of decline in smoking status over the past several years (Statistics Canada, 2004). Fortunately, former smokers (especially those who have been non-smokers for 15 years or more) and never smokers are more likely to maintain health and to recover from loss of health (Shields and Martel, 2006). The same trends were found for those who engaged in regular leisure physical activity, had a normal body weight and consumed alcohol occasionally or weekly. This suggests that there is a cumulative effect of healthy behaviours on seniors' ability to maintain their health and recover from illness (Shields and Martel, 2006).

Knowledge Gaps

The evidence supporting the negative effects of smoking and the benefits of cessation in older age is clear. However, there is a notable dearth of literature summarizing best practices for smoking cessation in later life, likely because there are few cessation programs specifically for seniors and/or there is a failure to evaluate these interventions. It may be desirable to develop a variety of targeted interventions to help older people quit smoking, and document the best practices, while taking into account the economic and environmental barriers to smoking cessation among seniors. It is important to note that no evaluated interventions on second-hand smoke specific to seniors, except for some public policies restricting smoking in long-term care facilities and seniors' residences, could be found.

Promising Practices

Smoking cessation is rarely achieved using a single point of entry or one single intervention. One model that has advanced our understanding of behaviour change and which has been successfully employed in smoking cessation interventions is the Stages of Change model, in which behaviour is understood to change over time, with the person moving through stages (Zimmerman et al, 2000; Prochaska et al, 1992). Understanding the stages through which older adults experience change may help us apply better practices and targeted interventions for smoking cessation (Zimmerman et al., 2000; Clark et al., 1997).

This model may also help us better understand older adults' experiences of smoking and their motivations for cutting down or quitting. For example, developing a new chronic condition may increase motivation to quit. This was true in one study among older adults who developed a vascular condition (e.g., heart disease, high blood pressure, stroke or diabetes), but not for those who developed a respiratory condition (e.g., chronic bronchitis, emphysema, asthma). Pre-existing conditions – either vascular or respiratory – were not associated with quitting (Shields, 2004). Another recent study found that senior women were more likely to quit smoking than senior men in their same age group, and participants who quit were more likely to have received a recent and serious health diagnosis (Whitson et al, 2006).

There is some evidence that smoking cessation programs tailored to older smokers can be effective (Rimer and Orleans, 1994; Health Canada, 2002c). Some initial work also suggests that harm reduction may be an important option in addressing smoking among seniors (Health Canada, 2002e). But we know that older adults are less responsive to health messages about the adverse effects of smoking – which may be a result of these messages being targeted almost exclusively towards younger

adults (Health Canada, 2002c). One option is to target messages that explore the impact of smoking on independence and quality of life with advancing age (Lacroix and Omenn, 1992). The challenge remains to intensify opportunities to strengthen tobacco control and cessation initiatives targeted to older adults, thereby rounding out an increasingly youth-focused prevention agenda (Health Canada, 2002c).

Directions for Policy and Practice

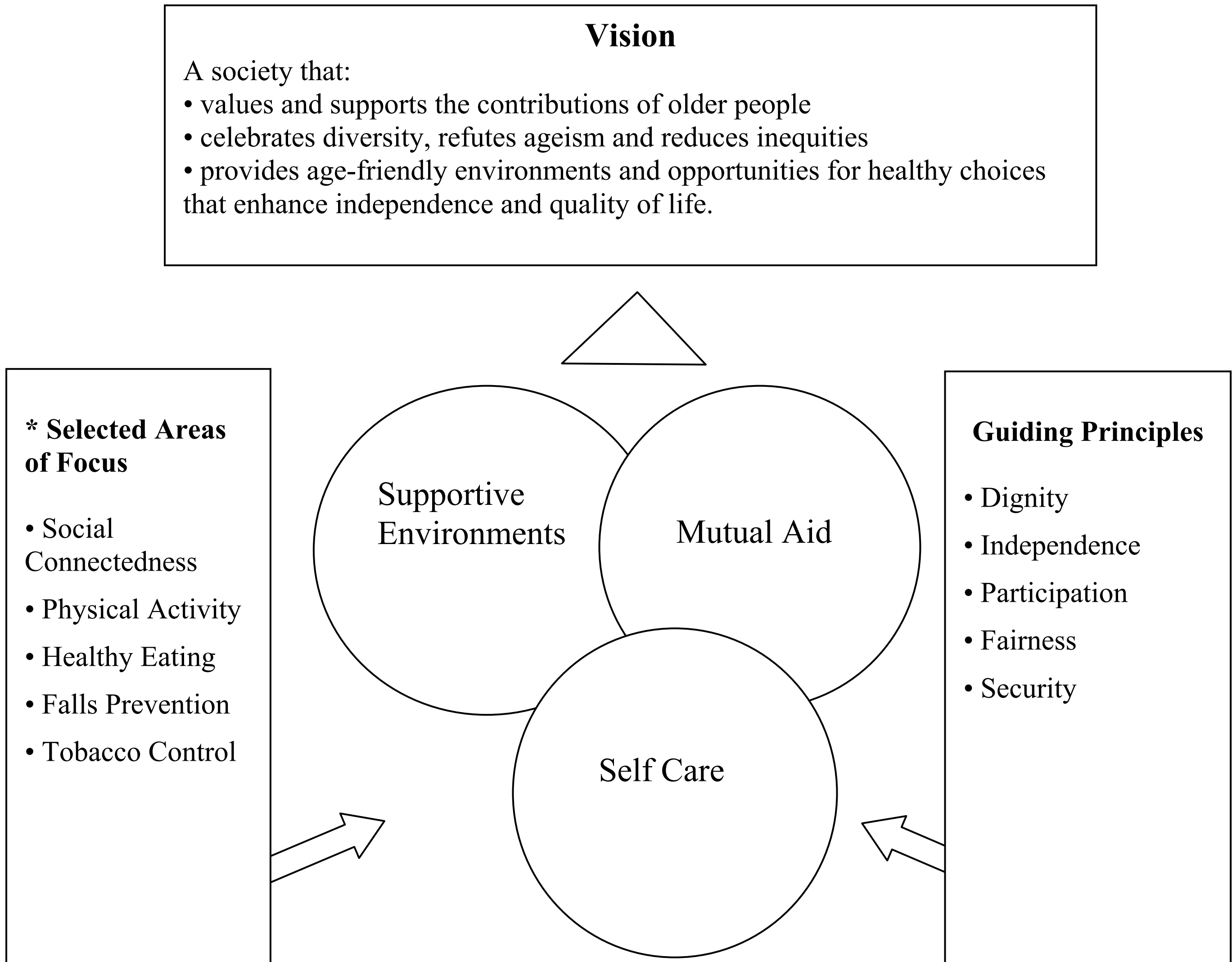
Older adults are an important audience for smoking cessation. They also require protection from second-hand smoke. The evidence implies that policies and practices to encourage smoking cessation and smoke-free spaces for older adults need to:

- Invest in research that addresses our large gaps in knowledge about policies and best practice interventions to promote smoking cessation and smoke-free spaces for seniors.
- Tailor age- and gender-specific information and interventions.
- Address large regional disparities in older adult smoking in Canada.
- Promote the benefits of quitting in later life especially as it relates to maintaining health and independence, and recovering from illness.
- Provide incentives for health professionals to counsel smoking cessation among seniors, especially when they have just been diagnosed with a chronic disease.
- Establish smoke-free places where seniors congregate to reduce their exposure to second-hand smoke.
- Educate seniors and family members about the dangers of second-hand smoke in the home.

Smoking cessation and smoke-free spaces are essential to health protection and the promotion of healthy aging throughout the life course, including the senior years. It is never too late to stop smoking.

9. A Framework for Action

The following framework builds on several key existing documents on healthy aging, including the National Framework on Aging vision and principles (Health Canada, 1998; FPT Ministers Responsible for Seniors, 2004; BC Ministry of Health, 2005) as well as key national and international documents on health promotion (Department of National Health and Welfare, 1986; WHO, 1986;).



** These five focus areas are the first to be addressed within the healthy aging strategy. Other areas (e.g., elder abuse, income disparities, literacy and lifelong learning) may be addressed later or in other collaborative strategies.*

Mechanisms for Action

Three key mechanisms can be used to pursue the new vision for healthy aging:

4. ***Supportive environments*** refers to creating policies, services, programs, and surroundings that enable healthy aging in the settings where older Canadians live, work, learn, love, recreate and worship. Healthy public policies that create supportive environments go beyond the health sector and often involve collaborative action with sectors such as transportation, housing and fiscal policy. All levels of government are involved in the creation and management of supportive environments, as well as the nongovernmental and private sectors, and institutions such as universities, hospitals, workplaces, and long-term care facilities.

   Some examples of supportive environments are the creation of "age-friendly" communities that facilitate social interaction for seniors and provide safe, attractive places to walk and be physically active; accessible transportation that encourages social engagement; smoke-free public places; senior-friendly restaurants and grocery stores that enable and encourage healthy eating; and policies that reduce inequalities related to socioeconomic status. Involving older people in all levels of planning, implementing and evaluating supportive environments is essential for success.

5. ***Mutual aid*** refers to the actions people take to support each other emotionally and physically, and by sharing ideas, information, resources and experiences. Encouraging mutual aid means recognizing and supporting seniors' efforts in volunteerism, self-help groups, caregiving, and the informal support family members provide to each other. Mutual aid is also a reciprocal process across generations. As the proportions of young and old in Canada continue to change, supporting intergenerational relationships becomes especially important for the health of our society as a whole.

6. ***Self-care*** refers to the choices and actions individuals take in the interest of their own health; for example, an older person choosing to get active, to join a community organization or to safety-proof his or her home. Culture, gender, socioeconomic status, skill level, relationships and access to reliable, culturally-sensitive information all influence self-care.

   To make healthy choices and carry through with those choices, older people need tailored, accessible information and help learning skills for healthy aging. For example, providing cultural- and gender-responsive information on appropriate types and levels of exercise is important. However, many seniors do not have the skills they need to undertake a safe and effective exercise regime. Helping them learn activities such as cross-country skiing, home exercises and dancing enables them to actively participate with pleasure and confidence.

These three mechanisms are supported by:

- training leaders and professionals in health, recreation, urban planning and other sectors that influence opportunities for healthy aging;
- building community capacity for healthy aging among seniors' groups, services and centres serving seniors, as well as in intergenerational programs and practices; and
- supporting a research and knowledge development agenda, and the transfer of what is learned in ways that policy-makers, leaders, seniors and their families can understand and use.

Key Actors and Stakeholders

The Federal, Provincial and Territorial Ministers Responsible for Seniors have a lead role in sharing and implementing a strategy on healthy aging. Success will require the collaboration of ministers in other sectors such as housing and recreation, as well as the active involvement of elected officials at the local level. Government officials in these sectors have the responsibility to design and promote programs and policies that support the framework for action on healthy aging.

Nongovernmental organizations and civil society are well placed to work in partnership with others to advocate and support healthy aging practices, policies and programs. These include groups working on senior's concerns, but also those who focus on issues such as gender equality, multiculturalism, voluntarism, and physical activity, nutrition, safety, tobacco control, injury prevention and mental/social well-being for the general population. Encouraging these groups to use a "life course" and "seniors" lens in their work is critical to advancing healthy aging for all.

Service providers in health, social development and physical activity have a key role in advocating for and participating in policies and programs that support healthy aging, and in counselling seniors and their families. Academics and researchers can work to fill knowledge gaps and make the evidence known to decision-makers and seniors' groups.

Employers and the private sector can also be important actors in an agenda for healthy aging. As Canada's population ages, it is in their interest to support healthy aging and the maintenance of older adults who are productive workers, active consumers and vital contributors.

As individuals, seniors can contribute by taking responsibility for their own health and well-being; actively seeking out the information they need to make informed

health decisions and participating in activities that have an impact on health (self-care). Older Canadians can support each other (mutual aid) and advocate for policies and programs that promote healthy aging (supportive environments). Lastly and most importantly, seniors and their families (including grandchildren and young people) need to be intimately involved in efforts to promote and support healthy aging. This could be encouraged through "dialogues" on healthy aging between generations.

10. Moving Forward

This section suggests some opportunities for all stakeholders to act now, in pursuit of the new vision for healthy aging.

1. ***Embrace a vision of healthy aging*** that values and supports the continuing contributions of older people; celebrates diversity, refutes ageism and reduces inequities; and provides opportunities for older Canadians to make healthy choices, which will enhance their independence and quality of life.

2. ***Fund and evaluate national, provincial/territorial and local initiatives*** that foster age-friendly supportive environments, mutual aid and self-care. Consult with seniors' groups, community agencies and seniors themselves about priorities for action. ***Work with the voluntary sector*** and especially with alliances representing several stakeholder groups (e.g., the Active Living Coalition for Older Adults) ***and with the private sector*** to develop supportive age-friendly environments, mutual aid and self-care among older people.

3. ***Build on existing opportunities to promote healthy aging on a partnership basis.*** Some examples include provincial strategies such as ActNow BC and 2010 Legacies, Manitoba's "Advancing Age: Promoting Older Manitobans", "Giving Older People a Voice" in Nova Scotia and Ontario's "Active 2010"; the Pan-Canadian Integrated Strategy on Healthy Living and Chronic Diseases; the ongoing work of the F/P/T Ministers Responsible for Sport, Physical Activity and Recreation; the Canada Senior Games; and the national disability agenda. Some of these opportunities are explored in the complementary report to this brief. Others need to be identified and pursued within specific jurisdictions.

4. ***Participate in and support international efforts to promote healthy aging.*** There are a number of opportunities for international collaboration. These include working with the World Health Organization (WHO) on falls prevention and participation in a global demonstration project on age-friendly cities. Portage La Prairie, Manitoba and Saanich, British Columbia will serve as official participants in the WHO's Age Friendly Cities Project. Canada also has a unique opportunity to expand and test this intervention in smaller communities.

5. ***Re-orient health and social services to better promote healthy aging through enhanced efforts in health promotion and disease prevention and control.*** This could include incentives for primary care physicians and nurses to counsel seniors at risk for isolation, reduced physical activity, falls, compromised nutrition, and tobacco use and exposure; subsidies for seniors who wish to take a smoking cessation program or have a fitness or nutrition assessment; and increasing the roles of public health workers and staff in assisted living

facilities in enabling healthy aging among seniors with disabilities and chronic diseases. There is also a need to adequately support community-based, prevention-focused social service organizations to continue their work in the community where the vast majority of seniors reside.

6. ***Document and share promising practices.*** There have been numerous but scattered efforts to document and share interventions, case-studies, projects, policies and programs in healthy aging. Currently, there is no Canadian library or portal for documenting and sharing promising or best practices. The creation of such a clearinghouse could be an inexpensive and worthwhile initiative.

7. ***Create and promote national guidelines for healthy aging***. Increase awareness and use of Canada's Physical Activity Guide to Healthy Active Living for Older Adults. Create a similar guide for healthy eating as a complement to the revised Canada's Food Guide to Healthy Eating. Explore the creation of national guidelines related to seniors and tobacco, falls prevention and social inclusion.

8. ***Develop a core of ambassadors for healthy aging.*** There are many seniors across Canada who are actively engaged in healthy aging initiatives and seen as leaders in their communities. Recognizing, formalizing and supporting a team of such "ambassadors" at the provincial/territorial level could be an effective way to increase awareness and support for healthy aging.

9. ***Strengthen intergenerational ties*** through "conversations" between generations, and policies and programs that support grandparenting and intergenerational activities in the broader community. This will require partnerships among sectors that promote well-being throughout the lifecourse.

10. ***Support a knowledge development agenda.*** Integrated efforts in the development, synthesis, translation and exchange of knowledge on healthy aging are required to guide policies and practices. This agenda needs to address research gaps and support a solution-oriented, collaborative approach involving academics and researchers in the community, seniors, and research institutions such as the Canadian Institutes for Health Research (Institute of Aging), the Canadian Fitness and Lifestyle Research Institute, the Canadian Centre for Active Aging, and others.

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Appendix A: Opportunities to Build On

Integrated Strategies

The Integrated Pan-Canadian Healthy Living Strategy is a conceptual framework for sustained action based on a population healthy approach. Its vision is a healthy nation in which all Canadians experience the conditions that support the attainment of good health. To achieve this, the goals of the Strategy are to improve overall health outcomes and reduce disparities. Given the trends in current eating and physical activity patterns, and in the consequent increases of overweight and obesity, decisive action is required by all partners and sectors with an interest in improving the health of Canadians. The proposed pan-Canadian Healthy Living targets seek to obtain a 20 % increase in the proportion of Canadians who are physically active, eat healthily and are at healthy body weights. The Intersectoral Healthy Living Network supports the vision of the Healthy Living Strategy, and acts as the Pan-Canadian forum to facilitate broad intersectoral involvement, integration and alignment in action, and enables the operationalization of the principles of the Strategy framework. It would be appropriate to link into the activities of the Network, and focus on the three opportunities for action of the Strategy related to seniors -- these being Policy and Programs, Research and Surveillance and Public Information.

Most provincial and territorial jurisdictions have initiatives underway related to healthy living and/or healthy aging. Each provincial and territorial government—as well as local governments—will need to look at how their current activities in healthy aging mesh with the strategic directions described in this report. Canada's rich diversity will mean that priorities for action will differ in different areas; however, the fundamental goals, issues, mechanisms and strategies can form a common thread for action.

There are obvious opportunities for national and bilateral collaboration across numerous jurisdictions. One example involves British Columbia. The recent discussion paper released by the British Columbia Ministry of Health and titled *Healthy Aging through Healthy Living: Towards a Comprehensive Policy and Planning Framework for Seniors in B.C.* suggests that a healthy aging focus fits well with ActNowBC, a cross-ministry, partnership-based, community-focused health promotion platform that will help all British Columbians make healthier lifestyle choices (BC Ministry of Health, 2005). As the host of the 2010 Winter Olympics, ActNowBC and 2010 Legacies Now are committed to making BC the healthiest place to live with new initiatives to bring out the best in sport, music, arts, culture and volunteerism. While these initiatives are provincially based there is an opportunity

for collaboration at the national and international levels to ensure that healthy aging and seniors are part of this exciting innovation.

Social Connectedness

- The **New Horizons for Seniors Program**, an initiative of Social Development Canada, provides funding for community-based projects across Canada that encourage seniors to continue to play an important role in their community by helping those in need; providing leadership; and sharing their knowledge and skills with others (Social Development Canada, 2004). Integrate older adults in all levels of planning around social engagement and healthy aging. Establish the mechanisms for everyday older adult Canadians to input meaningfully in the process of policy-making.

- In 2004, the **Gerontological Society of America** received a five year grant to stimulate further research in civic and social engagement to help inform the development of programs and policies that will increase opportunities for engagement by older adult Americans (Gerontological Society of America, 2005). The **White House Conference on Aging**, held in December 2005, was one of the first major activities of this initiative. A diverse group of stakeholders participated in the preliminary deliberations, including government officials, researchers, corporate leaders and community representatives. Older adults were active participants in the forum and shared opinions and ideas through many focus groups organized across the U.S. (Gerontological Society of America, 2005).

- Use existing mechanisms that already reach out to seniors such as the **Canadian Seniors Partnership**, co-chaired by the Department of Veterans Affairs and the Ontario Seniors' Secretariat, and the **Canadian Caregiver Coalition** (Keating et al, 2005).

Physical Activity

- The ongoing work of the **Federal-Provincial/Territorial Ministers Responsible for Sport, Physical Activity and Recreation** is both timely and important to the healthy aging agenda. For example, in 2003, the ministers made a commitment to reduce levels of physical inactivity by 10 percentage points nationally and within each jurisdiction by the year 2010 (CICS, 2003). The FPT Ministers further agreed to focus on specific at-risk populations, including seniors. In 2005, the Ministers adopted a resolution urging the federal government to commit to multi-year bilateral agreements on physical

activity, starting as soon as 2006 (PHAC 2005a). It will be critical that plans to invest in seniors' participation in physical activity be part of those negotiations.

- **The Canada Senior Games**—a nation-wide program to sponsor spiritual, mental and physical well being among Canadians 55 years of age and older may be an underutilized opportunity to promote healthy aging. The national and provincial/territorial games are not strictly sporting events, as they span a wide range of physical and mental challenges, The 700 or so who compete in the national games represent over 100,000 Canadian seniors who actively participate in local events leading up to the national event.

- Canada is an international leader in the development of **Canada's Physical Activity Guide to Healthy Active Living for Older Adults**. This resource should be promoted broadly for use by both professionals and seniors themselves.

- As the host of the 2010 Winter Olympics, **ActNow BC** and **2010 Legacies Now** are committed to making BC the healthiest place to live with new initiatives to bring out the best in sport, music, arts, culture and volunteerism. While these initiatives are provincially based there is an opportunity for collaboration at the national and international levels to ensure that active seniors are part of this exciting innovation.

- Innovative programs and case studies exist at the **provincial/territorial and local levels**, some of which focus specifically on seniors and others on the community-at-large (e.g., Saskatoon's In Motion program). There may be an opportunity to implement and evaluate innovative solution-oriented activities that focus on seniors and/or intergenerational activities in these settings and to share the results accordingly.

- An effective alliance for nongovernmental organizations exists. The **Blueprint for Active Living and Older Adults** (ALCOA, 1999) adopted by ALCOA contains the basic elements for action.

Healthy Eating

- **Nutrition for Health: An Agenda for Action** is Canada's national plan of action on nutrition. The Action Plan can be used to help inform policies and actions targeting healthy eating for Canadian seniors.

- **Canada's Food Guide to Healthy Eating** can be tailored to reflect the unique needs of seniors. This is particularly timely given the release of the new Food Guide in 2006.

- **The Federal/Provincial/Territorial Group on Nutrition (FPTGN)** provides leadership to stimulate and accelerate actions to achieve nutritional well-being for all Canadians. The FPTGN is a key group to help as leverage partners to mobilize action on healthy eating among seniors.

Falls Prevention

- The Division of Aging and Seniors of the Public Health Agency of Canada has produced many useful resources on senior's falls prevention including the Report on Seniors' Falls in Canada (PHAC 2005). Opportunities exist to use this report to work with provinces, territories and NGOs to develop standard data collection tools.

- Building codes are the jurisdiction of provinces and territories; however, the **National Building Code**, a federal responsibility, often sets the standard and therefore should include safety features that are known to prevent injuries.

- The **Inventory of Fall Prevention Initiatives** in Canada (PHAC 2005c) provides a snapshot of falls prevention activities across the country. Use these activities as a base to develop local falls prevention strategies at the federal and provincial/territorial levels of government.

- **The Quebec WHO Collaborating Centre for Safety Promotion and Injury Prevention** is working with the World Health Organization to introduce promotional activities on safety and the prevention of intentional and unintentional injuries, which includes older adult falls prevention. **The Canadian Collaborating Centres on Injury Prevention and Control** and the **Canadian Injury Research Network** are catalyzing the development of networks to collaborate on injury prevention, develop strategies around research questions of mutual interest, and disseminate findings to key stakeholders (CCHRP, 2001). The development of strong, national networks on seniors' falls prevention can help identify promising practices, replicate successful programs and evaluate successful community initiatives and models in Canada and internationally.

Tobacco Control

- The **Framework Convention on Tobacco Control** (FCTC), a global international public health treaty, came into effect in early 2005. Canada, a signatory to the FCTC, will continue to play a leadership role in its implementation to protect global citizens from the health, social, environmental and economic consequences of consumption and exposure to tobacco smoke (Health Canada, 2004). Similarly, the Federal Tobacco Control Strategy (FTCS) guides Canada's efforts to promote tobacco control through the principles of prevention, protection, cessation and harm reduction (Health Canada, 2002d). There is ample opportunity to use these platforms to direct greater attention towards older adult smoking cessation, the benefits of cessation in later life, and its impact on healthy aging and quality of life. Impact second-hand smoke—malls restaurants hair dressing salons etc

- Health Canada's **Best Practice Manual on Substance-Abuse among Seniors** (Health Canada 2002e) suggests that seniors benefit from age-specific interventions. Public information and education must be available that is specifically addressed to seniors rather than in a generic format targeted to all adults.

Appendix B. More Promising Practices

1. The Arthritis Self-Management Program (ASMP) was developed at the Stanford University Arthritis Centre. Participants reduced their pain and utilization of medical services, sometimes reduced disability, and improved their quality-of-life. Education about diet and medications, group support, problem solving and assistance in the development of a personal exercise regime are all important components of the program (Health Canada 1997).
Website:
http://www.arthritis.ca/programs%20and%20resources/arth%20self%20man/default.asp?s=1

2. St. Christopher's Health Action Theatre for Seniors (HATS) in Toronto includes Portuguese- and Vietnamese-speaking senior actors. The troupe created 27 different non-verbal short plays on health-related topics such as caregiving, heart health, nutrition, substance abuse, and communication with health providers. The HATS program was effective in reaching St. Christopher's senior immigrant communities (HATS 2005).
Website:
http://www.stchrishouse.org/older-adults/health-action-theatre/

3. Best Practice in Seniors' Mental Health Program and Policy Design sponsored by the British Columbia Psychogeriatric Association is designed to affect knowledge, practice and policy in mental health by developing the capacity of communities across Canada to promote and support seniors' mental health through adoption of the Seniors Mental Health Policy Lens (SMHPL) as a best practice and evaluating the outcome. The SMHPL is an analytical tool, made up of a set of questions intended to raise awareness about factors that impact seniors' mental health (Seniors Psychosocial Interest Group 2005).
Website:
http://www.seniorsmentalhealth.ca/summary%20of%20best%20practice%20in%20SMH%20program%20and%20policy%20design.pdf

4. The Nutrition Resource Centre (NRC) is an initiative of the Ontario Public Health Association, funded by the provincial Ontario Ministry of Healthy and Long Term care. In support of the NRC's goals to strengthen the capacity of practitioners across Ontario to deliver quality nutrition programming in a health promotion context, it has developed multilingual fact sheets on healthy eating for healthy aging (in Chinese (simplified), Chinese (traditional), Portuguese, Spanish and Vietnamese) (NRC).
Website:

http://action.web.ca/home/nutritio/readingroom_details.shtml?cat_name=Multilingual+Resources&AA_EX_Session=b9dc47ff03caae96eeef20ff48b764a2

5. Home Adaptations for Seniors Independence (HASI) is sponsored by the Canada Mortgage and Housing Corporation (CMHC). It helps homeowners and landlords pay for minor home adaptations to extend the time seniors with low-income and disabilities can safely live in their homes independently. Evaluation of HASI indicates that 80 percent of HASI clients have found that their lives have been made more comfortable, safer, and increased their ability to live independently (CMHC, 2006).
Website:
http://www.cmhc-schl.gc.ca/en/co/prfinas/prfinas_004.cfm

6. The British Columbia Injury Prevention and Research Unit (BCIPRU) is a unique entity, a province-wide partnership between the Centre for Community Child Health Research, BC Ministry of Health and BC Children's Hospital. It is a successful example illustrating the importance of researchers and policy-makers working together, sharing information and coordinating efforts on research and prevention practices to reduce the risk of injuries. The four pillars on which the IRPU stands are surveillance, research, dissemination and education. One of the key thematic areas at the IPRU is falls prevention amongst older adults (BCIPRU 2005).
Website:
http://www.injuryresearch.bc.ca/

7. The National Indian and Inuit Community Health Representatives Organization (NIICHRO) conducted a survey in Aboriginal communities across Canada about what works in programs for their frail elderly. To increase opportunities for physical activity, social engagement and healthy aging among Aboriginal elders who are frail, they concluded that the focus of such programs should include dealing with isolation, boosting self-esteem, retaining culture, encouraging interaction and supporting family caregivers (NIICHRO, 2004).
Website:
http://www.niichro.com/2004/

8. The Feeling Better Program in Guelph and Wellington, Ontario assists frail, homebound older adults by decreasing their isolation and increasing their physical activity through free, volunteer, in-home exercise visits. The volunteer may also reintroduce the participant to community services and programs, if this is in keeping with the individual's goals (Pyra, 2003).
Source:
Pyra K. (2003). *Promoting Healthy Aging and Seniors' Wellness: An Environmental Scan*. Prepared for the F/P/T Committee of Officials (Seniors).

9. The Evergreen Wilderness Tour is a wilderness canoe trip for adults fifty-five and over. With the help of two guides, participants paddle and portage a series of Ontario's beautiful lakes. Participants are both novices and experienced campers. An explicit effort is made to not exclude people based on age or assumptions about how age might preclude participation (Pyra, 2003).

Source:

Pyra K. (2003). *Promoting Healthy Aging and Seniors' Wellness: An Environmental Scan*. Prepared for the F/P/T Committee of Officials (Seniors).

10. Aînées en Marche /Go Ahead Seniors Inc., is part of the Healthy Active Living Program for Older Adults. It is an innovative, bilingual program aimed at helping New Brunswick older adults make more informed choices about their health and well-being through health education, personal empowerment and prevention. Older adults gain information and discuss areas of concern through five central themes including: wise use of medication, stress reduction, physical activity, healthy eating and healthy choices. A sixth theme has been added this year on falls prevention. All sessions are free of charge (Pyra, 2003).

Website:

http://www.ainesnbseniors.com/en/index.html

11. Tai Chi, a Chinese martial art has been used to reduce the incidence of falls and increase the functioning and sense of well-being in older adults. In one randomized controlled study, a group of 200 seniors, 70 years and older, underwent Tai Chi training two times a week for 15 weeks. They reduced falls by 47.5 percent compared with a matched group that attended a discussion-only meeting. Study researchers noted that more than half of the participants chose to continue Tai Chi after the study's completion (Scott, Peck and Kendall, 2004).

Source:

Scott V, Peck S, Kendall P. (2004). *Prevention of falls and injuries among the elderly: A special report from the Office of the Provincial Health Officer*. Victoria: BC Ministry of Health Planning.