



Health, in other words...



Social environment

*The desire
to live longer
and healthier*



Lifestyles

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Introduction

Healthy living depends on a variety of factors; some stem from the individual, whereas others involve the community. Our health is primarily based on the biology we inherited from our parents, grandparents and other ancestors. Secondly, the personal decisions we make every day and the lifestyle we affect have a dominating influence on our health status. Lastly, the social and physical environment we live in plays a role that we often tend to underestimate. We are led to believe that decisions affecting health depend first and foremost on the individual, who enjoys freedom of will. However, on closer inspection, it appears that personal choices are conditioned by factors such as education, income, social status, and the neighbourhood or village we call home. This reflection also points to another truism: the decisions of political leaders, institutional administrators, company leaders and managers—in short, all decision-makers—weigh heavily on the health of individuals and the population in general. We need only think of the decisions that affect the quality of the air and water, determine the shape of our cities, or condition the places where we engage in physical or leisure activities.

Good health is not an end in itself, but is clearly the primary condition for leading an active, satisfying life. It is also a valuable indicator for measuring a society's level of advancement. This is why we must all contribute to improving health, both individually and collectively.

This awareness-raising tool on health determinants is in line with the National Report on the Health Status of the Population of Québec – *Producing Health, published in 2005, by the National Public Health Director*. The topics collated in this awareness-raising tool outline our current knowledge about eight major health factors: lifestyle, education, housing, transportation, urban planning, physical environment, social environment and poverty. The goal is to provide a simple, user-friendly tool that can support reflection and guide actions fostering the improvement of public health. This document is of particular interest to government departments and agencies, municipalities, and community organizations.



Health, in other words...

Lifestyle:

Collectively, choose health

The advent in North America of what is now called the obesity epidemic highlights the importance of working simultaneously on a set of risk factors, including poor living habits. A healthy diet, regular physical exercise and not smoking play a major role in preventing chronic diseases. Conversely, a poor diet, sedentariness and smoking are involved in approximately 40% of deaths. More specifically, these three lifestyle factors are related to approximately 80% of deaths from cardiovascular disease, 90% of deaths from diabetes and about a third of deaths from cancer.

What we know

Diet

Eating healthy foods that are low in salt, saturated fat and trans fats helps prevent many chronic diseases, such as cardiovascular disease and certain cancers. An indicator frequently used to assess the general quality of a diet is the fact of eating at least five servings of fruits and vegetables per day. In Quebec, the proportion of people age 12 and over who eat at least five servings of fruits

and vegetables per day is 44% (2003). In this respect, Quebec ranks first among Canadian provinces and territories. However, the daily consumption of fruits and vegetables varies considerably according to personal income. In 2003, 46% of people in Quebec's most affluent bracket ate at least five servings of fruits and vegetables per day, compared with 39% of people in the least affluent.

Physical exercise

In attaining and maintaining a healthy weight, consideration must also be given to the balance between energy intake and expenditure. Exercise improves the metabolism of glucose, reduces body fat and lowers blood pressure. It can also improve musculoskeletal condition, help regulate body weight, better distribute body fat and reduce symptoms of depression. Conversely, sedentariness can have serious consequences. According to the World Health Organization, sedentariness could well be among the ten leading causes of death and disability in the world. Sedentariness exacerbates every cause of mortality. It doubles the risk of

cardiovascular disease, diabetes or obesity, increases the risk of colon cancer, hypertension, osteoporosis and lipid disorders, and aggravates depression and anxiety disorders.

The proportion of Quebecers age 18 and over considered to be physically active during their leisure time rose from 26% to 37% between 1995 and 2003. Income also affects the practice of physical activity. In 2003, 44% of the people in the highest income bracket were considered to be active during their leisure time, compared with 33% of people in the lowest income group.

Smoking

Experts acknowledge that one in every two smokers will die prematurely. According to a British study, the life expectancy of people who have smoked all of their adult lives is ten years shorter than in non-smokers. However, one encouraging item of data is that quitting smoking at age 50 appears to cut the risk related to smoking by half, while stopping at age 30 will eventually eliminate the risk altogether.

In Quebec, smoking among people age 15 and over dropped from 40% to 27% between 1987 and 2003. Despite this drop, the proportion of smokers age 12 and over is still higher in Quebec than elsewhere in Canada. Income is also associated with smoking. There is a spread of over 20% between the proportion of people in the highest income group who smoke and those in the lowest income group (23% vs. 47%).

Antismoking: A winning strategy

Quebec has implemented a global antismoking strategy, which relies on a variety of means—political, legislative, educational and clinical. At the core of this strategy, the government plans to denormalize tobacco products and the marketing and consumption of these products. It is also continuing to provide the public with information on the ill effects of smoking and on smoking cessation services.

What we are doing

In October 2006, the government published its *Plan d'action gouvernemental de promotion des saines habitudes de vie et de prévention des problèmes reliés au poids 2006-2012* (government action plan to promote healthy lifestyles and prevention of weight-related problems). This plan aims to improve Quebec's quality of life by enabling people to live in settings that promote the adoption and maintenance of a healthy, physically active lifestyle and a healthy diet. In the health sector, the Quebec public health program (2003-2012) proposes comprehensive guidelines to promote a healthy lifestyle and prevent chronic disease by combining health education, changes to environments and application of health-wise public policies.

And for tomorrow. . .

Several factors come into play when dealing with lifestyles. To promote healthy choices, factors as varied as physical activities, public transit, urban planning, and the availability and accessibility of foods must be considered. The antismoking strategy is clearly a model to follow, one that could incorporate the requisite amenities to inspire people to adopt a better lifestyle. The actions undertaken in this area have led various players to take action. Above all, they have made it possible to alter environments and make it easier to adopt a healthy lifestyle.





Health, in other words...

Education:

The way to school is also the way to health

Childhood and adolescence are the first learning steps when children acquire the skills needed to join the workforce and pursue social goals in adulthood. By and large, research has shown that people's working conditions, income and health are related to their level of education. For children, the acquisition of skills during childhood and adolescence and, in particular, academic achievement will have an effect on their health throughout their entire lives.

What we know

Education and joining the workforce

Over the course of recent years, the level of Quebecers' education has greatly improved. In 1981, over 48% of people age 25 and over did not have a high school diploma; this percentage had dropped to about 32% by 2001

People who leave school before earning a high school diploma have greater difficulty joining the workforce and are more likely to have poverty-related problems. In August 2005, there were twice as many people in Quebec without a high school diploma (62.6%) among

social security recipients than in the overall population of people age 15 and over.

A child's socioeconomic background has an influence on academic achievement and staying in school. Children from poor families are over-represented in school dropout statistics. Students from the lowest-income brackets are twice as likely to leave school without a diploma or qualification than those from the highest brackets. Social background aside, various factors can explain school difficulties, especially the family setting (quality of parent-child relations, educational style, etc.) and the school setting (school structures, educational practices, etc.).

One of the direct consequences of dropping out is illiteracy. In Quebec, close to 5% of people age 16-44 have less than 9 years of schooling. Accordingly, these people present a greater risk of functional illiteracy. However, it is known that employment levels and personal income are influenced by people's ability to understand and use written information. In brief, people with a low level of education are less likely to hold stable, interesting and well-paid jobs.

Education and health

People with a low level of education are at greater risk of chronic disease (excluding cancer), such as hypertension, heart disease and diabetes. The level of education also influences the adoption of a healthy lifestyle. Smoking, poor diet and sedentariness are behaviours seen more frequently among people with a less schooling. Conversely, people with a higher level of education have more social relations, adopt a better lifestyle and have the feeling of being able to influence and control their lives.

What we are doing

In Quebec, many efforts have been expended in recent years to raise the level of academic achievement, particularly among young people from low-income backgrounds. In 2004-05, the number of young people under age 20 earning a high school diploma was 70.2%. The *Ministère de l'Éducation, du Loisir et du Sport* (department of education, recreation and sports) has set a goal of 85%.

In 2001, to make educational achievement possible for all students and to simplify their social and professional integration in adulthood, the Quebec government adopted the *Programme de formation de l'école québécoise pour l'éducation préscolaire et l'enseignement primaire* (Quebec school training program for preschool and primary school education). Focused on skills development, this program gives schools a mission based on three major axes: teach, socialize and qualify. Accordingly, schools must consider the specific characteristics of their students and apply the principle of equal opportunity for all.

In spring 2003, the *Ministère de la Santé et des Services sociaux* (department of health and social services) and the *Ministère de l'Éducation, du Loisir et du Sport* signed a services complementarity agreement. One facet of this agreement was a comprehensive initiative to promote health and safety at school. This initiative, called *École en santé* (healthy school), reaffirms the

importance for students to develop in a school setting that promotes the acquisition of skills and behaviours focused on health and well-being.

Support for students from low-income backgrounds: The example of Montreal schools

The Supporting Montréal Schools Program was created in 1997 to support personal and overall success of all students from low-income backgrounds, according to their needs and characteristics.

To have a significant effect on students' orientation, learning and motivation, seven recognized methods are used: support for students at risk, development of reading skills, oriented approach, professional development of school administrators and the school team, access to cultural resources, cooperative links with the family and creation of a network of partners. Some 43,000 students in about 100 schools are targeted.

And for tomorrow. . .

At the community level, a new enthusiasm for education, similar to the movement that marked Quebec's Quiet Revolution, would very certainly work to Quebec's advantage and prepare it for the challenges of tomorrow. To promote educational achievement and staying in school, the various community partners must join forces in concerted action. Government, institutions, social leaders and company leaders should pool their efforts to promote education.





Health, in other words...

Housing:

More than a dwelling, a habitat

Infectious diseases, chronic diseases, accidents, mental health problems—research has clearly established links between housing and a host of health problems. As far back as 1939, the American Public Health Association published a document outlining 30 basic principles for healthy housing. Closer to home, in adopting the Ottawa Charter for Health Promotion in 1986, the World Health Organization acknowledged housing as a determining factor in public health.

What we know

Healthiness

A lack of financial resources can constrain an individual to live in an unhealthy dwelling. Unhealthy dwellings often have problems of humidity and mould, which contribute to the development of respiratory diseases such as asthma. It is known that this affliction increased in developed countries in the late 20th century. In the Montreal area, research has shown that the number of asthmatic children age 3-7 rose 72% during the 1980s. One of the main factors to explain such an increase is the presence of humidity and mould, combined with the fact that children

increasingly spend more time indoors (video games, computers, etc.). These unhealthy conditions can also lead to other symptoms, such as recurrent headaches, fever, nausea and sore throats. Unhealthy dwellings are often found in low-income neighbourhoods, where the physical and social environment can also affect personal health.

Safety

A dwelling that is poorly suited to the occupants' physical or functional limitations (e.g. absence of handrails) or poorly maintained (e.g. loose stairs) increases the risk of injuries and accidents. There are over 22,000 fall-related hospitalizations every year in Quebec. Most of these cases affect the elderly and occur at home. In 2003, almost 60% of accidents with injuries among people age 65 and over occurred at home.

Lack of financial resources

When people experience difficulties finding suitable housing, their physical and mental health can be affected. Accordingly, tenants unable to pay their rent and provide for their basic needs are exposed to continual stress that can cause long-term harm. Over time, the cardiovascular and immune systems are affected by long periods of tension, increasing vulnerability to a variety of health problems, such as depression, infection, diabetes, hypertension and heart disease.

Overall, at the community level, the shortage of suitable, affordable housing can force low-income tenants to spend a very large proportion of their financial resources on housing. When a household spends 30% or more of its gross income on housing, it will probably be short of money to meet other essential needs, such as food and clothing. In Quebec, more than a third of tenants spend 30% or more of their income on housing.

What we are doing`

The *Société d'habitation du Québec* (Quebec housing corporation) is the government agency responsible for housing in Quebec. Specifically, it is active in the fields of social housing and home improvement. With the help of its partners, including municipalities and local communities, it designs and funds a series of measures to help low-income households and people in difficulty find safe, affordable housing. One of these measures, the *AccèsLogis Québec* program, has the goal of increasing the number of social and community housing units across Quebec for low- and moderate-income households. This program focuses on partnerships between the public, private and community sectors.

There are a series of measures designed for tenants living in unhealthy dwellings, specifically the possibility of submitting a complaint to their borough to obtain the services of an inspector. Tenants can also contact their local health and social services centre for more information on the health effects of poor housing conditions. Lastly, they can also request the *Régie du logement* to order their landlords to remedy defective housing conditions.

Montreal: 5,000 reasons to be proud!

In 2002, the City of Montreal decided to launch Solidarity 5000 Homes, a joint initiative with Société d'habitation du Québec and Canada Mortgage and Housing Corporation aimed at building 5,000 new social and community housing units for low- and moderate-income households. These new dwellings will also improve the vitality, attractiveness and safety of neighbourhoods.

And for tomorrow. . .

In addressing health problems related to housing conditions, experience has shown it is best to raise awareness and to continue mobilizing around joint actions by all players involved—municipalities, housing associations, non-profit organizations, community agencies, public health network, and others. People in every region of Quebec should have access to support services to improve housing conditions. To do this, it is sometimes necessary to adapt municipal bylaws, increase resources, and promote and support local projects that aim to improve access to healthy, safe housing at an affordable price. It is crucial that we pool our efforts to face down this challenge.





Health, in other words...

Transportation:

For the sake of health, let's ease up on the gas

There have been major changes in how we commute in the 20th century. The development of the automobile industry, the increase in household income and a new concept of urban planning have also contributed. New building methods promote single-use neighbourhoods (residential, commercial, offices) that can be quite far apart. This new urban model has led to people taking their cars more often, rather than using public transit, walking or cycling. Accordingly, the number of vehicles on the road has almost tripled since the 1970s, and the number of kilometres driven has risen even more dramatically.

What we know

Air pollution and greenhouse gases

Since the 1970s, the adoption of pollution-control standards and the gradual tightening of these standards have led to a considerable reduction in motor vehicle greenhouse gas emissions.

Despite these efforts, transportation is still a major source of atmospheric pollution and the main cause of smog. Atmospheric pollution is associated with hospitalizations and premature deaths in people with cardiovascular and respiratory disease. A slight increase in lung cancer has also been noted among residents of the most polluted cities.

Road transport produces almost a third of the greenhouse gas emissions in Quebec. Greenhouse gas emissions are largely responsible for global warming and the resulting climate change. According to the vast majority of scientists, there will be significant effects on health in the years to come. For example, we should expect an increase in the number of very hot summer days in southern Quebec, which will result in higher hospital admissions and premature deaths, particularly among the more vulnerable groups.

Traffic accidents: A figure to improve

Quebec's highway figures have seen a significant decrease in terms of mortality over recent decades. However, traffic accidents still cause some 600-700 deaths every year, and over 50,000 injuries. This corresponds to the population of a city the size of Saint-Hyacinthe. Today, traffic accidents are still the leading cause of death among people under age 25. Lastly, despite a significant reduction in the number of deaths and hospitalizations among all road users toward the late 1980s, there has been a recent increase in the number of traffic casualties in Quebec.

Commuting by car and lack of physical exercise

Nowadays, we spend considerably more time in our cars—from home to daycare, to work, to the mall, and back again. Result: We have less time for physical exercise. A proven method for attaining the recommended level of exercise is to adopt active commuting methods (where

the energy is provided by the person), such as walking or cycling, or a combination of either with public transit.

At present, only 11% of Quebecers commute by walking or cycling. However, public transit saw a constant decline from 1991 to 2006, with only 16% of the public currently using it, compared with 20% in the early 1990s. Let's recall that sedentariness is related to overweight and obesity, which in turn are associated with cardiovascular disease, diabetes, certain cancers and depressive disorders.

What we are doing

Several initiatives have been launched to find a solution to the growth in road transportation. Many municipalities, concerned by the problem, say they are ready to take measures to reduce its effects. For example, the City of Montreal recently announced its intention to reduce its residents' dependence on the automobile by increasing active and community transportation.

To support municipalities in their actions, the Quebec government recently adopted the Quebec Policy Respecting Public Transit – Better Choices for Citizens. The investments and measures announced aim to increase the use of public transit by 8% by 2012, i.e. an increase of 40 million trips annually. There are currently 501 million trips made every year.

In spring 2006, the Stratégie énergétique du Québec 2006-2015 (energy strategy) and the Plan d'action 2006-2012 sur les changements climatiques (climate-change action plan) announced a new focus on reducing oil and gas consumption and the production of greenhouse gases in several spheres of activity, notably transportation.

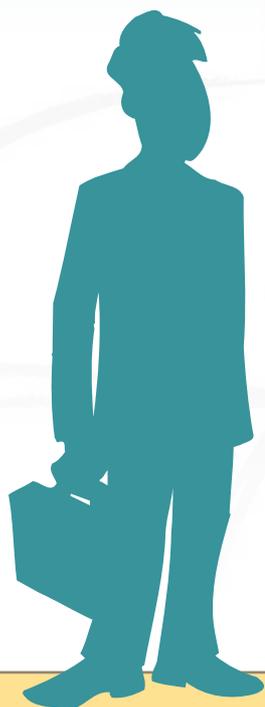
And for tomorrow. . .

To reduce health problems and promote sustainable development associated with active commuting, everyone involved has to work together. We need to join forces to promote denser, mixed urban planning and better public transit services. Moving in this direction would help slow the growth in car ownership and leave more room for safer active commuting and public transit.

On the move to school!

In October 2005, Vélo Québec launched On the move to school! The goal is to help reverse the trend among young Quebecers toward inactivity and reduce parents' trips to and from school to drop off and pick up their children.

Initially, eight Montreal area schools—representing 3,700 students—participated in the project. In 2007, the Vélo Québec project involved 30 schools from six regions across Quebec. Over 12,000 children will be strongly encouraged to walk or bike to school.





Health, in other words...

Urban planning: A city for living

City landscapes have changed considerably over the years, in Quebec just as elsewhere in North America. Since the early 1990s, an increasing number of researchers have taken an interest in urbanization methods and their effects on farmland, the growing cost of infrastructure and the quality of the environment. More recently, urban planning and public health researchers have begun looking more closely at the links between urban sprawl and health.

What we know

Urban sprawl has four major characteristics:

1. A population spread over a thinly populated area
2. Rigid separation between residential, commercial, services and work sectors
3. Lack of major activity hubs
4. An urban setting, comprising low-rise buildings, built away from the highways and surrounded by huge parking lots

Social isolation and a variety of risk factors, particularly sedentariness and exposure to air pollution and contaminated water, are associated with this type of development.

Sedentariness

According to several studies, active transportation (on foot or by bicycle) and physical exercise as leisure are promoted by the fact of living in more densely populated neighbourhoods and where public transit is available. Such neighbourhoods are characterized by their mixed-use vocation: people not only live there, they also work, shop and unwind there. These neighbourhoods feature footpaths and bike paths. Conversely, residents of almost exclusively low-density residential areas depend more on their cars to commute.

Lack of physical exercise contributes to excess weight and obesity. This problem is associated with chronic diseases such as type 2 diabetes, cardiovascular disease, hypertension, hypercholesterolemia and some cancers.

Air and water pollution

The development of low-density residential suburbs was accompanied by an expansion in the highway networks, today almost exclusively reserved for cars. This expansion was not enough to ease traffic congestion. Also, it increases atmospheric pollution. However, we know that air pollution is associated with an increase in hospitalizations and premature deaths among people with respiratory and cardiovascular disease. We should also mention that the level of pollution is sometimes higher inside the car than outside. Another problem is that large paved areas lead to increased run-off, which pollutes surface water run-off and, consequently, the rivers.

Social isolation

The social and community links that intertwine within home settings are an important foundation of health and well-being. However, there is a clear link between the built environment and social support. Social integration is much easier in densely populated areas that encourage mixed-use living. Social life in these areas is more active and more dynamic, since public areas offer numerous opportunities for interaction and street life. When activities are done on foot, there are also more frequent contacts with neighbours.

What we are doing

The Quebec government has developed various tools to assist cities, regional county municipalities (RCM) and municipalities in land and urban planning. These include the *Guide de bonnes pratiques: la réduction des émissions de gaz à effet de serre et l'aménagement du territoire* (best practices guide: reducing greenhouse gas emissions and land management). This guide discusses urban planning initiatives implemented by Quebec municipalities that promote more active public transit.

Moreover, many municipalities and RCMs have evidently been making considerable efforts to reconcile the lifestyle associated with their peripheral neighbourhoods and the need to act to limit the negative health effects of urban sprawl.

Reinventing the city

Revitalizing the Saint-Roch neighbourhood, a business district in Quebec City's lower town, has basically renewed a way of life. It comprises a highly varied blend of urban functions, and commuting can be reduced to a minimum. The neighbourhood has become a highly accessible activity hub in the heart of the city.

Other examples are Faubourg Laudance, in Quebec City, and the multifunctional hub in Gatineau. In both cases, urban layouts have been created which are both "walkable" and easily accessible by various methods of transportation.

Two other urban planning projects focus on public transit: the intermodal station in Sainte-Thérèse and the train station district in Mont-Saint-Hilaire. These two examples of planning aim to create a compact urban borough around an activity hub, in this case public transit.

And for tomorrow. . .

Although many now recognize the existence of problems related to urban sprawl, there is still no consensus on what needs to be done. It would be useful to initiate a public discussion on land planning in order to arrive at joint decisions between the various levels of government, the proponents and the residents. Although all citizens are entitled to choose where they want to live, it must be acknowledged that these personal decisions have repercussions on the environment and, consequently, on the health status of the population.





Health, in other words...

Physical environment: Reinstate harmony with the planet

Air pollution, soil deterioration and water pollution affect health. This is a long-known correlation and has become an even greater concern since the appearance of signs that the planet is deteriorating, as evidenced by climate change. Human activity explains a large part of the breakdown of the environment. Humankind consumes 50% of the planet's resources. For their part, North Americans are the greatest consumers of natural resources and the greatest producers of greenhouse gases. Another item of concern: if everyone on Earth were to consume as many resources as do Canadians, we would need 27 billion hectares of arable land. On the entire planet, there are only 9 billion.

What we know

Air pollution

The major causes of atmospheric pollution are industrial and commercial activities, as well as the constant increase in wood-burning for heating and oil consumption for transportation activities. This atmospheric pollution has

major negative effects on environmental quality (smog, acid rain) and, consequently, on individual health. The increase in air pollution leads to an increase in cardiovascular and respiratory disease. Although smoking is still the main cause of lung cancer, atmospheric pollution is playing an increasingly significant role in the development of this disease.

Ultraviolet radiation

The thinning of the ozone layer reduces our protection against ultraviolet radiation and thus contributes to the increase in skin cancers. Ninety percent of all cases of skin cancer are attributable to extended exposure to ultraviolet light, be it natural or artificial.

Water pollution

Contamination of drinking and recreational water comes from a variety of sources. Water pollution stems from intensive farming activities and from municipal and industrial activities. Small drinking water distribution networks generally present higher risks of contamination. Ingestion of

contaminated water or contact with contaminated water can cause gastroenteritis, ear infections, dermatitis and acute intoxication.

Drinking water must often be disinfected. Chlorine treatment is a key operation, but it can sometimes lead to the formation of byproducts that can have harmful effects on health. These byproducts increase the risk of bladder cancer.

Soil contamination

Soil contamination is primarily the result of industrial discharge, but also of inadequate management of farming activities, agricultural waste and pesticides. Human exposure to contaminated soil occurs mainly through the skin and by respiratory and oral (in children, mostly) routes. Soil contamination can cause cancer as well as renal and vascular problems associated with some chemical and organic pollutants. It can also contaminate drinking water sources.

What we are doing

Over the past few decades, several actions have been taken at the local, regional and national levels in a bid to promote better management of resources. For example, the Quebec government adopted a national water policy and a law on sustainable development, while also implementing an action plan to combat climate change. Several cities also took various measures in order to reduce local pollution. For example, some passed legislation to ban pesticides.

Tire recycling

In Quebec, anyone who buys a tire must pay an environmental levy of \$3. This measure has had spectacular effects. In 2003, 6.3 million used tires were recycled, i.e. 88% of the total, and the rest were exported, so the goal of 85% set for the recycling program was actually surpassed! Over three quarters of used tires are recycled into various types of products, such as dumpster wheels, mudguards, anti-skid mats, carpet underlay, soundproofing panels, and more. Another benefit of the program was the fact that 4 of the 12 major storage sites have been phased out—with a corresponding elimination of the risks of tire fires and breeding grounds for mosquitoes (potential carriers of viruses).

And for tomorrow...

If we want to minimize the negative impacts of environment contamination on health, we need to act on two levels: individually, by changing our lifestyle, and collectively, through sustainable management of the environment. Safeguarding ecosystems that are key to human life is a necessary condition for our current and future well-being. These ecosystems are the foundation of our economy and our comfort. Immediate, concerted action is necessary, specifically to reduce greenhouse gas emissions, reduce the discharge from pollutant sources into our lakes and rivers, and reduce our consumption of water and energy. It is a duty that is incumbent not only on the government, but also on institutions, companies and the public as a whole.





The social environment: All for one, one for all

The social environment, i.e. the setting we live in and the relations we have with others, plays a key role in health. Some social factors, such as the relations people have with their loved ones and their sense of belonging to the community, always have some impact on physical and mental health problems. Accordingly, people who are socially isolated and those who have a weaker social network are more likely to be in poor health and die prematurely. To understand the impact of the social environment on health, we can examine two concepts: social support, which is the outcome of relations that people have with their loved ones, and social cohesion, which refers to the willingness of members of a community to cooperate for the well-being of all.

What we know

Social support

In Quebec, close to 15% of the population report not having a high level of social support. This proportion increases with age, such that close to one in four people over age 65 falls into

this category. Belonging to a social support network plays a protective role on health, especially during difficult times such as periods of illness or the loss of a loved one.

The interaction between two people whereby one brings to the other various forms of appreciation and recognition, tangible help, information or even moral support helps provide that person with the resources needed to deal with adversity. Studies have shown that the mortality rates for several diseases are higher among people with a weak social network, that social support helps regulate blood pressure, that it influences the level of certain hormones and the quality of immune response, and that there is a correlation between the lack of social support and various aspects of mental health, notably depression.

Social cohesion

In Quebec, approximately 11% of the population report a very weak sense of belonging to their community, which proportion rises to 18% among 20- to 24-year-olds. According to data from a Canada-wide survey, people who claim a very weak sense of belonging to their community are less likely to perceive their general health status as excellent or very good.

Social cohesion, like social support, exerts a positive influence on personal health. Indeed, a link has been shown between the confidence binding the members of a community and various health indicators, including general mortality, infant mortality, and mortality associated with certain diseases, such as cardiovascular disease and cancer. Also, in communities where cooperation prevails, fewer children are born with low birth weight. Social cohesion is also associated with several other positive effects, specifically on economic development.

What we are doing

There are two key levers that make the social environment more supportive: the participation of residents in the collective well-being and public policies that promote this well-being.

The participation of residents can take the form of volunteering, joining a community organization or participating in any other community initiative. Numerous Quebecers are engaged in their communities. It is estimated that 1.1 million people volunteer with an organization, which corresponds to about one-fifth of the population age 15 and over.

Regarding public policies that promote social cohesion and civic participation, the Quebec government has created the Fonds québécois d'initiatives sociales (social initiatives fund) pursuant to the *Act to combat poverty and social exclusion*. This fund is used to support community projects, and all public departments and agencies are encouraged to help implement and support these projects. In this respect, numerous partnerships are promoted between the public, private and community sectors, including the pooling of resources.

Healthy cities and towns

Since it was founded in 1988, the Réseau québécois de Villes et Villages en santé (Quebec network of healthy cities and towns) has mobilized numerous actors in the municipal world and the health sector around a common cause: promote, develop and implement healthy municipal policies. The Réseau promotes discussion among decision-makers. Currently, the Réseau covers more than 140 municipalities, which account for over half of Quebec's population.

And for tomorrow...

Given the influence of social relations on public health, the participation of people in community life is certainly an approach to be favoured. It is important to preserve and develop the space needed to involve residents in public decision-making. There are various means available to promote civic participation, depending on the field of activity. For example, there are neighbourhood committees in cities and citizens' forums.

Moreover, social integration of the most vulnerable groups and a fair distribution of resources should be of constant concern to decision-makers. Maximizing the positive effects of the social environment on health will require the implementation of a community development plan.





Poverty: A battle on all fronts

The influence of poverty on health is well known and unanimously acknowledged. People who live in poverty are at greater risk of contracting a variety of diseases, of doing so younger, and of dying sooner than those who are better off. In Quebec, on average, women and men from underprivileged backgrounds can respectively expect to remain in good health for seven and ten years less than people in wealthier communities.

What we know

The many faces of poverty

Being poor, basically, means lacking resources and having very limited access to essential goods and services, such as housing, food and transportation. But poverty is not limited to a lack of material resources. It presents many other facets, each of which is likely to lead to harmful effects on health.

Poverty has a cultural dimension that translates into limited access to education and culture. Poor education very often leads to either job insecurity, unemployment or low income. Limited access to education, information and

culture can compromise people's ability to make informed choices, specifically when it comes to lifestyle. Smoking, inadequate diet and sedentariness are behaviours seen more frequently among people socioeconomically underprivileged groups.

Poverty also assumes a social facet. Most of the time, being poor means being excluded from the dominant lifestyle in our consumer society. It also means less civic participation and social integration. The resulting marginalization can contribute to the feeling of rejection and worthlessness often experienced by the poor.

Lastly, poverty assumes an environmental aspect. The underprivileged further risk being exposed to environmental risks, because they mainly live in the most rundown neighbourhoods, which are not as safe and have greater pollution.

Low-income patients

There are abundant examples to illustrate the association between socioeconomic characteristics and various health problems, such as HIV infection and AIDS, the main chronic diseases, certain types of injuries, developmental problems in young children and mental health problems. Accordingly, poor people have at least double the risk of contracting a serious illness or dying early than the better off. Pregnant women, children and the elderly are particularly sensitive to the pressures generated by poverty.

Also, time plays against the poor. The longer someone lives in poverty and deprivation, the more likely that person is to suffer significant health problems. For example, a child who grows up in an underprivileged setting throughout the preschool period will often start school poorly prepared and subsequently be likely to experience setbacks, and finally drop out of school. On entering adulthood, such individuals risk holding less satisfying and well-paid jobs, which will have repercussions on their quality of life (housing, diet, leisure).

What we are doing

Over the past several years, Quebec has launched several initiatives aimed at reducing poverty and social exclusion, or at least lessening their consequences. In 2002, the government developed a strategy to combat poverty and social exclusion. With this strategy, Quebec plans to rank among the industrialized nations with the lowest low-income percentage by 2012. The strategy is predicated on action measures in every aspect of poverty and social exclusion. It is clear that an improvement in the economic and social situation of people living in poverty would make it possible to reduce inequalities in terms of health.

Better support for children and families

A new support measure for children came into effect on January 1, 2005, as part of the Government Action Plan to Combat Poverty and Social Exclusion. Child assistance is financial aid paid to all families with a dependent child under age 18. The amount paid varies from family to family. It is calculated based on family income, number of children under age 18 and type of family. Low-income families are particularly benefited by this measure.

And for tomorrow...

Over the coming years, the community must increase its efforts in two major directions. On the one hand, it must combat the causes of poverty—specifically, by providing the means to narrow the income gap between the richest and poorest segments of society. On the other hand, it needs to mitigate the negative effects of poverty—for example, by easing access to goods and services for society's most underprivileged. To effectively and sustainably combat poverty, social and health disparity, it is also necessary to facilitate access to schooling, educational achievement, and integration and participation in the workforce.



To find out more

Lifestyle

- MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX. *National Report on the Health Status of the Population of Québec – Producing Health*, Quebec City, Government of Quebec, 2005, 120 p.
- MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX. *Plan d'action gouvernemental de promotion des saines habitudes de vie et de prévention des problèmes reliés au poids 2006-2012*, Quebec City, Government of Quebec, 2006, 49 p.
- WORLD HEALTH ORGANIZATION. *The world health report 2002 – Reducing Risks, Promoting Healthy Life*, Geneva, World Health Organization, 2002, 21 p.
- WORLD HEALTH ORGANIZATION. *The Global Strategy on Diet, Physical Activity and Health*, [Online]. [www.who.int/dietphysicalactivity/media/en/gsf_general.pdf].

Education

- LOW, David, et al. “Can education policy be health policy? Implication of research on the social determinants of health,” *Journal of Health Politics, Policy and Law*, Vol. 30, No. 6, 2005, pp. 1131-62.
- MINISTÈRE DE L'ÉDUCATION. *Programme d'intervention pour favoriser la réussite scolaire dans les milieux défavorisés*, Quebec City, Government of Quebec, 2003, 35 p.
- MIROWSKY, John, and Catherine E. ROSS. *Education, Social Status, and Health*, New York, Aldine de Gruyter, 2003, 242 p.
- MURRAY, Nancy, et al. “Appendix E: Education and Health: A Review and Assessment,” *Code Red: The Critical Condition of Health in Texas*, [Online], 2005, Houston, Institute for Health Policy, University of Texas Health Science Center. [www.coderedtxas.org/files/Appendix_E.pdf].

Housing

- DUNN, James R., et al. *Évaluation des besoins, des lacunes et des occasions de recherche : le logement, déterminant socio-économique de la santé*, 2003, 36 p.
- KING, Norman. *Impact des conditions de logement sur la santé publique: recension des écrits et proposition d'une approche de santé publique*, Montreal, Régie régionale de la santé et des services sociaux de Montréal-Centre, Direction de santé publique, 2000, 74 p.
- KRIGER, James, and Donna L. HIGGINS. “Housing and health: Time again for public health action,” *Public Health Matters*, Vol. 92, No. 5, 2002, pp. 758-68.
- SHAW, Mary. “Housing and public health,” *Annual Review of Public Health*, Vol. 25, 2004, pp. 397-418.

Transportation

- MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX. *National Report on the Health Status of the Population of Québec – Producing Health*, Quebec City, Government of Quebec, 2005, 120 p.
- DIRECTION DE SANTÉ PUBLIQUE. *Rapport annuel 2006 sur la santé de la population montréalaise : le transport urbain, une question de santé*, Montréal, Agence de la santé et des services sociaux de Montréal, Direction de santé publique, 2006, 133 p.
- MINISTÈRE DES TRANSPORTS. *2001-2005 Transportation Safety Policy – Road Component*, Quebec City, Government of Quebec, 2001, 112 p.
- MINISTÈRE DES TRANSPORTS. *Québec policy respecting public transit – Transporting People in Québec: Better choices for Citizens*, Quebec City, Government of Quebec, 2006, 78 p.

Urban planning

- FRANK, Lawrence D., Martin A. ANDRESEN and Thomas L. SCHMID. “Obesity Relationships with Community Design, Physical Activity, and Time Spent in Cars,” *American Journal of Preventive Medicine*, Vol. 27, No. 2, 2004, pp. 87-96.
- FRUMKIN, Frank L. H., and Richard JACKSON. *Urban Sprawl and Public Health: Designing, Planning, and Building for Healthy Communities*, Washington, Island Press, 2004, 334 p.
- HANDY, Susan L., et al. “How the Built Environment Affects Physical Activity: Views from Urban Planning,” *American Journal of Preventive Medicine*, Vol. 23, No. 2S, pp. 64-73.
- MINISTÈRE DES AFFAIRES MUNICIPALES, DU SPORT ET DU LOISIR. *Guide de bonnes pratiques : la réduction des émissions de gaz à effet de serre et l'aménagement du territoire*, Quebec City, Government of Quebec, 2004, 70 p.

Physical environment

- MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX. *National Report on the Health Status of the Population of Québec – Producing Health*, Quebec City, Government of Quebec, 2005, 120 p.
- CLAPP, R. “Environment and Health: 4. Cancer,” *Canadian Medical Association Journal*, Vol. 163, No. 8, 2000, pp. 1009-12.
- GUÉRIN, Michel, et al. *Environnement et santé publique: fondements et pratiques*, Paris, Éditions Tec & Doc, 2003, 1023 p.
- WORLD HEALTH ORGANIZATION. *Transport, Environment and Health*, Copenhagen, 2004, 93 p.

Social environment

- MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX. *National Report on the Health Status of the Population of Québec – Producing Health*, Quebec City, Government of Quebec, 2005, 120 p.
- STANSFELD, Stephen A. “Social support and social cohesion,” in MARMOT, M., and R. WILKINSON (supervisor). *Social Determinants of Health*, Oxford University Press, 2006, pp. 148-71.
- STATISTICS CANADA *Stress, health and the benefit of social support*, *Health reports*, Vol. 15, No. 1, January 2004, pp. 9-41.
- STATISTICS CANADA *Community belonging and self-perceived health: Early CCHS Findings (January to June 2005)*, Ottawa, 23 p.

Poverty

- MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX. *National Report on the Health Status of the Population of Québec – Producing Health*, Quebec City, Government of Quebec, 2005, 120 p.
- FRÉCHET, G., and Pierre LANCTÔT. “Pauvreté, inégalités et exclusion sociale au Québec”, *Santé, Société et Solidarité*, No. 1, 2003, pp. 21-34.
- PAMPALON, R. *Espérance de vie et défavorisation au Québec, 1996-1998*, Quebec, Institut national de santé publique du Québec, 11 p.
- PHIPPS, S. *The Impact of Poverty on Health – A Scan of Research Literature*, Ottawa, Canadian Institute for Health Information, 2003, 32 p.





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