Healthy Environments, **Healthy People**

2015 Health Status of Manitobans Report

From The Chief Provincial Public Health Officer

Manitoba

Manitoba
Health, Healthy Living and Seniors
Office of the Chief Provincial Public Health Officer
4004 – 300 Carlton, Winnipeg MB R3B 3M9
Ph. 204-788-6636
Fax. 204-948-2204
Email: michael.routledge@gov.mb.ca

The Honourable Sharon Blady
Minister of Health
Room 302, Legislative Building
Winnipeg Manitoba R3C 0V8

Dear Minister Blady:

Fulfilling the requirements of *The Public Health Act*, I have the honour and privilege of presenting you the Chief Provincial Public Health Officer's Report on the Health Status of Manitobans 2015: Healthy Environments, Healthy People.

Respectfully submitted,

Dr. Michael Routledge
Chief Provincial Public Health Officer

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"The future has arrived. It's just not evenly distributed yet."
- WILLIAM GIBSON

While most Manitobans live in good health, there is much that can be done to improve wellness in our province – in particular for those most in need.

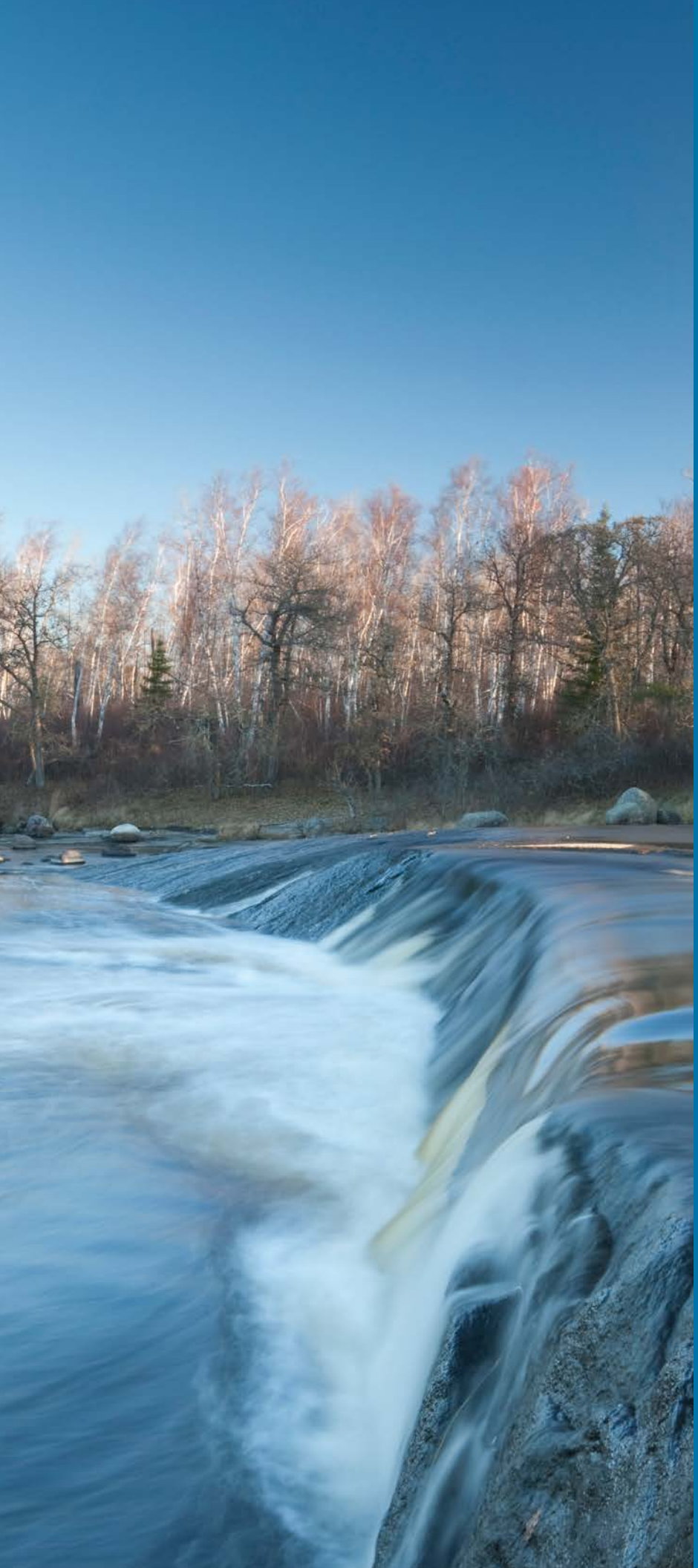
Fortunately, there is a great deal of evidence on how to effectively improve population health. This report has been written with the objective of inspiring everyone to think about and act toward the goal of improving health for all Manitobans, by creating social and physical environments that support this goal.

We all want the same thing – good health for ourselves, our family, and our friends for as long as possible. The best way to do this is to address the determinants that support health.

So what does this mean for you?

Find the barriers to health and wellness that exist where you live, work and play. Then talk to your family, friends, co-workers and community leaders about ways to address them so that we can make Manitoba the healthiest place in the world to live.

Michael Routledge, MD



Acknowledgments

A report like this is not possible without contributions from many individuals and organizations. A sincere thank you to all those who provided their time, expertise and perspectives in order to support this effort to describe and improve the health of Manitobans.

In particular, this report is the result of the hard work of Kathleen Gannon and Erin Whiteway from Manitoba Health, Healthy Living and Seniors.

"Those who have health have hope; and those who have hope have everything."

- Adapted from an Arabian proverb

The past 150 years have seen remarkable improvements in health. After centuries of little change, average life expectancy has increased by approximately 30 years – an enormous leap forward. The main drivers of these improvements in health – from improved sanitation, to safer food and workplaces, to reductions in tobacco use – have been the result of advances in public policies that prevent disease and promote health.

A REPORT MEANT TO INSPIRE

This report has been written as a resource for all Manitobans. The aim of this report is to inspire and stimulate thinking and public discussion on how to move towards a Manitoba where more people have greater opportunities to be healthy. The report provides an overall assessment on the current health status of Manitobans, and highlights challenges and opportunities in improving the health and well-being of Manitobans.

Health influences all that we are and all that we do. We must, as a community, be engaged in finding innovative solutions to health challenges. Manitobans are encouraged to explore this report, and act to improve health for all Manitobans.

REPORT FRAMEWORK: LIFE STAGES, FOCUS AREAS AND LIFE STORIES

Life Stage Chapters:

This report describes the health status of Manitobans through a life stage framework, highlighting key health issues that occur during the different stages of life. These issues can change or evolve at any point, and vary from person to person depending on physical and social environmental factors.

1) CHILDHOOD: PREGNANCY THROUGH ADOLESCENCE

This chapter highlights the importance of nurturing environments — fostered at home, school and in the community — as the foundation for success, health and well-being throughout life. The people, community and circumstances surrounding each child create the environments that can either help or hinder a child's ability to thrive. This emerging science supports the traditional wisdom that "it takes a (nurturing) village to raise a child".

Key Take-aways:

- At all stages of childhood, children from vulnerable populations are more likely to experience poor health outcomes.
- Safe, stable, nurturing environments can promote healthy child development and can also buffer against the impact of stress and trauma.
- Programs and policies that increase exposure to nurturing environments can improve health and well-being over a lifetime.

Executive Summary

2) ADULTS: AGES 18-64

This chapter highlights how the built environments – the human-made or modified physical surroundings in which people live, work and play – directly impact people's physical, mental and social health.

Key Take-aways:

- More than 80 per cent of adults in Manitoba are estimated to have one or more preventable risk factor(s) for chronic disease. Chronic diseases are complex and rooted in the broad determinants of health.
- The built environment can positively or negatively influence many aspects of population health, including physical activity, healthy eating, mental health, injury and health equity.

3) OLDER ADULTS: AGES 65 AND OVER

This chapter highlights the importance of social engagement to promote health. Promoting age-friendly communities and positive attitudes toward aging has benefits for everyone.

Key Take-aways:

- Social connectedness affects physical and mental well-being.
- Social engagement among older adults:
  - enhances life-satisfaction, overall health and wellness
  - delays the onset of chronic illness and disability
  - aids in the recovery from disability
  - is associated with a reduction in mortality

FOCUS AREAS:

There are four focus areas within the report, touching on specific background information related to key population health issues, which have implications across the different stages of life.

- First Nation, Metis and Inuit Health: Colonization and Reconciliation – Understanding the history and impacts of colonization on health and well-being.
- Mental Health and Well-being: The Foundation of Good Health - Mental health is much more than the absence of mental illness. Taking care of your mental health is just as important as taking care of your physical health.
- The Built Environment – The physical environments around us have significant impacts on our physical and mental health.
- Health Equity: Reducing the Gaps in Health – Differences in socio-economic factors (ex: income, education, employment) significantly impact health in Manitoba, and contribute to the gaps seen between the least healthy and healthiest populations in the province.

Life Stories:

Five fictional "life stories" have been included to provide examples that help demonstrate the impact of the determinants of health. The five stories cut across the life stages.

- Amanda (prenatal)
- Maya and Omar (youth)
- Bob (adult)
- Giselle (older adult)
- Jacob (older adult)

HOW SHOULD YOU USE THIS REPORT?

THINK about the information presented and about what you can do to improve the health and well-being of Manitobans.

SHARE AND TALK about it with others.

ACT by doing what you can to make the ideas in this report a reality.

ENCOURAGE others to act in ways that positively impact the health and well-being of Manitobans.

"Healthy citizens are the greatest asset any country can have."

- Winston Churchill

CHAPTER

1 WHAT DETERMINES HEALTH?

HEALTH IS MORE THAN HEALTH CARE

"A health care system, even the best health care system in the world, will be only one of the ingredients that determine whether your life will be long or short, healthy or sick, full of fulfillment, or empty with despair."

– Royal Commission Report on Health (2004)

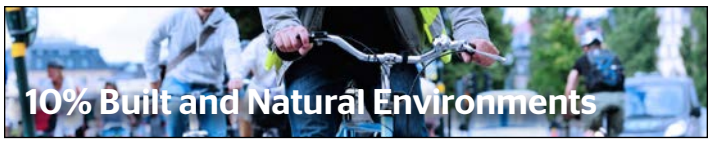
Canada spent over $180 billion on healthcare in 2009,[1] yet we still have significant levels of poor health, particularly among certain populations. Why don't more Canadians have better health?

Over the past century we have made great strides in improving health and wellness at both an individual and population level. Some of these improvements are due to advances in health care. However, the health care system is just one contributor to the health of a population, accounting for only 25 per cent of health outcomes.[2]

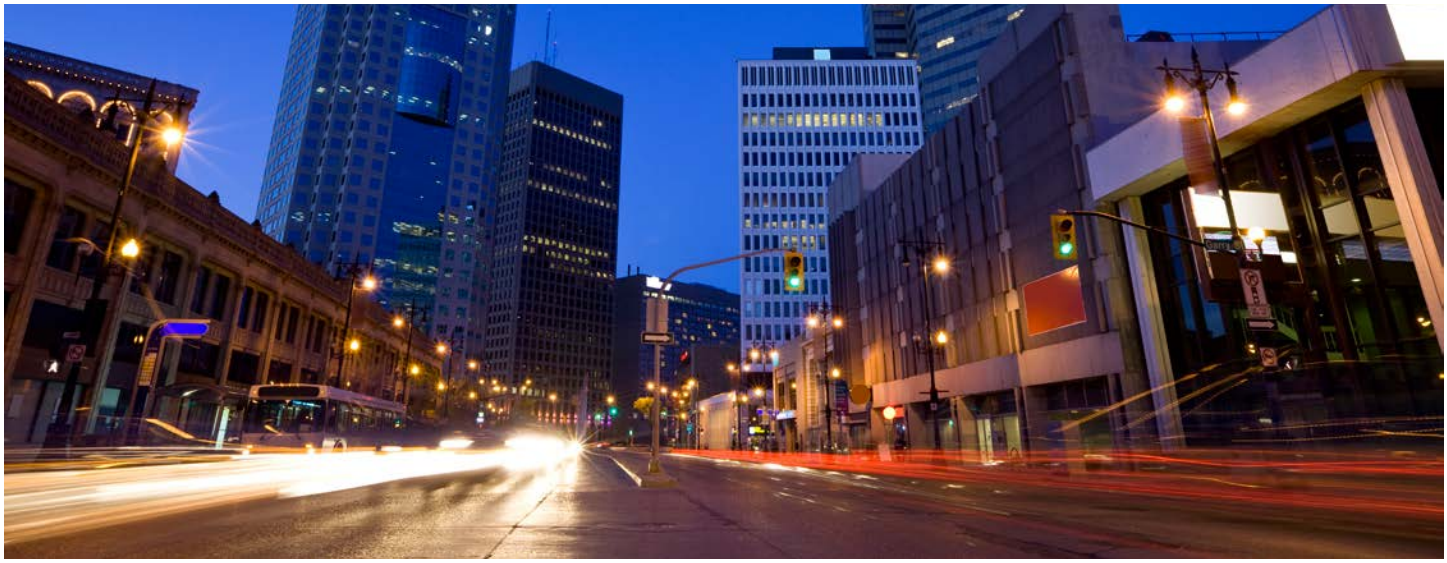
HEALTH AND WELLNESS GOES BEYOND THE INDIVIDUAL

Population health is the theory and practice of improving the health of groups of people rather than of individuals.

A population health approach aims to improve the health of the entire population and reduce gaps in health status by acting on the broad range of factors and conditions that affect health.[3] These factors are known as the **determinants of health.**



Standing Senate Committee on Social Affairs, Science and Technology (2009). A healthy productive Canada: A determinants of health approach. Final report of the Senate Subcommittee on Population Health. Adapted from Toronto Public health 2015 The Unequal City 2015: Income and Health Inequities in Toronto.



THE DETERMINANTS OF HEALTH

Adapted from Health Canada

INCOME AND SOCIAL STATUS

This is the single most important determinant of health. Health status improves at each step up in the income and social hierarchy. Higher income affects living conditions such as safe housing and ability to buy sufficient goods.

SOCIAL SUPPORT SYSTEMS

Support from families, friends and communities is associated with better health. The health benefits may be as important as risk factors such as smoking, physical inactivity, obesity and high blood pressure.

EDUCATION

Health status improves with each level of education achieved. Education increases opportunities for income and job security and gives people more control over their lives – key factors which influence health.

EMPLOYMENT AND WORKING CONDITIONS

Unemployment, under-employment and stressful work are associated with poorer health. Those with more control over their work and fewer stress-related demands on the job are healthier.

SOCIAL ENVIRONMENT

The values and rules of a society affect the health and well-being of individuals and populations. Social stability, recognition of diversity, safety, good relationships and cohesive communities provide a supportive society which reduces or removes many risks to good health.

PHYSICAL ENVIRONMENT

Physical factors in the natural environment (ex: air and water quality) are key influences on health. Factors in the human-built environment such as housing, workplace safety, community and road design are also important influences.

THE DETERMINANTS OF HEALTH

Adapted from Health Canada

HEALTH PRACTICES AND COPING SKILLS

Social environments that enable and support healthy choices and lifestyles, as well as people's knowledge, behaviours, and coping skills for dealing with life in healthy ways, are key influences on health.

HEALTHY CHILDHOOD DEVELOPMENT

The effects of prenatal and early childhood experiences on subsequent health, well-being, coping skills and competence, is very powerful. For example, a low weight at birth is linked with health and social problems throughout a person's life.

CULTURE

Culture and ethnicity come from personal history and wider situational, social, political, linguistic, geographic and economic factors. Multicultural health issues demonstrate how necessary it is to consider physical, mental, spiritual, social and economic well-being at the same time.

HEALTH SERVICES

Health services, particularly those that maintain and promote health, prevent disease and restore health contribute to population health.

GENDER

Gender refers to many different values, personality traits, attitudes, behaviours, relative powers and influences which society assigns to the two sexes. Each gender has specific health issues or may be affected in different ways by the same issues.

BIOLOGY AND GENETICS

The basic biology and organic make-up of the human body are fundamental determinants of health. Inherited predispositions influence the ways individuals are affected by particular diseases or health problems.

THE BENEFITS OF ADDRESSING THE DETERMINANTS OF HEALTH

Taking action on the determinants of health has the greatest potential to improve population health outcomes by addressing the root causes of illness and injuries before they occur. Beyond the health benefits of this approach, there are additional economic and social reasons to address these determinants. Good health enables children to perform well in school, and enables people to be more productive. Higher productivity, in turn, reinforces economic growth. Healthy citizens are more engaged in their communities, which contributes to social cohesion and well-being. A healthy population requires less government expenditures on income support, social services, health care and security.

"Simply put, Canada's health and wealth depends on the health of all Canadians."

– Standing senate committee on Population Health

The landmark World Health Organization Commission on the Social Determinants of Health report in 2008 contained three overarching recommendations to address gaps in population health:

1. Improve well-being and living conditions, especially for disadvantaged population segments and communities.
2. Tackle the inequitable distribution of power, money and resources to address health inequities, and inequitable conditions of daily living.
3. Measure and understand the problem, and assess the impact of action to ensure health equity is measured.

THE BOTTOM LINE

PUBLIC HEALTH SAVES LIVES. PUBLIC HEALTH SAVES MONEY.

PUBLIC HEALTH: THE ULTIMATE RETURN ON INVESTMENT

The benefits of public health extend beyond improved health. Investments in public health are highly cost-effective as well.

Every $1:

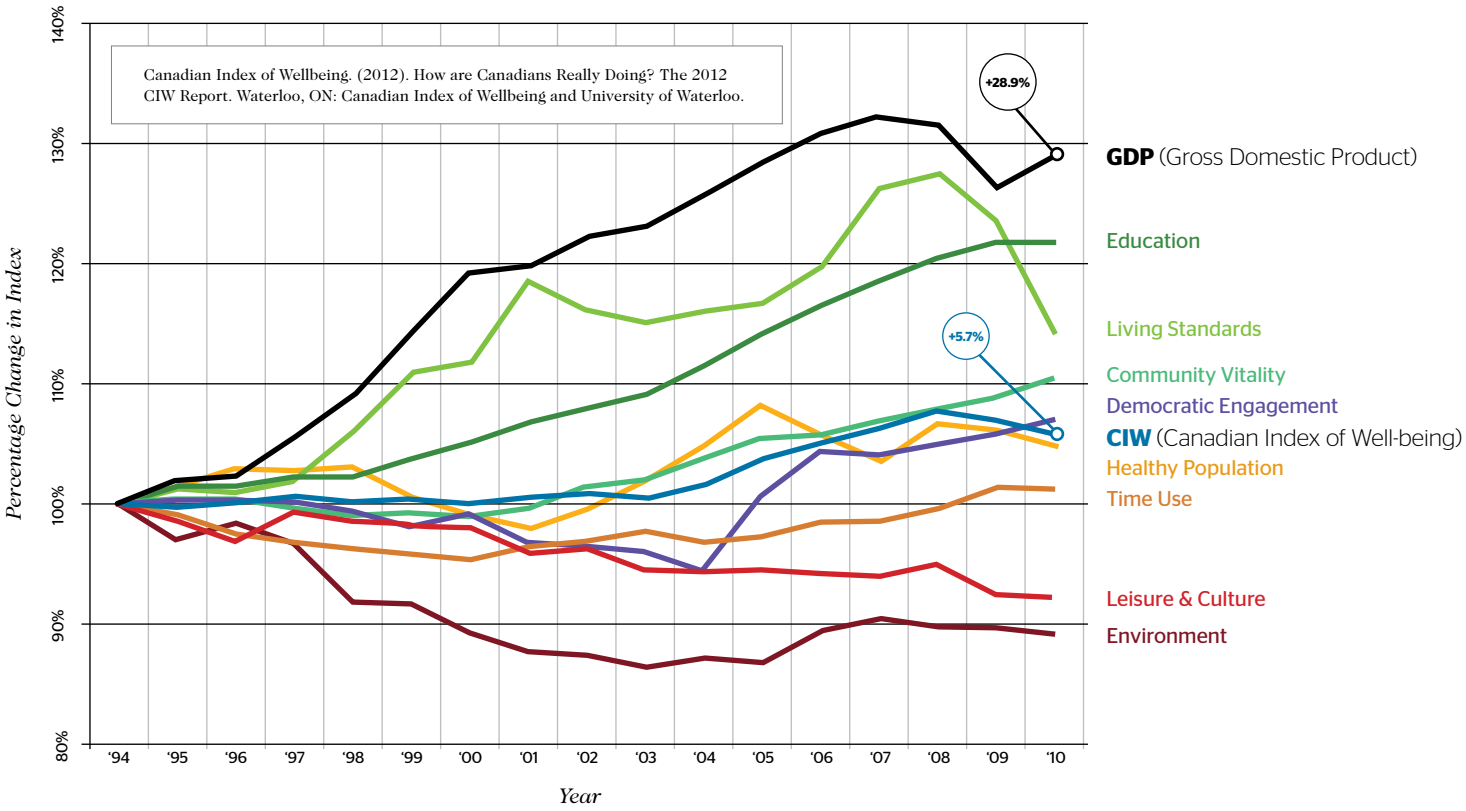
- spent on immunizing children with the measles, mumps, rubella (MMR) vaccine saves $16 in health care costs
- invested in car and booster seats saves $40 in avoided medical costs
- invested in workplace health and safety programs returns up to $6 in avoided illnesses, injuries and fatalities
- spent introducing cleaner vehicles and fuels to reduce air pollution saves $4 in avoided health problems
- invested in adding fluoride to drinking water saves $38 in dental care
- invested in tobacco prevention programs saves up to $20 in future health care costs
- spent on mental health and addictions saves $7 in health costs and $530 in lost productivity and social costs
- spent on early childhood health and development saves up to $9 in future spending on health, social and justice services

(The Canadian Public Health Association video on public health and ROI can be viewed at: www.youtube.com/watch?v=TVZxtuZhN_M)

MEASURING PROSPERITY

Canada, like many other countries, often gauges its success by measuring Gross Domestic Product (GDP – the value of all goods and services produced).

Increasingly, the limitations of the GDP in describing how well a country is doing in a wide variety of economic, social, health and environmental determinants is being recognized. As a result, different forms of measurements have been developed to measure the broad range of determinants that give an overall picture of quality of life. The United Nation's Human Development Index is one example of this type of approach. The Canadian Index of Wellbeing (CIW) is another. The CIW tracks eight domains that together form a comprehensive measure of well-being, and gives an alternative picture of how we are doing and where we need to invest:



From 1994 to 2010, while Canada's GDP grew by 28.9%, improvements in Canadians' well-being only grew by 5.7%. Despite years of economic prosperity, this growth has not translated into similar gains in our overall quality of life.

THE TOP 12 PUBLIC HEALTH ACHIEVEMENTS OF THE 20TH CENTURY

"The average lifespan of Canadians has increased by more than 30 years since the early 1900s, and 25 of those years are attributable to advances in public health. There are various public health achievements that led to this remarkable feat."

– Canadian Public Health Association

ACTION ON THE DETERMINANTS OF HEALTH

Recognition that health is influenced by factors such as income, education, early childhood development and social connections has helped improve population health.

INFECTIOUS DISEASE CONTROL

Many infectious disease rates have fallen significantly due to interventions such as improved sanitation and immunization.

DECLINE IN DEATHS IN CORONARY ARTERY DISEASE AND STROKE

Death rates from heart disease and stroke have been declining steadily in Canada since the mid-1960s. This is the result of many factors that promote health and prevent disease, such as reduced exposure to tobacco and better management of risk factors like high blood pressure.

FAMILY PLANNING

Family planning education and the improved ability to control the timing of pregnancy, as a result of contraception, has improved maternal and child health.

HEALTHIER ENVIRONMENTS

Environmental policies have helped to dramatically reduce toxic emissions.

Canadian Public Health Association 12 Great Achievements.
www.cpha.ca/en/programs/history/achievements.aspx

HEALTHIER MOTHERS AND BABIES

Improvements in areas such as nutrition, education, access to health care and monitoring of diseases have contributed to better overall health of mothers and children.

MOTOR VEHICLE SAFETY

Alcohol-related collisions have decreased substantially and seatbelt use has increased, resulting in many lives saved and injuries prevented.

RECOGNITION OF TOBACCO USE AS A HEALTH HAZARD

There have been dramatic declines in tobacco consumption, along with a shift in attitudes regarding tobacco use.

SAFER AND HEALTHIER FOODS

Public policy has contributed to reductions in contaminated food and improved nutrition.

SAFER WORKPLACES

Many diseases or injuries used to be associated with unsafe workplaces or hazardous occupations. The rate of work related injury has been steadily declining.

UNIVERSAL POLICIES

Universal programs for income maintenance, social welfare services and health care services have helped Canadians maintain a high standard of living and health. The introduction of Old Age Security was a key factor in shifting the income of seniors in Canada from one of the lowest among industrialized countries in the 1970s to one of the highest today.

VACCINATION

Infectious diseases were the leading cause of death worldwide 100 years ago. Today, they cause less than five per cent of all deaths. Much of this reduction is the result of immunization.

Report Framework

This report adopts a life stage approach. There are three life stage chapters presented: childhood (pregnancy through adolescence), adults and older adults.

The life course is a path that an individual follows from birth to death.[4,5] At every stage of life, health is directly or indirectly influenced by the determinants of health.[6,7,8,9,10] Each of these determinants are important for optimal health and well-being. Increasingly, it is understood that experiences in early life can have an impact on health throughout life, and that deprivation and disadvantage can negatively affect one's life course if the appropriate interventions are not made. For all of these reasons, a life course approach has been used for this report.[11]

> ***What we experience today can affect our health positively or negatively throughout our lives.***

The life stage chapters focus on different aspects of the social and physical environments that impact health and well-being:

- Child chapter: Nurturing environments
- Adult chapter: Built environments
- Older adult chapter: Social environments

Four focus areas touch on key population health issues which have implications across the life course.

- First Nation, Metis and Inuit Health: Colonization and Reconciliation
- Mental Health and Well-being: The Foundation of Good Health
- The Built Environment
- Health Equity: Reducing the Gaps in Health

The report also includes five fictional "life stories" that illustrate real-life examples of the impacts of the determinants of health.

This report summarizes data and information acquired from many sources, most of which have been published previously. It is not intended to be a catalogue of all available health statistics for this province, but instead focuses on key areas of population health that have been selected based on burden of illness and preventability. The development of the report included consultation with a broad range of stakeholders, which was critical in providing context that goes beyond what the data can provide.

HOW SHOULD YOU USE THIS REPORT?

THINK
about the information presented and about what you can do to improve the health and well-being of Manitobans.

ACT
by doing what you can to make the ideas in this report a reality.

SHARE & TALK
about it with others.

ENCOURAGE
others to act in ways that positively impact the health and well-being of Manitobans.

FIRST NATION, METIS, AND INUIT HEALTH: FROM COLONIZATION TO RECONCILIATION

Did you know... that colonization has been cited as the primary cause of the health and wellness gap between Canada's Indigenous peoples and the general population?

WHAT IS COLONIZATION?

Colonization is a process that starts with the intrusion of one group onto the land of another group. This can result in significant social, cultural, political, economic, and health impacts; and in the displacement of Indigenous peoples from their traditional lands, resources and economies. Typically, colonization results in the new society adopting racist attitudes, where the colonizers consider themselves to be inherently superior and therefore justified in forcing the assimilation of the Indigenous population.

EXAMPLES OF HEALTH IMPACTS OF COLONIZATION

- mental health problems and illnesses
- substance abuse
- homelessness
- suicide
- infectious diseases ex: tuberculosis
- Type 2 diabetes
- disruptions of attachment
- sense of disconnect to the community
- weakened sense of cultural identity
- poverty

(Elias et al, 2012; Menzies, 2008; Spittal et al, 2002; Haskell & Randall, 2009)

EXPERIENCES OF COLONIZATION

The history of colonization in Canada includes social policies that stripped the First Nations, Metis, and Inuit of their culture, language and identity. Colonization has left a legacy that continues to impact the health of Indigenous peoples in Canada today.

The different Indigenous populations in Canada have many shared experiences of colonization. In general, First Nations, Metis and Inuit share a history of oppression—in the form of racism, social exclusion, cultural repression and historical trauma. Historically, Canada's Indigenous peoples have been denied access to their traditional territories through forced relocation and taking away access to their land and natural resources.

Indigenous children were removed from their homes and communities and forced to attend residential or boarding schools. At those schools many experienced significant abuse and trauma. They were forbidden to speak their language and practice their culture. Traumatic experiences not only impacted those who attended residential schools, but have also been felt by subsequent generations. These inter-generational effects continue to exist today.[1]

Indigenous populations have had a shared history of experiencing destructive child welfare practices. In what is known as the "Sixties Scoop," government social services forcefully removed an estimated 20,000 First Nations, Metis and Inuit children from their families and communities and placed them into non-Aboriginal homes. Currently, it is estimated that Indigenous children make up approximately 80 per cent of the children and youth placed in out-of-home care in Manitoba, yet only make up 29.5 per cent of our total child population.[2]

It is important to note, that although there are many similarities, there are also many differences in the experiences among Indigenous groups in Manitoba:

First Nations: In 1867 the federal government deemed First Nations wards of the state that needed to be taken care of, and assumed responsibility for First Nations and reservation lands by introducing the *Indian Act*.[3] The goal of the Indian Act, along with other policies, was to suppress traditions, language, and independence by criminalizing cultural and spiritual practices, and by forcefully regulating First

Nation life, legal status and identity. It was not until 1960 that First Nations people were recognized by the Canadian Government as "human beings", and qualified to vote.

Metis: The Metis are one of Canada's founding Indigenous peoples,[4] yet did not attain recognition as Indigenous until the *Constitution Act* of 1982.[5] Although the Metis had not historically fallen under the authority of the *Indian Act,* with the addition of newer legislation, Metis were allowed to become eligible for status under the Act. As a result, they were forced to choose between their identity as Metis and becoming a status Indian. The Metis were also forced from their territories and made to move further west, through the devastating practice of Scrip policies. Overall, the Metis Nation peoples lost approximately 83 per cent of their established Red River lots through the Scrip program.[6]

Inuit: The term Inuit refers to the group of culturally and linguistically similar Indigenous peoples inhabiting the Arctic regions of Canada, Greenland, and the United States.[7] The Inuit make up a much smaller proportion of the Indigenous population within Manitoba compared to the First Nations and Metis.

THE LINK TO HEALTH AND WELLNESS

"At the time of European contact, the communities of Aboriginal peoples in Canada were thriving and in good health. Over centuries and through the multiple practices of colonization, however, the state of good health of the Aboriginal peoples of Canada has gradually eroded, and ultimately degenerated into the state of relative ill health which characterizes certainly not all, but so many Aboriginal people and communities today."[8]

The term "colonialism" speaks to the current political, social and philosophical factors resulting from colonization. It is, perhaps the most important predictor of the persistent health gap we observe today between Canada's Indigenous and non-Indigenous populations.[9] Indigenous populations across Canada and colonized populations around the world generally experience poorer economic, social and health outcomes than non-Indigenous populations.

Colonialism shapes the health of Indigenous peoples through multiple layers. Health is shaped via the funding and organization of the health care, education and labour systems.

It is also affected by the extent of control that Indigenous peoples have over traditional lands, and the preservation and promotion of their culture. These systems influence factors such as physical environments, employment and income, education and food security – all of which affect health outcomes.[10]

Historical trauma – such as traumas experienced from residential schools, broken agreements, dispossession from lands, and mass removals of Indigenous children from their families – refers to the "cumulative, emotional and psychological wounding over the lifespan and across generations, emanating from massive group trauma experiences".[11] The effects of this trauma are observed today in the health outcomes of Indigenous people.

TOWARDS HEALING AND RECONCILIATION

Healing from the injustices and harms of colonization begins with the creation of a safe environment for reconciliation. This process is fundamental for renewed relationships that promote mutual respect and for closing the economic, social and health inequity gaps. A fair and equal society is mutually beneficial for all population groups. This healing pathway also involves a reclaiming of what has been lost as a result of colonization, including the promotion of Indigenous traditional land, culture, knowledge and practices. This healing pathway must ultimately involve participation of Indigenous peoples in the collaborative decision making process.[12] The Declaration of Canadians for a New Partnership is one example of the kind of work directed toward this process of healing.

"Where do we want to be in three, four, five or seven generations from now, when we talk about the relationship between Aboriginal and non-Aboriginal people in this country? Reconciliation will be about ensuring that everything that we do today is aimed at that high standard of restoring that balance to that relationship." *– Justice Murray Sinclair, Chair, Truth and Reconciliation Commission of Canada.*

Links:

- Truth and Reconciliation Commission of Canada: www.trc.ca/websites/trcinstitution/index.php?p=3
- The Delectation for New Canadians Partnership: www.cfnp.ca/declaration

TERMINOLOGY[13]

Terminology, particularly as it relates to Indigenous peoples, can be difficult to navigate. A term that might be acceptable to some might be offensive to others. Because of this, many people do not feel confident using certain terms when referring to Indigenous peoples. Fear of using the "wrong" word should never stifle important dialogue and discussions that need to be had.

Indigenous: Indigenous is a term used to encompass a variety of Aboriginal groups. It is most frequently used in an international, transnational or global context. This term came into wide usage during the 1970s when Aboriginal groups organized transnationally and pushed for greater presence in the United Nations (UN). In the UN, "Indigenous" is used to refer broadly to peoples of long settlement and connection to specific lands who have been adversely affected by incursions by industrial economies, displacement, and settlement of their traditional territories by others.

Aboriginal: The term "Aboriginal" refers to the first inhabitants of Canada, and includes First Nations, Inuit, and Metis peoples. This term came into popular usage in Canadian contexts after 1982, when Section 35 of the Canadian Constitution defined the term as such.

Indian: The term "Indian" refers to the legal identity of a First Nations person who is registered under the *Indian Act.* The term "Indian" should be used only when referring to a First Nations person with status under the *Indian Act*, and only within its legal context. Aside from this specific legal context, the term "Indian" in Canada is considered outdated and may be considered offensive due to its complex and often idiosyncratic colonial use in governing identity through this legislation and a myriad of other distinctions (ex: "treaty" and "non-treaty," etc.).

First Nation: "First Nation" is a term used to describe Aboriginal peoples of Canada who are ethnically neither Metis nor Inuit. This term came into common usage in the 1970s and '80s and generally replaced the term "Indian," although unlike "Indian," the term "First Nation" does not have a legal definition. While "First Nations" refers to the ethnicity of First Nations peoples, the singular "First Nation" can refer to a band, a reserve-based community, or a larger tribal grouping and the status Indians who live in them.

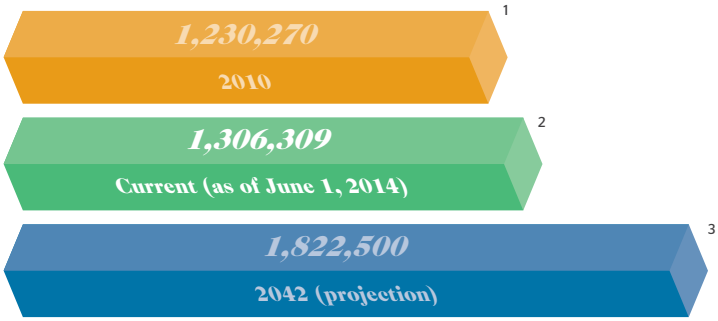
Inuit: The term Inuit refers to the group of culturally and linguistically similar Indigenous peoples inhabiting the Arctic regions of Canada, Greenland, and the United States. Inuk is the singular form.

Metis: The term Metis refers to a collective of cultures and ethnic identities that resulted from unions between Aboriginal and European people in what is now Canada. This term has general and specific uses, and the differences between them are often contentious. It is sometimes used as a general term to refer to people of mixed ancestry, whereas in a legal context and for the purposes of this report, "Metis" refers to the descendants of the early (17th century) economic, social, and political strategic relationships between North American First Peoples and Europeans. As time passed, this mixed population shaped into a distinct people with a unique history, culture and aspirations.

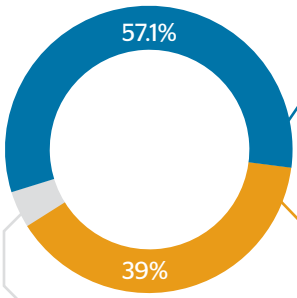
CHAPTER

2 MANITOBA'S HEALTH STATUS AT A GLANCE

MANITOBA'S POPULATION



A medium growth projection scenario would place Manitoba's population at 1,822,500 by 2042.



of Manitoba's total population live in the Winnipeg Health Region.[4]

of Manitobans reside in rural and northern communities.

unspecified

In 2011/2012 there were **15,732 BABIES** born to Manitoba residents.

Lowest rate	Average rate	Highest rate
10.9 births per 1,000 population.	**12.6** births per 1,000 population.	**22.5** births per 1,000 population.
In Winnipeg Health Region	In all of Manitoba	In Northern Health Region

In 2013 **13,100** permanent residents immigrated into Manitoba.

This represented **5.1%** of Canada's total immigration.

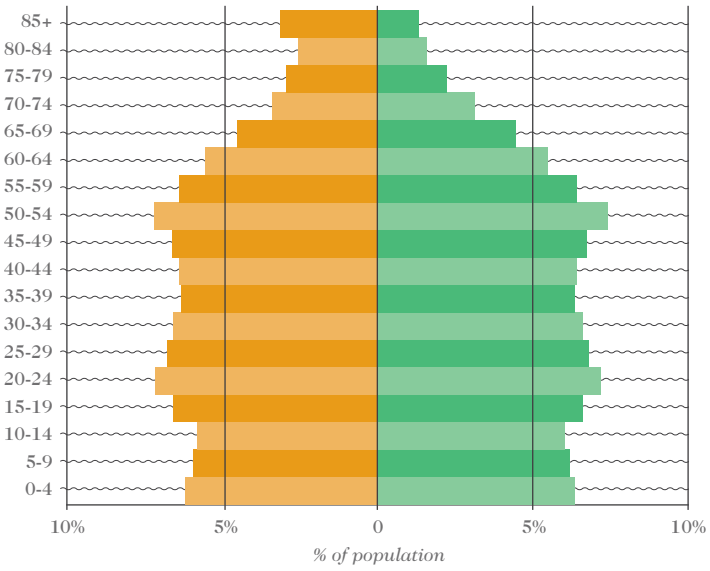
Among these immigrants **11.1%** (1,140) were refugees.

AGE 65+ Was the fastest growing age group between 2006 and 2011.[5]

Population Demographics

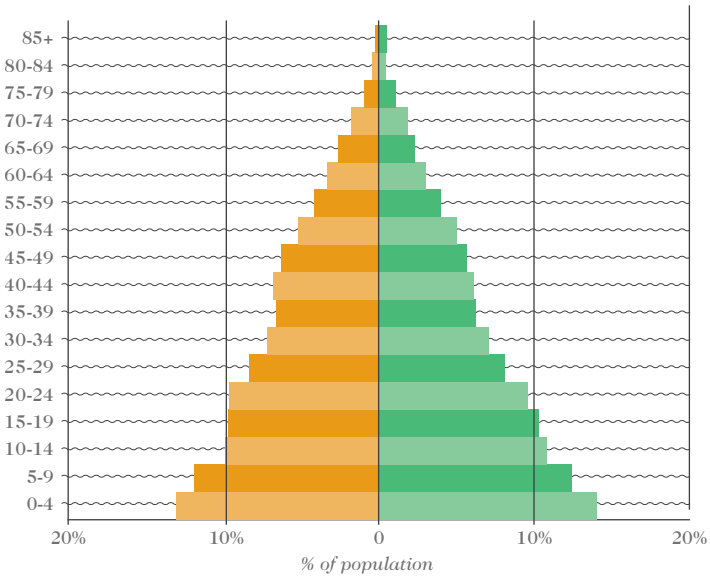
MANITOBA'S POPULATION AGE STRUCTURE

A population pyramid shows the age and sex composition of a population. The percentage of the population within each particular age group is shown for females and males.



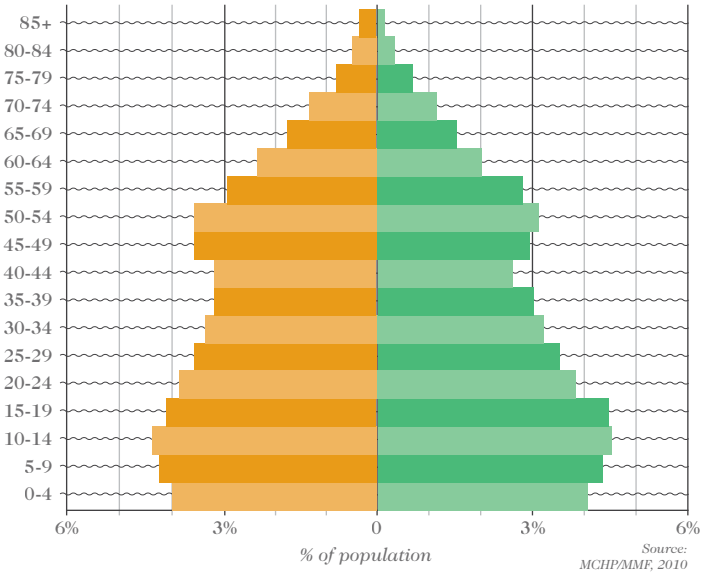
Population pyramid for Manitoba, 2012/2013[6]

Based on records of residents registered with Manitoba Health on June 1, 2012. Two distinct bulges can be seen. One represents those in their mid 40's and early 50's, and the second represent those in their late teens and early 20's.



Population pyramid for Manitoba First Nations People, 2012/2013[7,8]

This pyramid shows that the First Nations people in Manitoba are a much younger population. Of the 93,221 people who declared their First Nations status to Manitoba Health, 56% were under the age of 25, compared to only 33% for the Manitoba population overall.



Population pyramid for Manitoba Metis, 2006[8]

This pyramid shows that the Metis population (73,016) also has a greater proportion of young people as compared to all other Manitobans.

LIFE EXPECTANCY

The average amount of years people are expected to live.

2007 **81.5** YEARS OLD

2011 **82.2** YEARS OLD

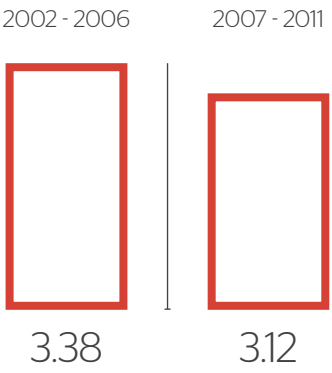
2007 **76.5** YEARS OLD

2011 **77.5** YEARS OLD

Moderate increases in life expectancy are projected by 2020, where life expectancies are expected to be **78.6** and **83.1** years for men and women respectively.[9]

PREMATURE MORTALITY RATE

Death before the age of 75 per 1000 residents, per year.



Lowest-income Manitobans are

1.9x – 2.9x

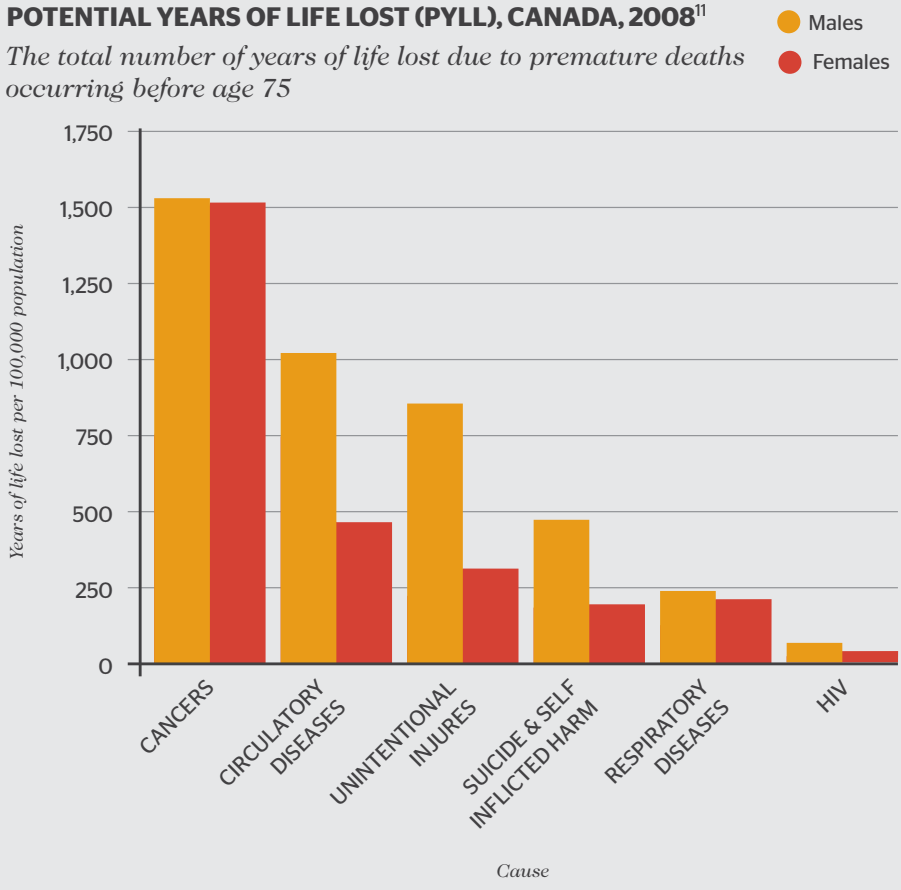
(RURAL) (URBAN)

more likely

to die prematurely than are highest-income Manitobans.[10]

POTENTIAL YEARS OF LIFE LOST (PYLL), CANADA, 2008[11]

The total number of years of life lost due to premature deaths occurring before age 75



Population Health Indicators

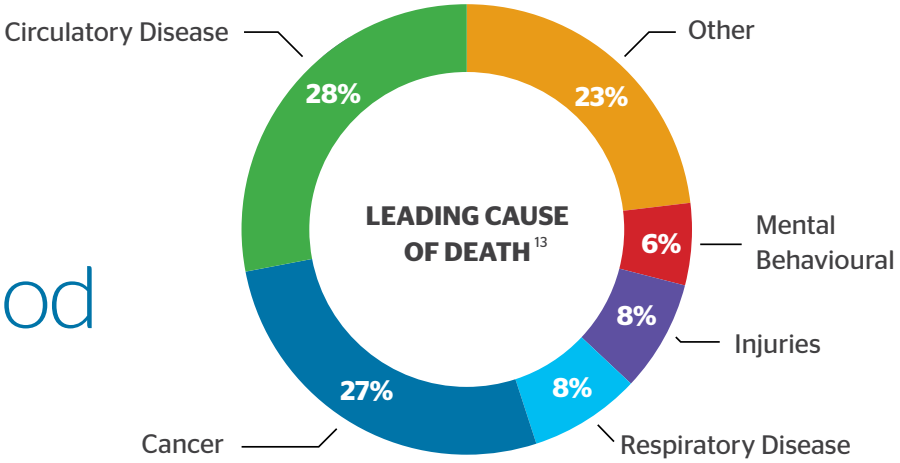
SELF-PERCEIVED HEALTH [12]

12% Fair/Poor

30% Good

39% Very Good

18% Excellent



CANCER: 2012 ANNUAL STATISTICS CANCER CARE MANITOBA

In 2012,

11,167

Manitobans were diagnosed with cancer and in this same year,

2,704

Manitobans died from the disease.

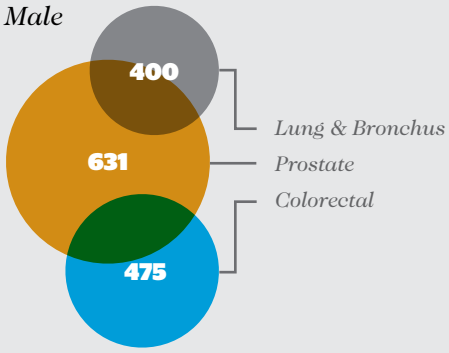
About 2 in 5 Canadians will develop cancer within their lifetimes.[14]

AND

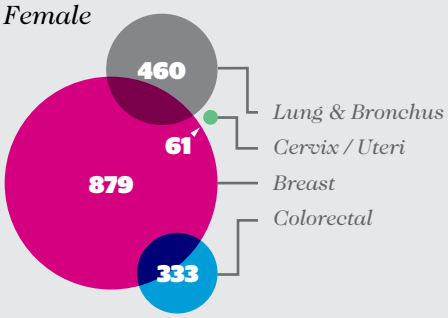
1 in 4 will die of the disease.[14]

MOST COMMON CANCERS IN 2012

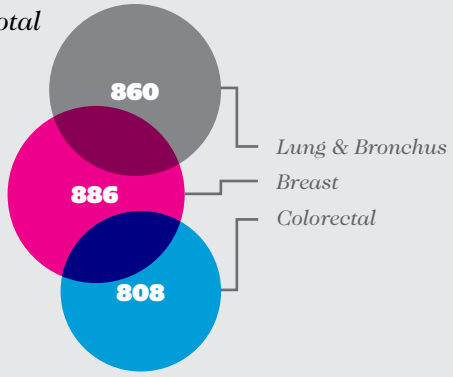
Male



Female

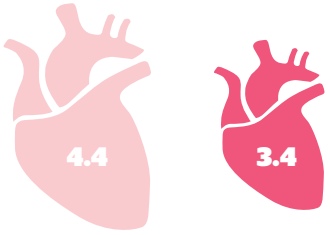


Total



CARDIOVASCULAR DISEASE[15]

Heart attack rates per 1,000 residents age 40 and older:



Stroke rates per 1,000 residents age 40 and older:

There is a 55% higher rate of circulatory conditions among lowest-income quintile rural Manitobans than rural residents in the highest quintile; and a 33% higher rate among lowest-income urban residents compared to highest.

Significantly higher rate of heart attacks and strokes occurred among Northern Health residents.

DIABETES

% of residents with diabetes age one and older:

6.2% **8.0%**

Increased steadily from 02/03 to 11/12.

16.1%

Northern Health Region

Prevalence ranges across the province.

6.5%

Southern Health - Santé Sud

The lowest income quintile had almost double the rate of the highest-income:[16]

14% vs 7% (Rural Manitoba)

10% vs 6% (Urban Manitoba)

OBESITY

Based on self reported height and weight,

21%

of Manitobans (18+) fit into the obese category.[17]

In Canada, since 2003 the proportion of Canadians who were obese has increased by:

17.5%

Of children and youth aged 6 to 17 in Canada,

8.6%

are obese.

Population Health Indicators

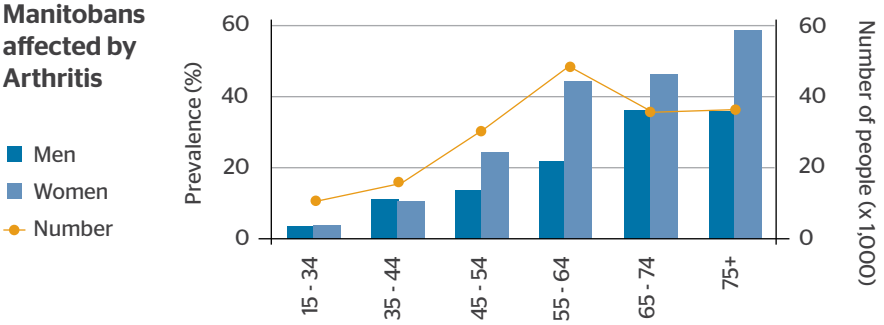
ARTHRITIS[18]

In Manitoba, **85 per cent** of those with arthritis reported having additional chronic conditions.

Manitobans with arthritis are more likely to:

- have lower education and income
- be obese or overweight
- be physically inactive

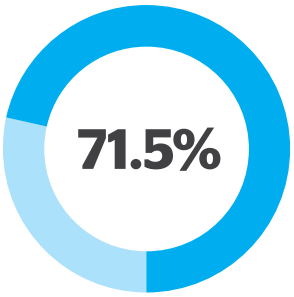
Manitobans affected by Arthritis



Source: CCHS (2010 – 2011)

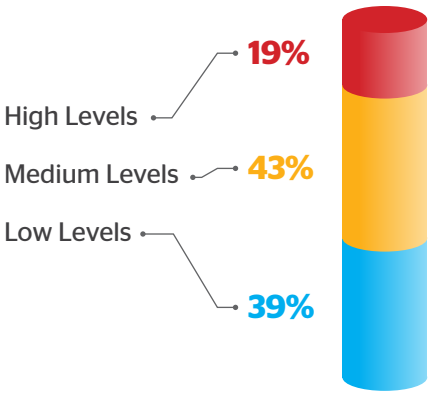
MENTAL HEALTH AND ILLNESS

SELF-PERCEIVED MENTAL HEALTH STATUS (2013)[19]



percentage of population 12 and over who reported their mental health as "very good" or "excellent".

SELF-PERCEIVED LIFE STRESS (AGE 15+)[20]



MOOD & ANXIETY DISORDERS[21]

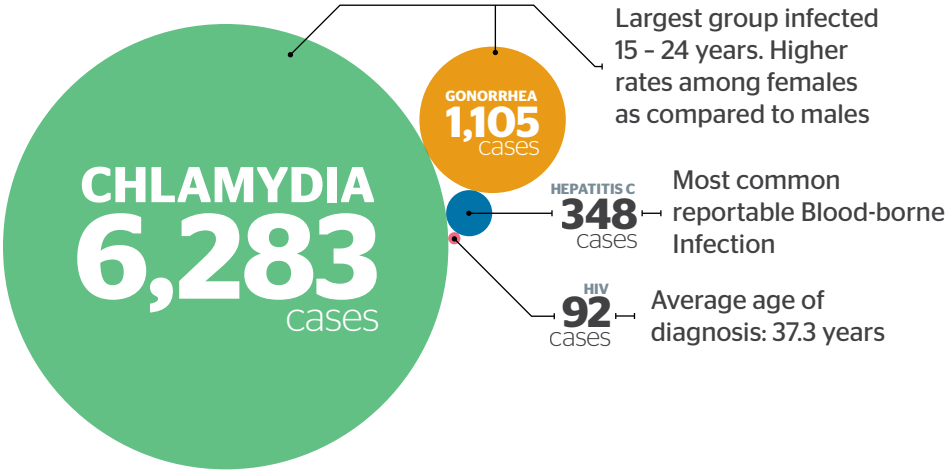
2002 - 2007
23.5%

2007 - 2012
23.3%

5 year cumulative mental illness rates among urban Manitobans in lowest-income quintile are 43% higher than among the highest group; fewer differences were seen among rural residents.

INFECTIOUS DISEASES

Sexually Transmitted and Blood-borne Infections (2014)



Largest group infected 15 – 24 years. Higher rates among females as compared to males

Most common reportable Blood-borne Infection

Average age of diagnosis: 37.3 years

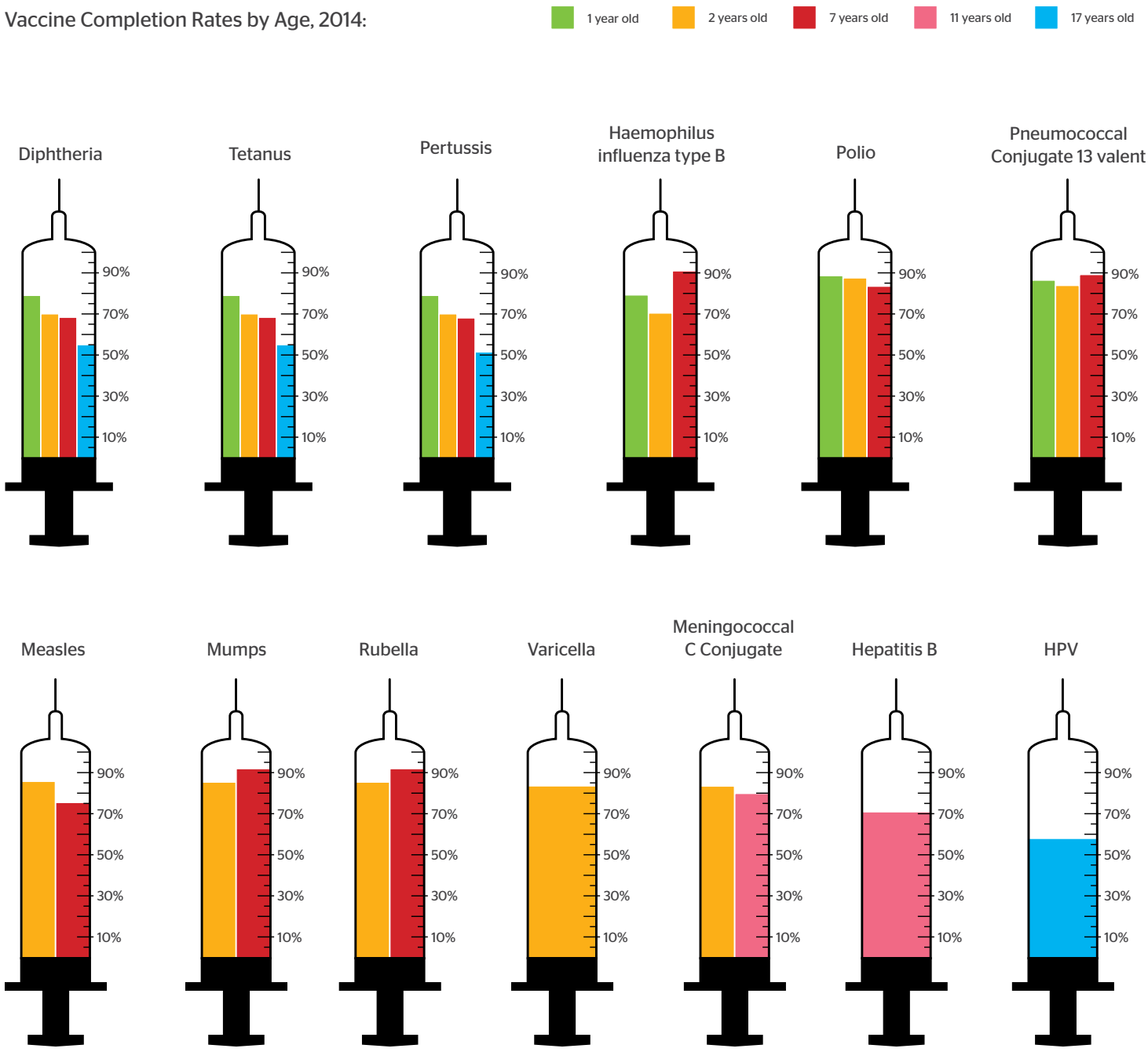
Tuberculosis (TB)

135 total cases of TB in 2014

- TB rates in Manitoba were approximately double the national rates between 2000 and 2012.
- The highest number of cases were reported in the Winnipeg Health Region, with the highest incidence rates in the Northern Health Region
- Together, the Winnipeg and Northern Health Regions reported about 9 out of 10 of the provinces' TB cases.

IMMUNIZATIONS are the most effective way to prevent many serious infectious diseases.

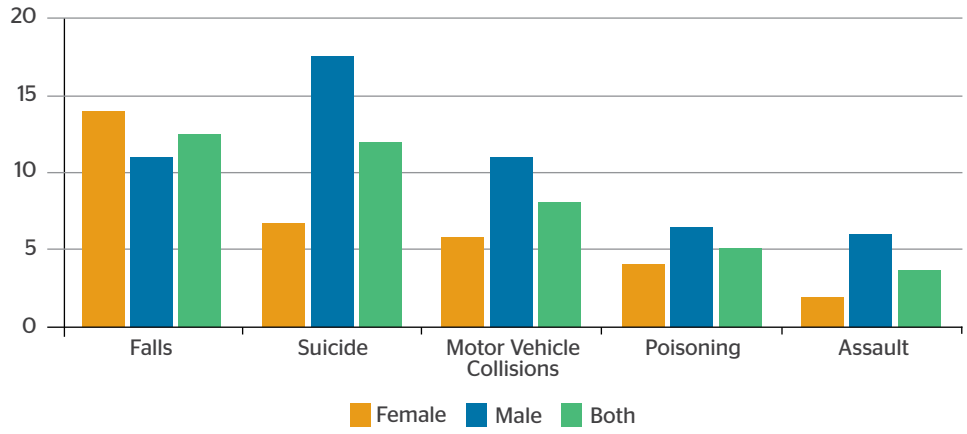
Vaccine Completion Rates by Age, 2014:



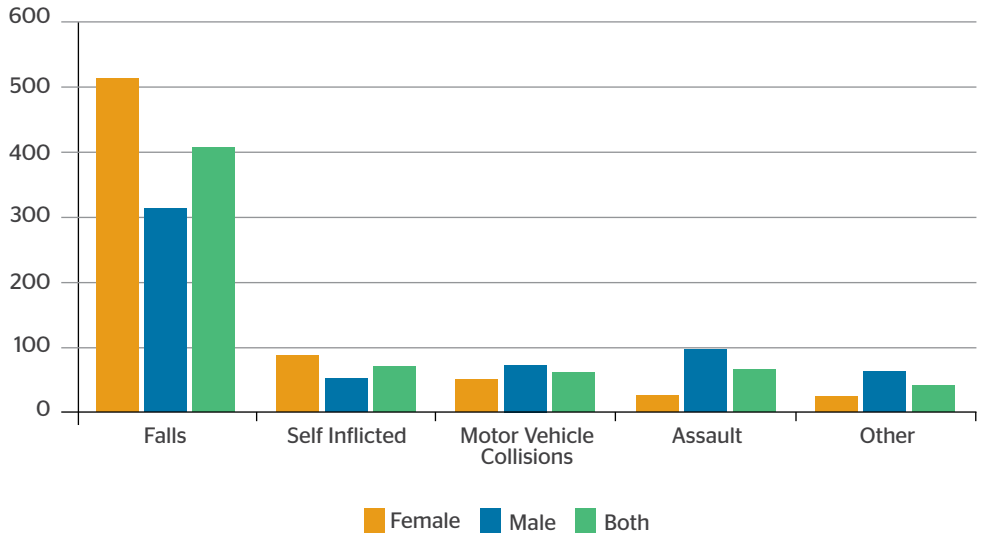
746 MANITOBANS

die each year as a result of injury. Injuries are the most frequent cause of death for Manitobans aged 1 to 44.

LEADING CAUSES OF INJURY DEATHS
CRUDE RATES (PER 100,000), MB, 2000-2012



LEADING CAUSES OF INJURY HOSPITALIZATIONS
CRUDE RATES (PER 100,000), MB, 2000-2012



MENTAL HEALTH & WELL-BEING:

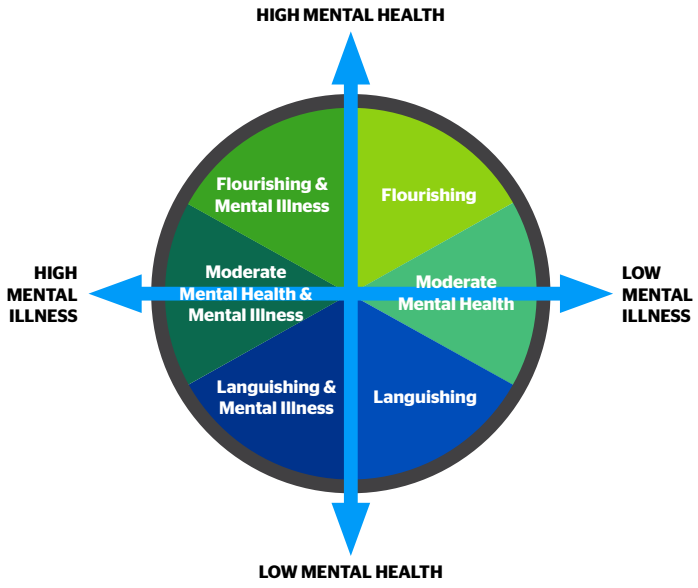
The Foundation of Good Health

Did you know... that taking care of your mental health is just as important as taking care of your physical health?

Mental health is much more than the absence of mental illness. It is a state of well-being where individuals:[1]

- realize their own potential
- are happy and satisfied
- have the ability to cope with the normal stresses of life
- are able to work productively
- feel a sense of belonging and purpose
- are able to make contributions to their communities

Traditionally, mental health and mental illness were thought of as being along one continuum, with positive mental health on one end and mental illness on the other. This understanding of mental health and illness has expanded into a dual continuum, as demonstrated below. This model shows that those with a mental illness diagnosis can have positive mental health (flourishing) and those without a diagnosable mental illness can suffer from poor mental health (languishing).[2]



When our mental health is flourishing (with or without a mental illness), we are far less likely to suffer from the effects of poor mental health, including poor relationships, absenteeism, chronic health conditions, helplessness and other limitations to daily living.[3] Flourishing reduces the risk of developing a mental health problem or illness.[4] When people flourish, the benefits extend beyond individuals, contributing to healthier communities and societies. The key message is that all people can benefit from strengthening and protecting their mental health and well-being.

Similar to health and illness in general, mental health and mental illness are determined by multiple and interacting, social, psychological, biological,[5] genetic,[6] and economic[7] factors. Mental health and well-being are influenced not only by individual characteristics and attributes, but also by the socioeconomic circumstances in which persons find themselves and the broader environments in which they live.[8] It is important to emphasize that these determinants interact with each other in a dynamic way. They can work for or against a particular individual's mental health. Our communities, workplaces, schools and families all influence our mental health.[9] Some mental health problems and illnesses may be prevented through factors that contribute to positive or flourishing mental health, such as being physically active, having healthy relationships and having strong ties to community, as well as societal factors such as inclusion and equity.[10]

Mental health problems and illnesses affect Manitobans of all ages and from all walks of life, representing a staggering cost to the Canadian economy of over $50 billion per year:

- by age five, 20% of Manitoban children experience social and emotional problems[11]
- almost half of all lifetime cases of mental illness begin before the age of 14 and 75% start by age 24[12]
- between 20 and 25% of older adults experience mental health problems and illnesses[13]
- by 2020, depression could reach second place in the ranking of the global burden of disease[14]

The prevention and early intervention of mental illness in childhood and adolescence is critically important to improve children and young people's mental health, build their resilience and help prevent the onset of mental illness in adult life.[15]

Taking care of our mental health and well-being is just as important as taking care of our physical health. As is the case with our physical health, there are steps we all can take to promote good mental health and well-being and reduce the risk of mental illness. Mental health and physical health are inseparable. Neither can exist alone because mental health is the foundation of good health.

Five Ways to Well-being

Be Active • Connect • Take Notice • Learn • Give

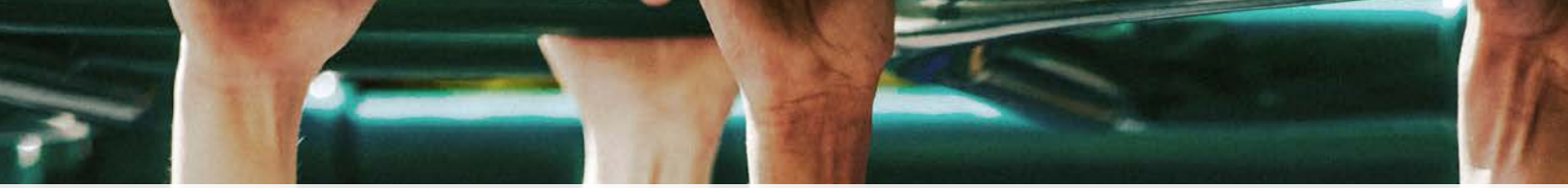
In recent years, there has been a shift away from a focus on mental health problems and illnesses alone, to paying more attention to wellness. The Five Ways to Well-being are practical tips on how to improve mental health and well-being:

1. Communities and environments that make it easy for their members to **be active** and support mental health and wellness are linked with lower rates of depression and anxiety across all life stages.
2. Environments that support a person's ability to feel **connected**, close to and valued by other people are important for promoting well-being, encouraging healthy functioning and preventing mental health problems and illnesses.
3. Taking **notice**, reflecting and being aware of surroundings can help to reaffirm life priorities and allows for people to make positive choices, based on their values and motivations.
4. Environments that support continuous **learning** throughout the lifespan help people build self-esteem, while also promoting social interaction and inspiring a more active lifestyle.
5. By **giving** through community participation, volunteering and carrying out random acts of kindness, people are more likely to rate themselves as happy.

(Adapted from New Economics Foundation, 2008)

Links:

- Rising to the Challenge, A five-year strategic plan for the mental health and well-being of Manitobans www.gov.mb.ca/healthyliving/mh/docs/challenge.pdf
- To learn more about current approaches to mental health, watch Dr. Corey Keyes TED talk at www.youtube.com/watch?v=TYHOI3T32VA



CHAPTER 3

PREGNANCY THROUGH ADOLESCENCE

Laying the Foundation for Health

"Health in the earliest years… lays the groundwork for a lifetime of well-being."

– Centre of the Developing Child, Harvard University

The foundation of life-long good health and well-being begins in pregnancy and continues throughout childhood and adolescence. The early years have a significant impact on brain development and a child's chances of success later in life. Early harms such as poverty, abuse and neglect can weaken developing brain architecture and permanently set the body's stress response system on high alert,[1] resulting in lifelong implication. Protecting and improving children's health enhances their abilities to contribute in positive and meaningful ways, both as children and eventually as adults.

Safe, stable, nurturing environments are among the most powerful, protective and healing forces in a child's life. These environments – fostered at home, school and in the community – are the building blocks of a child's physical and emotional growth.[2]

WHAT ARE NURTURING ENVIRONMENTS?

Nurturing environments are environments where the family unit and community are able to foster the development of children's emotional, physical and social needs.[3] Young children experience their world in an environment of relationships within their families, their homes and the larger community. These relationships affect virtually all aspects of their development.[4]

"You inherit your environment just as much as you inherit your genes." – Johnny Rich, Author

FOSTERING A NURTURING ENVIRONMENT

At the family level, this translates into an environment where:[5]

- meals are prepared and eaten together when possible
- time is taken to read to children
- there is no abuse
- there is limited parental conflict
- there is a reduction of harsh and inconsistent punishments

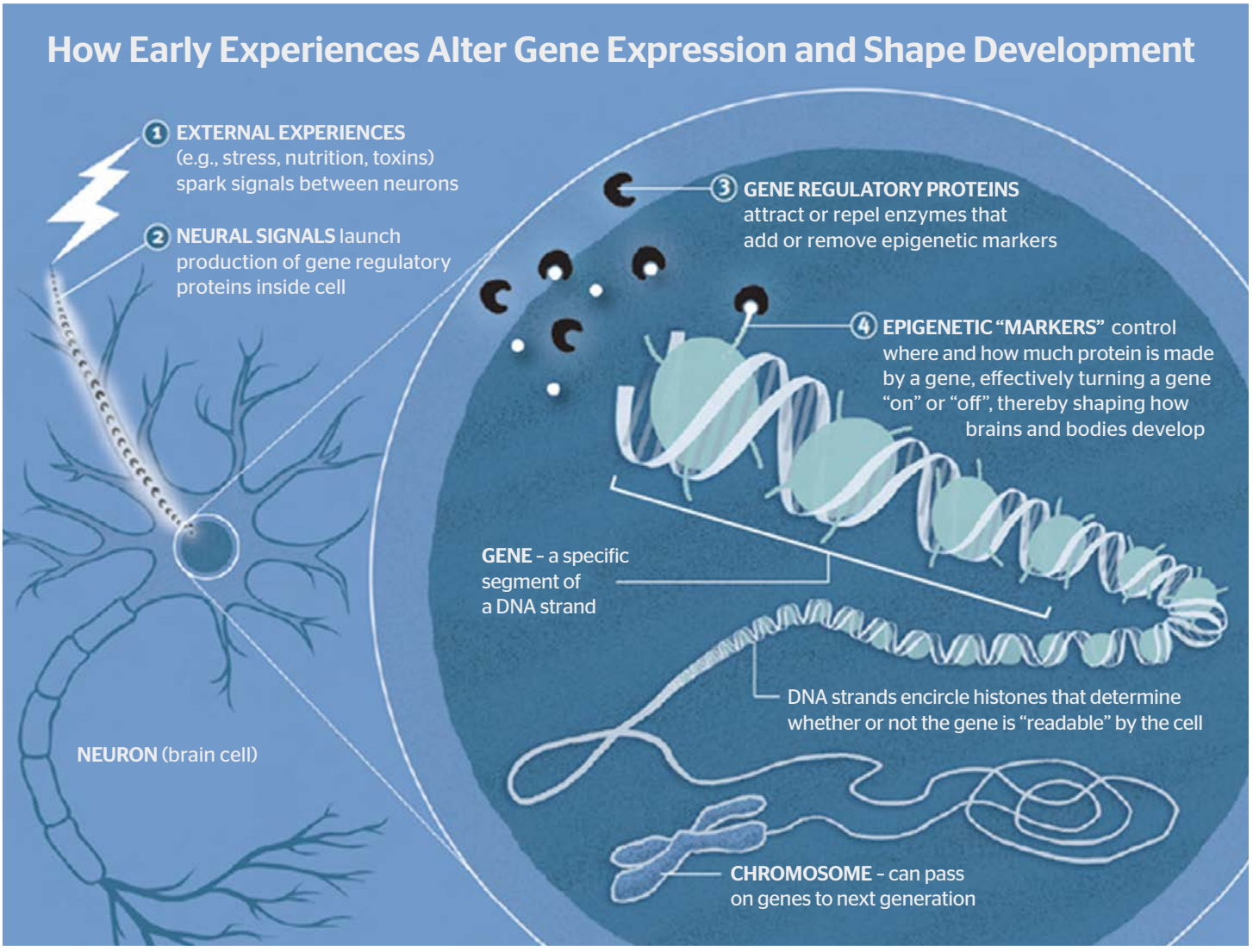
At the community level, it requires working to develop neighbourhoods that support health and well-being by promoting determinants such as physical activity, safety, healthy eating and positive social interactions, which are associated with better developmental outcomes and better health. Nurturing environments are highlighted in this section of the report, with a focus on:

- the importance of social support during pregnancy
- attachment between the infant and caregiver during early childhood
- the evolving relationships within the family, peer group, school, neighbourhood and broader social community in middle childhood and adolescence

This chapter covers the full breadth of early development, from pregnancy to adolescence – and supports the traditional wisdom that "it takes a (nurturing) village to raise a child."

EPIGENETICS

Epigenetic research (the study of the changing expression of genes) is revealing that although children may be born with a genetic predisposition to develop a certain trait, behaviour or disease, the environments in which they develop have the potential to affect whether or not these genes are expressed.[6] Some of the genetic changes that occur in the fetus can be passed on, affecting the health of future generations. Effective interventions can alter how genes are expressed, leading to positive and lasting effects on mental and physical health, learning and behaviour.[7]



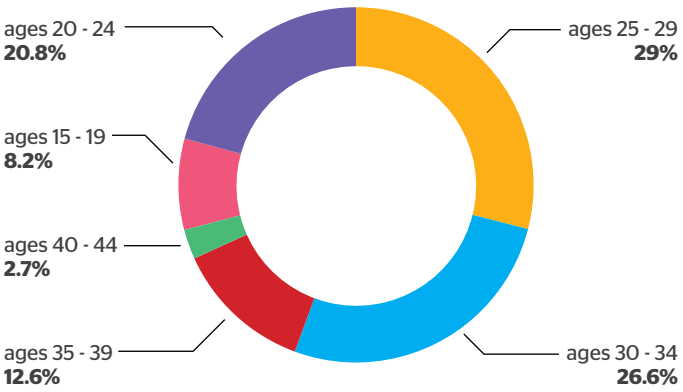
(Illustration by Betsy Hayes. Credit: Center on the Developing Child)

PREGNANCY (CONCEPTION TO BIRTH)

The health of the parents and the environments in which they live, before and during pregnancy, can have significant and lifelong implications for their infants.[8]

HEALTH STATUS IN THE PRENATAL PERIOD

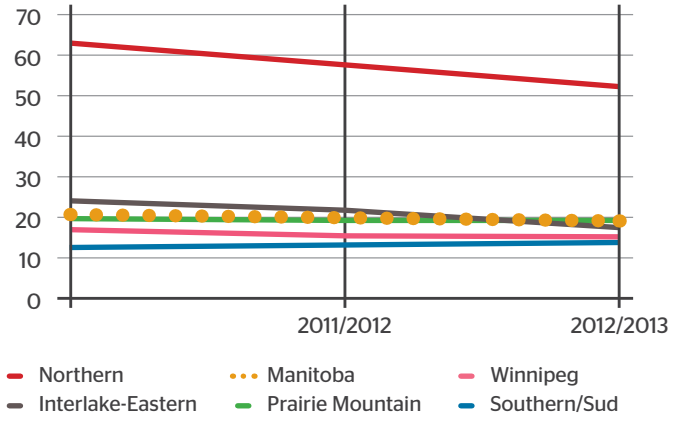
Percentage of Total Pregnancies by Age Group, 2012/2013



TEEN PREGNANCY

Teen pregnancy rates in 15 to 19 year olds have been steadily declining in Manitoba. Teen pregnancies are most common among women living in northern Manitoba and low-income areas of Winnipeg.[9]

Teen Pregnancy Rates per 1,000 Females Age 15 to 19



Teen pregnancy has a number of risks for both the mother and the child.

- Pregnant teens have a greater risk of developing health problems such as anaemia, high blood pressure, eclampsia and depressive disorders.[10,11]
- Children of teen mothers are:
  - at increased risk of infant mortality and hospital admission in early childhood[12]
  - at increased risk of poorer cognitive development[13]
  - more likely to receive services in Manitoba from Child and Family Services[14]

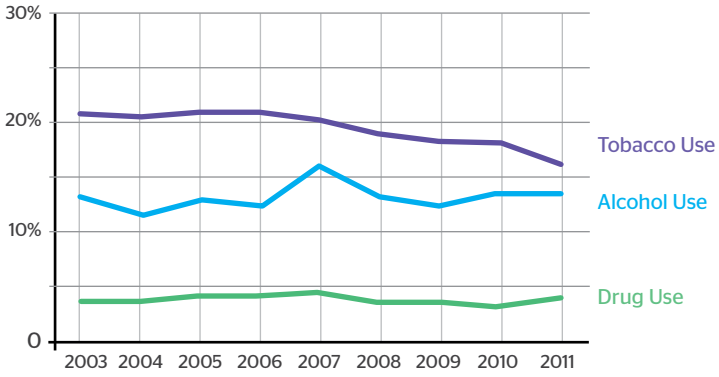
DELAYED CHILDBEARING

Pregnancies in women 35 and older have higher risks of birth complications such as hypertension, caesarean birth, preterm birth and low birth weight. Women of higher socioeconomic status, those who have competed grade 12 and those who were married or partnered, are more likely to delay childbearing.[15]

SUBSTANCE USE IN PREGNANCY

Substance use by mothers has a profound effect on the earliest stages of human development and can produce negative outcomes that carry on into early childhood and beyond.[16]

Self Reported Substance Abuse In Manitoba



Source: Families First Screen, Healthy Child Manitoba

Risk factors for consuming alcohol, and or smoking while pregnant include:[17]

- younger maternal age
- less than a grade 12 education
- inadequate prenatal care
- lower income

FETAL ALCOHOL SPECTRUM DISORDER (FASD)

FASD is a lifelong disability caused by maternal alcohol use during pregnancy. The effects can include lifelong physical, mental, cognitive and behavioural disabilities. It is estimated that every year in Canada, more than **3,000** babies are born with FASD and currently about **300,000** people are living with FASD.[18] Rates of diagnoses through the Manitoba FASD Centre were higher for children living in the North and low-income areas of Manitoba.[19]

NURTURING ENVIRONMENTS: SOCIAL SUPPORT

The support a woman receives during pregnancy can have several impacts on her emotional and physical well-being, and the health of the unborn developing baby.[20]

Babies born to mothers with low social support during early pregnancy have an increased risk of low birth weight, pre-term birth, and problems in brain development – likely due to the mother's stress response and elevated stress hormones.[21] While a moderate level of stress hormones passing from the mother to the developing fetus is essential for the development of organs such as the lungs and the brain, high levels of stress hormones may have harmful effects. Lack of social support also increases the risk of child and domestic abuse, and post-partum depression and perinatal mood disorders.[22,23]

IN 2011:[27]

- **5%** of new mothers in Manitoba reported they were socially isolated or lacked social support
- **17%** reported they suffered from depression or anxiety
- **6%** reported relationship distress or violence

These women were more likely to smoke, use non-prescription drugs and experience physical or sexual abuse, than women with social supports.

One source of social support during pregnancy is from a partner or spouse. A partner's support benefits both the mother and child. Women whose partners were involved in their pregnancy, compared to women whose partners were not involved, were more likely to reduce their alcohol, tobacco and drug use.[24,25] Fathers who are involved at the prenatal stage are more likely to be engaged with their child in the early childhood years, which benefits both fathers and their children.[26]

POVERTY IN PREGNANCY

Women who live in poverty are more likely to have less healthy pregnancies and deliveries. Their babies are also more likely to have serious health problems.[28]

Poverty has been associated with unintended or teenage pregnancy and being a single mother.[29] Women with low income are more likely to have inadequate prenatal care, greater rates of smoking, and reduced initiation and duration of breastfeeding.[30]

THE HEALTHY BABY PRENATAL BENEFIT

The prenatal benefit is intended to help women meet their extra nutritional needs during pregnancy, and also acts as a mechanism to connect women to health and community resources in their area. The benefits can begin in the month a woman is 14 weeks pregnant and continue to the month of her estimated date of delivery. The prenatal benefit is available to all pregnant women in Manitoba with net family income of less than $32,000. In 2013/14, the prenatal benefit was provided to 3,688 women in Manitoba during their pregnancies.

THE IMPORTANCE OF ADEQUATE PRENATAL CARE

Routine prenatal care helps women have a healthy pregnancy and ensures that risks to the mother's or baby's health are identified early. Inadequate prenatal care has been linked to preterm births, low birth weight and increased risk of fetal and infant death.[31]

In Manitoba, the percentage of women who had no prenatal care before the sixth month of their pregnancy is low, steadily declining from over three per cent in 2003 to two per cent in 2011. However, the rate of inadequate prenatal care increased from 11 per cent to 12.5 per cent. Significant social inequalities in the use of prenatal care exist.[32]

Higher rates of inadequate prenatal care were observed in women who:[33]

- lived in the northern regions and lower income areas of Winnipeg
- had less than a grade 12 education
- were younger than 25 years of age
- were a single parent
- were socially- isolated
- were receiving social assistance

WHAT OUTCOMES WERE ASSOCIATED WITH RECEIVING THE PRENATAL BENEFIT?

1.4% - 9.0%
Reduction in low birth weight births

0.4% - 6.0%
Reduction in preterm births

10.0% - 21.0%
Increase in breastfeeding initiation

Source: Shaw, S. (2010). Summary of the report, Evaluation of the Manitoba Healthy Baby Program By Marni Bownnell, O Marriette Chartier, Wendy Au, Jennifer Schults.

Amanda

Amanda was training for a career as an electrician when her life plans took an unexpected detour.

"I was about to start my first year of apprenticeship training when I found out I was pregnant," says Amanda. "I wanted to have children, but not quite this soon. I was also having second thoughts about settling down with my boyfriend, Tony, whose jealousy had already become a problem for us. Still, I was afraid to raise a child on my own."

Amanda tried to finish the first year of her apprenticeship training, but as her pregnancy progressed, she was so tired that she felt she had no other choice but to quit the program. Realizing the costs of raising a child, she soon found another job, though she felt disappointed that she had to give up a career that she enjoyed for something less fulfilling.

"Being pregnant and working all day, it was sometimes tough to drag myself to pre-natal classes, but I'm so glad that I went," says Amanda. "Those classes gave me a chance to talk to other moms, and learn from the instructor about healthy pregnancies and how to give our babies a good start in life."

Meanwhile, her problems with Tony continued. During the pregnancy, he became increasingly possessive and Amanda started to feel really isolated from her family and friends. One night, during an argument, he became violent and hit her. Amanda immediately left the apartment and found temporary emergency space in a local women's shelter.

With support from the shelter and her health care team, Amanda's son Noel was born happy and healthy. Noel is Amanda's pride and joy, and she is determined to give her son the best life possible.

"It can be really tough being a single parent, but I'm glad I didn't stay with Tony," says Amanda. "Noel and I deserve a better life, so I'm working to help us achieve that. It's hard to buy healthy foods on my small income but I do the best that I can. I knew I could make more money as an electrician, so I decided to find out if I could somehow get back into my apprenticeship training program. The staff was very encouraging, and helped me return right where I left off." says Amanda.

"It has been a lot of hard work and sacrifice, but it has all been worth it..."

"Noel is in a childcare program and my apprenticeship is nearly completed, so we are both doing great. I was able to get us into a nice housing co-op that is more affordable and also has a little park that my son just loves."

Drawing on her personal experiences struggling with poverty and being in an abusive relationship, Amanda now helps other young women in similar situations by offering comfort, support and inspiration.

Factors that have a positive effect on Amanda and Noel's health and well-being:

+ good pre-natal care
+ Amanda's commitment to good parenting
+ quality early childhood education providing a nurturing, safe and stimulating environment
+ job training for a brighter future
+ quality, affordable, safe housing
+ connections to the community

Factors that have a negative effect on Amanda and Noel's health and well-being:

– toxic stress and social isolation from living in an abusive relationship with Tony
– single parent household
– stress of living in poverty
– low income
– food insecurity, making it hard to afford healthy foods

EARLY CHILDHOOD (BIRTH TO AGE 5)

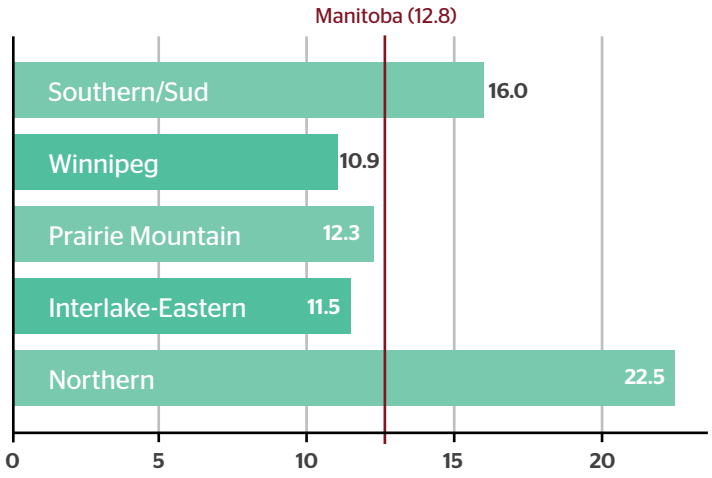
The early childhood period continues building from the foundation started in the prenatal period, and is the most influential stage in life.[34] At birth, the human brain is not yet fully developed, and with this comes both vulnerability and opportunity.[35]

What happens in these early years can influence not only children's immediate well-being, but also lay the foundation for competence and coping skills that affect learning, behaviour and overall health throughout their lifetime.[36]

"What people become under one set of circumstances does not tell us very much about what they might have become under another."
– John Holt

HEALTH STATUS IN EARLY CHILDHOOD

Crude Rate of Total Births per 1,000 Residents by RHA of Residence, 2011/2012



BIRTH WEIGHT

An infant's weight is an important indicator of overall newborn health. It is also a key determinant of infant survival, health and development.[37]

Being small for gestation age **(SGA)** (ex: babies born with a birth weight below the 10th percentile for gestational age and sex) increases the risk of prolonged hospitalization, of dying during the first year of life, and of developing learning, behavioural and emotional difficulties or chronic health problems.[38] Babies with very low and/or low birth weight are less likely to be ready for school at age five.[39]

Babies who are large for gestational age **(LGA)** (ex: babies born with a birth weight above the 90th percentile for gestational age and sex) have an increased risk of suffering injuries during birth, death within the first month of life, as well as developmental and intellectual problems.[40] There are also risks associated with the mother delivering a large baby, including postpartum haemorrhaging and an increased rate of caesarean delivery.[41]

The majority of babies (79 per cent) born in Manitoba had a weight that was appropriate-for-gestational-age. Of the remaining newborns, 12 per cent were large for gestational age and nine per cent were small for gestational age.[42]

RISK FACTORS RELATED TO SGA AND LGA BIRTH WEIGHTS

Small for Gestational Age

- mother's age
- ethnicity
- history of birth to a low birth weight baby
- poor maternal nutrition
- use of harmful substance like tobacco
- excessive alcohol consumption
- low maternal Body Mass Index (BMI)
- poor socio economic status
- history of in-vitro fertilization treatment

Large for Gestational Age

- maternal obesity
- prolonged gestation
- maternal diabetes

Source: Government of Canada. The Well-Being of Canada's Young Children: Government of Canada Report 2011

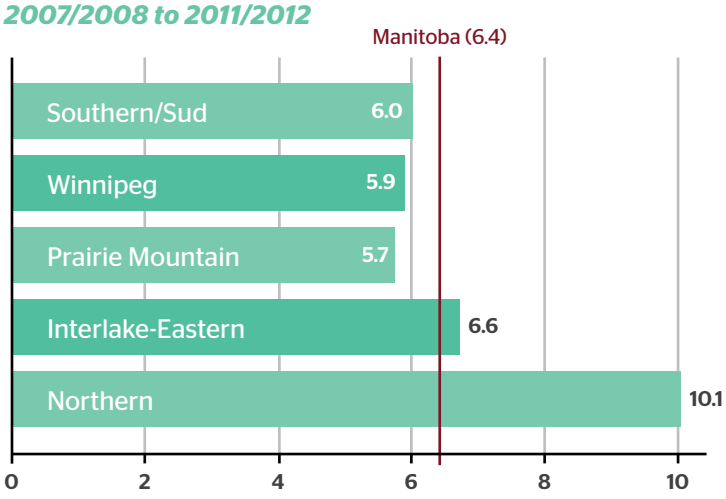
INFANT MORTALITY

The infant mortality rate (deaths before one year of age) is used to compare the health and well-being of populations across and within countries. It reflects the social, economic and environmental conditions in which people live. It is often linked to health inequalities among vulnerable populations, including access to health care.[43]

In Canada, infant mortality rates have decreased significantly over time as a result of better nutrition and living standards for mothers and babies, as well as improved prenatal and postnatal medical care.[44] The decrease has not been as dramatic for particular populations; the infant mortality rate in Canada is 60 per cent higher in the poorest income quintile than in the richest income quintile.[45]

In Manitoba, the rates of infant mortality remain higher than the Canadian average, with higher rates in the northern regions of the province and within the inner city areas of Winnipeg.[46]

Crude Rate of Infant Deaths per 1,000 Infants by RHA 2007/2008 to 2011/2012



RISK FACTORS FOR INFANT MORTALITY [47]

- **Income Assistance** – 8.1 infant deaths per 1,000 live births occurred to women on income assistance compared to 4.5 infant deaths per 1,000 live births to women not on income assistance.
- **Maternal Education** – 3.4 infant deaths per 1,000 live births occurred to women who had less than a grade 12 education compared to 1.1 infant deaths per 1,000 live births to women who had a grade 12 education.
- **Breastfeeding Initiation at Hospital Discharge** – 18.4 infant deaths per 1,000 live births occurred to women who were not breastfeeding at hospital discharge compared to 1.7 infant deaths per 1,000 live births to women who were breastfeeding at the time of hospital discharge.

SUDDEN INFANT DEATH SYNDROME (SIDS)

SIDS, also known as crib death or cot death, is one of the leading causes of death for infants between 28 days and one year.[48] The public health response to SIDS has been a success in recent years. The rate of SIDS in Canada has been steadily declining from 1.2 deaths per 1,000 live births in 1980 to 0.5 deaths per 1,000 live births in 1996[49] and may be explained by a decrease in risk factors such as maternal smoking during pregnancy and an increase in protective behaviours such as placing babies on their backs to sleep and breastfeeding.[50]

BREASTFEEDING

Breastfeeding is recognized internationally as the best method of infant feeding.[51] It contributes to the development of a close mother child relationship, optimizes child health[52] and provides a wide range of other benefits to both the mother and baby.[53] Breastfeeding provides health care cost saving in both the present and in the future.[54]

MATERNAL BENEFITS OF BREASTFEEDING:

- reduced postpartum bleeding
- reduced risk of ovarian and breast cancer[55]
- can contribute to post pregnancy weight loss and reduced risk of obesity
- is associated with lower rates of Type 2 diabetes and cardiovascular disease
- can delay menstruation[56]
- reduced stress levels[57]

INFANT BENEFITS OF BREASTFEEDING:

- protects babies from some infectious diseases[58,59]
- promotes healthy growth and development[60]
- protects babies from obesity later in life[61,62,63]
- protects against SIDS[64]
- aids in preventing gastrointestinal and respiratory infections
- reduces the risk of developing ear infections[65]
- improves cardiovascular health[66]
- associated with fewer allergies[67]
- fewer urinary tract infections[68]
- fewer cases of diabetes later in life[69]

While the majority of mothers breastfed their babies in 2011-2012 at 89 per cent, a slight increase from 85 per cent in 2003,[70] breastfeeding rates are generally lower among women with lower incomes.[71]

THE MOST COMMON REASONS FOR NOT BREASTFEEDING IN CANADA INCLUDE:

- mother has a medical reason **(20.5%)**
- bottle feeding is easier **(19.8%)**
- breastfeeding is unappealing **(19.0%)**
- complicated birth **(9.8%)**
- belief that formula is as healthy as breast milk **(6.6%)**

(Stats Canada for 2009/10)

THERE ARE MANY BARRIERS AND CHALLENGES TO BREASTFEEDING:

- initiation of breastfeeding
- lack of access to knowledgeable and skilled support services
- family pressures and competing demands
- promotions by formula companies and easy access to formula
- difficult to maintain breastfeeding when mother returns to work
- negative community attitudes

Best Start Populations with Lower Rates of Breastfeeding, July 2014

BARRIERS AND CHALLENGES TO BREASTFEEDING

"For breastfeeding to be successfully initiated and established, mothers need to have active support during pregnancy and following birth, not only of their families and communities, but also of the entire health system."[72]

Supportive partners, family members and friends play key roles in the success of breastfeeding. In many families, fathers play a strong role in the decision of whether to breastfeed.[73,74] When a mother feels supported she is more likely to feel confident and empowered with her choice to breastfeed.[75]

Workplaces and schools, in particular, are described as settings where women feel a lot of discomfort both with breastfeeding and pumping. Putting policies and practice in place that supports breastfeeding in workplaces and schools has the potential to positively influence breastfeeding rates.[76]

MATERNAL MENTAL HEALTH

Up to 75 per cent of new moms experience some degree of the "baby blues"[77] and about 15 to 30 per cent of women experience more significant symptoms of postpartum depression and perinatal mood disorders within the first few years of giving birth.[78] Although women from all social backgrounds can experience poor maternal mental health, the risk is increased for women who have experienced poverty, stress, family violence or abuse, pregnancy and delivery complications, a previous history of depression or low social support.[79]

Untreated maternal mental health problems and illnesses can pose serious emotional, physical and economic consequences for entire families.[80] Positive mental health can help women cope with the challenges associated with pregnancy and new motherhood, allowing them to enjoy this important period of their life to the fullest.

PERINATAL MOOD DISORDERS

Perinatal mood disorders can be defined as mood changes that can occur during pregnancy or following the birth of a baby. They can range from mild to severe in nature.

Perinatal mood disorders include postpartum depression, postpartum anxiety/panic disorders, postpartum obsessive compulsive disorder, post-traumatic stress disorder and postpartum psychosis.

Maternal mental health problems and illnesses are associated with:[81,82,83]

- early breastfeeding discontinuation
- negative maternal perception of the child
- delayed child language acquisition
- compromised maternal-child attachment
- decreased childhood immunizations
- increased child behavioural problems
- marital discord[84]

In one Manitoba study, women who experienced anxiety or depression during pregnancy were eight times more likely to experience it after pregnancy.[85]

NURTURING ENVIRONMENTS: ATTACHMENT

Even with proper nutrition and basic care, if an infant does not receive affectionate social interaction, their physical development can be stunted and brain development compromised.[86]

Attachment is the emotional bond of infant to parent or caregiver, and is thought to be one of the most influential relationships in children's lives.[87] Forming these early bonds is a process that happens over a series of many interactions, and is open to positive and negative influences. The life circumstances of a family (financial security, parental mental health, marital relationship) can support or interrupt attachment, either helping the child to develop a sense of security, or on the other hand foster a sense of insecurity.[88,89,90]

Early, secure attachments contribute to the growth of a broad range of competencies, including:[91,92,93,94]

- a love of learning
- a comfortable sense of oneself
- positive social skills
- multiple successful relationships at later ages
- sophisticated understanding of emotions, commitment, morality, and other aspects of human relationships

Establishing successful relationships with adults and other children provides a foundation of capacities that children will use for a lifetime.[95,96,97,98]

TOXIC STRESS

Stress is a part of everyday life and a certain amount of stress that is controlled and short lived is necessary for young children. This kind of stress is considered positive and normal, and learning to cope with it is an important part of the development process.[99] However, strong, frequent and prolonged activation of the bodies stress response system can be harmful.[100]

Persistent high levels of traumatic stress, called toxic stress, can result from family conflict, violence, neglect, unhealthy living conditions or hunger. Children from lower socioeconomic backgrounds are more likely to show heightened activation of stress response systems.[101]

Toxic stress is particularly harmful during the first years of life. During this phase of rapid brain development, the young brain is very sensitive to experiences. Experiences that are chronically disruptive, abusive, neglectful or unpredictable, expose the brain to harmful stress chemicals. Large and constant doses of these chemicals impair the growth of neurons and make it harder for the brain to form healthy connections. In this way, toxic stress leaves lasting biological damage on the brain's structure and ability to function.[102]

The effects of toxic stress and changes in the brain structure are cumulative. Not only does it affect the brain at this early stage, it also affects all other stages that build on earlier development.[103] The more adverse the experiences are, the greater the likelihood of developmental delays and other problems. Adults with more adverse experiences in early childhood are also more likely to have health problems, including alcoholism, depression, heart disease, and diabetes. Providing supportive, responsive relationships as early in life as possible can prevent or reverse the damaging effects of toxic stress.[104]

TYPES OF STRESS

POSITIVE
Brief increases in heart rate, mild elevations in stress hormone levels.

TOLERABLE
Serious, temporary stress responses, buffered by supportive relationships.

TOXIC
Prolonged activation of stress response systems in the absence of protective relationships.

www.developingchild.harvard.edu/science/key-concepts/toxic-stress/

CHILDREN LIVING IN POVERTY

Children living in poverty are more likely to have chronic diseases, to visit emergency rooms and to die from injuries. They are also more likely to have a range of emotional, behaviour, learning and/or social problems. Studies have shown that children living in poverty are more likely to develop a number of chronic conditions as adults, regardless of their income as adults. These include cardiovascular disease, Type 2 diabetes, respiratory problems, and some forms of cancer.[105]

POVERTY FACTS

- In Canada, a mother who becomes single has a 50% chance of becoming poor within 12 months, and has less than a 30% chance of her or her children escaping from poverty.[106]
- It has been estimated that childhood exposure to poverty doubles the risk of death by 55 years of age – a risk that increases as much as fivefold if the exposure continues into young adulthood.[107]
- About 11 – 14 % of the total population in Manitoba live in poverty.[108]
- Child poverty costs Manitoba an estimated $360 million annually.[109]
- In Winnipeg, food banks provide nourishment for about 20,000 children a month.[110]

"In Manitoba, Indigenous families carry a disproportionate burden of poverty, not because of choice but because of historical and political control on their lives."

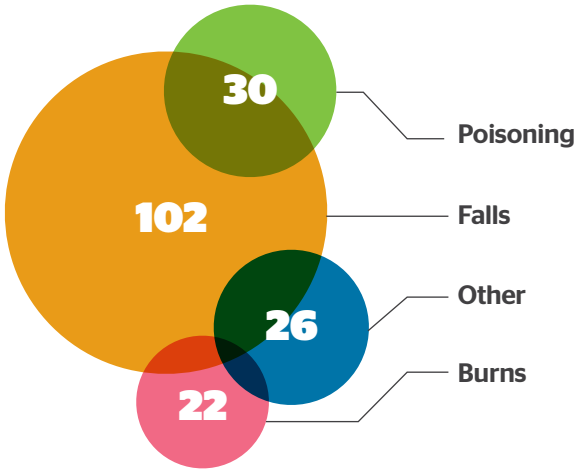
– Manitoba Child and Family Report Card 2014.

EARLY CHILDHOOD INJURIES

Injuries (unintentional and intentional) are the leading causes of death for children in Manitoba over the age of one. Motor-vehicle collisions are the leading cause of injury-related deaths in children under 10 years of age; suicide is the leading cause of injury-related deaths in children over 10.

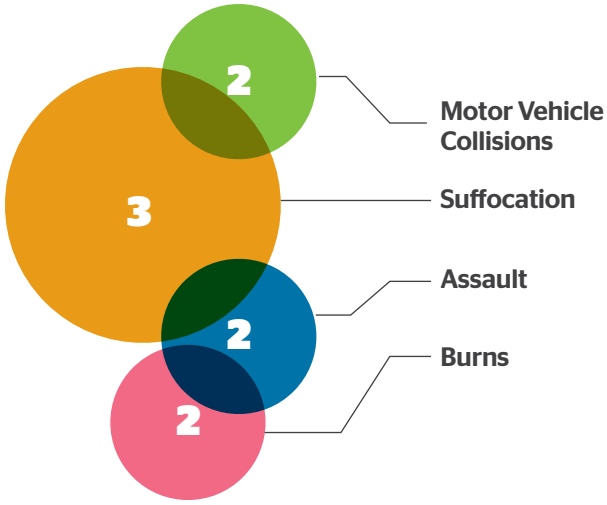
TOP FOUR CAUSES OF INJURY HOSPITALIZATION FOR AGE GROUP 0-5

(PRESENTED AS AVERAGE PER YEAR FROM 2000-2012)



TOP FOUR CAUSES OF INJURY DEATH FOR AGE GROUP 0-5

(PRESENTED AS AVERAGE PER YEAR FROM 2000-2012)



Factors that can increase a child's risk of injury include:[111]

- low maternal age and low maternal education level
- financial difficulties
- housing conditions
- overcrowding
- lack of supervision
- inadequate safety precautions

Although injury rates have been declining in recent decades across all income levels, there is still a significant gap between the richest and poorest Canadians. Observed decreases in socioeconomic status (SES) are associated with increases in fatal and serious injuries in a variety of studies. The poorest Canadians experience injury at a rate of 1.3 times higher than the wealthiest.[112]

ORAL HEALTH

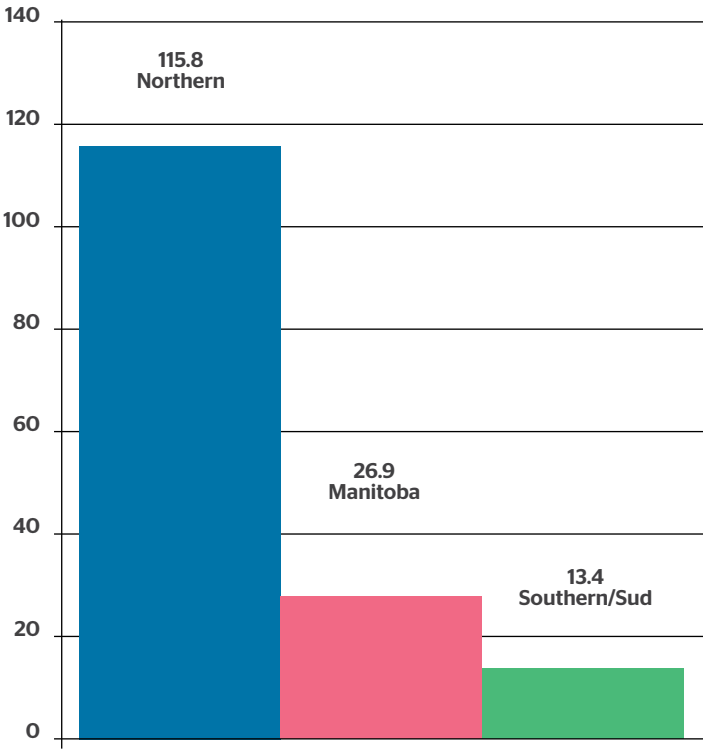
Early childhood caries (ECC) is the most common chronic disease of childhood.[113]

> Early childhood caries is defined as the presence of one or more decayed, missing (due to caries) or filled tooth surface in any primary tooth in a preschool-aged child.[114]

Recent Canadian prevalence estimates of ECC ranged from 28 per cent to 98 per cent.[115,116,117,118] Children with a history of ECC are at increased risk for future dental decay in their permanent teeth. One indicator of poor oral health is paediatric dental extraction, which is the removal of one or more teeth, usually due to severe decay.[119]

DAY SURGERY FOR ECC BY LOCATION OF RESIDENCE, RATE PER 1,000

Children Age 1 to Younger Than 5 (2010 -2011 And 2011-2012) [120]



Dental surgery related to ECC is the most common surgical outpatient procedure in preschool children at most paediatric and community hospitals in Canada.

(Canadian Paediatric Society. Oral health care for children – a call for action)

Much of the burden of dental disease is concentrated in low-income families, Indigenous children, new immigrants, and children with special health care needs. In addition to having higher levels of dental disease, these marginalized populations often have limited or no access to oral health care.[121]

ECC is controllable through a combination of community, professional and individual measures, such as proper feeding, improving diet, water fluoridation, the use of topical fluorides and dental sealants by primary health care providers, and fluoride toothpastes.[122]

IMMUNIZATIONS

Infectious diseases were once the leading cause of death in Canada. Now they account for less than five per cent of deaths, making immunization one of the most successful public health efforts of the last century.[123]

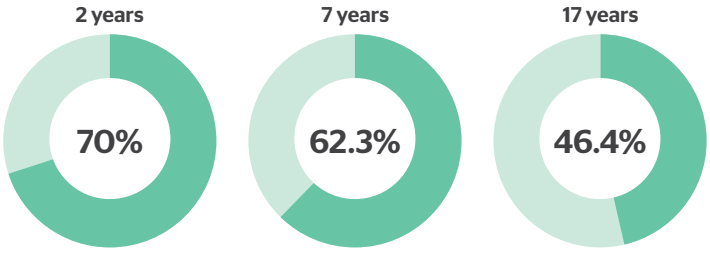
"Over the past 50 years, immunization has saved more lives in Canada than any other health intervention." – *Public Health Agency of Canada.*

Along with these successes have come new challenges. As the number of people who get immunized increases, the probability of infectious disease transmission decreases. As a result, a community's resistance to disease becomes stronger, and even those who cannot be immunized for various reasons such as illness, age, or allergy are protected (this is called herd immunity).

When diseases disappear due to high immunization rates, there is the potential to become complacent and question the role of vaccines. This could lead to lower immunization coverage and reappearance of vaccine-preventable disease, as the viruses and bacteria that cause disease still circulate.

Recent measles outbreaks in Canada illustrate the need to remain vigilant with immunization programs. For example, Quebec, British Columbia and Ontario experienced measles outbreaks in 2011, 2010 and 2008, respectively. The 2011 Quebec outbreak, with more than 750 cases, was the biggest measles outbreak in the Americas since 2002.

COMPLETE FOR AGE IN 2012:



Complete for age refers to a child who has received all of the recommended doses of a given immunogen by a specified age.

Childhood Immunization Rates in Manitoba

Immunization rates for children up to two years of age are relatively stable in Manitoba with a notable decline beginning at age seven, which continues to steadily decline at age 17.

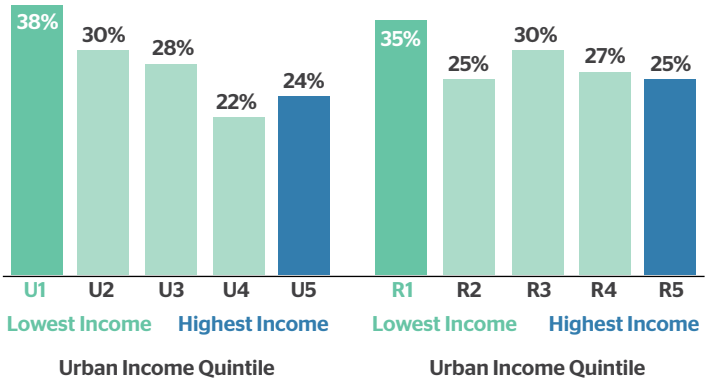
MEASLES still kills an estimated 145,700 children worldwide each year - mostly children less than five years of age.[124] Just like smallpox has been eradicated, there are other vaccine-preventable diseases that can be eliminated completely such as polio and measles. With high enough immunization rates we could eliminate these diseases completely.[125]

SCHOOL READINESS

Research tells us that children who are "ready for school" will have future success in learning throughout their lives. Conversely, being not ready for school is closely tied to poor school performance in later years, and it is very difficult to reverse this pathway of vulnerability.[126]

"Children who are physically ready to learn (appropriately fed, rested and dressed), and at the appropriate level of independence and motor skills development are more likely to succeed at school." *– Healthy Child Manitoba.*

Percentage Not Ready by Income Quintile: Urban and Rural



- 38% of children living in the lowest urban income quintile area were not ready in one or more of the EDI domains[127]

EARLY DEVELOPMENT INSTRUMENT (EDI)

EDI is a questionnaire used to assess the school readiness of children in Kindergarten. EDI is meant to measure vulnerability in large groups of children; not to assess children on an individual basis.

Measures school readiness across 5 domains (areas):

- physical health and well-being
- social competence
- emotional maturity
- language and cognitive development
- communication skills and general knowledge

"School ready" categories:

- not ready for school
- mid-range ready
- very ready for school

MIDDLE CHILDHOOD (AGE 6-12) AND ADOLESCENCE (AGE 13-17)

Middle childhood and adolescent development is a process of physical, emotional and social changes involving interactions between a child's genetics, family and their wider social environment.[128] The changes that occur in this life stage are dramatic - it is a time of significant growth and development.[129] This process has major impacts on health and well-being; both during the middle childhood and adolescent period, as well as into adulthood.

Middle childhood is a stage where children move into expanding roles and environments. Children enter school, make new friends and begin to engage more with the world outside of the home. While family remains an important "home base", school age children become increasingly social with children their own age, and peers and close friends begin to play a more important role.[130]

Adolescence marks the period between childhood and adulthood; it is a time of changing social roles and relationships. Individuals begin to move away from relying on the judgment and authority of adult mentors (parents, teachers) to that of their peers. Young people begin to foster greater autonomy and independence, and develop a stronger sense of who they are and who they want to be.[131,132]

HEALTH STATUS IN MIDDLE CHILDHOOD AND ADOLESCENCE

OBESITY

Obesity rates among children and youth in Canada have nearly tripled in the last 30 years.[133]

- In 2011, according to the Canadian Community Health Survey, 24% of 12 to 17 year olds in Manitoba were overweight or obese.
- 60% to 90% of obese adolescents remain obese into adulthood.[134]

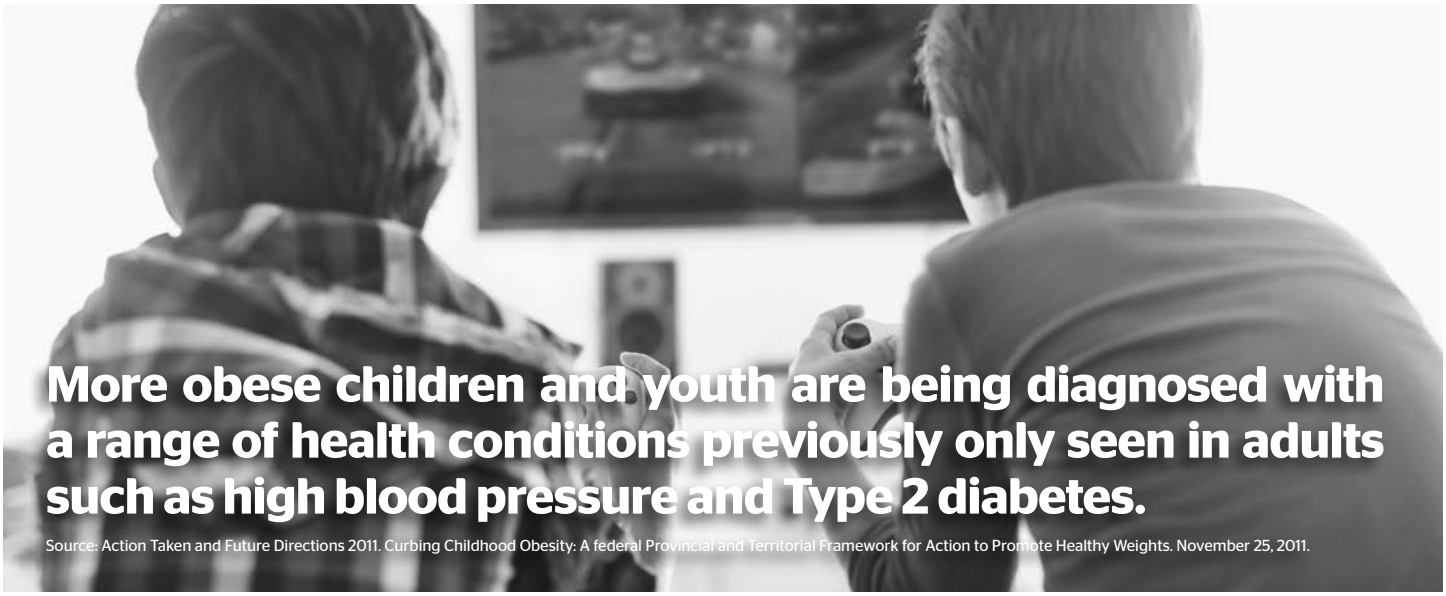
Obese children are more likely to develop both immediate and long-term negative health outcomes including:

Physical Health Problems

- high blood pressure or heart disease[135,136]
- Type 2 diabetes[137,138]
- sleep apnea and other breathing problems[139]
- abnormal or missed menstrual cycles[140]
- bone and joint problem[141]
- reduced balance[142]
- gallbladder disease[143]
- stroke[144]
- certain types of cancer, including breast and colon[145]

Emotional and/or Mental Health Problems

- low self-esteem[146]
- depression[147]
- feeling judged[148]
- being teased or bullied[149]



More obese children and youth are being diagnosed with a range of health conditions previously only seen in adults such as high blood pressure and Type 2 diabetes.

Source: Action Taken and Future Directions 2011. Curbing Childhood Obesity: A federal Provincial and Territorial Framework for Action to Promote Healthy Weights. November 25, 2011.

TYPE 2 DIABETES

Type 2 diabetes is the fastest growing chronic illness in Canada. Originally thought to be a disease that only occurred in adults, often referred to as "adult onset diabetes", this chronic illness is now being seen in children.[150] This rise is mirrored by an increasing trend toward childhood obesity and physical inactivity.

Manitoba currently has one of the highest rates of Type 2 diabetes in children in the world, and the number of children in Manitoba with Type 2 diabetes is 12 times higher than any other province in Canada.

Type 2 diagnoses prior to age 20 dramatically increase the risk for debilitating complications including kidney disease, blindness and amputations.[151]

MENTAL HEALTH AND WELL-BEING

- About 14% of Canadian children and youth under 20 years old have a mental health problem or illness that affects their daily lives.[152] Children and youth of low-income families are especially at risk.
- 45% of Manitoba students reported feeling so sad or hopeless in the past 12 months they stopped doing some of their usual activities.[153]
- Suicide is the leading cause of injury death for children 10 and over in Manitoba.[154] Suicide attempts are at their peak among 15 to 19 year olds.[155]

Mental health problems and illnesses in children and youth can lead to substantial negative outcomes[156] including increased risk of poor school performance and school drop-out, unemployment, addiction, poverty and homelessness.[157] Prevention and early intervention have been shown to be less expensive and more effective than treatment.[158]

> ***"Getting together to prepare and share food with good company can provide social and psychological benefits that are positive for a person's mental health. Mealtimes are important because they provide an excellent opportunity for people to socialise and connect, to share anxieties, have them listened to and hear other perspectives. For young people in particular, sitting down at mealtimes can play a significant part in psychological growth and development."***
>
> *- Dr Andrew McCulloch, Chief Executive of the Mental Health Foundation*

BULLYING

Bullying is a significant health problem for both children who bully and for those who experience bullying. Seventy-five per cent of people say they have been affected by bullying.[159]

- Children who are bullied often experience chronic stress and are more likely to experience headache, stomach aches, bed wetting, difficulty sleeping and depressive symptoms.[160]
- Youth who bully are more likely to engage in substance use and delinquency, engage in physical aggression to dating partners, and be at risk for mental health problems and illnesses.

School bullying is associated with lower academic achievements, lower school satisfaction and lower levels of school engagement.[161]

Victims of both cyber and school bullying were more than four times as likely to experience depressive symptoms and more than five times as likely to attempt suicide, as were non-victims.[162]

Cyber Bullying[163]

- Over 1/3 of Canadian teens have seen cyber bullying take place.
- 1 in 5 teenagers now report being victimized electronically.
- 80% of teens have seen racist or sexist content online.
- 1/2 of students report that bullying is a problem at their high schools.
- 37% of Manitoba students who participated in the Youth Health Survey reported being bullied, taunted or ridiculed 1 or more times in the past year and 15% reported being bullied or picked on through the Internet.[164]

SUBSTANCE USE

Patterns of substance use in the teen years can lead to substance use problems in adulthood.[167] Brain development continues to occur throughout adolescence and early adulthood. Using substances while these changes are occurring can have negative effects on the brain's development. In addition to this risk, puberty causes neurochemical and hormonal changes that make adolescents more likely to engage in risky behaviours and thrill seeking experiences. Using substances at a time when decision making skills are still underdeveloped can have harmful effects on a youth's health and safety.[165]

Youth who delay or never use alcohol and drugs are more likely to experience:[166]

- greater academic achievement and optimal brain development
- greater participation in youth activities and reduced interpersonal conflicts
- optimal physical development and health, and reduced risk of bodily harm

Although statistics vary by province, approximately 85 per cent of Canadian teenagers have consumed alcohol and 50 per cent have consumed illegal drugs.[167]

Smoking

Tobacco is one of the most addictive substances, and is also one of the most accessible to youth. Smoking may be a way for youth to convey independence or maturity, and establish their identity.[168]

- 80% of adult smokers began smoking before the age of 18.
- Youth living in poverty are at a higher risk of smoking and have a lower success rate when trying to quit.

Alcohol Use and Binge Drinking

Alcohol can harm physical and mental development, particularly in adolescence and early adulthood, although certain patterns of use are riskier than others.[169]

- 13% of youth between 12 and 19 years reported binge drinking in 2009/10.[170]
- Alcohol is related to 50% of motor vehicle accidents in which a youth is killed.[171]

Nearly half of grade 11 and grade 12 Manitoba students reported having ridden in a car driven by someone who had been drinking.[172]

Effects of alcohol can put youth at risk for:[173]

- injury
- alcohol poisoning
- increased chances of suicide, homicide, drowning and
- increased chances of experiencing or committing physical or sexual assault
- unprotected sex resulting in pregnancy and/or STI[174]

Combining alcohol with other drugs or caffeinated energy drinks can increase risky behaviours and can cause dangerous and unpredictable effects, including alcohol poisoning, drug overdose and even death.[175]

Youth who regularly consume alcohol also increase their risk of developing chronic illnesses such as cancer, stroke, heart and liver disease.[176]

Illicit Drug Use

In 2012/2013, 17 per cent of Manitoba students in grades seven through twelve responded they had used marijuana/hashish, cocaine or crack, methamphetamine, ecstasy, LSD/hallucinogens, prescription or an over-the-counter drug to get high at least once in the previous 30 days.[177]

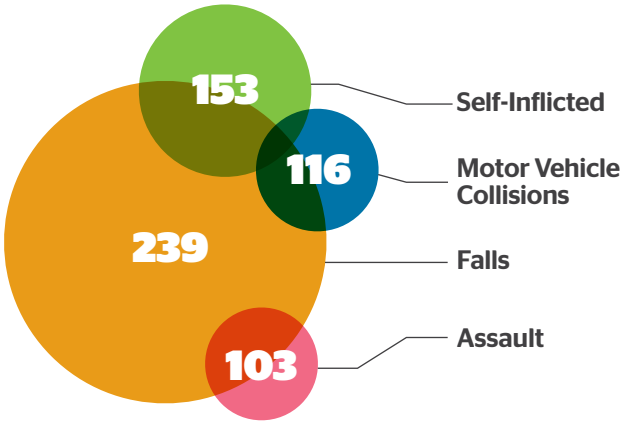
Last year, more than 80,000 Canadian kids used prescription drugs to get high,[178] and according to a 2013 Ontario study, 70 per cent of teens said they got them from their own home.[179]

INJURY

Injury is the leading cause of death for children six to 18 years of age.

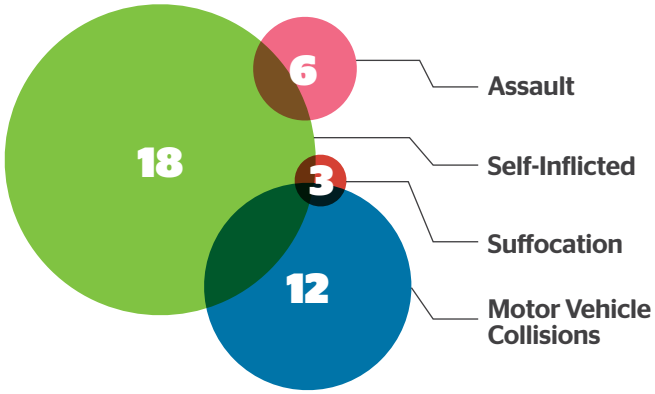
TOP FOUR CAUSES OF INJURY HOSPITALIZATION FOR AGE GROUP 6-18

(PRESENTED AS AVERAGE PER YEAR 2000-2012)



TOP FOUR CAUSES OF INJURY DEATH FOR AGE GROUP 6-18

(PRESENTED AS AVERAGE PER YEAR 2000-2012)



SEXUAL AND REPRODUCTIVE HEALTH

According to the 2012/2013 Youth Health Survey:

- 74% of students reported they have not had sex

Of the students who reported having sex:

- 2% of students reported having sex for money, food, shelter, drugs, or alcohol
- 51% reported they "always" feel comfortable talking to the person(s) they are having sex with about using condoms or birth control
- 48% of students reported they always use a condom when having sex, and 12% report they "never" use a condom
- 17% of students answered "yes" when asked if they had ever has sex when they did not want to
- 37% of students reported having unplanned sex after using alcohol or drugs in the past year

Healthy sexual behaviour, such as condom use, reduces risk for sexually transmitted infections (STIs) and unintended pregnancies.

Teen pregnancy is often portrayed as an issue that needs to be addressed through individual behaviour change, in much the same way that unhealthy behaviours such as smoking or substance use are approached.[180] Ideally, prevention programs designed for youth integrate knowledge and behaviour change approaches with social justice initiatives that encourage collective action and advocacy.

Youth who delay sex are at lower risk of having multiple sex partners, which in turn leads to decreased risk of acquiring STIs and unplanned pregnancy.[181,182]

SCHOOL ACHIEVEMENT

Education is an important determinant of health. People with higher education tend to be healthier than those with lower educational attainment.[183]

People who have graduated from high school are more likely than those who have not graduated to be employed, earn higher income, have better overall health and participate in active citizenship.[184]

- Manitoba's high school graduation rate for June 2014 was 87%.
- Between 2002 and 2014 Manitoba's high school graduation rate increased 15.9%.[185]
- High school completion rates in the North are significantly lower than in the rest of the province, and students in these areas did not experience the increase in high school completion observed in other regions.[186]

PHYSICAL ACTIVITY

Physical activity can have a number of benefits on both physical and mental health- from reduced risks for chronic conditions to reduced stress and improved self-esteem. A moderately active or active lifestyle can lead to improved well-being and a higher quality of life.[187]

Canadian Physical Activity Guidelines indicate that children age five to 17 should get 60 minutes of moderate to vigorous activity such as biking, playing, running, or swimming over the course of the day.

SCREEN TIME

Youth are spending significant amounts of time in front of computers, tablets, cell phones, televisions, and video games. A Canadian study of youth in grades six through 12 found that over half engaged in more than two hours of screen time per day. Youth who were smokers, and youth who had lower self-esteem, were more likely to report high levels of screen time.[188]

- 50% of students reported 3 or more hours of screen time per day on weekdays (Monday - Thursday).[189]
- 66% of students reported 3 or more hours of screen time on the weekend.[190]

FOOD AND NUTRITION

Healthy eating during childhood contributes to:[191]

- optimal health, growth and cognitive development
- good academic performance
- reduced risk of becoming overweight or obese
- reduced risk of chronic disease later in life, such as heart disease, cancer, diabetes and osteoporosis

Fruit and vegetable consumption is commonly used as an indicator of diet quality, and is associated with a healthy body weight.[192]

Maya and Omar

Maya, and her twin brother Omar, are graduating from high school this year. Their parents, both professionals, immigrated to Canada 20 years ago to provide a safe, peaceful environment and greater opportunities for their family. Like many parents, they have high expectations for their children. Her parents' cultural values and religious beliefs are still very much rooted in their country of origin, whereas Maya and Omar have adopted Canada's culture and values.

"I know my parents love me and my brother, and only want the best for us," says Maya. "I want them to be proud of me but, sometimes, I feel pressured to meet all of their expectations."

Both Omar and Maya are taking full course loads to put them in better standing for university. They are also expected to volunteer each week at the local community centre. Maya is usually responsible for cooking meals, cleaning the house and taking Grandma to her appointments.

Omar is encouraged to play soccer and rugby. Maya is also interested in sports and would like to join her friends on the volleyball team but her parents will not allow her to participate because they believe team uniforms are too revealing. They also think sports will interfere with her schoolwork and home responsibilities.

"I don't think it's fair that I'm expected to do so much, yet I'm not allowed to play sports like Omar and other kids do..."

says Maya. "My parents were not happy when I signed up for volleyball and made the varsity team."

Maya's team coach is Rachel, who is also the school counselor. Maya often thinks about asking Rachel for advice about her parents' disapproval of playing volleyball and how best to handle all of their expectations.

Adding to her stress, Omar and Maya recently became the targets of online bullying. A rumour began to circulate online that Omar was gay. Both he and Maya have been ridiculed as a result. The truth is that Omar has known for a long time that he is gay, but the anonymous online comments were mean and hurtful. To make matters worse, they could not turn to their parents for help because their culture would never approve of Omar's sexuality.

The combination of a hectic schedule, defying her parents and the bullying has started to have a negative effect on Maya. She was afraid to take her first semester report card home for her parents to sign, as her grades were suffering. It was just one more thing piled onto Maya's growing level of stress.

Recently, Maya began to pull away from some of the activities that she once really enjoyed. She started skipping volleyball practices. Coach Rachel could tell something was bothering Maya and invited her to talk about it in private.

"I went to our appointment not expecting to discuss anything but volleyball," says Maya. "Rachel was so nice, encouraging me to talk about what was going on in my life. I told her about all of the troubles Omar and I were having with our family and the online bullying. She listened to me, gave me great advice and helped me make a plan to make things better."

Factors that have a positive effect on Maya's and Omar's health and well-being:

+ live in an upper-income family
+ encouragement and support from their parents to attend college or university
+ a strong cultural identity
+ the freedom in Canada to live one's true identity, including sexual orientation

Factors that have a negative effect on Maya's and Omar's health and well-being:

– pressure from parents to follow only traditional paths
– rigid cultural differences in gender roles
– stigma attached to sexuality

NURTURING ENVIRONMENTS: EVOLVING SOCIAL CONNECTIONS

Just as in early childhood, nurturing relationships are essential to healthy development in middle childhood and adolescence. The social environments (families, schools, peers, workplaces, communities) can influence the health outcomes and life transitions of children and adolescents.[193] Positive experiences and social connections during this time are related to securing and maintaining overall good health and well-being into adulthood.[194,195] For example, being involved in the community, extracurricular activities, and a variety of growth-promoting experiences has been linked to positive social development, academic success, school attachment, a sense of well-being and reduced involvement in risky behaviours.

Positive parenting continues to be important and even as children and adolescents become more capable and independent, they continue to need supportive and nurturing families. Children who grow up in healthy family relationships develop relationship skills that form the foundation for healthy relationships through adolescence and into adulthood.

Along with connectedness to family, connectedness to school has emerged as a key area for building protective factors for positive educational outcomes and lower rates of health-risk behaviours.[196,197,198,199,200] Positive relationships at school can be protective: youth who are connected to school are more likely to stay in school, less likely to be involved in violent relationships, and more likely to have better outcomes in many aspects of health and well-being relative to those who are not connected to school.[201]

Young people who are not engaged with learning or who have poor relationships with peers and teachers are more likely to: [202,203,204,205,206,207,208]

- use drugs
- engage in socially disruptive behaviours
- report anxiety/depressive symptoms
- have poorer adult relationships
- fail to complete secondary school

Peer relationships are important for children's well-being and development. Peer relationships provide children with developmental and social opportunities that are not available in their relationships with adults.[209] Friendships play a major role in the lives of adolescents[210] and become increasingly important.[211] A circle of caring and supportive friends can help adolescents transition into adulthood.[212]

Neighbourhoods can support children's sense of security and belonging, and provide a basis for healthy development when relationships within the neighbourhood are positive. Conversely, in negative, violent and stressful neighbourhoods with poor quality relationships, children may experience a range of health problems.[213]

THE BOTTOM LINE

This chapter highlights the importance of nurturing environments — fostered at home, school and in the community — as the foundation for success, health and well-being throughout life. The people, community, and circumstances surrounding each child create the environments that can either help or hinder the child's ability to thrive. This emerging science supports the traditional wisdom that **"it takes a (nurturing) village to raise a child."**

KEY TAKE-AWAYS

- At all stages of childhood, children from vulnerable populations are more likely to experience poor health outcomes and increased challenges throughout life.
- Safe, stable, nurturing environments can promote healthy child development and can also buffer against the impact of stress and trauma.
- Programs and policies that increase exposures to nurturing environments can improve health over a lifetime and be more effective than treating health problems as they arise later in life.

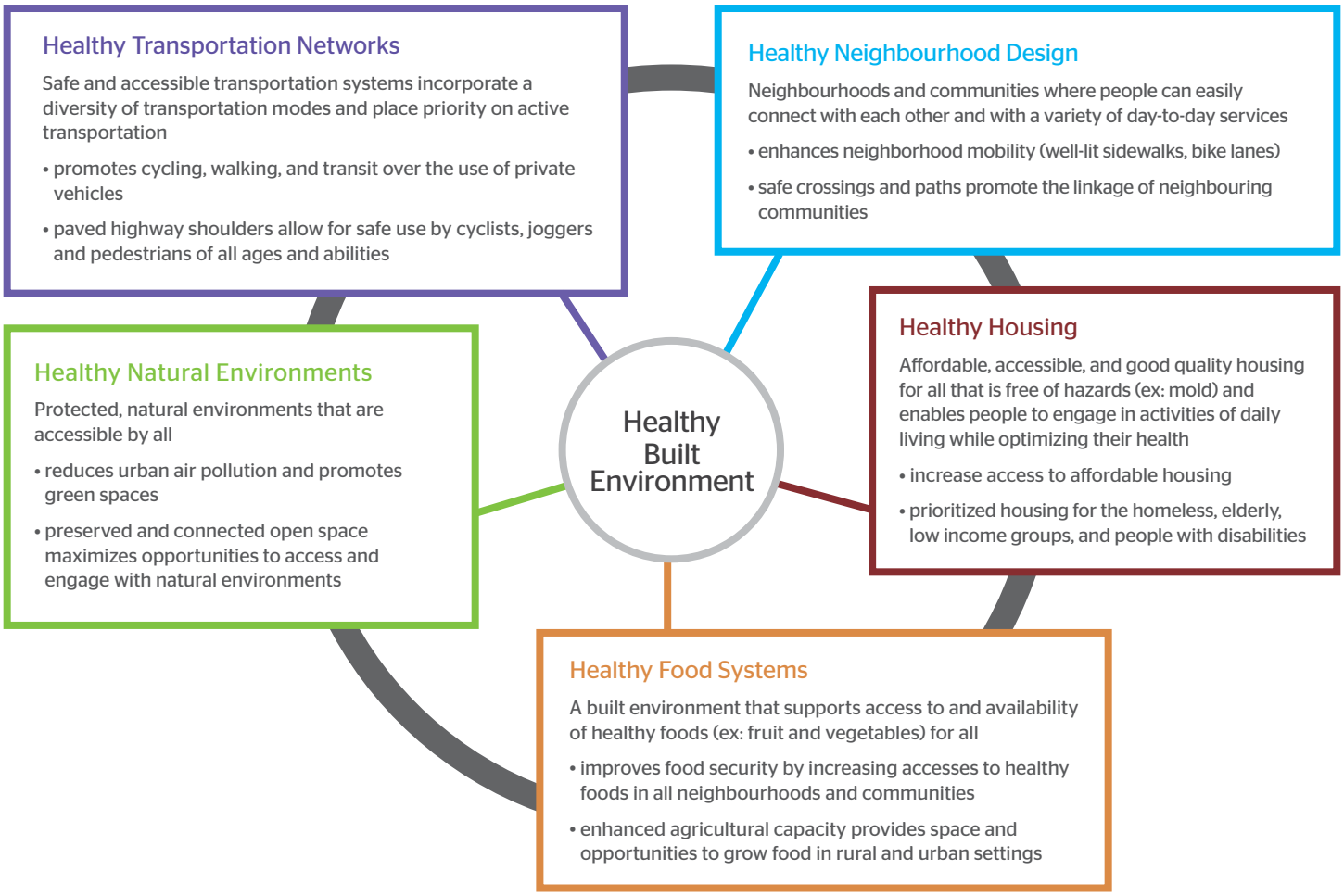
The Built Environment

Did you know... that the environments we create have significant impacts on our physical and mental health?

WHAT IS THE BUILT ENVIRONMENT?

The "built environment" refers to the human-made or modified physical surroundings in which people live, work and play. These places and spaces include our homes, communities, schools, workplaces, parks/recreational areas, business areas, and transportation systems, and vary in size from large-scale urban areas to smaller rural developments.[1] A healthy built environment promotes physical activity, mental health and social well-being, prevents injury and increases health equity.

A Healthy Built Environment Consists of Five Broad Areas:[2]



HEALTH EQUITY AND THE BUILT ENVIRONMENT

How the environment is built and designed can both reduce and widen health gaps between groups in our society. Low socio-economic groups, children and older adults, and persons with special needs are disproportionately affected by certain built environment characteristics.[3] Compared to high-income neighbourhoods, residents of low-income neighbourhoods are more likely to face air pollution, encounter barriers to physical activity and access to food, have access to limited number of parks and experience unsafe streets.[4]

CREATING HEALTHY BUILT ENVIRONMENTS

Policies and practices that support healthy built environments are determined at the national, provincial, regional, municipal and community levels. The practical challenge of promoting health by design is translating what we know about the factors that contribute to good health into policies that support healthier choices.[5] Community and citizen engagement is required to improve, create, and sustain built environments.

The creation of policies that promote healthy built environments and encourage healthy behaviours, can eventually lead to healthier Manitobans. This logic is shown in the following diagram:

CASE STUDY: NEW YORK CITY

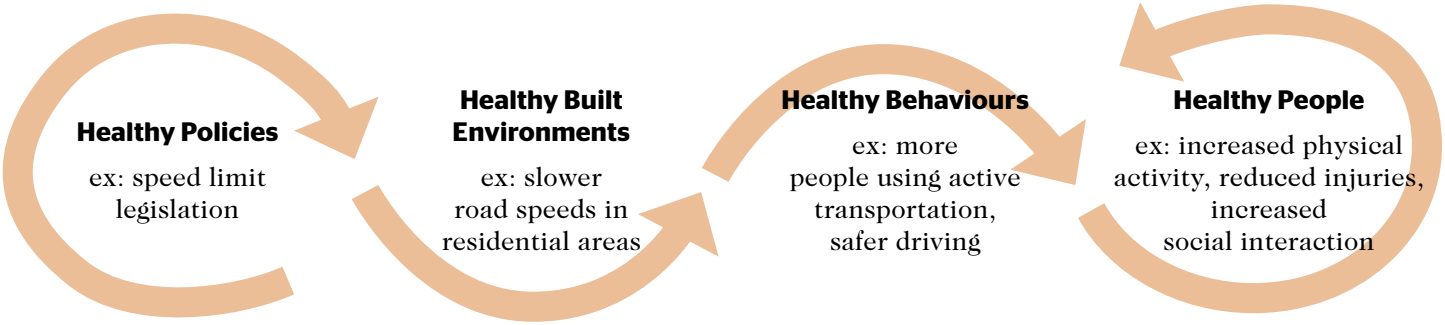
New York City, a leader in built environment active design, has influenced population health through:

1. creating policies to integrate active design guidelines into all city building and street construction projects, such as building more bicycle lanes and more pedestrian friendly paths
2. providing outreach to building managers, schools, and community groups to encourage elements of active design guidelines such as adoption of PlayStreets (single street blocks closed weekly or daily to cars, creating safe, inexpensive, active play spaces for children and families)
3. training architects and planners to recognize the importance of active design guidelines, hoping they will be incorporated into their work[6]

Health Impacts

- The average number of cyclists per day increased from 4,297 in 2001 to 18,846 cyclists in 2011.
- Traffic fatalities have decreased by 37% and traffic volumes decreased by 1.5%.
- Streets with bike lanes were found to be 40% less deadly for pedestrians.

Childhood obesity rates declined.[7,8]



WHAT CAN YOU DO IN YOUR COMMUNITY TO CREATE A HEALTHY BUILT ENVIRONMENT?

We can all make a difference. Be engaged in decisions about how your community is built by:

- talking with your neighbours about the negative and positive elements of the built environment within your community, and ways to improve them
- getting involved with your neighbourhood association/s
- participating in community consultations about the built environment (ex: by-law changes, new infrastructure improvements or policies that would impact walking or cycling)

CHAPTER

4 ADULTS (AGE 18-64)

Building And Maintaining Health

The adult years, encompassing ages 18 to 64 years, bring unique opportunities and challenges to physical and mental health. Although many aspects of our health are established by the time we reach adulthood, there is still great opportunity in the adult years to influence our health and futures. This life stage provides opportunities to build on the positive aspects of childhood foundations, and also to address any negative aspects that have been carried into adulthood.

The adult years are the period when people have the greatest level of autonomy and control over life choices. However, there are many physical and social factors that influence the decisions adults make and the options they have which directly impact their health and well-being.

THE BUILT ENVIRONMENT

The built environment (the human-made or modified physical surroundings in which people live, work and play) influences health through three main factors:[1]

- accessibility (economic, social and geographic)
- attractiveness of the environment
- safety (ex: road traffic, bike lanes, well-lit sidewalks, crime)

A built environment that is safe and attractive promotes access to healthy foods and provides opportunities to be physically active. The built environment can facilitate healthier lifestyles, and community engagement and connectedness, through its design.[2]

HEALTH STATUS OF ADULTS

Most adults in Manitoba consider themselves to be in good health or better, with more than 90 per cent living past age 64.[3] However, over half of Manitobans live with a chronic disease.[4]

Chronic diseases are long-lasting and can often be controlled, but are rarely cured.[5,6] Throughout the world, chronic diseases are the leading cause of death.[7] Many of them are linked by common and preventable risk factors.[8] Some of the most prevalent chronic diseases in Manitoba are heart disease, stroke and Type 2 diabetes.

Over 80 per cent of all Manitoba adults are estimated to have one or more avoidable risk factors for chronic disease.[9] Those living in lower income households have more exposure to these risk factors than do those living in higher income households.[10] People such as the unemployed and the working poor, those with addictions or mental illness, Indigenous peoples and new immigrants are more likely to suffer chronic illness.[11]

ACCORDING TO THE WORLD HEALTH REPORT (2010), THE MAJOR RISK FACTORS FOR CHRONIC DISEASE ARE:[12]

- tobacco use
- harmful use of alcohol (including volume of alcohol consumed over time; pattern of drinking including occasional or regular drinking- to intoxication)
- raised blood pressure (even slightly raised can increase risks for certain chronic diseases)
- physical inactivity
- high cholesterol
- overweight/obesity
- poor diet
- raised blood glucose (sugar)

"Physical inactivity, tobacco and poor nutrition cost Manitobans $1.9 billion per year and $610 million in health care."[13]

In communities, the key factors that can positively or negatively influence health include:[14]

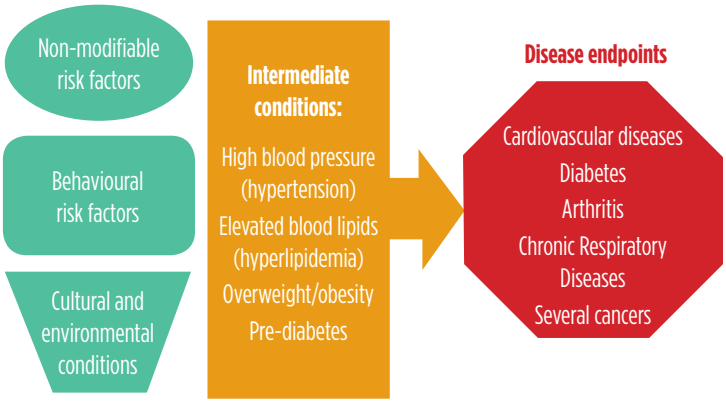
- social and economic conditions (ex: poverty, education level, employment, family structure)
- environnent (ex: climate, air pollution)
- culture (ex: practices, norms, values)
- urbanization (influences housing and access to products and services)

CHRONIC DISEASE RISK FACTORS AND THE DETERMINANTS OF HEALTH[15]

Chronic diseases are complex and rooted in the broad determinants of health. These determinants of health encompass lifestyle, socioeconomic, cultural and environmental factors. To improve the well-being and health of Manitobans, addressing health disparities and exploring interactions among the social determinants of health is required.

Risk factors for chronic disease show considerable differences by region and are frequently higher in the North. Where we live, the state of our environments, our income and education levels, and our relationships with friends and family are all factors that make some populations more likely to experience these risk factors than others. This includes Manitoba's aging population, the growing First Nations population and an increasing number of new Canadians.

Chronic Diseases Share Common Risk Factors and Conditions



Source: http://www.phac-aspc.gc.ca/ed-mc/risk_factors-facteurs_risque-eng.php

CANCER

ABOUT 2 IN 5 CANADIANS WILL DEVELOP CANCER IN THEIR LIFETIME.[16]

Cancer is the second leading cause of death among adults in Manitoba. The good news is that the overall mortality rate from cancer is declining and long-term survival rates are increasing. Up to 50 per cent of cancers can be prevented.

MOST COMMON CANCERS IN 2012

WOMEN	MEN
• breast	• prostate
• lung and bronchus	• colorectal
• colorectal	• lung and bronchus
• uterine	• kidney
• thyroid	• non-Hodgkin lymphoma

Cancer Care Manitoba. Cancer in Manitoba. Department of Epidemiology and Cancer Registry. 2012 Annual Statistical Report. www.cancercare.mb.ca/resource/File/Epi-Cancer_Registry/CCMB_2012_Annual_Statistical_Report_Mar15.pdf Manitoba's Cancer Profile

According to Manitoba's Cancer Strategy (2012-2017), it is expected that in the next 15 to 20 years the number of Manitobans diagnosed with cancer will increase by 50 per cent.[17] As the population increases and ages, the need for prevention, screening, and cancer-related health services will continue to grow.

More than half of newly diagnosed cases of cancer are lung, breast, colorectal, and prostate cancer.[18]

Cancer Screening:[19]

- is for people who have no symptoms of cancer
- helps find cancer early when treatment may work better
- helps prevent some cancers by finding and treating early changes before they develop into cancer
- is attributed to better survival rates

Risk Factors for Cancer Development:[20]

- age
- sex
- genetics
- obesity
- some environmental carcinogens
- not being screened
- poor diet
- inactivity
- alcohol consumption
- sun exposure
- smoking

Within 10 years of quitting smoking, the risk of dying from lung cancer is cut in half.[21]

THE ESTIMATED COST OF CANCER TO THE CANADIAN ECONOMY IN 2009 WAS

$22.5 BILLION.

(Charity Intelligence Canada: Cancer in Canada)

CARDIOVASCULAR DISEASE

EVERY 7 MINUTES IN CANADA, SOMEONE DIES FROM HEART DISEASE OR STROKE.[22]

Cardiovascular disease refers to conditions involving narrowed or blocked blood vessels that can lead to a heart attack, stroke, or chest pain.[23] Cardiovascular disease is the leading causes of death among men and women.[24]

Risk Factors:[25,26]

Nine in ten Canadians (90 per cent) have at least one risk factor for heart disease or stroke:[27]

- alcohol consumption
- physical inactivity
- overweight or obese
- elevated cholesterol
- diabetes
- high blood pressure
- unhealthy diet
- age (55 or older for women)
- family history of early heart disease
- smoking

AS SOON AS A PERSON QUITS SMOKING, THE PERSON'S RISK OF HEART DISEASE AND STROKE BEGINS TO DECREASE. AFTER 15 YEARS OF NOT SMOKING, THE RISK OF DYING WILL BE NEARLY HALF THAT OF A SMOKER.[28]

HEART DISEASE AND STROKE COSTS THE CANADIAN ECONOMY MORE THAN

$20.9 BILLION

EVERY YEAR IN PHYSICIAN SERVICES, HOSPITAL COSTS, LOST WAGES AND DECREASED PRODUCTIVITY.

(Conference Board of Canada, 2010)

DIABETES

There are two types of diabetes. Type 1 diabetes generally develops in childhood or adolescence. About five to ten per cent of people with diabetes have Type 1. Type 2 diabetes most often develops in adulthood, and about 90 per cent of people with diabetes have Type 2.[29]

A woman with Type 2 diabetes has an 8 times greater risk of heart disease than a woman without diabetes.[30]

Risk Factors for Type 2 Diabetes Include:[31]

- having a parent, brother, or sister with diabetes (family history)
- being a member of a high-risk group (ex: Indigenous, Hispanic, South Asian, Asian, or African descent)
- diagnosed with prediabetes
- high blood pressure
- higher cholesterol and other fats in the blood
- being overweight, especially if that weight is mostly carried around the stomach
- smoking[32]

Diabetes Screening

- screen every three years starting at the age of 40
- screen at an earlier age and/or more frequently if additional risk factors are present

www.guidelines.diabetes.ca/screeningand diagnosis/screening

There are a number of long-term complications associated with diabetes. The longer you have diabetes, and the less controlled it is, the higher the risk for complications. Possible complications include:[33]

- cardiovascular disease
- nerve damage (ex: tingling and numbness)
- kidney damage
- eye damage (potentially leading to blindness)
- foot damage (left untreated can lead to amputation)
- skin conditions
- hearing impairment
- Alzheimer's disease

THE ECONOMIC BURDEN OF DIABETES IN CANADA IS EXPECTED TO RISE TO

$17 BILLION BY 2020.

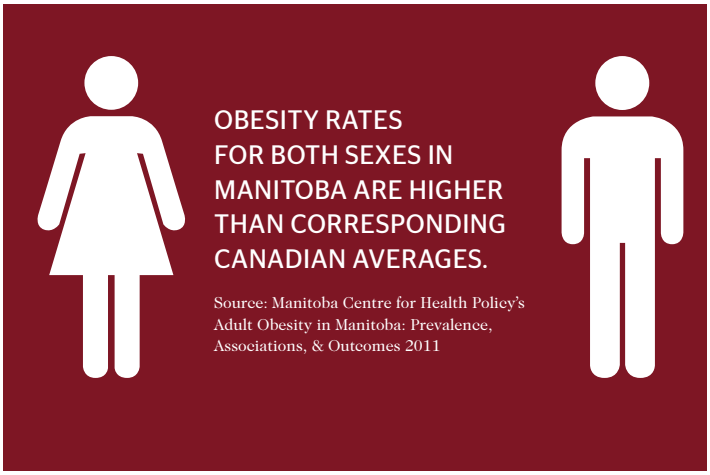
(Canadian Diabetes Association, 2009)

OBESITY

RAISED BODY MASS INDEX (BMI) IS A MAJOR RISK FACTOR FOR CHRONIC DISEASES.

Obesity is defined as abnormal or excessive fat accumulation that may impair health.[34] A BMI 30 and over is an obese weight status.

Obesity increases the risk of a number of chronic conditions, such as Type 2 diabetes, hypertension, cardiovascular disease, and some forms of cancers. It is also associated with stigma and reduced psychological well-being. People who are severely obese have a greater risk of premature mortality than those in the normal weight and overweight ranges.



"Obesity is a major public health concern in Canada and may continue to be for some time because it is influenced by a large number of factors, many of which are not easy to change. That said, there are factors that can be changed and have a significant impact (ex: increased physical activity), so the 'obesity epidemic' should not be seen as inevitable or irreversible."

– Manitoba Centre for Health Policy's Adult Obesity in Manitoba: Prevalence, Associations, & Outcomes 2011

Risk Factors for Obesity:[35]

- physical inactivity
- being sedentary and screen time (ex: time spent watching television, using a computer)
- poor diet (including low consumption of fruit and vegetables)
- genetics (while genetics play a role, behaviour and social, cultural, and physical environments also contribute)
- community-level factors (obesity is more prevalent in socioeconomically deprived areas)
- alcohol consumption
- smoking status

What are the Common Health Consequences of Obesity?

- hypertension[36]
- diabetes[37]
- cardiovascular diseases (mainly heart disease and stroke)
- musculoskeletal disorders
- some cancers (ex: endometrial, breast and colon)

BETWEEN 2000 AND 2008, THE ANNUAL ECONOMIC COSTS OF OBESITY IN CANADA INCREASED FROM $3.9 BILLION TO

$4.6 BILLION

IN INDIRECT AND DIRECT COSTS.

PHAC (2014) Economic burden of illness in Canada, 2005-2008

ARTHRITIS

MORE THAN 4.6 MILLION CANADIANS AGED 15 YEARS AND OLDER REPORT HAVING ARTHRITIS, AND BY 2036, IT IS ESTIMATED THAT 7.5 MILLION CANADIAN ADULTS WILL BE LIVING WITH ARTHRITIS.[38]

Arthritis refers to more than 100 related conditions affecting people's joints.[39]

Generally arthritis is thought of a condition that affects older adults, however, 60 per cent of Manitobans with arthritis are 64 years or younger.[40]

Arthritis is a chronic disease with no known cure, and poses a major health burden to society. It has a significant impact on the quality of life of those who have these conditions as well as their families and caregivers.

Arthritis is the third most common chronic condition reported by adults in Manitoba (15 and older).

RISK FACTORS:[41]

- age
- sex – most types are more common in women
- genetics
- physical inactivity
- diet
- being overweight or obese
- previous joint injury
- smoking
- occupation involving repetitive movements of the joints
- infection

Physical activity has a complex relationship to arthritis. Too little may increase the risk of osteoarthritis. Engaging in physical activity reduces the pain and disability associated with arthritis. However, some types of extreme or repetitive physical activity may contribute to and increases risk for osteoarthritis and can be associated with injury.

Manitobans living with arthritis rate their health as poor more frequently than those without arthritis.

People in Manitoba living with arthritis report pain, disability, and needing help with daily activities much more frequently than those without arthritis.

THE IMPACT OF ARTHRITIS ON THE CANADIAN ECONOMY IN HEALTH-CARE COSTS AND LOST PRODUCTIVITY IS ESTIMATED TO BE

$33 BILLION EACH YEAR.

(Arthritis Alliance of Canada, The Impact of Arthritis in Canada: Today and over the next 30 years. Fall 2011)

MENTAL ILLNESS

"Mental illness is nothing to be ashamed of, but stigma and bias shame us all."

- Bill Clinton

According to the Public Health Agency of Canada, mental illnesses are characterized by alterations in thinking, mood or behaviour associated with significant distress and impaired functioning.

Examples of Specific Mental Illnesses Include: [42]

- mood disorders: major depression, bipolar disorder
- psychosis disorders (ex: Schizophrenia)
- anxiety disorders
- personality disorders
- eating disorders
- problem gambling
- substance dependency

- Between 2001 and 2006, 1 in 4 Manitobans were diagnosed with a mental illness.[43]
- Depression and anxiety are the most commonly diagnosed mental illnesses in Canada.[44]
- Among adults, the prevalence of depression is highest between ages 35 to 49.[45]
- It has been estimated that by the year 2020, depression will be the second leading cause of disability throughout the world, trailing only heart disease.[46]

Even though 25 per cent of Manitobans live with a mental illness, 93.4 per cent of Manitobans are satisfied or very satisfied with their life.[47] People living with a mental illness can have flourishing mental health and live full and rewarding lives.

Factors That May Increase the Risk of Developing Mental Health Problems and Illnesses: [48]

- having a biological (blood) relative, such as a parent or sibling, with a mental illness
- experiences in the womb (ex: a mother who was exposed to viruses, toxins, drugs or alcohol during pregnancy)
- stressful life situations, such as financial problems, a loved one's death or a divorce
- a chronic medical condition, such as cancer
- brain damage (ex: acquired brain injury)
- traumatic experiences (ex: experiencing or witnessing disturbing events)
- use of illegal drugs
- being abused or neglected as a child
- being isolated, lack of healthy relationships
- having been diagnosed previously with a mental illness

Protective Factors:

Mental health problems and illnesses can be prevented in some cases through healthy lifestyle practices such as being physically active, having social supports, avoiding substance misuse, having meaningful employment or volunteer opportunities, being mindful, and using positive coping strategies when faced with stressors.

MENTAL ILLNESS IN CANADA COSTS AN ESTIMATED

$51 BILLION

EACH YEAR, AND OF THAT, $20 BILLION IS ATTRIBUTED TO LOST PRODUCTIVITY IN THE WORKPLACE.

(The Mental Health Commission of Canada)

ADDICTIONS

People of any age, sex or economic status can develop an addiction. An addiction is an unhealthy relationship between a person and a mood-altering substance, experience, event or activity, which contributes to life problems and their reoccurrence.[49]

Risk Factors for Developing an Addiction

- a family history of addiction
- sex (males are at a greater risk than females)
- peer pressure
- poor family attachments
- loneliness
- younger age when substance was first consumed
- acute stress
- a mental illness

RESEARCH SHOWS THAT MORE THAN HALF OF THOSE SEEKING HELP FOR AN ADDICTION ALSO HAVE A MENTAL ILLNESS, AND THAT 15 TO 20% OF THOSE SEEKING HELP FROM MENTAL HEALTH SERVICES ARE ALSO LIVING WITH AN ADDICTION.[50]

Substance Use and Abuse [51]

Abusing drugs can have negative consequences on:

- physical health
- friendships
- social life
- financial position
- home life or marriage
- work
- studies
- employment opportunities
- legal problems
- learning (difficulty)
- housing problems

PRESCRIPTION DRUGS

- Canada has the second-highest level of prescription opioid use globally.[52]
- Some First Nations in Canada have declared a community crisis because of the prevalence of the harms associated with prescription drug misuse.[53]

Smoking

If current rates of tobacco use continue, approximately one million Canadians will die over the next 20 years as a direct result of smoking and second-hand smoke.[54]

- 16% of Canadians 15 years of age and older smoke (about 4.4 million Canadians).[55]
- Prevalence was highest among young adults: (21.8% among those aged 25 to 34, and 20.3% among those aged 20 to 24) and generally declined with age.[56]
- Smoking is the leading cause of lung cancer, heart disease, and other health problems.[57]

SMOKING COSTS THE MANITOBA HEALTH CARE SYSTEM

$226 MILLION

EACH YEAR, AND AN ADDITIONAL $18 MILLION PER YEAR IN CANCER CARE. (Manitoba Centre for Health Policy 2015)

Alcohol

Alcohol contributes to over 65 different medical conditions, from injuries to long-term health conditions, including cancer, cardiovascular disease, diabetes and mental illness. Alcohol ranks as the third leading risk factor for death and disability.[58]

Alcohol misuse (drinking excessively – more than the recommended limits of alcohol consumption) is a major risk factor for many chronic health conditions, such as liver disease and several types of cancers (ex: of the mouth, throat, liver, breast and digestive tract), diabetes, pancreatitis, as well as injuries (ex: from motor vehicle collisions), violence and suicide.[59]

- Alcohol is by far the most common drug used by Canadians.[60]
- Risky drinking by adults in Canada has increased for both genders since 2003.[61]
- 8 in 10 Manitobans aged 15 and older drink alcohol, with socializing being the top reason given for drinking.[62]
- Manitobans tend to binge drink more than the Canadian average, and levels of binge drinking for women are continuing to climb.[63]

ESTIMATED TOTAL COST OF ALCOHOL-RELATED HARM TO CANADIANS PER YEAR IS

$14.6 BILLION

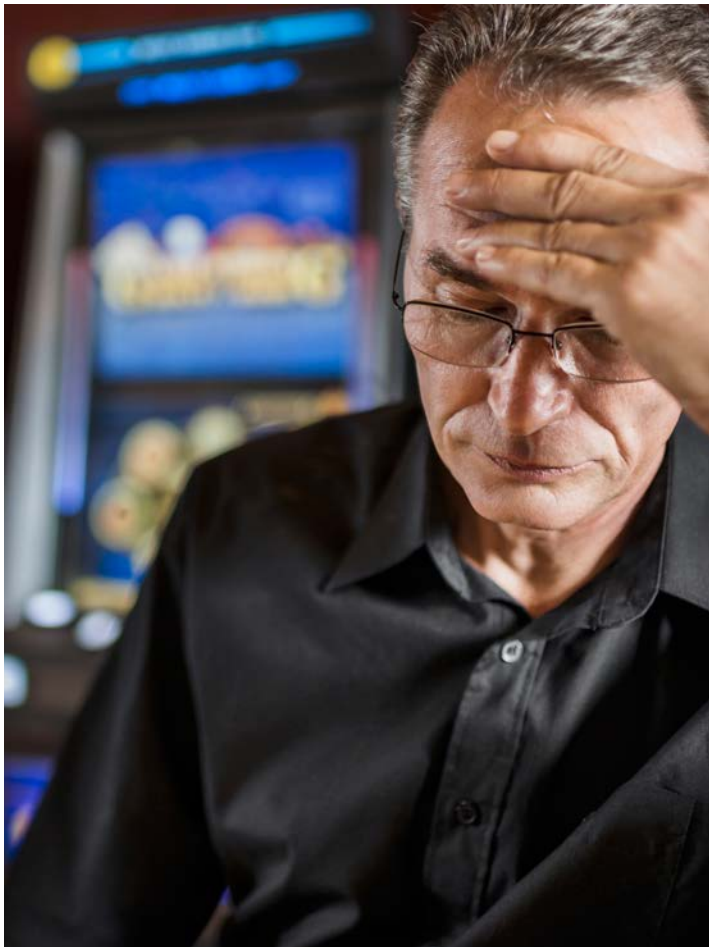
INCLUDING $7.1 BILLION IN LOST PRODUCTIVITY DUE TO DISABILITY AND PREMATURE DEATH, $3.3 BILLION FOR DIRECT HEALTH CARE COSTS, AND $3.1 BILLION FOR ENFORCEMENT COSTS (EX: IMPAIRED DRIVING).

(Canadian Centre on Substance Abuse Autumn 2014 Canadian Drug Summary and Rehm, J., Baliunas, D., Brochu, S., Fischer, B., Gnam, W., Patra, J. Taylor, B. (2006). The costs of substance abuse in Canada 2002. Ottawa, ON: Canadian Centre on Substance Abuse.)

GAMBLING

Problem gambling can have negative effects on our mental and physical health. Addiction to gambling is associated with depression and suicide, bankruptcy, family break-up, domestic abuse, assault, fraud, theft and even homelessness.[64] Half of problem gamblers reported their gambling caused problems with their friends, family and colleagues.[65]

- Out of the estimated 18.9 million Canadians who gambled in 2002, 1.2 million (5% of the adult population) were, or had the potential to become, problem gamblers.[66]
- The Canadian Gambling Digest 2013 to 2014 data suggests that approximately 79% of adult Canadians participate in some form of gambling in a given year.
- Gamblers with less than post-secondary schooling were significantly more likely than those with more education to be at-risk or problem gamblers (8% versus 5%).[67]

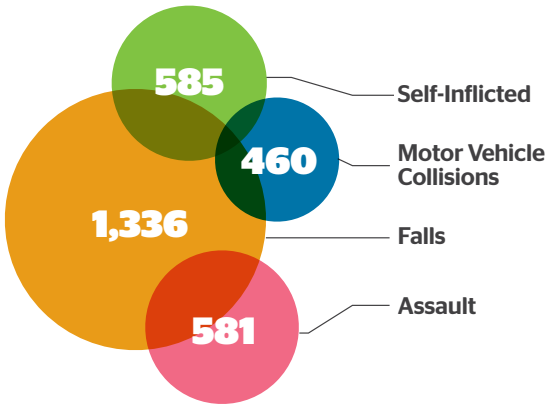


INJURY

Injuries are the leading cause of death and hospitalizations among younger adults (age 20-34).[68] Injury-related injuries and deaths are more common among Indigenous peoples and men, although this gender gap decreases as we get older.

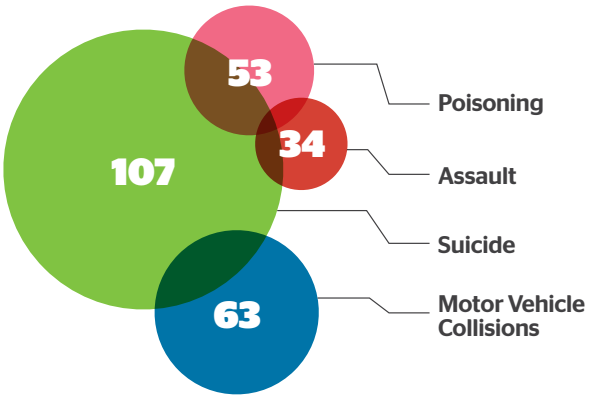
LEADING CAUSE OF INJURY HOSPITALIZATIONS FOR ADULTS (AGED 20 TO 64) IN MANITOBA

(PRESENTED AS AVERAGE PER YEAR FROM 2000 TO 2012):



LEADING CAUSE OF INJURY-RELATED DEATHS FOR ADULTS (AGED 20 TO 64) IN MANITOBA

(PRESENTED AS AVERAGE PER YEAR FROM 2000 TO 2012):



THE 2015 COST OF INJURY IN CANADA REPORT SHOWS THAT INJURIES COST MANITOBA

$1.2 BILLION.

(Injury Prevention Plan-Taking Steps to Prevent Injuries in Manitoba June 2015)

PHYSICAL ACTIVITY

It is important to be physically active throughout the lifespan. Physical activity can improve health, reduce stress and increase energy.

- 85% of Canadian adults do not get the recommended minimum of 150 minutes of moderate to vigorous physical activity per week.[69]

Physical inactivity is linked to diabetes, stroke, hypertension and some cancers.

- Regular physical activity promotes positive self-esteem and helps to prevent obesity. It also reduces the risk of developing many diseases including cardiovascular disease, stroke, hypertension, colon cancer, breast cancer and Type 2 diabetes.[70]

Regular physical activity is one of the most important things we can do for our health. It can help:

- support weight management
- reduce the risk of cardiovascular disease
- reduce the risk of Type 2 diabetes
- reduce the risk of metabolic syndrome
- strengthen bones and muscles
- improve mental health
- reduce the risk of falls
- increase your chance of living longer

Building Routine Physical Activity Back Into Our Lives

People are more likely to be physically active when they live in neighbourhoods with better resources for exercise, such as parks and walking or jogging trails, with less litter, vandalism and graffiti, and street patterns that present fewer pedestrian obstacles.

HEALTHY EATING

Healthy eating helps maintain a healthy body weight and reduces our risk for chronic diseases such as Type 2 diabetes and heart disease.

There are many factors that influence the food that we eat: cost, availability, advertising, lack of time, household income, family routines and knowledge about foods.[71]

Healthy Eating Can Help to Prevent:[72]

- overweight and obesity
- diabetes
- cardiovascular diseases
- certain cancers (oesophagus, colorectum, breast, endometrium, kidney)
- osteoporosis and bone fractures
- dental disease

Factors Influencing Healthy Eating:[73]

- portion sizes
- television, media and advertising
- convenience
- time pressures
- food labels, and understanding them
- stress
- social norms and cues
- implications for workplaces
- food insecurity

FOOD SECURITY

The World Food Summit of 1996 defined food security as existing "when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life."[74]

For some people, access is not the only problem. It is also necessary to have the financial resources to purchase an adequate quantity and quality of food.

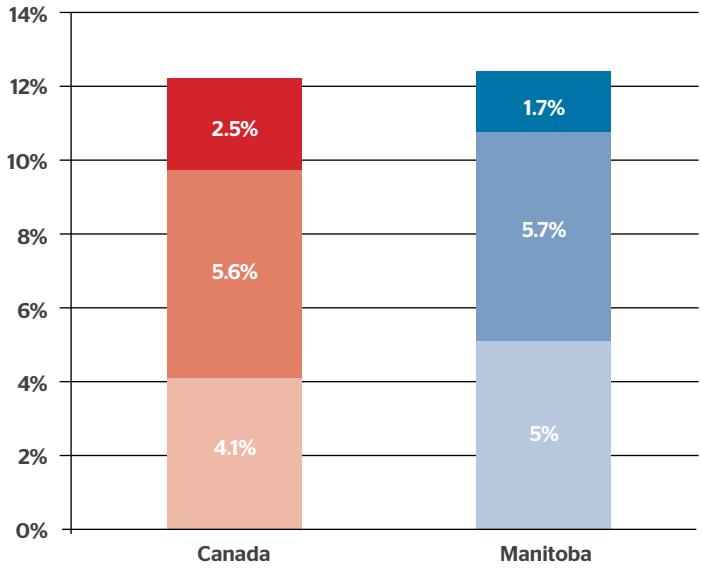
In 2011, approximately 56,500 Manitoba households (excluding First Nation reserves, for which data is not available) experienced some level of food insecurity, ranging from those who worry about running out of food to those who miss meals due to lack of food.[75]

Food banks Canada reported that in March 2012, 4.7 per cent of Manitobans accessed a food bank, which is the second highest rate of food bank usage in Canada.

Risk Factors for Food Insecurity:

- low income
- employment level
- geographic isolation
- lack of access to transportation
- low food knowledge

Household Food Insecurity, 2011



Severe – Miss meals, reduce food intake and at the most extreme go day(s) without food.

Moderate – Compromise in quality and/or quantity of food due to a lack of money for food.

Marginal – Worry about running out of food and/or limit food selection due to a lack of money for food.

WORKPLACE HEALTH

A HEALTHY WORKPLACE SUPPORTS EVERYONE — THE EMPLOYER, THE COMPANY'S BOTTOM LINE, EMPLOYEES' WELL-BEING AND EVERYONE'S JOB SATISFACTION.

Most adults spend a considerable proportion of their day in the workplace. Adults are exposed to various work-related conditions, some of which are potentially harmful. Employers are critical stakeholders and partners in improving the health of Manitobans through workplace initiatives.

Workplaces can be stressful, contributing to the development of physical injury or illnesses, mental health problems and addictions. Approximately 30 per cent of short- and long-term disability claims in Canada are attributed to mental health challenges.[76] Recent national estimates suggest that the cost of mental health related absenteeism is more than $33 billion in lost productivity.

There is a known economic return on investment in employee health, estimated to be between three dollars and $10 for every dollar invested, depending on the program. When Canada Life Assurance Co. reviewed 10 years of results of its wellness program, it found that each dollar the corporation had spent on health promotion returned seven dollars in benefits.[77]

FOOD FOR THOUGHT

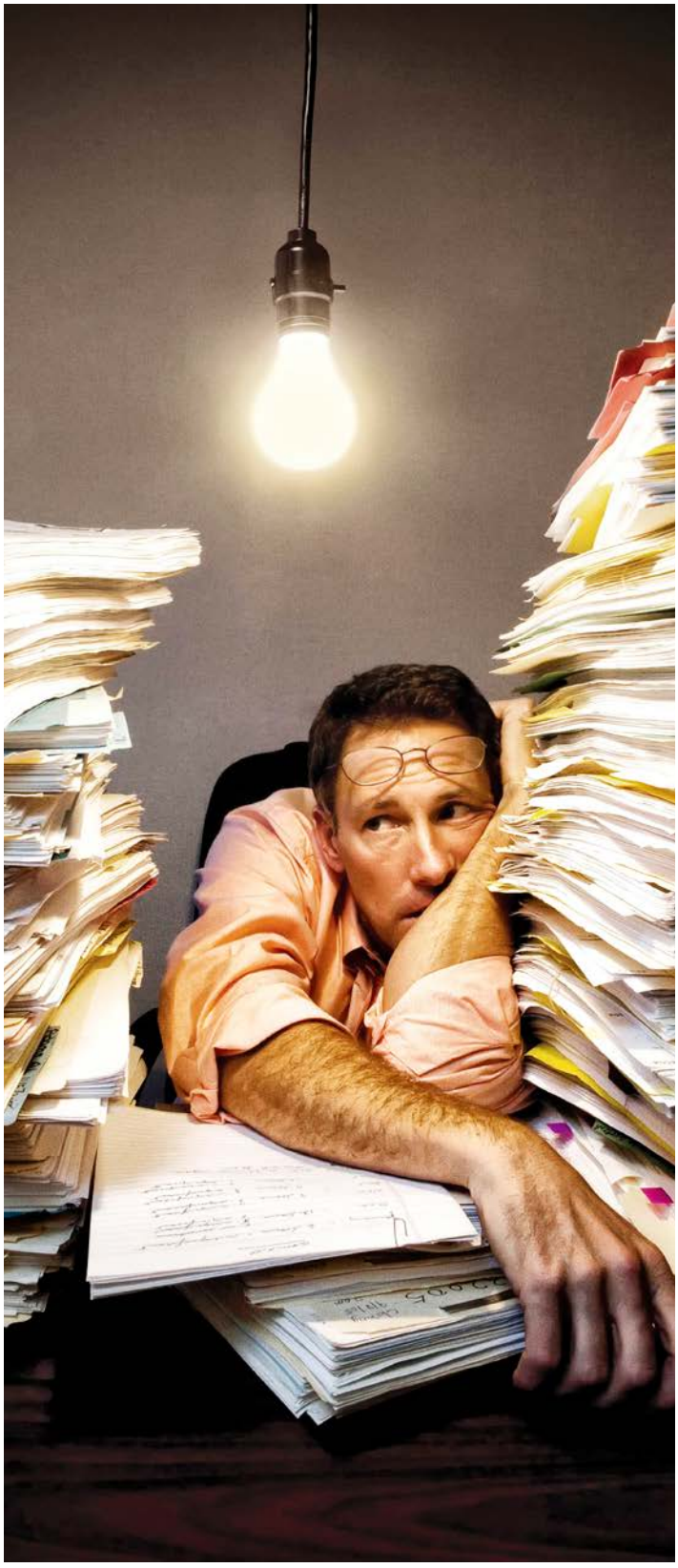
A North American Survey Found That:

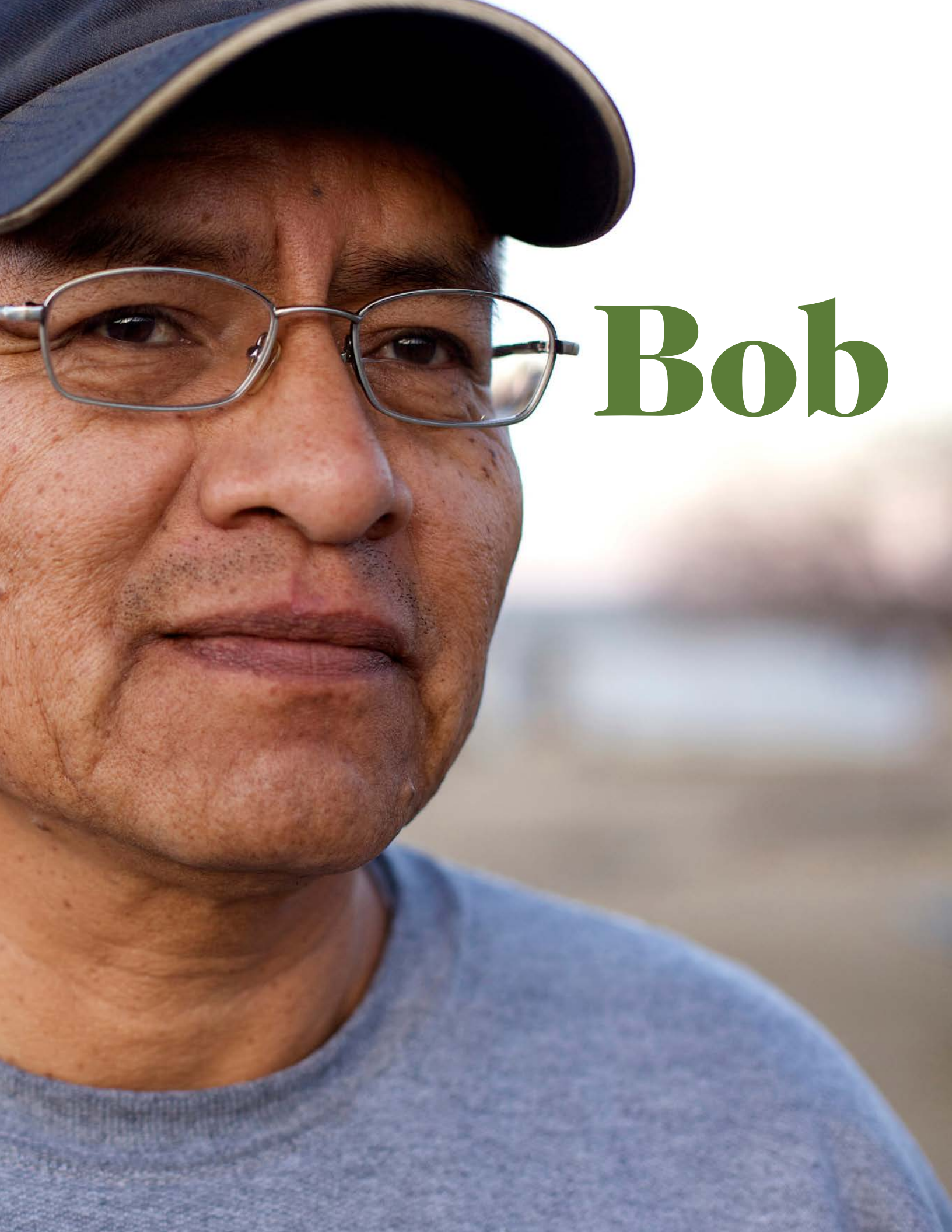
- 70% of employees are disengaged at work
- 80% of people who were dissatisfied with their direct manager are disengaged

But Also Found:

- engaged employees perform 20% better
- companies with engaged employees perform up to 202% better
- happy employees have 31% higher productivity and three times higher creativity
- engaged employees are 87% less likely to leave the organization
- companies with a highly engaged workforce have nearly 50% fewer accidents

www.good.co/blog/2013/11/13/workplace-happiness/





Bob

Bob jumped at the opportunity to work at a Northern mine prior to graduating grade 12 to support his family after his dad died.

"As the oldest of seven children, I felt the need to get a full-time job to support my mom and our family," says Bob.

"Mining was a good fit for me, even though it meant moving to a different community. It was a good chance for me to make steady money."

Bob worked his way up to become the night foreman of the excavation crew. His income and job stability allowed him to qualify for a mortgage for the first time, so he bought a home. However, seven years into his new position, a serious accident at work changed everything.

"There was an explosion at the mine and some of my staff were trapped inside," he says. "I'm so glad I was able to free them but I hurt myself in the process, ending up in the hospital for two months, years of rehab and on disability."

It has been three years since the mining accident, but the chronic pain of his injury has kept Bob from returning to work. Being away from work has left him feeling lonely and discouraged.

"My doctor thinks I may be suffering from depression and wanted to put me on antidepressants," says Bob. "At first, I felt embarrassed that he might be right, because I thought that depression was a sign of weakness, and something I should be able to snap out of. In the end I decided to give counselling and medication a try."

As his depression symptoms improved, Bob realized that he could no longer handle the physical demands of a mining job, but he was eager to get back to work. Now 45 years old and without a high school diploma, Bob's opportunities were limited, so he took steps to complete high school.

Bob feels great when he spend times with family, friends and neighbours, and when keeping physically active, especially when he is back on the land pursing traditional activities like trapping and hunting. "I could do that more often if I moved back to my home community, but I know things aren't good there, with poor housing conditions and not many jobs. I don't really know what I will do."

Factors that have a positive effect on Bob's health and well-being:

+ long history of steady employment
+ financial independence and some savings
+ owns a home
+ strong cultural identity
+ close family connections
+ recent high school diploma

Factors that have a negative effect on Bob's health and well-being:

– dropping out of high school
– losing father at a young age
– on disability for 3 years
– struggling financially
– socially isolated
– feelings of uncertainty about his future

IMPROVING THE BUILT ENVIRONMENT

MOST OF US HAVE HEARD THAT WE JUST NEED TO "DO BETTER" TO BE HEALTHIER. YET OVER THE LAST FEW DECADES, OUR PHYSICAL ENVIRONMENTS HAVE CHANGED IN WAYS THAT MAKE THIS INCREASINGLY HARDER TO DO. GOOD PLANNING AND DESIGN CAN HELP PEOPLE AVOID OR CHANGE UNHEALTHY PHYSICAL ENVIRONMENTS.

Aspects of neighbourhood environments such as the presence of sidewalks and playgrounds, and the availability of affordable nutritious food, can promote health by encouraging healthy behaviours and making it easier to adopt them.

Urban sprawl has contributed to less accessible green space, more automobile dependence, increased air pollution and decreased safety for pedestrians and cyclists. Building routine physical activity back into our daily lives, such as walking, cycling and public transit for transportation, is a method shown to improve health.[79]

Living close to supermarkets, where fresh produce is typically available, has been linked with less obesity, while living close to small convenience stores, which generally do not sell fresh produce, is linked with more obesity.[80]

Injury prevention strategies that reduce risk through improved design of the built environment are among the most successful interventions and can last years.[81] Some examples of how the built environment can decrease injury-related hospitalizations and injuries are: better lighting on streets, making neighbourhoods safer by having "eyes on the street" (decrease in violence); more crosswalks (decreases pedestrian-vehicle collisions); and protected bike lanes (reducing motor-vehicle collisions, bike collisions and collisions with pedestrians).

THE BUILT ENVIRONMENT AND HEALTH EQUITY

"The planning and design of environments have major impacts on health by influencing behaviour and safety.[82] Low-socioeconomic groups tend to live in lower quality built environments with less access to health and social services. This has been shown to worsen health problems and increase gaps in health between groups in Canadian society. Communities and neighbourhoods that ensure access to basic goods, are socially cohesive, are designed to promote good physical and psychological well-being, and that are protective of the natural environment are essential for population health and wellness."[83]

Major changes have occurred over the past few decades, in how people live. In general, physical activity has been built out of the environments we live, work and play in. There has been a decrease in the need to walk, neighbourhoods are designed to support the use of cars, increased eating out, lots of marketing for unhealthy foods, fewer manual occupations and more sedentary work, changes in how we commute to work and time-pressured lives.[84]

Supportive environments and communities are fundamental in shaping people's choices. Making healthy food and regular physical activity the easiest choice (by making them accessible, available and affordable) will help prevent chronic diseases.

THE BOTTOM LINE

This chapter highlights how the built environments — the human-made or modified physical surroundings in which people live, work and play — directly impact people's physical, mental and social health.

KEY TAKE-AWAYS:

- More than 80 per cent of Manitoba's adults are estimated to have one or more preventable risk factor(s) for chronic disease. Chronic diseases are complex, and rooted in the broad determinants of health including socioeconomic and environmental factors.
- Building and maintaining the physical surroundings where people live, work and play directly affects people's physical, mental and social health. The built environment can positively or negatively influence many aspects of population health, including physical activity, healthy eating, mental health, injury and health equity.

Health Equity:
Reducing The Gaps In Health

Did you know... that significant health differences exist within Manitoba?

When we compare life expectancy at birth, large gaps in health can be seen within different areas of the province. For example, people living in some areas of Winnipeg have between 15 and 17 years lower life expectancy than people living in other parts of the city.[1] Differences are also seen when we compare life expectancy between health regions across the province. Life expectancy for females in Southern Health-Santé Sud is 83.3 years, while it is only 75 years in the Northern Health Region. Male life expectancy in the Winnipeg Regional Health Authority is 79 years, compared to only 70.9 years in the Northern Health Region.[2] These large gaps reflect differences in health equity that exist within Manitoba.

WHAT IS HEALTH EQUITY?

Health equity means "that all people can reach their full health potential and should not be disadvantaged from attaining it because of their race, ethnicity, religion, gender, age, social class, socioeconomic status or other socially determined circumstance."[3]

Health equity involves: [4]

- fair distribution of resources needed for health
- fair access to the opportunities available
- fairness in the supports offered to people when ill

WHAT IS HEALTH INEQUITY? HOW IS HEALTH INEQUITY DIFFERENT FROM HEALTH INEQUALITY?

Health **inequities** are preventable, unfair, health differences between different population groups, such as the health related differences observed between high and low income groups.

Health **inequalities** refer to measureable differences in health between individuals, groups or communities. It is sometimes used interchangeably with the term "health disparities".[5]

Not all inequalities can be called inequities. Whitehead (1992) describes health inequities as:

"...differences which are unnecessary and avoidable, but in addition are considered unfair and unjust. So, in order to describe a certain situation as inequitable, the cause has to be examined and judged to be unfair in the context of what is going on in the rest of society."

Addressing health equity/inequity means addressing those modifiable and unjust causes.

The consequences of health inequity to individuals and the population include:

- avoidable death, disease, disability, distress and discomfort
- greater costs to the health system and society
- weaker community and society ties
- challenges to the sustainability of the health system
- negative impacts on the economy

INEQUITY IS ABOUT DISADVANTAGE [6]

Health inequalities are linked to our position in society. Every step along the way, people who have fewer resources are less healthy than those with more money or social status.[7]

AT THE TOP: People most often have access to education, nutritious food, good housing and have the most control over their circumstances. People at the top live longer and in better health than everyone else.

IN THE MIDDLE: People often have sufficient resources and control over life circumstances. However, people in the middle are still less healthy and live shorter lives than those higher up.

AT THE BOTTOM: People often have lower education, poorer quality food, inadequate housing and little control over their circumstances. People at the bottom are twice as likely to have a serious illness and die prematurely than those at the top.

BY ACHIEVING HEALTH EQUITY, WE CAN HAVE A MAJOR IMPACT IN IMPROVING THE OVERALL HEALTH OF ALL MANITOBANS.

Below is a story about Jason. At first it appears to be a simple story, but this story actually speaks to the complex set of factors or conditions that determine the level of health of every Canadian.

THIS STORY ILLUSTRATES THAT JASON'S INFECTION IS RELATED MORE TO HIS FAMILY'S LIVING CONDITIONS THAN IT IS TO HEALTH CARE OR LIFESTYLE CHOICES.

Q: "Why is Jason in the hospital?

A: Because he has a bad infection in his leg.

Q: But why does he have an infection?

A: Because he has a cut on his leg and it got infected.

Q: But why does he have a cut on his leg?

A: Because he was playing in the junkyard next to his apartment building and there was some sharp, jagged steel there that he fell on.

Q: But why was he playing in a junkyard?

A: Because his neighbourhood is kind of run down. A lot of kids play there and there is no one to supervise them.

Q: But why does he live in that neighbourhood?

A: Because his parents can't afford a nicer place to live.

Q: But why can't his parents afford a nicer place to live?

A: Because his dad is unemployed and his mom is sick.

Q: But why is his dad unemployed?

A: Because he doesn't have much education and he can't find a job.

Q: But why ...?"

- From Toward a Healthy Future: Second Report on the Health of Canadians

HEALTH EQUITY MATTERS TO EVERYONE!

Health is a basic human right. It is a key determinant of economic and social development and has a positive impact on quality of life.

HEALTH EQUITY IS MORE THAN EQUAL ACCESS TO HEALTH SERVICES. IT ALSO MEANS EQUAL OPPORTUNITY FOR:

Education; employment; housing; food security;[≈] income; transportation and a healthy environment

It means inclusion for all. Most importantly, it means improved health for everyone![9]

HOW DO WE WORK TO ACHIEVE HEALTH EQUITY?

By improving the living conditions that keep us healthy, and the social, economic and health systems that support us when we get sick. Furthermore, tackling the inequitable distribution of power, money and resources is essential for improving health equity.[10]

"The development of a society, rich or poor, can be judged by the quality of its population's health, how fairly health is distributed across the social spectrum, and the degree of protection provided from disadvantage as a result of ill-health."

- Commission on the Social Determinants of Health (2008)

Links:

- National Collaborating Centre for Determinants of Health (NCCDH): Health Equity
  www.nccdh.ca/resources/entry/health-equity
- National Collborating Centre for Determinants of Health: Glossary of essential Health Equity Terms
  www.nccdh.ca/resources/glossary/#
- NCCDH - Public health speaks: Social Determinants of health
  www.youtube.com/watch?v=BKnWvy-ggjE
- Let's Start a Conversation About Health...and Not Talk About Health Care at All
  www.youtube.com/watch?v=QboVEEJPNX0

CHAPTER

5

OLDER ADULTS (AGE 65+)

Engagement is Ageless

"Age is an issue of mind over matter: if you don't mind, it doesn't matter."

– Mark Twain

INTRODUCTION

Older adults live longer, healthier lives by staying socially connected, increasing their physical activity levels, eating in a healthy way, taking steps to reduce their risks for falls and not smoking.[1] Healthy living during the older adult years contributes to not only an increased lifespan, but also an increased quality of life.

Healthy aging is "a lifelong process of optimizing opportunities for improving and preserving health, physical, social and mental wellness, independence, quality of life and enhancing successful life course transitions."[2]

"For the first time ever, there are now more people in Canada age 65 and over than there are under age 15."[3]

Manitoba has an aging population, a trend that is occurring in many developed countries. For the purpose of this report, adults transition into the older adult life stage at age 65. Factors such as increasing life spans, lower birth rates and an aging baby boomer population indicate that within about 10 years, one in five Manitobans will be aged 65 or older.[4]

Older adulthood is a very diverse life stage, and our ideas about aging are changing.

OLDER ADULTS IN MANITOBA

- 3 out of 10 older adults live alone
- 1 in 5 older adults are considered active, with men being overall more active than women (25% versus 14%)
- 25% of seniors require help from another person with at least one daily activity

(Profile of Manitoba's Seniors)

"At one time, aging was associated with retiring from something – from work, from day-to-day parenting or from active engagement in society. As people began to live longer and healthier lives, our perspective of aging changed, and so did the words we used to talk about it. In recent times, both scholars and popular writers have used words like productive, optimal, successful, active and healthy to describe the process of aging well. Today, we are more likely to think about aging as moving towards something, with more leisure, more time with friends and family, and more time for individual interests and pursuits. Most older adults refuse to be defined by age, convention or social expectations. Instead, they define aging well according to their own beliefs, values and perceptions."

– Let's Talk About Aging, Aging Well in Alberta

There can be significant differences in health among older adults, and these differences are not always what are expected. A 65-year-old can be frail and vulnerable, while an 80-year-old can be cognitively, physically and emotionally fit.

WHY ARE SOCIAL ENVIRONMENTS IMPORTANT?

Social connectedness and healthy behaviours have particular benefits for older adults because they have been shown to positively affect and influence overall well-being, the ability to cope with stress and life changes and healthy aging.[5] Emerging evidence highlights that built and social environments both play roles in older adults' mobility, community engagement and health. Social environments can be thought of as *"the groups to which we belong, the neighbourhoods in which we live, the organization of our workplaces, and the policies we create to order our lives."*[6]

Key Elements of the Social Environment Include:[7]

- social support
- social engagement
- social networks
- social cohesion

Jacob

JACOB, AT AGE 72, FEELS OLD BEYOND HIS YEARS.

He was devastated by the loss of his wife Maggie, who died two years ago, after a long battle with cancer. Since then, he feels that his physical and mental health have been on a quick, downward spiral, and it is easy to see why.

Living on the farm, Jacob is often isolated from others, which has only gotten worse after he broke his hip in a farming accident. His injury has made it much more difficult to be socially engaged and get together with friends who live in the nearby town.

"Our friends in town meet at the local community centre every morning for coffee," says Jacob.

"Those gatherings were always fun and made me feel less alone in the world. But now, I can't drive, so I have to miss those meetings. With the second anniversary of Maggie's death coming up, I am feeling especially lonely – and more and more hopeless."

Jacob is also feeling stress from being behind on his farm work and not being able to be as physically active as he would like, which he believes is contributing to his declining health.

His daughter encouraged him to consider moving to an apartment in town, close to the community centre. While Jacob would like to get together with friends more often, the farmhouse is the only home he has known, so he feels anxious at the thought of living somewhere else.

One day, Jacob's son was going into town on business. He persuaded him to come along for the ride and visit the coffee group at the community centre. "It was great to see my friends again, especially Charlie who has known me since we were boys," says Jacob. "These people all knew Maggie, so they understand how much I miss her and how hard it has been to get used to life without her."

During the visit, Jacob found out that Charlie's next-door neighbour had recently moved and his apartment was still available. Charlie encouraged Jacob to think about moving there so he could live closer to his friends. The move would also make it easier to access healthcare services that could help in the recovery of his hip injury.

"I thought about it for a long while and decided that retiring and moving next to my childhood friend would be good for me," says Jacob. "Now, I'm getting to like my new apartment, my hip is healing nicely and I get together with my friends every morning. I miss the farm, of course, but I stay active in the community and visit my son's farm at least once a week to see him and my grandkids. Life is good."

Factors that have a positive effect on Jacob's health and well-being:

+ pride in achievement through his farm
+ financial stability
+ supportive friends living nearby
+ community participation
+ close family connections

Factors that have a negative effect on Jacob's health and well-being:

– social isolation, made worse by mobility problems
– grief and stress of losing a long-time spouse

Engagement is Ageless

The social environment can influence social interactions and a sense of belonging which, in turn, can lead to feelings of community connectedness. Having a positive attitude toward one's community has a positive effect on health.

"At every stage of life, our health is the outcome of complex interactions between social and economic factors, the physical environment and individual behaviours."

– Let's Talk About Aging, Aging Well in Alberta

HEALTH STATUS OF OLDER ADULTS

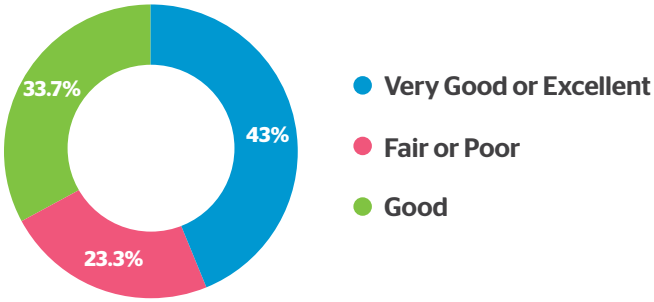
Factual and self-reported assessments of health indicate that Manitoba's older adults are living longer than previous generations, with the majority doing so in good health. These increases are due to many factors including living conditions, lifestyles and health care.

Today, men who live to age 65 can expect to live an additional 17.4 years, while women who live to age 65 can expect an additional 20.8 years.[8] Only one per cent of older adults in Manitoba live in personal care homes, and of those, 49 per cent are 85 and older. At age 85 and older, women outnumber men at a ratio of two to one.[9]

OLDER ADULTS HEALTH FACTS

- High blood pressure was the most commonly diagnosed chronic condition with almost ½ of seniors diagnosed, followed closely by arthritis/rheumatism.[10]
- Cancer is the leading cause of death among Canadians aged 60 to 74 (44.8%), whereas heart disease is the leading cause of death among those aged 75 and over (26.1%).[11]
- 40% of nursing home admissions are due to falls by older people .[12]
- About 14% of older adults aged 65 and older in Canada, have dementia or Alzheimer's.[13]
- Osteoporosis causes 70% to 90% of 30,000 hip fractures in Canada annually.[14]
- It is estimated that 60% of older adults in Canada have some degree of hearing loss.[15]

PERCEIVED HEALTH OF MANITOBA SENIORS, 2013



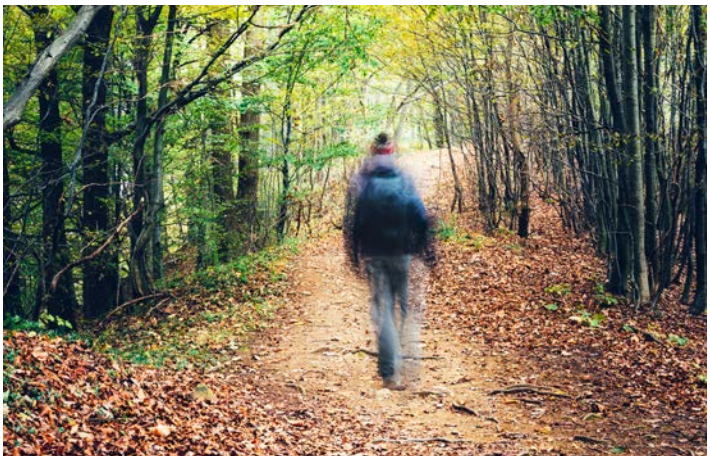
The self-rated health of seniors is steadily increasing. More than 43 per cent of older adults rated their own health as very good or excellent (shown above), versus 39 per cent in 2010.[16] Fewer older adults described their health as fair or poor in 2013 (23.3 per cent shown above), compared to 2010 (26 per cent).

MENTAL ILLNESS

Mental health and emotional well-being are just as important in older age as at any other time of life.

Rates of mental illness (including dementias) for adults between the ages of 70 and 89 are projected to be higher than for any other age group by 2041.[17]

- Between 20% and 25% of older adults experience mental health problems and illnesses.
- About 8.5% have been diagnosed with an anxiety and/or mood disorder (ex: depression, mania, bipolar).
- Men over the age of 80 have one of the highest suicide rates of all age groups.[18]



Dementia and Alzheimer's Disease

Alzheimer's disease and other dementias are progressive, degenerative neurological conditions that are most common among older adults. Age is the best known risk factor for this disease. The risk of developing Alzheimer's doubles every five years after age 65.[19]

In Canada, the combined medical and lost-earnings costs of dementia total $33 billion per year. If nothing changes, this number will climb to $293 billion per year by 2041.[20]

MENTAL ACTIVITY AND DEMENTIA

Research suggests that people who take part in activities that stimulate the brain (ex: reading, doing puzzles) are less likely to develop dementia, compared with those who do not engage in these activities.

It is believed that mental activity increases the brain's ability to cope with, and compensate for, physical damage. This means a person who often takes part in these activities will be able to tolerate a greater level of damage before symptoms of dementia are detected. Taking up new hobbies or learning new skills are great ways to challenge your brain and keep it active.

www.alzheimers.org.uk/reducemyrisk

Risk Factors for Dementia Include:[21]

- age
- smoking
- diabetes
- alcohol consumption
- lack of mental activity
- physical inactivity
- high blood pressure
- obesity
- high cholesterol
- poor diet
- depression

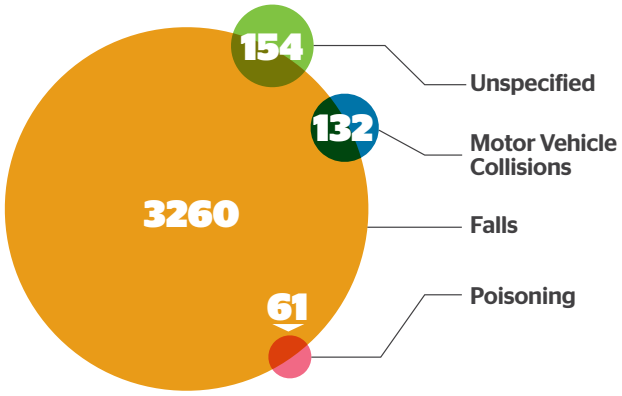
Smokers have a 50% greater chance of developing dementia.

INJURIES

Falls are the most common cause of injury and hospital admissions in older adults. They can have significant lasting consequences, including an increased probability of admission into a personal care home.[22]

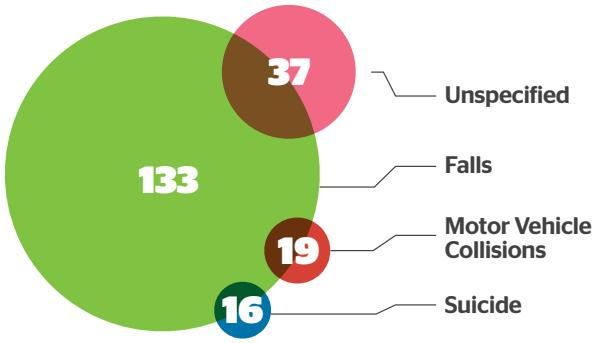
TOP FOUR CAUSES OF INJURY HOSPITALIZATIONS FOR OLDER ADULTS IN MANITOBA

(PRESENTED AS AVERAGE PER YEAR FROM 2000-2012):



TOP FOUR CAUSES OF INJURY DEATH FOR OLDER ADULTS IN MANITOBA

(PRESENTED AS AVERAGE PER YEAR FROM 2000-2012):



Every year an estimated one in three older adults experience an injury-causing fall. While most recover, some never do, and continue to experience chronic pain, especially if the injury is a hip fracture.

- Each year, almost 1,000 Manitobans sustain a hip fracture. The financial implications, morbidity and mortality from these fractures are significant.[23]
- 1 in 3 hip fracture patients re-fracture within 1 year. More than 1 in 2 will suffer another fracture within 5 years.[24]

The Rate of Hip Fractures Increases Substantially with Age, due to:[25]

- decreased bone density
- decreased muscle mass
- problems with vision and balance, which can cause falling

The psychological impact of falling can result in a loss of confidence and a restriction in activities, including exercise. However, this has negative consequences on health status and may actually increase the risk of falling. Physically active older adults have better strength and balance and, as such, are less likely to fall. If they do fall, they are less likely to be injured because of healthier bone density.[26]

HEARING LOSS AND VISION IMPAIRMENT

Hearing loss and vision impairment can be frustrating and difficult to adjust to. People with hearing loss and vision impairments are more likely to stop participating in meetings, social events, volunteering in the community and other activities. These impairments can lead to social isolation from friends and family, depression, safety issues, mobility limitations, reduced income and employment opportunities.[27]

- About 47% of Canadian older adults aged 60 to 79 experience hearing loss.[28]
- It is estimated that 20% to 50% of older adults have undetected reduced vision, the majority of which is treatable.[29]
- Vision impairment is listed as an independent risk factor for falls, and is one of the leading causes of lost independence in older people.[30]

SUPPORTING THE HEALTH OF OLDER ADULTS

Social Engagement and Social Connectedness

Social engagement refers to a person's participation in a community or society. It provides older adults with the "people resources" they need to feel like they belong to a society that values and appreciates them. Social support enhances older adults' self-esteem and coping skills, as well as their quality of life. Such empowerment in turn helps older adults to cope with their daily activities, accommodates life transitions and losses, and enhances interaction with their environment with confidence and ease.

Research has highlighted social engagement among seniors and its potential importance for their physical health and mental health. Social engagement enhances life-satisfaction and self rated health, delays the onset of chronic illness and disability, aids in the recovery from disability, and is associated with reductions in mortality.

Social engagement promotes health at community and individual levels. Bonding and building relationships between individuals creates healthy social norms, helps people connect with local services, provides emotional

SOCIAL ENGAGEMENT:

- creates a stronger sense of community: 8 out of 10 seniors have a strong/very strong sense of belonging to their communities
- is associated with an increase in happiness
- is linked to lower blood pressure and lower premature mortality

www.phac-aspc.gc.ca/cphorsphc-respcacsp/2010/fr-rc/cphorsphc-respcacsp-06-eng.php

support, and increases health knowledge and understanding within social networks. Positive self-perceptions of health among older adults are shaped and influenced by their daily social support and involvement. Having positive self-perceived health is strongly related to frequency of social involvement.[31]

SOCIAL CONNECTEDNESS IS ASSOCIATED WITH BETTER PHYSICAL AND MENTAL HEALTH AND WELL-BEING.

Strong social connectedness can have direct and positive impacts on health. People who stay 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.[32]

The figure below shows that as social involvement increases, positive self-perceived health increases.

Percentage with Positive Self-Perceived Health, by Frequency of Social Involvement, Institutional Population aged 65 or older, Canada excluding Territories

Source: 1996/97 National Population Health Survey, cross sectional sample, Health Institutions component.

Higher levels of perceived social connectedness are associated with lower blood pressure rates, better immune response, increased happiness, improved health and well-being, lower risk of premature mortality and lower levels of stress hormones, all of which contribute to the prevention of chronic disease.[33]

Barriers to connectedness include social isolation, social exclusion, poor access to services and marginalization. Studies have linked social isolation and loneliness to poor health.[34] Loneliness and social isolation are risk factors for mortality: Loneliness has a 26 per cent increased risk of mortality, and being socially isolated is associated with a 29 per cent increased risk.[35]

Factors Increasing the Risk of Seniors Becoming Socially Isolated:

- living alone
- being age 80 or older
- having compromised health status, including having multiple chronic health problems
- having no children or contact with family
- lacking access to transportation
- living with low income
- changing family structures- younger people moving away for work and leaving seniors behind
- location of residence (ex: urban, rural, remote)

Adapted from the National Seniors Council of Canada: www.seniorscouncil.gc.ca/eng/research_publications/social_isolation/page05.shtml

Canadian seniors who reported a strong sense of community belonging were 62% more likely to be in good health, compared to 49% of seniors who felt less connected.

(Shields and Martel 2006, and Healthy Aging in Canada 2006)

CAREGIVING AND SOCIAL ISOLATION

A caregiver is someone who provides informal and unpaid personal care, support, or assistance to another person who has an illness, disability or a challenge related to aging. Caregivers may help a parent attend doctor's appointments, doing weekly grocery shopping, or living with loved ones in order to manage medications and provide personal care.

"Without the services of informal caregivers, many older adults would lose their autonomy and require institutional care far too soon. Our current home care and health-care systems would be unsuitable without them. However, smaller families and greater mobility of adult children point to a future with fewer caregivers and greater burnout among those who must shoulder more of the load. The demands of caregiving, especially when the burden falls unequally within a family, can create or magnify discord and tensions that persist even after the caregiving experiences ends."

www.health.alberta.ca/documents/CMOH-Aging-In-Alberta-Report-2013.pdf

Participation in social activities can help to offset isolation, loneliness and exclusion and can be grouped into four categories:[36]

- **intimate social relationships:** visits to/from family and friends
- **formal organizational involvement outside of work:** attending religious services, volunteering
- **active and social leisure:** attending classes/events, playing cards/sports
- **passive and relatively solitary leisure activities:** surfing the Internet, listening to music, reading

All of these areas are important for emotional, physical and spiritual health and help with successful aging.

VOLUNTEERING

"Findings suggest that, among older adults, age is positively related to frequency of socializing with neighbours, religious participation and volunteering."[37]

– The Social Connectedness of Older Adults: A National Profile.

Positive and active aging requires an environment that is age-friendly where older adults have access to volunteer activities. Volunteering is one way older adults can age positively and actively, and offers many benefits for older adults. It is linked with greater physical and psychological well-being.[38]

Volunteering has long been a satisfying, productive way to make a contribution to the community, put skills and experience to use, network and meet new people and to get socially engaged. For older adults, volunteering can lead to lower rates of heart diseases, diabetes and improved health.[39]

FOUR MOST COMMON VOLUNTEER ACTIVITIES[40]

- canvassing/fundraising
- organizing activities
- providing support, counseling, or care in a hospital setting
- being an unpaid board or committee member

Over the course of 2010, older Manitoban women and men contributed an average of 203 hours and 168 hours (respectively) in volunteer activities.[41] In Canada, 39 per cent of older adults volunteer. However, there are barriers to volunteering such as health problems, physical barriers, lack of transportation and the financial cost of volunteering.

PHYSICAL ACTIVITY AND ENGAGEMENT

OLDER ADULTS WHO ARE PHYSICALLY ACTIVE ARE ALMOST 40% LESS LIKELY TO DEVELOP ALZHEIMER'S DISEASE THAN THOSE WHO ARE INACTIVE.[42]

Physical activity supports social engagement. Older adults 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.[43]

Some of the main barriers to participating in physical activity are:[44]

- fear of injury, illness, disability and pain
- lack of energy, motivation, skill and time
- feeling ill at ease
- inadequate facilities
- excessive cost
- lack of safe places

In Manitoba, additional barriers, such as long, cold winters and icy sidewalks, make it difficult for older adults to access physical activity centres, or participate in outdoor activity, including walking.

AGE-FRIENDLY COMMUNITIES

"An age-friendly community is important for seniors' health because it allows seniors to stay active and be connected to others, while also 'aging in place.'" *– BC Healthy Communities*[45]

In age-friendly communities, the policies, services and structures associated with the physical and social environment are planned to help older adults "age actively." The community is set up to help people of all ages live safely, have the benefit of good health and stay engaged. Many communities throughout Manitoba are engaged in the Age-Friendly Manitoba Initiative that was launched in 2009.

Age-friendly communities encourage social engagement. More than 90 per cent of older Canadians live independently in their communities, and want to remain in them.[46] Age-friendly communities are important for the participation, engagement, health, independence and security of older adults. Everyone benefits from age-friendly communities.

An Age-Friendly Community:[47]

- **R**ecognizes the diversity among older Manitobans
- **E**ncourages healthy, active aging
- **S**upports the contributions of older Manitobans
- **P**romotes the participation of older Manitobans in all aspects of our community
- **E**ngages stakeholders in building age-friendly communities
- **C**reates accessible, safe environments for older adults
- **T**reats people of all ages with respect

Engagement is Ageless

Helping People "Navigate" Systems

Navigators provide personal guidance to people in accessing health and social services. For the health care system, this may include: helping with finding doctors, explaining treatment and care options, going with patients to visits, communicating with their health care team, assisting caregivers and managing medical paperwork.

One of the goals of navigation is to help people overcome barriers like poverty and low literacy that prevent people from gaining access to services.

One example in Manitoba is the development of cancer navigational hubs, as part of the cancer patient journey initiative.

TRANSPORTATION CAN BE A SIGNIFICANT BARRIER TO ACCESS SERVICES AND TO STAY SOCIALLY ENGAGED:[48]

- Older adults, whose main form of transportation was driving their cars were the most likely to have taken part in a social activity during the previous week.
- Those who do not drive may be unable to use regular public transit. Some older adults with reduced mobility could use accessible transit services, but these are not available in every city or every neighbourhood.
- Walking and cycling were considerably more popular than public transit as occasional means of transportation.
- Driving was the main source of transportation for 82.7% of senior men and 41.8% of senior women.

POSITIVE ATTITUDES TOWARD AGING

Ageism, discrimination based on age or prejudice against older people, happens in all cultures. A common example of ageism is the assumption that promoting physical activity is important only for children, youth and adults. It is assumed that it is not important for older adults as it would provide only minimal benefits and is not economically viable. Shifting away from ageism to positive attitudes toward aging can help to overcome these stigmas and misconceptions.

ELDER ABUSE: A GLOBAL PUBLIC HEALTH PROBLEM

- There are several types of abuse, including physical, sexual, emotional, financial and neglect. The most common types of elder abuse are financial and emotional.
- Canadian data suggests 4 to 10% of Canadian seniors are abused.
- In Manitoba, it is estimated that 7,500 to 19,000 seniors are victims of elder abuse each year.
- Evidence suggests that elder abuse is prevalent, predictable, costly and sometimes, fatal.
- Elder abuse is common in community-dwelling older adults, especially minority older adults.
- Only 1 in 5 cases are reported to someone who can help.
- Concerted efforts from researchers, community organizations, healthcare and legal professionals, social service providers, and policy-makers should be promoted to address the global problem of elder abuse.

(Elder Abuse: Systematic Review and Implications for Practice, June 2015)

Older adults provide a wealth of experience, knowledge, continuity, support and love to younger generations.[49] Studies have shown that people who have a more positive outlook toward aging, including those who are young adults, have a higher chance of enjoying longer and healthier lives.[50] On the other hand, those that have negative outlooks towards older adults are more likely to have health issues when they themselves become older adults.[51] Possible reasons for this outcome may be that the people who believe that older adults are physically active, exercise regularly, eat healthy, are actively involved with their community and socially engaged, continue to adopt this lifestyle as they enter their older adult years.

An intergenerational approach addresses the growing tendency to isolate different age groups, particularly at the beginning and later stages of life. These initiatives have become increasingly popular because the benefits to old and young participants are visible and immediate.

Intergenerational activities enhance healthy aging and provide multiple benefits across generations. They promote social engagement and can help to reduce and eliminate ageism by creating more positive attitudes toward aging. After spending time with different age groups, personal views about other generations become less biased and more open.[52]

THE IMPORTANT ROLE OF ELDERS IN OUR COMMUNITIES

One of the best examples of positive attitudes towards aging can be found in the First Nation, Metis and Inuit Tradition of Elders, who are also known as Knowledge Keepers.

Since pre-colonial times, Elders have had the primary responsibility to pass down the language and teachings to future generations. Elders are gifted with First Nations wisdom, knowledge and history.[53]

Elders hold significant roles in supporting both formal and informal education in First Nations communities.[54] They provide tradition, knowledge, culture, leadership, values and lessons using traditional practices.[55] Elders play a pivotal role in traditional healing in mental health/illness, treatment and curing of illnesses, protecting the environment and teaching about traditional hunting and food security, traditional ceremonies and history. The preservation of the language and teachings are essential to facilitating a strong sense of cultural identity and healing.

Elders are regarded as respected teachers to everyone. They share great wisdom with all members in their communities as a continuation of ancient wisdom of the Indigenous peoples of this land.

Giselle

AT 70 YEARS OF AGE, GISELLE IS THE PICTURE OF VITALITY.

As a university professor, she loves her work and has no desire to retire from her job. In her spare time, she volunteers at her granddaughter's elementary school where she enjoys reading to the children. A network of close friends, a rewarding career and volunteer work add to Giselle's quality of life and strengthens her connection to her community.

"I think it's so important to take care of my health, especially since my parents both died young," says Giselle. "My mother struggled with diabetes for many years and my dad died of a heart attack at just 65. Their experiences inspire me to gets lots of regular exercise and make healthy eating a part of my daily routine."

Recognizing the value of exercise to personal health and well-being, Giselle found a practical way to incorporate physical activity into her life. She has a car, but prefers to travel by bicycle. She believes cycling is a great, environmentally-friendly way to stay physically active and leave a healthier world for her grandchildren.

Even though Giselle has been cycling for almost her entire life, she still gets nervous at times. "As a cyclist, I am always on the lookout for the safest and quickest routes around the city," she says. "I wear a helmet and reflective vest when I ride, as it's increasingly challenging to share the roadways with drivers." Part of her nervousness started after hearing about a colleague who was injured a year ago cycling to work. For her safety, when the weather and street conditions are not at their best, she takes the bus instead.

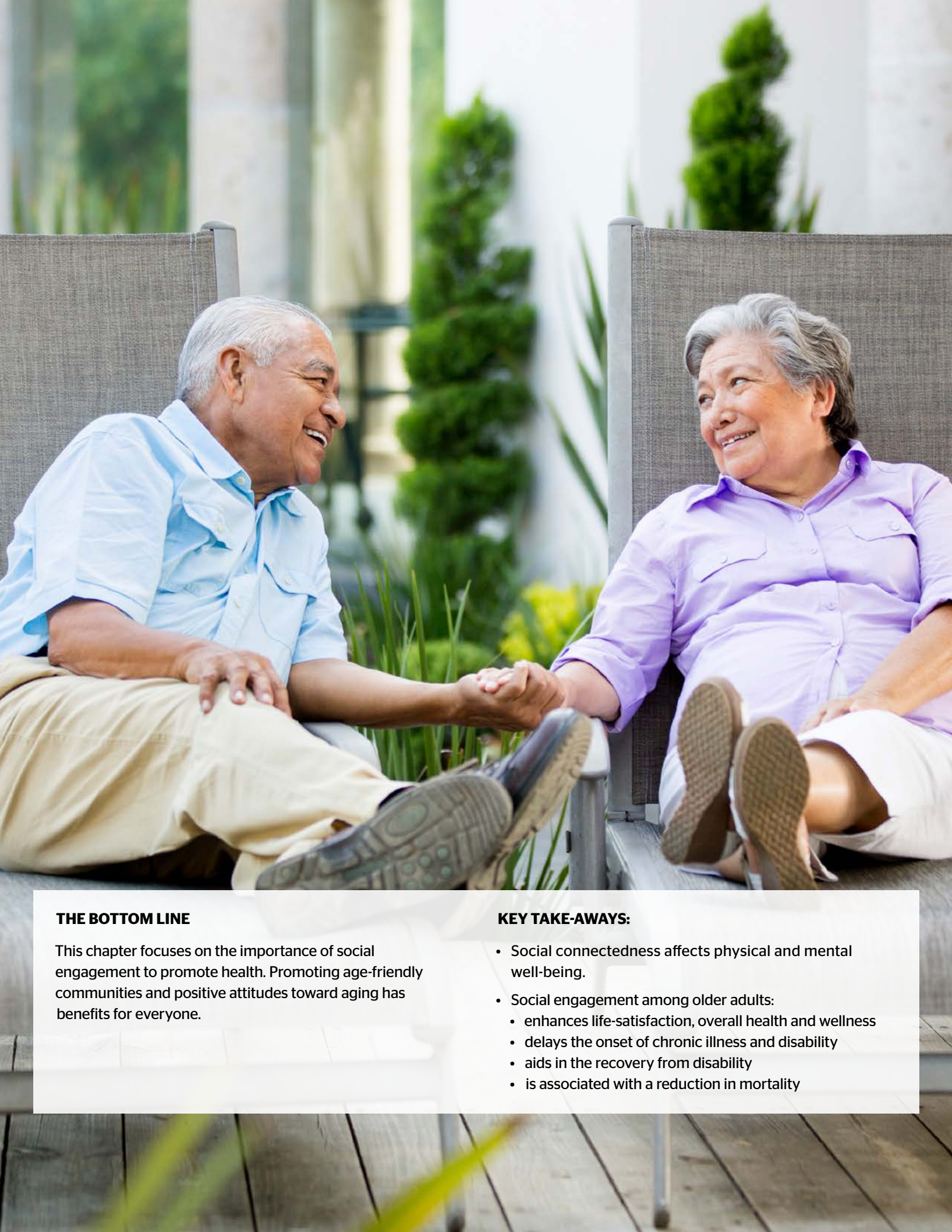
The lack of designated bicycle lanes in her community has inspired Giselle to lend her voice, experience and energy to the local cycling committee, a group of volunteers working on a 20-year plan for active transportation in her area. "I decided to take action to help make our roads safer for all cyclists" she says. Giselle is very enthusiastic about making her city safer for healthy activities, such as walking, cycling, jogging and inline skating, for people of all ages.

Factors that have a positive effect on Giselle's health and well-being:

+ long history of rewarding employment
+ financial security and comfort
+ regular exercise
+ close family connections
+ commitment to a healthy lifestyle
+ community connections through career, volunteer work, and friendships

Factors that have a negative effect on Giselle's health and well-being:

– family history of chronic diseases (ex: Type 2 diabetes, heart disease)
– risks of cycling on city streets



THE BOTTOM LINE

This chapter focuses on the importance of social engagement to promote health. Promoting age-friendly communities and positive attitudes toward aging has benefits for everyone.

KEY TAKE-AWAYS:

- Social connectedness affects physical and mental well-being.
- Social engagement among older adults:
  - enhances life-satisfaction, overall health and wellness
  - delays the onset of chronic illness and disability
  - aids in the recovery from disability
  - is associated with a reduction in mortality

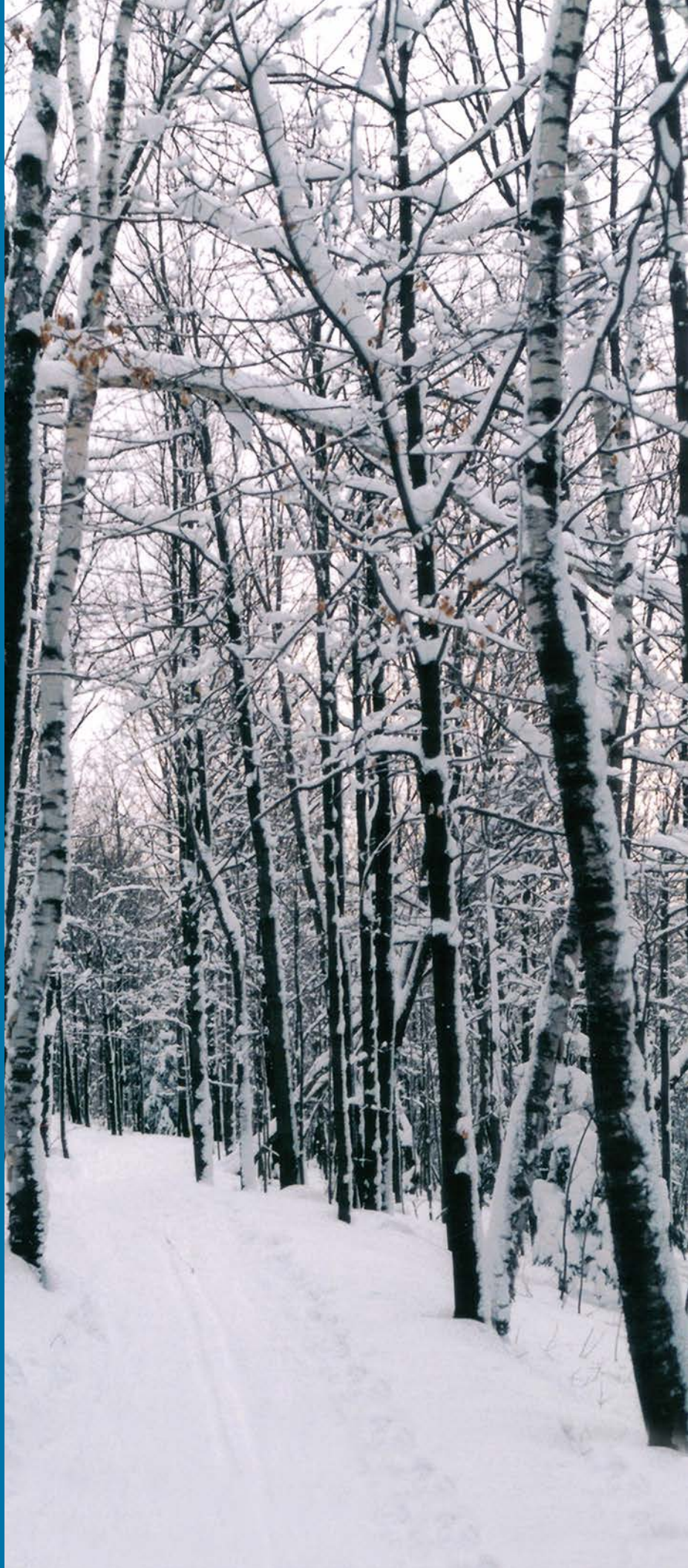
Vision for the Future

While most Manitobans live in good health, there is still much work to do to improve the wellness of all Manitobans. "Healthy Environments, Healthy People" highlights the importance of the conditions in which people are born, live, learn, work, play and age. Creating supportive social and physical environments around people by taking action on the root causes of illness and injury has the greatest potential to support health and wellness and improve population health outcomes.

When health promotion and disease prevention are a priority, and when the determinants that drive health are effectively addressed, we can expect to see:

- gaps in health status successfully minimized
- a reduction in health, justice and social service costs
- improvements in the health and well-being of all Manitobans

Our hope for this report is that it stimulates thinking on how we can all contribute towards the goal of creating a healthier Manitoba.



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