



Population and Public Health Branch

Atlantic Region

# The Tides of Change

Addressing Inequity and Chronic Disease in Atlantic Canada  
A Discussion Paper

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**Atlantic Canada**

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Prepared for  
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The opinions expressed in this publication are those of the authors and do not necessarily reflect the views of Health Canada.

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*At the beginning of this new millennium I was asked to discuss, here in Oslo, the greatest challenge that the world faces. Among all the possible choices, I decided that the most serious and universal problem is the growing chasm between the richest and poorest people on earth. Citizens of the ten wealthiest countries are now seventy-five times richer than those who live in the ten poorest ones, and the separation is increasing every year, not only between nations but also within them. The results of this disparity are root causes of most of the world's unresolved problems, including starvation, illiteracy, environmental degradation, violent conflict, and unnecessary illnesses that range from Guinea worm to HIV/AIDS.*

Jimmy Carter, former President of the United States  
Nobel Lecture, December 10, 2002

*The growing gaps in health status between people in different groups is a serious and a major concern for the government. We cannot accept that the rich get healthier and the poor get sicker. Not in our country, nor in the world.*

Ingvar Carlsson,  
former Prime Minister of Sweden  
1995



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## FOREWORD

We want to think that there are simple answers and simple solutions that will make people healthy. We spend billions of dollars in Atlantic Canada to buoy the health care system as the health of Atlantic Canadians grows worse daily. We pride ourselves on establishing policy and fashioning programs based on evidence, yet we daily ignore the evidence that is directly before us. We continue to create or simply not act on the inequities that exclude large portions of our population from the resources they need to live healthy and fulfilling lives, even robbing them of the opportunity to be active civic citizens. This has created a widening health and equity gap in the region. We know that there is a connection between inequity and chronic disease and that physical, mental, communicable, and non-communicable disease patterns in Atlantic Canada are cause for concern.

This discussion paper was commissioned by the Atlantic Regional Office of the Population and Public Health Branch to foster a dialogue on the way forward. It is NOT about laying blame. It is a reality check, a signal to action, a call for comprehensive action. If we continue to focus on individual behaviour and patch-work programs, we will miss the mark. If we are not able to change the discourse from hospitals and health systems to prevention, health, equity, and integration, we will not go forward. The current public debate on reforming health care in Canada underestimates the impact that decreasing poverty and reducing inequities could have on spiralling health care costs. This discussion paper explores these root causes and examines actions to alleviate them. We have much of the evidence before us in this paper, and we have some suggested areas for action in policy and program areas.

I am confident that we can do this. As the writers of this paper point out, there are many good local, national, and international examples of societies that have adopted such a comprehensive approach and instituted far-reaching social and economic policies designed to improve population health. We know how to do this work. Newfoundland and Labrador is pointing the way with its Strategic Social Plan. I think we are ready to do something different, something that will include communities in meaningful ways. We do need to reduce the prevalence of chronic disease in Atlantic Canada because it is affecting individuals families, communities – indeed the economy itself. To live in certain parts of Atlantic Canada is to die earlier than other Canadians and to live with less of everything including good health. We can change it. We have here explored the causes and pathways of chronic disease and attempted to identify some ways forward for action. The good news is that much of it is modifiable if we act now.

I look forward to the discussion, to your reactions to this paper, and most of all to our collective actions that will create a better Atlantic Canada for each of us and for the generations that follow.

Kathy Coffin  
Regional Director  
Population and Public Health Branch  
Health Canada  
July 2003

## 1. EXECUTIVE SUMMARY

The purpose of this discussion paper is to explore the relationships between inequity and chronic disease in Atlantic Canada in the context of the particular social and economic patterns that may influence health in this region. This is a first step toward identifying effective chronic disease strategies that are grounded in a deep understanding of the pathways between inequity and chronic disease, and that are appropriate to the Atlantic region.

The terms “inequity” and “inequality” are both used in this discussion paper to reflect the literature on the subject. Health “inequality” is generally used as a *descriptive* term to designate disparities among groups. Health inequity is more *normative* and is related to social justice and human rights.<sup>1</sup> Thus, inequities refer to material, social, gender, racial, income, and other social and economic inequalities that are beyond the control of individuals and are therefore considered unfair and unjust.

Chronic, as opposed to acute, disease is “a condition that is continuous or persistent over an extended period of time. A chronic condition is one that is long-standing, not easily or quickly resolved.”<sup>2</sup> Chronic diseases can be noncommunicable or communicable, physical or mental. In Atlantic Canada, the most prevalent noncommunicable chronic diseases are cardiovascular disease, cancer, diabetes, and respiratory illnesses. The most prevalent chronic communicable diseases are HIV/AIDS and hepatitis C. In mental health, chronic problems include mild to severe stress, anxiety, depression, and severe diseases such as schizophrenia.

The paper is organized around seven key messages. The first two establish the current situation. We look briefly at how health is conceptualized as physical, mental, and social well-being rather than as the absence of disease. We then discuss the current tendency of chronic disease prevention strategies to focus on changing individual risk behaviours, despite evidence that changing to social and economic root causes could be more effective. The second message sets the scene in Atlantic Canada by reviewing statistics for the three categories of chronic disease: noncommunicable, communicable, and mental health. We also include main regions facing inequities within the provinces.

The third message discusses the theory and evidence that social and economic processes and the resulting poverty create inequities and chronic disease in society. The fourth message returns to Atlantic Canada and looks at some vulnerable populations who are affected by inequities: Aboriginal people and African Canadians, single mothers and children living in poverty, seniors, and rural populations.

The fifth message illuminates the importance of “place” – neighbourhood, community, region, etc., – in creating inequities and points out that inequities in society affect the

entire population, not just the poor. We look briefly at cultural and social context, geographic areas, and income distribution.

The sixth message moves from the established situation to ask how inequities can lead to chronic disease. Materialist, psychosocial, and political/economic pathways are discussed in the Atlantic Canada context. The seventh message recommends strategic directions that must be based on the root causes of inequities in society.

Although this paper concentrates on inequities in the Atlantic provinces, inequities are only part of the picture. The area has many strengths that can be appreciated and encouraged in the search for strategies to prevent chronic disease. In a recent book on the history of Atlantic Canada, Conrad and Hiller discuss many of these strengths as well as the area's economic problems and inequities. Citing economist Donald Savoie, the authors note that “community life in Atlantic Canada is richer than modern statistical analysis based on narrow notions of economic well-being suggest ... the Atlantic region [is] rich in material and psychological well-being.”<sup>3</sup> Historically, Atlantic Canadians have a “commitment to the notion of ‘social good’ in law and social policy.”<sup>4</sup> The region has also been a leader in many areas including “the movement for responsible government, its early commitment to higher education for women, [and] pitched battles between capital and labour in mining and steel-making communities.”<sup>5</sup>

The four Atlantic provinces, while quite distinct from each other, comprise a unique culture with a diverse geography, population, and history. The deep sense of place held by Atlantic Canadians – living “down home or away” – and the strong network of social supports in this region contribute to a decent, caring society which values social justice, decency, and equity. Research is clearly required to assess the degree to which such values, which are less amenable to quantitative or statistical analysis, may affect the health and well-being of Atlantic Canadians and even ameliorate some of the negative impacts of adverse economic circumstances.

***Key Message: Health is multidimensional, involving physical, psychological, social, and economic aspects. Social and economic factors are more influential than lifestyle.***

Inequities in society stem from cultural, social, and economic systems that can be changed. These inequities lead to all types of chronic disease including communicable and noncommunicable disease and mental illness. Low-income groups, on average, have higher rates of chronic disease and mortality than higher-income groups. Recent evidence shows that low-income groups also have more risk behaviours such as smoking, unhealthy diet, and lack of physical exercise, than groups with higher income. Researchers have spent a considerable amount of time debating the causes of inequities in health. This debate has centered around whether individual behaviours or social and economic conditions cause chronic disease. However, risk behaviours explain only about 25 to 30% of the difference in mortality.<sup>6</sup> This implies that socioeconomic differences in mortality would persist even with improved lifestyle risk factors among the



disadvantaged.<sup>7</sup> Interventions to change adverse behaviours have been the main health promotion focus to date. However, these interventions have been more successful with higher-income groups than with lower-income groups, which have less options and less control over their lives.<sup>8</sup> The result of these interventions is increased inequities. Evidence shows that interventions that focus on individual risk behaviours have a limited potential for decreasing health inequities.<sup>9</sup> For strategies to affect root causes of inequity, they must focus on social and economic factors.

***Key message: Atlantic Canada has more social, economic, and health inequities and higher rates of chronic disease than the rest of Canada.***

The Atlantic provinces as a whole are characterized by a number of social, economic, and health inequities that have potential consequences for the health of the entire population. The region has a generally poorer health profile, lower incomes, higher rates of unemployment, and a smaller proportionate share of the national wealth than the rest of Canada. It also has higher rates of smoking, obesity, and physical inactivity, which are risk factors for noncommunicable chronic disease and are symptoms of socioeconomic inequity.

There are also marked differences both between and among the Atlantic provinces. For example, Newfoundlanders rate their own health much better than New Brunswickers do. Residents of Labrador have lower life expectancy than those living in St. John's. Northern New Brunswick and Cape Breton have worse health profiles than southern New Brunswick and Halifax. In order to discover patterns of inequity and their root causes, there is a need to look more deeply into the social and economic situations at both the provincial and regional levels.

***Key Message: Social and economic exclusion creates inequities in society.***

Social and economic processes, termed “social and economic exclusion,” create inequities that exclude vulnerable groups from resources they need to live healthy and fulfilling lives as participating members of society. Poverty is a fundamental indicator of inequity. It implies, however, much more than low income. Poverty is the result of economic, political, and social processes that interact together to create systemic deprivation in whole segments of the population.<sup>10</sup> This deprivation results in people being socially and economically excluded from society. Poverty means lack of the basic resources necessary for healthy living such as warm and dry housing located in safe neighbourhoods, adequate clothing, healthy food, and sufficient income for these basic needs. It results in lack of access to education and fulfilling careers that pay a living wage, discrimination, racism, and stigma. As well, people who are socially and economically excluded from society suffer from feelings of vulnerability, powerlessness, and hopelessness.

Poverty, in this broad definition, also is recognized as one of the most reliable predictors of poor health and chronic disease, more so than factors such as high cholesterol, high blood pressure, and smoking.<sup>11</sup> No matter which measures of health and cause of death are used, low-income Canadians are generally more likely to have poorer health and to die earlier than other Canadians.<sup>12</sup> In fact, adverse economic and social conditions are associated with the higher prevalence of almost all types of chronic disease, including both communicable and noncommunicable disease and mental health problems.

***Key Message: Chronic disease disproportionately affects vulnerable groups experiencing inequities.***

Chronic illnesses are more prevalent in poorer regions of Canada. In both 1986 and 1996 census data, Canadians living in the poorest 20% of urban neighbourhoods had strikingly higher mortality rates for cardiovascular disease, cancer, diabetes, and respiratory diseases than those living in higher-income neighbourhoods.<sup>13</sup> Low-income groups such as Aboriginal people, visible minorities, and single mothers and their children consistently have worse health than the rest of the population.<sup>14</sup> They have higher rates of smoking, poor diet, obesity, and physical inactivity, which also are symptoms of deeper underlying social and economic factors.<sup>15</sup> According to a recent study at York University:

An extensive body of research now indicates that the economic and social conditions under which people live their lives, rather than medical treatments and lifestyle choices, (diets low in fat and cholesterol and rich in vegetables and fruits, regular physical activity, and smoke-free living), are the major factors determining whether they develop cardiovascular disease ... Cardiovascular disease is the disease which is most associated with low-income among Canadians.<sup>16</sup>

Strategies to reduce inequities need to increase social and economic inclusion within these groups.

***Key Message: Inequities in society affect the entire population, not just the poor.***

Social and economic inequities, including poverty, affect not only the lowest-income groups but also the entire population. The social and economic context of an area affects the incidence of chronic disease in the area as a whole. Living in areas with a high proportion of poor households is associated with poor health and mortality, over and above the effects of individual or family income levels. This means that “place” and particular regional, historical, and cultural factors may contribute to the relationship between inequity and disease. Research has found that living in poorer areas may be detrimental to the health of all residents in the area, regardless of their individual incomes.<sup>17</sup>

Income affects the health of the entire population. Researchers have noted a “gradient effect” on the health of workers. This means that, on average, one’s health is better than that of workers earning less money and worse than that of workers making more money. In other words, the health of a CEO is generally better than that of upper managers whose health is better than middle managers, on down the line.<sup>18</sup> This might imply that psychosocial effects are as important as material ones.

The way income is distributed in society also may affect health.<sup>19</sup> Many inclusive societies which have small gaps in income levels between rich and poor have better health, smaller rates of unemployment, less crime, higher levels of educational attainment, and better living standards than societies with less equitable income distribution. They also spend less per capita on health care and correspondingly more on social infrastructure.<sup>20</sup>

***Key Message: Pathways that lead from inequity to chronic disease are multiple and interdependent.***

A deep understanding of the pathways or mechanisms that lead to chronic disease in society is needed in order to decide on prevention strategies. Researchers generally focus on the importance of one factor over another; however, all these pathways work together to create chronic disease. Evidence points to factors that fall into categories of material, psychosocial, and political/economic areas. The materialist pathway considers lack of resources such as adequate income, toxic environments, affordable housing, and access to education and employment. The psychosocial pathway looks at how these material factors translate into biological factors such as chronic stress, which then can lead to disease. It also looks at how social issues such as social support, discrimination, and lack of connections to social infrastructures such as political decision making and financial institutions lead to disease. The political/economic pathway considers the structural root causes of chronic disease. It asks why and how. What are the structures, systems, and policies that create poverty and social stress?

***Key Message: Social and economic pathways are modifiable. Effective strategies must address the root causes of inequities in society.***

Strong research evidence suggests that disease-prevention strategies must connect social and economic factors with the health and well-being of society.<sup>21</sup> These strategies must also be coordinated around a central vision and include all sectors of government and all levels of community in their design and implementation. Many strategies designed to support population needs are not relevant to low-income groups and often serve to increase inequities. Therefore, strategies particularly need to address the inequities manifested in low-income populations. In Atlantic Canada, there is a need to discover the specific social and economic processes that are creating disparities in the region. This involves looking at the present situation in the context of historical and economic factors. It involves assessing present policies and the impact they have on health and

well-being. It also involves looking at evidence from other regions and countries that might shed some light on how to go forward. As well, developing comprehensive strategies involves discovering the strengths and wisdom inherent in our communities, including the many positive initiatives that have been developed, and building upon them.

Evidence shows that over 40% of chronic disease incidence and more than 50% of premature deaths due to chronic disease are avoidable.<sup>22</sup> Prevention strategies have the potential to reduce the suffering of illness and the cost of health care. But devising such strategies is not easy, because effective prevention must address the complex interactions among social and economic factors in producing chronic disease.<sup>23</sup> Health Canada's "population health approach" recognizes the role of social and economic factors and explicitly aims to reduce health inequities among vulnerable groups and thereby improve the health of the entire population. This paper attempts to apply this approach to Atlantic Canada.

## 2. CHRONIC DISEASE PREVENTION

### 2.1 CHANGING APPROACHES TO HEALTH AND DISEASE PREVENTION

***Key Message: Health is multidimensional, involving physical, psychological, social, and economic aspects. Social and economic factors are more influential than lifestyle.***

How we conceptualize health and disease influences our approach to chronic disease prevention and affects the choice of strategies. In 1947, the World Health Organization defined health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”<sup>24</sup> Health Canada regards health as the complex interplay between social, economic, and environmental determinants. It states:

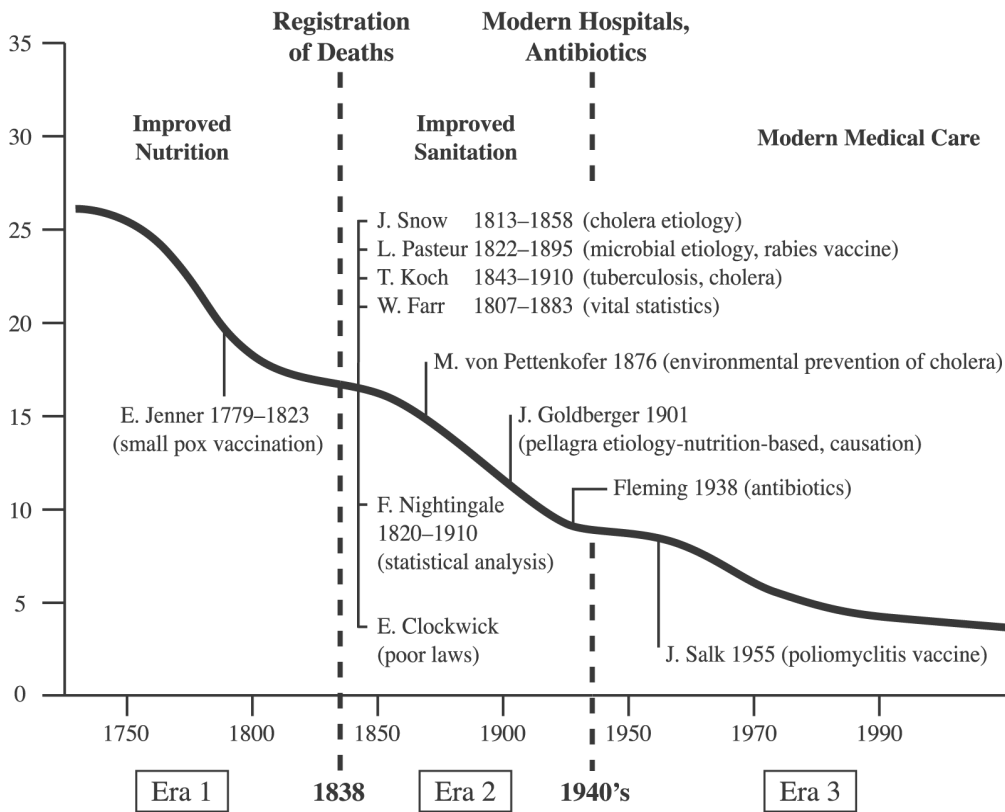
... a variety of factors affect health including gender, age, genetics, personal health practices, coping skills, social support, working conditions, the physical environment and early childhood experience. Perhaps the most powerful influence on health, however, is socioeconomic status, which is measured ... by income and education levels. Whether we look at how people rate their own health, premature mortality, psychological well-being or the incidence of chronic disease, socioeconomic status remains strongly related to health status.<sup>25</sup>

In the past, health policies have led to the development of successful treatments for acute illness but have tended to overlook the reality that health may involve more than medical factors. It has become increasingly clear that we cannot explain health outcomes in terms of the absence of disease within individuals alone.<sup>26</sup>

Population and public health, with its origins in the late nineteenth century, recognized that social and environmental factors such as water pollution, squalid housing, raw sewage, long working hours, and child labour contributed to high mortality and morbidity. Interventions changing these conditions were more successful in containing the spread of communicable diseases than the medical interventions of the day. Similarly, chronic disease will only be brought under control through public health interventions aimed at social and economic factors.

**Figure 1. Changes in population health status/historical markers in public health**

**Crude Death Rate per 1000**



Source: J. McKinlay and S.M. McKinlay in J. Kaufert, *Social Change and Public Health: Population Health and Victorian Epidemics*, 2000.

As early as 1842, Rudolf Virchow, a tireless health educator, observed that:

Social determinants of health and disease are “political” matters beyond the physician’s purview ... Medicine is a social science, and politics is nothing more than medicine on a large scale.<sup>27</sup>

In 1974, Health and Welfare Canada issued a landmark report, *A New Perspective on the Health of Canadians*.<sup>28</sup> The Lalonde Report, as it is called, recognized specific behavioural risk factors for chronic disease. It noted that smoking, unhealthy diet, lack of physical exercise, overweight, and alcohol abuse have been associated with various chronic diseases, including cardiovascular disease, cancer, diabetes, chronic respiratory conditions, and mental ill-health. Today we could add unsafe sexual activity and injection drug use which are behavioural risk factors for communicable chronic diseases

such as HIV/AIDS and hepatitis C. The report recommended that these risk factors could be controlled by personal choice through education programs and social marketing campaigns. These campaigns became prominent throughout the 1980s and are still dominant in health promotion today.

Current chronic disease prevention strategies in Atlantic Canada focus mainly on changing these unhealthy lifestyles. Plans include developing partnerships among provincial health departments, sports and recreation commissions, and nutrition, cancer, heart, and diabetes associations. These partnerships are working toward sharing resources, using best practices in health promotion, and planning goals for strategic actions that can reduce chronic disease incidence.

However, since behavioural risk factors are more prevalent among lower socioeconomic groups,<sup>29</sup> evidence shows that, to be successful, behavioural and lifestyle interventions require supportive social and economic environments for these groups. While effective for higher socioeconomic groups, lifestyle interventions cannot alleviate the deeper influences of poverty and social disadvantage on health. The World Health Organization conducted the largest international study of cardiac disease and found no relationship between reductions in cardiovascular disease and national changes in obesity, smoking, blood pressure, or cholesterol levels.<sup>30</sup> Rather, it proposed that poverty and social and economic conditions may be responsible for different rates of cardiovascular disease.

Improvements in lifestyle behaviours and consequent declines in heart disease incidence and mortality occur at a much lower rate among the less-educated, less-affluent, strata.<sup>31</sup> A comprehensive \$1.5 million five-year cardiovascular disease prevention and lifestyle intervention program in St. Henri, a Montreal neighbourhood where 45% of families live below the low-income cut-off line, attracted only 2% participation. The only significant result, compared to a control group, was that more people had their blood cholesterol levels measured.<sup>32</sup> The researchers concluded, “unless or until basic living needs are ensured, persons living in low-income circumstances will be unlikely or unable to view CVD [cardiovascular disease] prevention as a priority.”<sup>33</sup>

Investigators note that people who have one risk factor for chronic disease actually have multiple risk factors. Therefore, changing behaviour for any one risk factor alone cannot account for the association between socioeconomic status and health. However, 10 to 20 risk factors can account for between 50 to 100% of the association.<sup>34</sup> Coronary heart disease, for example, is “a multifactorial disease, and a multiplicity of interacting factors are involved in its development.”<sup>35</sup>

Risk behaviours explain only a modest proportion of the relationship between low income and chronic disease.<sup>36</sup> A 20-year study of Ontario males concluded that smoking and other risk behaviours are not the primary mechanisms linking socioeconomic status and mortality.<sup>37</sup> As previously noted, although low-income groups do have more risk behaviours than groups with higher income, these behaviours explain only about 25 to

30% of the difference in mortality.<sup>38</sup> This implies that socioeconomic differences in mortality would persist even with improved lifestyle risk factors among the disadvantaged.<sup>39</sup> Altering behaviour does not change the social and economic conditions which may generate the same behaviour in the next generation.<sup>40</sup>

Analysts have therefore noted that health-promotion strategies focused purely at individual health behaviours are yielding only limited success.<sup>41</sup> One researcher has strongly stated that, “The current emphasis on medical and lifestyle risk factors as the means of preventing ... disease ... in Canada is inadequate, inappropriate, and ineffective.”<sup>42</sup>

Abundant evidence now indicates that social and economic environments ultimately have a far stronger impact on health than do individual behaviours, which are symptoms of deeper underlying factors.<sup>43</sup>

After many decades of research, therefore, the western scientific tradition now recognizes that the major determinants of health are rooted in cultural, social, and economic conditions. Despite this intellectual understanding, health policies remain largely unchanged, and spending remains focused primarily on illness treatment. Even the mandate and final report of the far-reaching Romanow Commission maintained this focus.<sup>44</sup> Policies directed to health promotion and based on the understanding of the social determinants of health have not yet been coherently articulated or embraced by Canadian governments. In sum, it is critical to examine the evidence on health behaviours and lifestyle determinants in Atlantic Canada within this broader socioeconomic context and to target interventions that consider both social and economic determinants. This paper, therefore, takes a population health approach that aims to identify the root causes of risk factors and chronic disease. This approach is complex, and strategies will require coordination with areas outside the traditional health sector.

## **2.2 CHRONIC DISEASE PREVENTION**

***Key message: Atlantic Canada has more social, economic, and health inequities and higher rates of chronic disease than the rest of Canada.***

Many of the same social, economic, and psychosocial factors are associated with the development of communicable and noncommunicable disease as well as mental illness. Income disparity, poverty, and the resulting lack of resources, as well as low levels of social support, high stress, and other mental health problems all contribute to higher levels of chronic physical ailments. Statistics Canada’s National Population Health Surveys (1994/95 and 1996/97) show that the incidence rate of all chronic diseases studied was higher for people in the two lowest-income groups than for those in the three upper-income groups.<sup>45</sup> The following section is a brief review of the prevalence of various chronic diseases in the Atlantic provinces. It should be noted that, unless



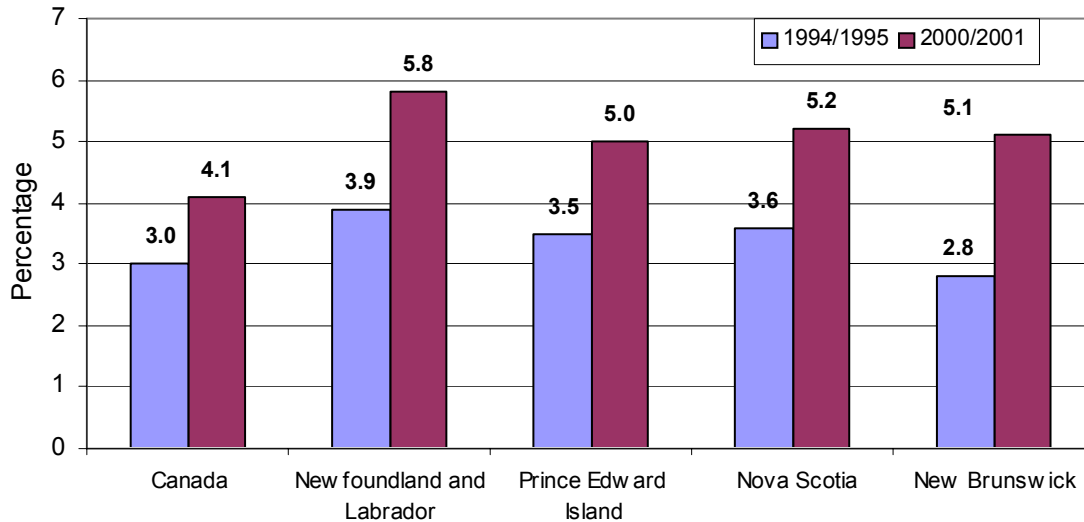
otherwise cited, the rates that follow are 1996 rates from Statistics Canada's health indicators. These are the latest and only figures available by health region and are therefore referenced here in order to highlight regional inequities within the Atlantic provinces.

### **2.2.1 Noncommunicable chronic diseases in the Atlantic provinces**

Cardiovascular disease, the major cause of death in Canada and the Atlantic provinces, is responsible for 37% of all deaths in the Atlantic region. The two main components of cardiovascular disease are ischemic heart disease, which includes acute myocardial infarction or heart attack, and cerebrovascular disease and stroke. The Atlantic provinces have a higher mortality rate for cardiovascular disease than the rest of Canada. In 1996, the highest age-standardized mortality rate for cardiovascular disease for males was in Prince Edward Island. For women, the highest rate was in Newfoundland and Labrador. Newfoundland and Labrador and Prince Edward Island had higher than average rates of coronary heart disease and stroke.

Cancer is the chronic disease with the second-highest mortality rate in Atlantic Canada, and Nova Scotia registers the highest death rates for cancer in Canada. Prince Edward Island and Nova Scotia both have higher than average rates of respiratory ailments.<sup>46</sup> All four provinces have higher rates of diabetes than the Canadian average. In Canada, 4.1% of the population aged 12 and over have diabetes, compared to 5.8% in Newfoundland and Labrador, 5% in Prince Edward Island, 5.2% in Nova Scotia, and 5.1% in New Brunswick.

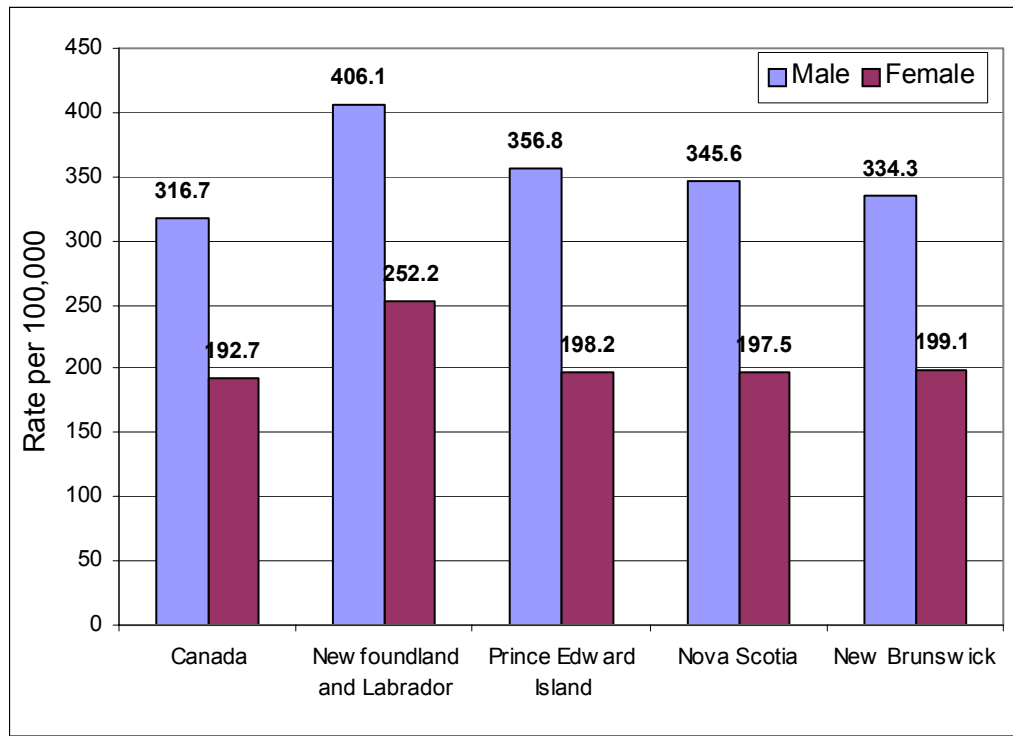
**Figure 2. Population aged 12 and over with diabetes, Atlantic provinces and Canada, 1994/95 and 2000/01, (%)**



Sources: Statistics Canada, *Canadian Community Health Survey 2000/01*, health file; Statistics Canada, *National Population Health Survey*, 1994/95, 1996/97, and 1998/99, cross-sectional sample, health file; Statistics Canada, *National Population Health Survey*, 1994/95 and 1996/97, cross-sectional sample, North component, available at [www.statcan.ca/english/freepub/82-221-XIE/00502/hlthstatus/conditions2.htm](http://www.statcan.ca/english/freepub/82-221-XIE/00502/hlthstatus/conditions2.htm) (extracted February 2, 2003).

While noncommunicable chronic diseases are generally more prevalent in the Atlantic provinces than in the rest of Canada, the provincial statistics mask considerable regional differences. Any analysis of inequity and disease in Atlantic Canada must account for these intra-provincial disparities. New information emerging from the Canadian Community Health Survey will provide a more accurate picture of local situations than has previously been available. Disadvantaged, low-income areas of the four Atlantic provinces consistently show worse patterns for almost all chronic diseases, disability, and premature death, while some of the major urban centres have profiles that are closer to the Canadian average. Chronic disease prevalence and disability are higher, for example, in Cape Breton and in the Truro-Amherst and Yarmouth-Digby areas of Nova Scotia, in Labrador and northern Newfoundland, in northern New Brunswick, and, to some extent, in rural Prince Edward Island, than in Halifax, St. John's, southern New Brunswick, and Charlottetown.

**Figure 3. All circulatory disease deaths age-standardized rate per 100,000, Atlantic provinces and Canada, 1996, (rate)**



Source: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates), available at [www.statcan.ca/english/freepub/82-221-XIE/00502/hlthstatus/deaths3.htm](http://www.statcan.ca/english/freepub/82-221-XIE/00502/hlthstatus/deaths3.htm) (extracted January 11, 2003).

### ***Nova Scotia***

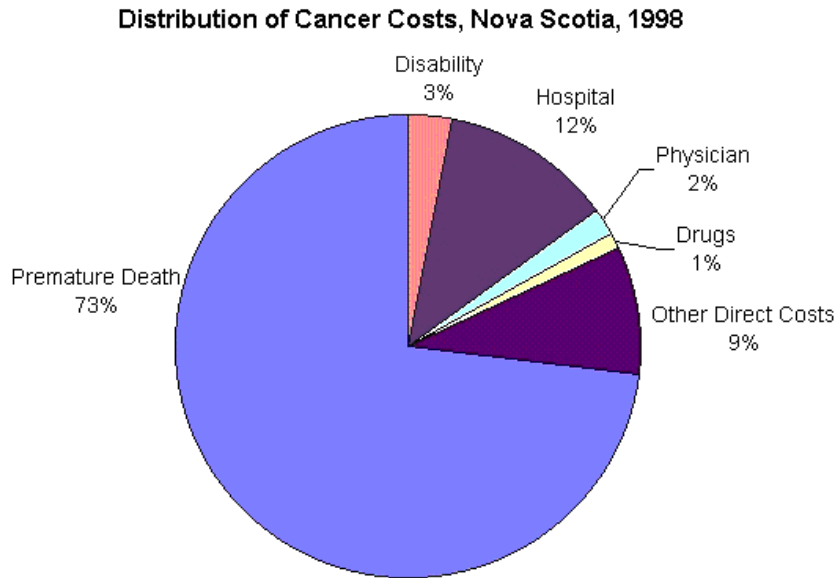
#### *Provincial statistics*

Among the four Atlantic provinces, Nova Scotia has the poorest overall health profile and the highest rate of disability. Some 5,800 Nova Scotians die from four types of chronic disease every year: cardiovascular diseases, cancer, chronic obstructive pulmonary diseases, and diabetes. Nova Scotia has the highest rates of deaths in Canada from cancer, including breast cancer and prostate cancer, and from respiratory disease, as well as the highest rates of arthritis and rheumatism. The province also has the second-highest rates of circulatory and lung cancer deaths, diabetes, and psychiatric hospitalization. Its rate of depression is nearly twice that of Newfoundland and Labrador. Chronic diseases account for 60% of total medical costs in Nova Scotia, more than \$1 billion each year. Nova Scotia has the lowest disability-free life expectancy in the country – three years less than the Canadian average.<sup>47</sup>

*Regional statistics*

In Nova Scotia, Cape Breton stands out as having high rates of unemployment and low income, a very high incidence of chronic illness, disability, and premature death. It has the highest age-standardized mortality rate in the three Maritime provinces, and the highest death rate from circulatory disease and heart disease in the Maritimes – 30% above the national average. Of the 21 Atlantic health regions, Cape Breton has the highest death rates from cancer (25% higher than the national average), from lung cancer, and from bronchitis, emphysema, and asthma (more than 50% above the national average). Cape Breton has the highest rate of high blood pressure in Atlantic Canada – 21.7%, including 24.3% of women and 18.9% of men. This is 72% higher than the Canadian rate. The next highest rates of high blood pressure are in south-southwest Nova Scotia and Colchester-Cumberland-East Hants, Nova Scotia, (18.5%). The second highest diabetes rate in the Atlantic region is in Colchester-Cumberland-East Hants (7%). The highest rates of breast cancer in Atlantic Canada are in Pictou-Guysborough-Antigonish-Strait, Nova Scotia (112.8 per 100,000).

**Figure 4. Distribution of cancer costs, Nova Scotia, 1998**



Source: Health Canada, *Economic Burden of Illness in Canada 1998*.

***Newfoundland and Labrador***

*Provincial statistics*

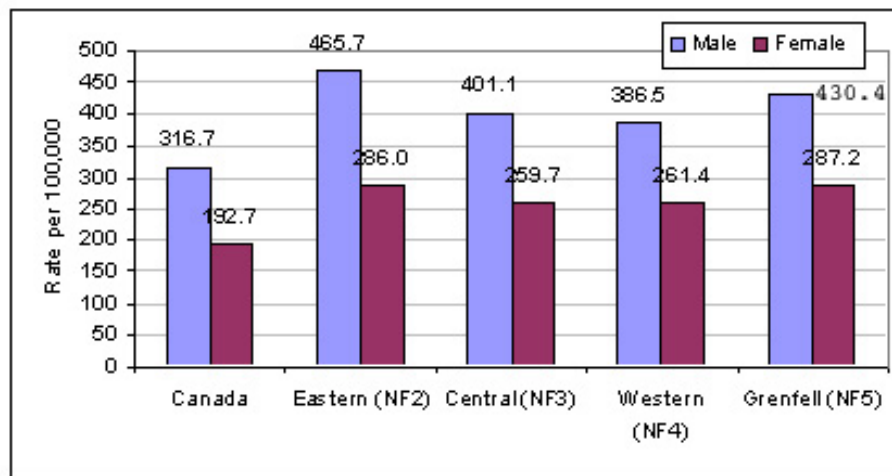
Newfoundland and Labrador has the lowest cancer incidence in the country but higher-than-average cancer mortality rates. The province has the highest mortality rates in the country for heart attacks, stroke, and colorectal cancer. Lung cancer rates overall are lower than in Nova Scotia and Prince Edward Island; however, in Newfoundland and Labrador, the rate of men dying from lung cancer is more than double that of women. Prostrate cancer incidence and deaths in the province doubled between 1979 and 1999.

In Newfoundland and Labrador, 5.8% of the population 12 and older have been diagnosed with diabetes, compared to the national rate of 4.1%. Newfoundland and Labrador has the lowest suicide rate in Canada, half the national average. However, youth suicide rates have been rising, especially among Aboriginal youth in Labrador.<sup>48</sup>

*Regional statistics*

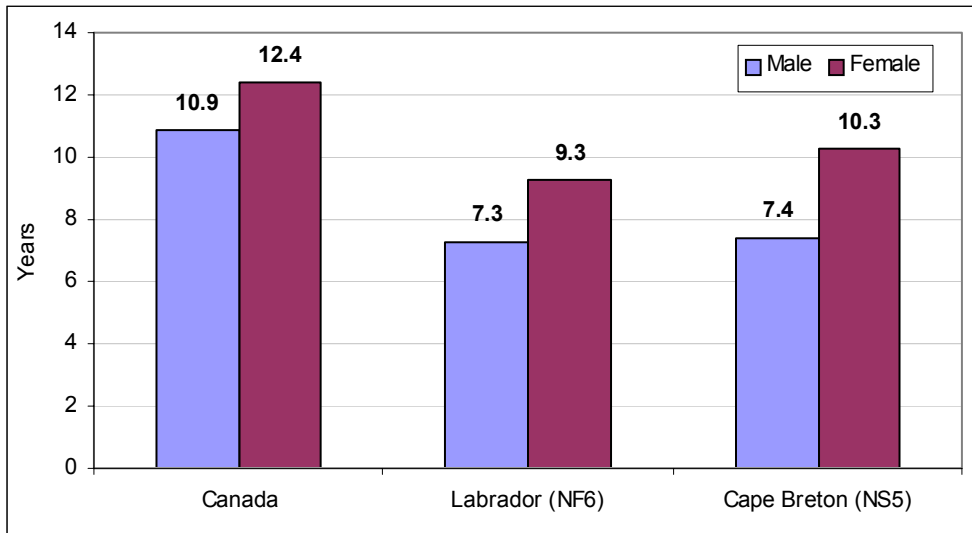
Overall, Labrador has by far the highest age-standardized rate of total mortality in Atlantic Canada – 869.5 per 100,000 population – 30% higher than the Canadian rate of 668.9 per 100,000. The second highest overall mortality rate in Atlantic Canada is in eastern Newfoundland. The highest rates of circulatory disease deaths are in northern and eastern Newfoundland (363 and 362 per 100,000 respectively), with rates of heart disease in eastern and northern Newfoundland (206.6 and 205.3) more than 50% above the national average. Eastern Newfoundland also has very high cancer death rates (224.7 per 100,000). Labrador has the highest rate of lung cancer deaths in the Atlantic region (72.9 per 100,000). Breast cancer deaths are highest in western Newfoundland (34.7 per 100,000). By far the highest respiratory disease death rate in Atlantic Canada is in Labrador – 121.3 per 100,000 – more than double the national average. The highest diabetes regional rates are recorded in central Newfoundland (7.4%).

**Figure 5. All circulatory disease deaths age-standardized rate per 100,000 for both genders in Newfoundland and Labrador with a rate that is at least 20% higher than Canada, 1996, (rate)**



Source: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates), 1996, available at [www.statcan.ca/english/freepub/82-221-XIE/00502/hlthstatus/deaths3.htm](http://www.statcan.ca/english/freepub/82-221-XIE/00502/hlthstatus/deaths3.htm) (extracted on January 11, 2003).

**Figure 6. Disability-free life expectancy at age 65 for Canada, Labrador, and Cape Breton, 1996, (years)**



Sources: Statistics Canada, Vital Statistics, Death Database, Demography Division (population estimates), and the *1996 Census, 20% sample*, available at [www.statcan.ca/english/freepub/82-221-XIE/00502/hlthstatus/function2.htm](http://www.statcan.ca/english/freepub/82-221-XIE/00502/hlthstatus/function2.htm) (extracted January 3, 2003).

## ***New Brunswick***

### *Provincial statistics*

New Brunswick has the second-highest rate of lung cancer deaths for men in the country. The province's incidence rate for male lung cancer is 32% higher than the national average. New Brunswick also has higher-than-average mortality rates from cancer and coronary heart disease. Although heart attack rates have declined, New Brunswick's mortality rate for males is still about 6% above the national average. New Brunswick men have the second-highest incidence of cancers in the country, and New Brunswick women have the third-highest rate. Prostrate cancer incidence is approximately 30% higher in 1996 than in 1990 and 19% higher than the national average. Disability-free life expectancy is two years lower than the national average. Suicide is the leading cause of death among those aged 25 to 29, and it appears to be rising among males aged 34 to 49.<sup>49</sup>

### *Regional statistics*

Northern New Brunswickers have a very different health profile than their counterparts in the southern parts of that province. The highest cancer death rates are in the northern New Brunswick communities of Campbellton (215.3 per 100,000) and Miramichi (212.4 per 100,000). Areas with the highest lung cancer deaths are Campbellton (69.1 per 100,000) and Edmundston (67.2 per 100,000) in western New Brunswick. Campbellton

has the highest blood pressure rates in New Brunswick (18.7%) and the second-highest rates of lung cancer in Atlantic Canada (76.1 per 100,000). The Fredericton area has the second-highest rate of breast cancer in the region (110.7 per 100,000).

### ***Prince Edward Island***

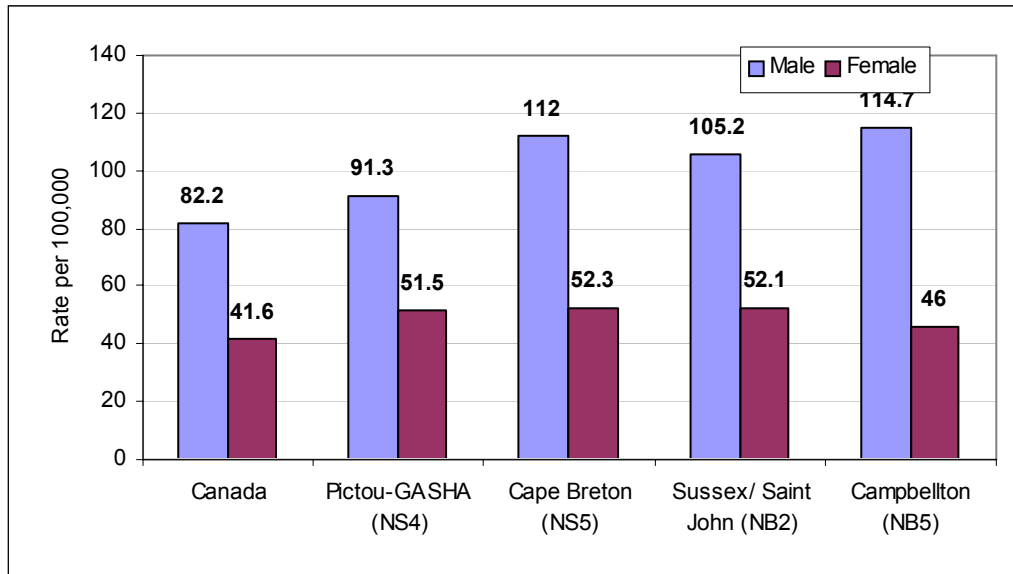
#### *Provincial statistics*

Lung cancer and heart attacks are the leading causes of death in Prince Edward Island. While cancer mortality for both men and women is lower in Prince Edward Island than in the other Atlantic provinces, it is still higher than the national average. The Prince Edward Island breast cancer death rate of 34.4 deaths per 100,000 women in 1999 was higher than the national average of 25.2. Over the previous 20 years, the breast cancer death rate for Prince Edward Island has risen, while the rate for Canada has been slowly declining. Diabetes rates have risen over the past three years across all age groups. Asthma and arthritis rates are also higher than the national average.<sup>50</sup>

#### *Regional statistics*

The lowest mortality rates in the Atlantic region are in rural Prince Edward Island (633 per 100,000). The highest rate of cerebrovascular deaths in the Maritimes is in Charlottetown and Summerside (65.3 per 100,000). It is noteworthy that the death rate due to stroke is markedly higher in urban areas of the province than in rural Prince Edward Island (43 per 100,000). The second highest rates of respiratory disease deaths are in Charlottetown and Summerside (76.6 per 100,000).

**Figure 7. Age-standardized lung cancer rate per 100,000 population in Atlantic health districts for both genders higher than Canada, 1995/96, (rate)**



Source: Statistics Canada, *Canadian Community Health Survey 2000/01*, health file; available at [www.statcan.ca/english/freepub/82-221-XIE/00502/hlthstatus/conditions4.htm](http://www.statcan.ca/english/freepub/82-221-XIE/00502/hlthstatus/conditions4.htm) (extracted January 5, 2002).

### 2.2.2 Communicable chronic diseases in the Atlantic provinces

The most prevalent communicable chronic disease in Atlantic Canada is hepatitis C, followed by HIV/AIDS. These illnesses can lead to other forms of chronic disease. The majority of hepatitis C cases progress to a chronic condition that can lead to cirrhosis of the liver and liver cancer. Persons living with AIDS are at risk of contracting other chronic diseases through lowered immune response. In addition, antiretroviral therapies can cause organ damage, heart disease, diabetes, and other chronic problems.<sup>51</sup> As with all chronic diseases, the burden and stress of living with disease can lead to mental health problems.

Communicable diseases are almost entirely preventable. The modes of transmission for both hepatitis C and HIV/AIDS overlap significantly because both are blood-borne. Both may be acquired through injection drug use (IDU), blood transfusions, and plasma fractionation products. IDU is higher among those with hepatitis C, and users are frequently homeless, malnourished, suffer from depression and lack of hope for a productive future, and are victims of crime.<sup>52</sup> In addition to IDU and tainted blood product exposure, risk factors for HIV include sexual contact with a person who is infected with the virus.



Although the initial HIV epidemic mostly affected the gay community, the risk is now growing through heterosexual contact and among women. In Canada, women accounted for just 9% of new AIDS diagnoses in 1995, but 21% in 1999.<sup>53</sup> Between the period 1985-1994 and 1999, the female proportion of HIV positive tests increased from 10 to 25% of the total.<sup>54</sup> IDU and sexual contact currently account for about 80% of HIV infections in Canada,<sup>55</sup> with most new cases of HIV infections appearing among injection drug users.<sup>56</sup> There are limited data available on those co-infected with hepatitis C and HIV in Canada, although estimates suggest that it is considerable, with particularly high rates of both HIV and hepatitis C among prisoners and street youth.<sup>57</sup>

HIV/AIDS can mutate and move into certain populations or spread to new groups with tremendous speed.<sup>58</sup> In the past five years, although rates of infection declined in general, they are rising among vulnerable populations, including the poor, unemployed, minorities, poorly educated, Aboriginal people, and those involved in “street activity.”<sup>59</sup> The number of AIDS cases among Aboriginal Canadians has risen steadily, particularly among women and those under 30, and rates of infection in the Canadian prison population are estimated to be at least 10 times greater than in the general population.<sup>60</sup>

As with noncommunicable disease and mental illness, prevention strategies for communicable diseases need to work toward alleviating underlying social and economic causes.<sup>61</sup> Poverty, low education, physical and emotional abuse, and despair and hopelessness are often cited as underlying causes leading marginalized people into the high-risk behaviour associated with communicable diseases such as HIV/AIDS and hepatitis C.<sup>62</sup>

In the past, for both communicable and noncommunicable chronic diseases, disease-specific prevention and management strategies have had limited effectiveness in reaching marginalized groups. In speaking about HIV/AIDS, one analysis notes:

New therapies should mean an improved quality of life for those living with HIV who have access to the therapies and sufficient income to procure adequate housing and nutrition to provide a healthy basis from which to manage the infection. It is not clear how helpful the therapies will be to marginalized populations, particularly street-involved people and injection drug users, who have difficulty complying with the stringent guidelines required to make the new therapies effective.<sup>63</sup>

### ***Provincial and regional statistics***

A recent Health Canada report, *Profile of Injection Drug Use in Atlantic Canada*,<sup>64</sup> surveyed service providers in the four provinces. Nova Scotia and New Brunswick have the most injection drug users in the Atlantic region. Approximately half of the users share needles and engage in unsafe sexual activity. The majority of injection drug users at risk for hepatitis C and HIV/AIDS are urban males between the ages of 18 and 44.

IDU by youth aged 18 to 24 and women is increasing. Female injection drug users are often the victims of physical, sexual, or emotional abuse by male partners or pimps. The majority of users have not finished high school, and most are poor and living on the margins of society. Most injection drug users are Caucasian, but the number of African Canadians affected is growing.<sup>65</sup>

Estimates of hepatitis C among injection drug users reach 90%. In 1999, estimates of unreported and reported cases of hepatitis C included 4,000 cases in Nova Scotia, 1,430 cases in New Brunswick, 537 cases in Newfoundland and Labrador, and 403 cases in Prince Edward Island. However the majority of injection drug users have not been tested for these diseases. “Hotspots” include the largest cities in the region, as well as eastern Cape Breton and Pictou and Cumberland counties in Nova Scotia.<sup>66</sup>

The rate of positive HIV test reports is considerably lower in all four Atlantic provinces than in Canada as a whole. The data, however, can be misleading, since estimates of unreported cases are high. Cases that are reported are those that are tested within the province. Unreported incidence includes individuals who have HIV/AIDS, who were tested in another province and then returned home to Atlantic Canada. In addition, Prince Edward Island does not have anonymous testing; individuals living there tend to go to other provinces for testing. As one Canadian report warns:

The encouraging data, in other words, should not be allowed to foster complacency. Indeed the number of positive HIV test reports increased 2.9% between 2000 and 2001 (from 2119 to 2180) and during the first six months of 2002, there was a 9.7% increase from the same period in 2001. The bulk of the epidemic still appears to lie in front of rather than behind Canadians.<sup>67</sup>

From 1985 to June 2002, 577 people had HIV-positive tests in Nova Scotia (including a small number from Prince Edward Island), 258 in New Brunswick, and 210 in Newfoundland and Labrador. Canada identified 51,479 cases in the same period.<sup>68</sup> Of these totals, the cases reported for women were 77 in Nova Scotia/Prince Edward Island, 31 in New Brunswick, 47 in Newfoundland and Labrador, and 6,713 in Canada. The number of people testing HIV positive in Atlantic Canada has been declining since at least 1995. From 2001 to June 2002, Nova Scotia/Prince Edward Island had 20 new cases, New Brunswick had 13 new cases, and Newfoundland and Labrador had five new cases in 2001 but none in 2002.

From 1985 to June 2002, there have been 295 cases of AIDS reported in Nova Scotia/Prince Edward Island, 148 in New Brunswick, 86 in Newfoundland and Labrador, and 18,336 in Canada. Of those, cases for women included 20 in Nova Scotia/Prince Edward Island, 14 in New Brunswick, 18 in Newfoundland and Labrador, and 1,536 in Canada. The numbers of new AIDS cases from 2001 to June 2002 were seven in Nova Scotia/Prince Edward Island, three in New Brunswick, and two in Newfoundland and Labrador. However, from January to June 2002, both New Brunswick and

Newfoundland and Labrador had no new AIDS cases. In 1999/2000, Nova Scotia/Prince Edward Island, New Brunswick, and Newfoundland and Labrador each reported one new case for women. There were no new cases between 2001 and June 2002 for women.<sup>69</sup>

The death rate due to AIDS is markedly lower in all four Atlantic provinces than in Canada as a whole. The age-standardized AIDS death rate is four per 100,000 in Canada, compared to 1.4 in Newfoundland and Labrador, one in Prince Edward Island, two in Nova Scotia, and 1.9 in New Brunswick. But the Moncton and Halifax rates (3.5 and 3.2 respectively) are closer to the Canadian rates.

### **2.2.3 Mental health in the Atlantic provinces**

The World Health Organization definition of health ranks mental and social well-being as vital components of human health and explicitly defines well-being and positive health as more than the absence of disease.<sup>70</sup> According to the Newfoundland and Labrador Department of Health and Community Services, mental health is necessary to lead a productive life, form healthy relationships, and deal with life's difficulties and change.<sup>71</sup>

There is also strong evidence that mental health is important in coping successfully with stressors in general, and the stress of illness in particular, and for maintaining good physical health and healthy life practices.<sup>72</sup> Mental illnesses, on the other hand, are defined by Health Canada as being "characterized by alterations in thinking, mood or behaviour (or some combination thereof) associated with significant distress and impaired functioning over an extended period of time. The symptoms of mental illness vary from mild to severe, depending on the type of mental illness, the individual, the family and the socioeconomic environment."<sup>73</sup>

Depression is not only a serious chronic mental illness in its own right, but is also a major risk factor for heart disease, cancer, and other chronic physical illnesses. A 13-year study found that individuals with chronic depression had a 4.5 times greater risk of heart attack than individuals with no history of depression, and mortality was four times higher.<sup>74</sup> Another study found that depression carried a similar risk for mortality among elderly women, as did cardiovascular risk factors like hypertension, smoking, obesity, and diabetes.<sup>75</sup>

Studies have found that confidence, optimism, self-efficacy, and a sense of coherence and control can buffer and moderate the effects of stress and protect against illness.<sup>76</sup> Just as mental distress is frequently the precursor of physical illness, a healthy state of mind is also recognized as the most important element in healing and restoring health after illness or injury.<sup>77</sup>

The interaction of physical and mental illness is complex. There is evidence that mental illness can contribute to, result from, or share a common causal pathway with physical illnesses such as cancer, heart disease, and chronic obstructive pulmonary disease.<sup>78</sup>

Physical illness can cause mental distress, and mental illness is associated with physical disorders. Certain emotional states and personality types have been identified as risk factors for hypertension, heart disease, and other chronic illnesses. In particular, hostility, aggression, cynicism, and isolation have been related to heart disease risk; suppressed anger has been linked to cancer, high blood pressure and hepatitis C; and repressed emotionality has been found to be a risk factor for both cancer and heart disease.<sup>79</sup>

People who have chronic disease often experience anxiety, depression, and other mental conditions. People who have mental illness often experience physical symptoms and illnesses such as weight loss and blood biochemical imbalances associated with eating disorders. Mental illness may also contribute to substance abuse in an attempt to manage symptoms.<sup>80</sup> A report from Health Canada points out:

There is also increasing evidence that long-term changes in brain function can occur in response to factors in the environment such as stimulation, experiences of traumatic or chronic stress, or various kinds of deprivation. In other words, the interaction between brain biology and lived experience appears to work both ways.<sup>81</sup>

Because mental and physical illnesses are interconnected, social inequities may influence the progression of chronic diseases through the medium of mental disorders. Factors such as socioeconomic status, family conflict, and work pressures can trigger the onset of mental illness. Although most people who are poor do not have mental illness, research has shown that being poor increases the likelihood of developing a mental illness.<sup>82</sup> Poverty increases hopelessness and despair as well as the risk of chronic or traumatic stress. According to one researcher, child poverty, income disparities, and declining expenditures on education, health, and welfare may cause an increase in mental illness in the near future.<sup>83</sup> As well, people with mental illness who are not able to work and who do not have independent economic support almost always fall into poverty.<sup>84</sup>

One analysis of the mental health of Canadians found a strong association with education. The odds of having high self-esteem, mastery, happiness, and interest in life were 2.2 times higher for university graduates than for high school dropouts. The same study found that current stress and social support were the strongest factors correlated with mental health. Those with strong social supports had half the odds of being affected by distress – further testimony to the highly interactive nature of the determinants of health.<sup>85</sup> Studies have demonstrated that the stress of male unemployment produces a mental health decline among wives and children. Similarly, high levels of stress among women affect families and communities.<sup>86</sup>

People with mental illnesses face stigma and discrimination from those who do not understand the illnesses. The result is that people experiencing severe distress often prefer to hide their feelings rather than seek help and support. The Canadian Alliance for

Mental Illness and Mental Health has recommended combating discrimination through public education as a first step toward improving mental health.<sup>87</sup> Minimizing the impact of mental illness requires strong social supports, adequate housing and income, and educational opportunities.<sup>88</sup>

Most mental illnesses start during adolescence and early adulthood, thus undermining future education and career opportunities and causing emotional and financial distress to families. Youth now have the highest distress levels in the population. Twenty years ago, youth had the lowest levels, while seniors had the highest levels.<sup>89</sup> This dramatic change may be partly attributable to higher rates of youth unemployment and job insecurity, falling real incomes among young people, and the financial stresses of higher student debt and rising university tuition. On the other hand, the incomes of seniors have benefited from government initiatives including pension plans and taxation policies. In other words, shifting mental health outcomes may reflect a growing socioeconomic age inequity in Canada.

Women have a 14% higher rate of psychiatric hospitalization overall than men. Across all ages, female rates of separation from psychiatric institutions are markedly higher than male rates for neurotic disorders (ratio of 1.9:1), depressive disorders (1.8:1), affective psychoses (1.7:1), and adjustment reaction (1.4:1), while men have higher rates for alcohol and drug dependence (2.4:1) and schizophrenia (1.4:1). Women have a 21% higher rate of admission to general hospitals for mental disorders than men do.<sup>90</sup>

When psychiatric hospitals are included, mental disorders account for more hospital days in Canada than any other illness – over 15 million patient days in 1993/94 – more than the combined total for all circulatory and heart diseases, nervous system disorders, cancers, and injuries (the next four most common causes of hospitalization.) Even in general hospitals, mental disorders account for nearly six million hospital days a year.<sup>91</sup>

As it is closely related to mental disorders, suicide is often used as a proxy for a society's mental health. According to Statistics Canada, suicide is one of the leading causes of death for young and middle-aged Canadians. In fact, Canadians are seven times more likely to die of suicide than homicide. In 1998, suicide was the leading cause of death for men aged 25 to 29 and 40 to 44 and for women aged 30 to 34. For ages 10 to 24 for both sexes, it was the second leading cause of death after motor vehicle accidents.<sup>92</sup>

Suicide rates among Aboriginal people, particularly Inuit, are especially high. Possible related factors identified in the literature are multidimensional. They include alcohol abuse, depression, family instability, lack of social control, loss of dignity, changing lifestyles, economic change, and (for youth in particular) acculturation, resettlement, a sense of hopelessness and helplessness, family violence, isolation, delinquent behaviour, and rejection by significant others.<sup>93</sup>

Researchers generally agree that suicide is associated with social, economic, and cultural factors such as social isolation, family violence, mental illness, physical illness, poverty, depression, and hopelessness. Suicides are heavily influenced by the economy. They drop as economic conditions improve and rise during recessions. Males are about four times more likely to commit suicide than females. In sum, social inequities may often be an underlying cause of suicide.<sup>94</sup>

### ***Provincial and regional statistics***

Despite the importance of mental well-being, there is still very little evidence on the incidence and prevalence of most mental illnesses in Canada. There are also few data related to the associations with socioeconomic status, education, ethnicity, and other variables; the impacts on physical health and well-being; associated risk and protective factors; and access to mental health services.<sup>95</sup>

Residents of Newfoundland and Labrador have significantly higher levels of mental health than other Canadians and consistently report the lowest stress levels and the highest levels of psychological well-being in the country.<sup>96</sup> In 1985, Newfoundland and Labrador stress levels were 27% below the national average; in 1991 they were 16% less; in 1994/95 they were 35% less; and in 2000/01, high stress was more than 40% less common among residents of Newfoundland and Labrador than among other Canadians. In 1994/95, residents of Newfoundland and Labrador were also 30% more likely than other Canadians to report a high level of psychological well-being.

This high mental health status may explain why, despite higher levels of unemployment and lower income and schooling levels, residents of Newfoundland and Labrador report far fewer chronic illnesses than other Canadians in certain key categories. They have the lowest rate of new cancer cases, asthma, allergies, and back problems in the country. They also have the lowest rates of suicide despite the high suicide rate in Labrador and the lowest rates of sexually transmitted diseases in Canada, outcomes that are linked to mental health status. They are more likely to report their own health as “excellent” or “very good” than other Canadians, and they have higher levels of functional health status than most other Canadians. Interestingly, despite the province's chronic economic and employment problems, residents of Newfoundland and Labrador even report higher levels of work satisfaction than the national average.<sup>97</sup> The “Newfoundland advantage” in this sphere, once fully recognized and appreciated for its considerable health impact, may provide a model for a realignment of our conventional definitions from a “disease treatment” perspective to a more complete and positive view of health.

Prince Edward Islanders also have a high level of mental health, with chronic stress levels 23% lower than national levels and a rate of psychological well-being 17% higher than the national rate.<sup>98</sup> Islanders are also more likely to rate their own health as “excellent” or “very good” than other Canadians.<sup>99</sup> On the other hand, Nova Scotia and

New Brunswick now register lower levels of psychological well-being than other Canadians.

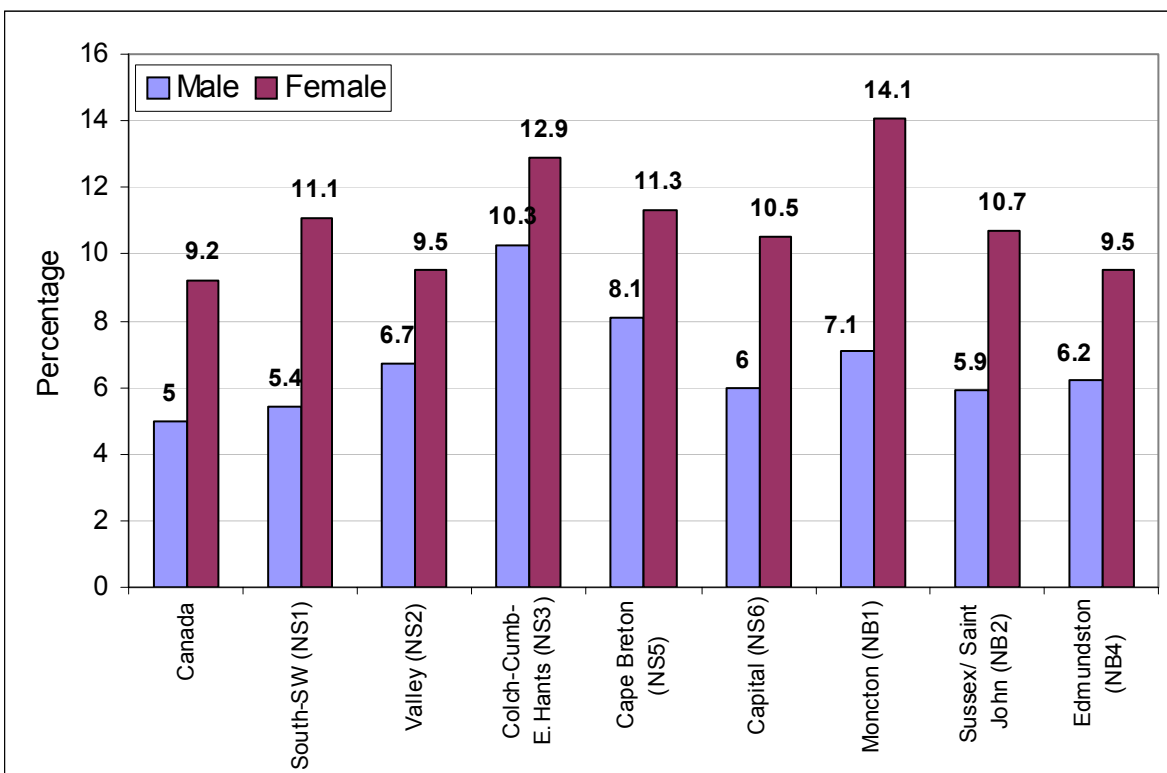
According to the 2000/01 Canadian Community Health Survey, 7.1% of Canadians are at “probable risk of depression” compared to 4.7% of residents of Newfoundland and Labrador and 5.8% of Prince Edward Islanders – results that confirm these two province’s consistent high mental health scores over time. By contrast, Nova Scotians (8.7%) and New Brunswickers (7.7%) are at greater risk of depression than other Canadians.

The regions with the highest risks of depression in Atlantic Canada are Colchester, Cumberland, and East Hants counties in Nova Scotia (the Truro-Amherst area), where 11.6% of residents are at probable risk of depression, the Moncton region (10.7%), and Cape Breton (9.8%).

Women are more likely to suffer depression than men are. In Canada, 9.2% of women are at probable risk of depression, compared to 5% of men. In Nova Scotia, the rates are 10.6% for women and 6.6% for men, and in New Brunswick they are 10.3% for women and 5% for men. Moncton, New Brunswick (14.1%), Colchester-Cumberland-East Hants (12.9%) and Cape Breton in Nova Scotia (11.3%) have the highest proportion of women at probable risk of depression.<sup>100</sup>

The age-standardized suicide rate for Canada in 1996 was 12.9 per 100,000, with males registering a significantly higher rate (20.8) than women (5.3). Newfoundland and Labrador has substantially lower rates than the Canadian average: 7.3 per 100,000 (12.8 for men, 2.1 for women), but this low provincial average conceals the very high rate of suicide in Labrador (19.2 per 100,000). Aboriginal people represent 28.7% of the Labrador health region population.

**Figure 8. Atlantic health districts with a higher percentage of the population aged 12 and over with probable risk of depression, compared to Canada, 2000/01, (%)**



Source: Statistics Canada, *Canadian Community Health Survey 2000/01*, health file; available at [www.statcan.ca/english/freepub/82-221-XIE/00502/hlthstatus/conditions2.htm#depression](http://www.statcan.ca/english/freepub/82-221-XIE/00502/hlthstatus/conditions2.htm#depression) (extracted January 6, 2003).

Note: Data for males in all health districts – South-Southwest (NS1), Annapolis Valley (NS2), Colchester-Cumberland-East Hants (NS3), Cape Breton (NS5), Capital (NS6), Moncton (NB1), Sussex/Saint John (NB2), and Edmundston (NB4) – have a coefficient of variation (CV) from 16.6% to 33.3% and should be interpreted with caution.

Note: Data for females in Edmundston (NB4) have a coefficient of variation (CV) from 16.6% to 33.3% and should be interpreted with caution.

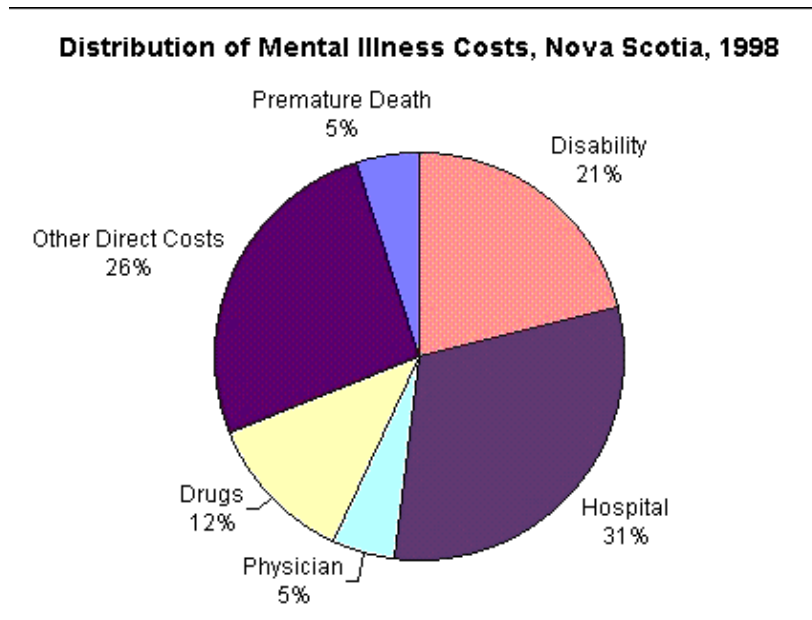
Prince Edward Island also has a lower rate of suicide than the Canadian average: 11 per 100,000 (18.4 for men, 3.8 for women). But this again conceals a marked rural-urban disparity (14.1 in Charlottetown and Summerside, compared to 8.3 in rural Prince Edward Island). Nova Scotia’s suicide rate is also lower than the Canadian average: 11.6 per 100,000 (20.1 for men, 3.5 for women).

New Brunswick has a higher suicide rate than the Canadian average: 13.4 per 100,000 (23.8 for men, 3.2 for women). However this conceals a very marked difference between the urban centres of southern New Brunswick and the rest of the province. In fact, the



Saint John (9.2), Fredericton (10.6), and Moncton (12.3) areas all register suicide rates below the Canadian average. By contrast, the Edmunston (24.9) and Campbellton (22.8) areas in western and northern New Brunswick respectively have the highest suicide rates in Atlantic Canada.<sup>101</sup>

**Figure 9. Distribution of mental illness costs, Nova Scotia, 1998**



Source: Health Canada, *Economic Burden of Illness in Canada 1998*.

### 2.3 DISCERNING TRENDS

This preliminary description reveals some very clear regional trends and health inequities that correlate strongly with social and economic disadvantage. For example:

- Cape Breton, with its high unemployment and low-income rates, has a far greater incidence of chronic illness, disability, and premature death than Halifax.
- There is a clear north-south divide in New Brunswick, with far better health status in the urban centres of Saint John, Fredericton, and Moncton than in the Campbellton and Edmundston areas, for example.
- Labrador stands out for its high rates of suicide, lung cancer deaths, and premature mortality, with sensitivity clearly required for the particular social, cultural, and health needs of the Aboriginal population.
- There is no single health profile in Atlantic Canada. In many instances, like mental health and self-rated health, Newfoundland and Labrador and Prince Edward Island stand in marked contrast to Nova Scotia and New Brunswick. The reasons for this should be explored and better understood.

These and other trends have their roots in social and economic disparities and inequities, in the region's increasingly sharp rural-urban divide, in specific cultural contexts, and in a range of social processes that exacerbate or ameliorate underlying material conditions. The better these relationships are understood, the more effectively policy planners will be able to intervene to improve the health of Atlantic Canadians.

### 3. INEQUITY AND SOCIAL/ECONOMIC EXCLUSION

*Key Message: Social and economic exclusion creates inequities in society.*

#### 3.1 DISCRIMINATION AND RACISM

Poverty and inequity are integral to a larger complex of clustered factors, including discrimination and racism, that tend to exclude groups of disadvantaged people from the larger society. Racism and discrimination remain a social reality in our culture. Discrimination occurs when a dominant group treats others as subordinate and undeserving of the protections and privileges they give themselves.<sup>102</sup>

Quoting *The Colour of Democracy: Racism in Canadian Society*, the Canadian Race Relations Foundation distinguishes among three main forms of racism: individual, systemic, and cultural. Individual racism is the easiest type to identify and is seen in individual attitudes and behaviours. Systemic racism is often difficult to identify because it is implicit in the policies of organizations. These policies, whether direct or indirect, sustain the advantages of the “privileged.” Cultural racism is a value system embedded in society and forms the basis of the other forms of racism. Perceptions of racial difference, superiority, and inferiority support discriminatory practices.<sup>103</sup>

Overt forms of racial discrimination are not acceptable to most people in Canada.<sup>104</sup> The Canadian Race Relations Foundation says that, although there is a refusal to recognize that racism is an issue in Canada, it continues to be a root cause of human inequality. Recognizing the presence and effects of racial discrimination is the first step in its elimination.<sup>105</sup> Reports such as *Canada's Creeping Economic Apartheid* discuss the “racial divide” or the economic segregation and social marginalization of racialized groups.<sup>106</sup> In *A Place Called Heaven: The Meaning of Being Black in Canada*, Foster observes that although racism in Canada may not be as open as in the United States, it still “saps dreams and leads to despair about the future.” African Canadians call the brand under which they live “racism with a smile on its face.”<sup>107</sup>

The Canadian Race Relations Foundation points out that, as well as being an attitude, racism is action that results from this attitude. These actions marginalize and oppress people. They work through structures of society such as education, justice, media, policing, immigration, employment, and government policies.<sup>108</sup> For example, systemic discrimination is observed when visible minorities are denied jobs, especially higher-level positions, housing, and justice. Discrimination in employment is reported that cannot be accounted for by educational attainment. In the Canadian public service, visible minorities account for one in 17 employees, but only one in 33 are in management positions.<sup>109</sup>

Focus group participants in a Canadian study<sup>110</sup> of racism confirm that visible minority men and women still face “polite” racism when job hunting. One focus group participant said, “I’ve called about jobs and had people say ‘Come down for an interview,’ yet when I get there, I get the feeling they are surprised to see that I’m black because I sound like the average guy on the telephone. They’ve said ‘Oh, the job has just been filled,’ or during the interview they’ll say that I’m overqualified or ask me questions like ‘Are you sure you want to work at this type of job?’” Other focus group members in the same study pointed out the difficulties in advancing even after being employed. One focus group participant commented, “I had applied for a promotion, but I didn’t get the job. A guy that I had trained (who is white) got the promotion instead.” Another reported that the higher up the organizational ladder you look the lighter the skin colour. “I look around and think – there’s no chance of getting ahead. Of all the people in senior positions, no one is from an ethnic group.”<sup>111</sup>

Based on 1996 Census data, the *Canadian Fact Book on Poverty* reports that the poverty rate of racialized groups in Canada (35.9%) is almost twice that of other poverty groups (17.6%). Newfoundland and Labrador has the lowest poverty rate for racialized groups compared to other poverty groups (24.3% compared with 21.3%). Nova Scotia has the second highest rate in Canada (37.9% compared with 18.1%). The rates for New Brunswick (34.2% compared with 18.9%) are close to the national average. The Prince Edward Island rates (28% compared with 15.1%) are lower than the national average.<sup>112</sup>

Stigma and discrimination also impact on people with mental illness. *A Report on Mental Illness in Canada* from Health Canada says discrimination toward mental illness arises “from superstition, lack of knowledge and empathy, old belief systems, and a tendency to fear and exclude people who are perceived as different.”<sup>113</sup> People who experience mental illnesses often are afraid, embarrassed, and consequently do not seek help from family, friends, co-workers, employers, health service providers, and others in the community. The Canadian Alliance for Mental Illness and Mental Health identifies preventing the stigma of mental illnesses and discrimination against people with mental illnesses as a priority for improving the mental health of Canadians.<sup>114</sup> It recommends educating the public and the media about mental illness as a first step. It also recommends developing and enforcing policies that address discrimination and human rights violations.

People who need the support of social assistance and employment insurance also face a lack of general understanding and discrimination among the population at large. For example, in a memo to the Prime Minister published in the *Edmonton Journal* entitled, “Cure for poverty is to end welfare: Back to the poorhouse: In today’s society, poverty is usually a voluntary choice,” McMahon states:

All the barriers people once faced – barriers that could pen people into poverty – have disappeared ... The safety net makes the consequences of bad choices

seem more tolerable. Anti-poverty programs all too often make poverty more acceptable and thereby perpetuate it.<sup>115</sup>

People who experience discrimination based on differences in race, ethnic background, or sexual orientation pay a high price in terms of their health. Research suggests that people who live with discrimination are more likely to suffer from adverse mental and physical health consequences, especially cardiovascular disease and hypertension.<sup>116</sup> Repeated exposure to discrimination creates constant stress, feelings of depression, low self-esteem, and anger. Discrimination also contributes to poverty, economic insecurity, lack of educational opportunities, and other resources necessary for good health.<sup>117</sup>

Discrimination lies at the heart of risk for communicable chronic diseases as well.<sup>118</sup> The issues around HIV have common as well as dissimilar factors in relation to other chronic diseases. Inequity is a basic component behind the prevention of HIV and the longer-term management of the disease. According to Larry Baxter of Nova Scotia's Advisory Commission on AIDS, discrimination based on sexual orientation may inhibit acknowledgement of homosexuality and thus create barriers to hearing the HIV prevention message and to seeking care and support when infected. Peer groups, families, schools, communities (especially small town or rural), workplaces, and churches may all contribute to subtle barriers of stigma and discrimination that become "truths" over time and reinforce inequities that perpetuate the status quo.<sup>119</sup>

### **3.2 SOCIAL AND ECONOMIC INCLUSION**

Social and economic inclusion/exclusion has emerged as an important concept in the literature, which links it to root causes of illness, pathways to illness, risk conditions and behaviours, and chronic disease. People who are socially and economically excluded from society experience material deprivation including barriers to jobs and education, psychosocial stresses including barriers to participation in policy making, and frequently adopt unhealthy behaviours as a means to cope with these stresses. Lack of adequate income, low educational attainment, lack of access to goods and services (including health care), unsafe housing, underemployment, marginal access to the political process, and the impacts of culture, gender, and sexual orientation may contribute to exclusion.<sup>120</sup>

According to the Atlantic Centre of Excellence for Women's Health, the concept of social and economic exclusion allows us to look beyond the surface descriptions of deprivation to examine some of the underlying exclusions from key social resources that people face. As Raphael notes, social exclusion "describes an overall process by which the incidence of low-income – and the related precursors of [chronic] disease ... among Canadians are associated with government, social and economic policies and other societal processes."<sup>121</sup> As one analyst has pointed out, this implies that it is not marginalized groups that need to be returned to the mainstream of society. Rather, in order to ensure all are included, society must change.<sup>122</sup>

Social and economic exclusion is not an individual choice. It is at least partially the result of societal change (e.g., unemployment, single parenthood, out-migration) and government policy (e.g., welfare cuts, privatization).<sup>123</sup> This understanding is very important, because it indicates that social and economic exclusion is a modifiable risk process, not a fixed condition. Government policies, in other words, can either deepen or mitigate social and economic exclusion in society, regardless of inherent status or birth.<sup>124</sup> Communities and societies can organize to support or undermine health.<sup>125</sup> An integrated population health approach recognizes that effective disease prevention strategies must both reduce social and economic exclusion and increase social and economic inclusion in the population.<sup>126</sup>

Szereter and Woolcock distinguish three major types of social inclusion – bonding, bridging, and linking – which they call “social capital.” Acknowledging these differences is important for identifying effective population health strategies to increase inclusion. The first, bonding, refers to trusting and cooperative relations among members of a social network who see themselves as being similar. These could be family groups, community groups, or even members of a neighbourhood gang. The second type, bridging, refers to respectful relations among persons of groups that are different in a sociodemographic sense, such as age, ethnic group, class, etc. These groups are more or less equal in power and status and forming bridges among them increases mutuality and reduces discrimination. The third type, linking, connects people across power differentials. For example, linking poor communities with bankers, law enforcement officers, or social workers can give them ties to representatives of formal institutions that have a major impact on their welfare.<sup>127</sup>

Social and economic exclusion and inclusion interact singly and in combination across many domains of deprivation. Table 1 provides some examples of these dimensions that include physical, economic, human assets, social assets, and political factors. It is adapted from a version by Mitchell and Shillington<sup>128</sup> who, in turn, adapted the framework from de Haan.<sup>129</sup> The framework includes the aspect of deprivation (e.g., income), the indicators (e.g., child and family poverty), the institutions or agents involved (e.g., labour market, government authorities), and the processes involved in social and economic exclusion (e.g., macroeconomic policy, income security policy, training policy, etc.) It points out the many dimensions of social and economic exclusion/inclusion, which include health, discrimination, housing, and political participation.

**Table 1. The institutions and processes of exclusion**

ASPECT	INDICATOR	INSTITUTIONS/AGENTS	PROCESSES OF EXCLUSION
<b>Physical:</b> Location	<ul style="list-style-type: none"> <li>• Geographic isolation</li> <li>• Access to public parks and spaces</li> </ul>	<ul style="list-style-type: none"> <li>• Local government planners</li> <li>• Neighbourhood and ratepayer associations</li> </ul>	<ul style="list-style-type: none"> <li>• Municipal zoning practices and planning process</li> <li>• NIMBYism</li> </ul>
Infrastructure	<ul style="list-style-type: none"> <li>• Access to public transit</li> <li>• Availability of public library</li> </ul>	<ul style="list-style-type: none"> <li>• Transportation planners/ government officials</li> </ul>	<ul style="list-style-type: none"> <li>• Local and senior government budget processes</li> </ul>
Housing	<ul style="list-style-type: none"> <li>• Core housing need</li> <li>• People in shelters or temporary accommodation</li> <li>• Tenure and costs</li> </ul>	<ul style="list-style-type: none"> <li>• Landlords</li> <li>• Politicians</li> <li>• Administrative restrictions, by-laws, lease restrictions</li> </ul>	<ul style="list-style-type: none"> <li>• Discrimination</li> <li>• Evasion of tenancy laws</li> <li>• Budget priority-setting process</li> </ul>
<b>Economic:</b> Income	<ul style="list-style-type: none"> <li>• Child and family poverty</li> <li>• Duration of poverty</li> <li>• GINI index of income inequality</li> <li>• Intra-family distribution of income</li> </ul>	<ul style="list-style-type: none"> <li>• Labour market</li> <li>• Government authorities</li> <li>• Culture and custom</li> </ul>	<ul style="list-style-type: none"> <li>• Macroeconomic policy</li> <li>• Income security policy</li> <li>• Local economic policy (e.g., labour matching, training policy)</li> <li>• Gender discrimination</li> </ul>
Assets	<ul style="list-style-type: none"> <li>• Wealth, home ownership</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of access to finance and financial institutions</li> </ul>	<ul style="list-style-type: none"> <li>• Security against financial mishaps</li> </ul>
<b>Human Assets:</b> Health	<ul style="list-style-type: none"> <li>• Low birth weight</li> <li>• Premature mortality</li> <li>• Chronic disease</li> <li>• Disability</li> <li>• Access to health services coverage by supplementary</li> </ul>	<ul style="list-style-type: none"> <li>• Public health system</li> <li>• Private/public health insurance</li> <li>• Government policies</li> </ul>	<ul style="list-style-type: none"> <li>• Access to needed health care services, devices, drugs, etc.</li> <li>• Social and economic determinants of health</li> </ul>
Education	<ul style="list-style-type: none"> <li>• Educational attainment</li> <li>• Drop-out</li> <li>• Educational streaming</li> <li>• Integration of children with special needs</li> </ul>	<ul style="list-style-type: none"> <li>• Public education system</li> </ul>	<ul style="list-style-type: none"> <li>• Tuition, user fees for education, access to student loans and child care</li> </ul>
<b>Social Assets:</b> Social background	<ul style="list-style-type: none"> <li>• Gender</li> <li>• Race</li> <li>• Social supports</li> </ul>	<ul style="list-style-type: none"> <li>• Systemic sexism and racism</li> </ul>	<ul style="list-style-type: none"> <li>• Sexism and racism</li> </ul>
Civic Engagement	<ul style="list-style-type: none"> <li>• Participation in sports groups, clubs, other organized groups</li> </ul>	<ul style="list-style-type: none"> <li>• Community- and school-based sports, volunteer and community groups</li> </ul>	<ul style="list-style-type: none"> <li>• Time stress, lack of financial resources</li> </ul>
Psychological	<ul style="list-style-type: none"> <li>• Self-esteem</li> </ul>	<ul style="list-style-type: none"> <li>• Community</li> </ul>	<ul style="list-style-type: none"> <li>• Exclusion and isolation</li> </ul>
Agency	<ul style="list-style-type: none"> <li>• Economic, civic, and personal autonomy</li> </ul>	<ul style="list-style-type: none"> <li>• Multitude of public and private institutions</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity (including legal protections, voting, economic and social autonomy)</li> </ul>
<b>Political:</b> Power Participation Agency Citizenship	<ul style="list-style-type: none"> <li>• Formal legal rights</li> <li>• Procedural access</li> <li>• Consultation versus power</li> <li>• Political participation</li> <li>• Immigrants, non-citizens</li> </ul>	<ul style="list-style-type: none"> <li>• Government agencies</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of empowerment, respect, and appreciation</li> </ul>

Source: Adapted from Mitchell et al., *Poverty, Inequality and Social Inclusion*

These dimensions need to be examined through the lens of social and economic inclusion. The Population and Public Health Branch, Atlantic Regional Office, Health Canada, recently produced an inclusion lens workbook that can be used in a variety of settings by all levels of government, non-government organizations, and community groups. It is designed to be used as a tool for analyzing legislation, policies, programs, and practices for their effects on social and economic inclusion.<sup>130</sup> The tool can help to move concepts of social and economic inclusion toward concrete healthy public policy.

As Mitchell points out, policies that only target increasing employment may not also increase inclusion if the employment is low-wage, reduces parenting ability, decreases self-respect, etc. Also, these programs need to consider how multiple social and economic determinants of health might impact the success of the program. For example, does increasing employment also depend on affordable housing, day care support, etc.? As well, if programs that support low-income groups are designed and administered by individuals who are not low-income, vulnerable groups have no voice or power about issues that are significant for their well-being.<sup>131</sup>

Mitchell also makes the point that processes that exclude or include reflect different political views that underlie the understanding of disadvantage. Views that define citizenship in terms of duties and obligations will encourage different strategies than those that view citizenship in terms of political, civil, and social rights. For example, views that focus on work as a moral necessity to avoid dependence on government are often discriminatory. The object of strategies based on this view is to reduce the number of people on employment insurance and social assistance. However, these strategies often ignore the importance of the quality of work for health and well-being. They ignore the role, value, and impact of the unpaid work and caring responsibilities that increase women's workload and contribute to lack of time with children. They also mask racism, discrimination, and other inequities in the labour market. They can force vulnerable groups, for example, to take jobs that demand long hours and do not pay enough to pull them out of poverty.<sup>132</sup>

Integrating social and economic inclusion into the population health framework may be helpful in addressing the complexities of actions designed to link equity and social change with positive population health outcomes. Some policy makers are becoming increasingly aware of the importance of ensuring that policies do account for their impact on social and economic inclusion. Calls for strategies to reintegrate health promotion into population health, to “put the population back into population health,”<sup>133</sup> are becoming increasingly common. This approach stresses the importance of lay knowledge, as well as empirical evidence, and the importance of integrating upstream policies with community participation. Health Canada, for example, works in this way by supporting community action with programs such as the Population Health Fund. With this kind of governmental support, communities can help develop specific strategies at local levels that are based on real and specific local needs.<sup>134</sup>



One attempt to measure clustered indicators of social well-being, which responds in some respects to the literature on social and economic exclusion, is the Index of Social Health, developed by Human Resources Development Canada (HRDC) in conjunction with Statistics Canada. The 15 components of the Index include trends in rates of poverty, child abuse, infant mortality, teen suicides, drug abuse, high school dropouts, crime, alcohol-related fatalities, access to affordable housing, and other factors. HRDC found that all provinces have experienced a decline in their social health indicators since the early 1980s, with Newfoundland and Labrador and New Brunswick registering modest declines (5%) and Prince Edward Island and Nova Scotia much steeper declines (15% and 21% respectively). In fact, the Nova Scotia drop is the second steepest in the country.<sup>135</sup>



## 4. VULNERABLE GROUPS

***Key Message: Chronic disease disproportionately affects vulnerable groups experiencing inequities.***

Vulnerable groups, including children and single women living in poverty, Aboriginal people, African Canadians and other visible minorities, people with disabilities, gays, lesbians, bisexuals, recent immigrants, unattached elderly women, low-income families, and rural populations are especially subject to material, social, and economic inequities and to adverse health outcomes. A disproportionate number of all behavioural, material, and psychosocial risk factors for communicable, noncommunicable, and mental health chronic disease occur in these groups.<sup>136</sup>

Vulnerable groups tend to have higher rates of poverty, low education, smoking, physical inactivity, poor diet, and depression. They often experience prolonged stress due to lack of economic resources, social isolation, and lack of social support. Lower levels of education make it more difficult to move out of poverty.<sup>137</sup> Other stressors may include non-standard work arrangements, working long hours or two jobs to make ends meet, and living and working in situations where physical and chemical environmental hazards may take their toll on health. The effects of these risk factors tend to accumulate over the life span and result in chronic disease.<sup>138</sup>

Identifying areas with high concentrations of vulnerable groups may help explain the different health profiles of different regions. For example, Labrador, with its high Aboriginal population, stands out for its high rates of suicide, injuries, smoking, lung cancer deaths, and premature mortality, while Cape Breton, with its high rates of unemployment, low income, and single parenthood, has a particularly high incidence of chronic illness and disability. Chronic disease prevention strategies need to look for possible reasons for these disparities and can target disadvantaged regions for increased attention and support. However, these strategies must be coordinated, focused, and ensure that inequities are not increased in the process.<sup>139</sup> Evidence shows that if strategies do not consider the special needs of vulnerable groups, they can create further separation and exclusion.<sup>140</sup>

The following brief overview highlights a few traditionally disadvantaged groups whose economic and social circumstances make them vulnerable to poor health. Limitations of data, time, and resources have not allowed an exploration of the circumstances of other marginalized groups, including other visible minorities, recent immigrants, and the disabled.

#### 4.1 ABORIGINAL PEOPLE <sup>141</sup> AND AFRICAN CANADIANS

Aboriginal people are more vulnerable than other Canadians to low income, unemployment, and exclusion, and to diseases that are almost entirely preventable. In 1997, for example, there were 53.3 cases of tuberculosis per 100,000 population among Aboriginal groups, compared to just 6.6 cases for Canadians as a whole. In 1999, the Aboriginal rate for tuberculosis went up to 61.5 cases per 100,000.<sup>142</sup> Aboriginal people have higher rates of cardiovascular disease and atherosclerosis than Canadians of European ancestry.<sup>143</sup> Diabetes rates among Aboriginal people are triple the Canadian average.<sup>144</sup> The highest prevalence of diabetes among Aboriginal people is found in Nova Scotia.<sup>145</sup>

The Romanow Commission reported growing rates of HIV infection and high rates of disability, cardiac problems, and exposure to alcohol abuse and drug addiction among Aboriginal people.<sup>146</sup> Aboriginal people have consistently lower life expectancy, high rates of obesity, and high rates of alcohol, smoking, and substance abuse among young people.<sup>147</sup> One-third of the Aboriginal population is under the age of 15, and a high percentage of these children live in lone-parent families. Suicide rates among Aboriginal men aged 16 to 30 are approximately 10 times higher than among non-Aboriginal men.<sup>148</sup>

In Canada, 4.4% of the population is Aboriginal. Four health regions in Atlantic Canada exceed or are close to that proportion. The Labrador health region has the largest proportion of Aboriginal people in Atlantic Canada at 28.7%. The Grenfell health region, which includes northern Newfoundland, has 9.6%, and Miramichi, New Brunswick, and Cape Breton, Nova Scotia, both have 4%. Nationally, almost half of the Aboriginal population lives in cities, but most Aboriginal people in Atlantic Canada live in rural communities.

There are few studies, indicators, or statistics on the health of African Canadians in the Atlantic provinces.<sup>149</sup> Being given negative, differential treatment on the basis of race, class, and gender is described in a Nova Scotia study of African-Canadian women.<sup>150</sup> The three rural African-Canadian communities in this study have high degrees of segregation and lack the resources necessary to build healthy infrastructures in education, housing, employment, and recreation.<sup>151</sup> The three communities have a 65% unemployment rate, higher-than-average rates of illiteracy, inadequate housing, and few social assistance resources. Heart disease, cancer, high blood pressure, arthritis, chronic asthma, and diabetes are prominent.<sup>152</sup> In Canada, there is also an increase in the number of HIV cases among African Canadians, especially women.<sup>153</sup>

African Canadians in Nova Scotia, as in Canada as a whole, comprise 2% of the population. Newfoundland and Labrador, Prince Edward Island, and New Brunswick have a much smaller African-Canadian population – 0.1%, 0.2%, and 0.4% respectively.<sup>154</sup> Poverty rates for African Canadians are very high. A report looking at segregation in Canadian cities included Dartmouth and Halifax, Nova Scotia. It found

that 40% of African Canadians lived in areas with poverty rates above 30%. The total poor in Dartmouth and Halifax was approximately 15% and 17%, respectively, but the poverty rate for African Canadians was 40.6% in Dartmouth and 39.7% in Halifax. By contrast, the poverty rate among those of European heritage was 12.6% in Dartmouth and 15.9% in Halifax.<sup>155</sup>

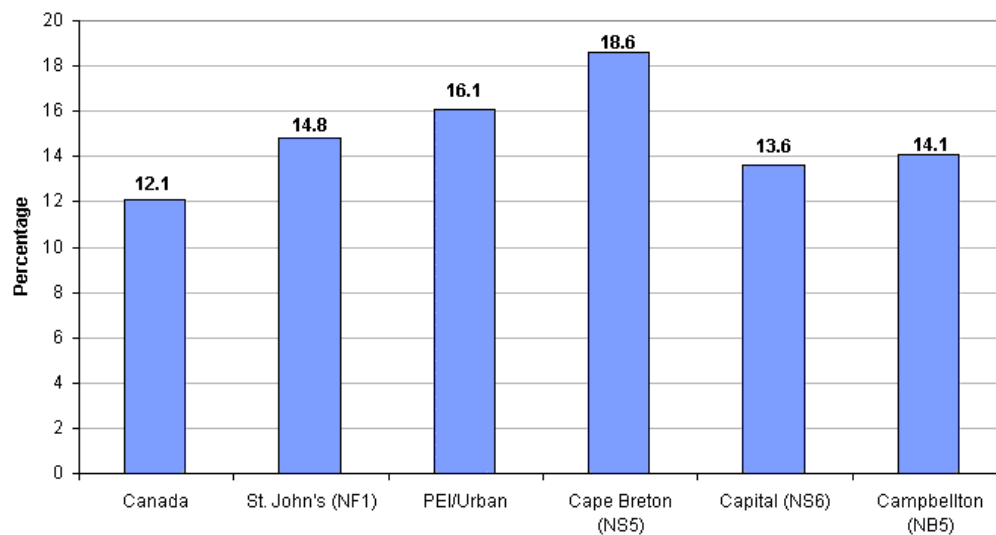
## 4.2 SINGLE MOTHERS

Single mothers, as a group, have lower incomes than women in two-parent families. A Statistics Canada analysis of both the 1994/95 and 1996/97 National Population Health Surveys found that “lone mothers reported consistently worse health status than did mothers in two-parent families.”<sup>156</sup> They have low rates of employment, education, and other determinants of health. Single mothers score lower on two scales of self-perceived health and “happiness” and substantially higher on a “distress” scale. They have higher rates of chronic illness, disability days, and activity restrictions and are three times more likely to consult a health care practitioner for mental and emotional health reasons.<sup>157</sup>

According to Statistics Canada, working single mothers put in an average 75-hour work week when both paid and unpaid work are counted, and they have much less time to spend with their children than both their non-employed counterparts and working mothers in two-parent families.<sup>158</sup> Not surprisingly, Statistics Canada’s time stress surveys show working single mothers to be the most highly time-stressed demographic group.<sup>159</sup> A recent Atlantic Canadian study found that the dietary intakes of lone mothers with very limited financial resources were below recommended levels and were consistently worse than that of their children. The findings support the hypothesis that these low-income mothers compromise their own nutrition and health to feed their children.

Across the country, and in all four Atlantic provinces, the ratio of female lone-parent families to total census families increased between 1996 and 2001. In 2001, female lone-parent families were 12.7% of all census families in Canada, compared to 12.3% in Newfoundland and Labrador, 13.6% in Prince Edward Island, 14% in Nova Scotia, and 13.1% in New Brunswick. Health regions with major urban centres generally tend to have higher proportions of female lone parents than rural districts. Cape Breton had the highest proportion of female lone-parent families in the region at 18.6% in 1996, a rate more than 50% higher than the national average. Charlottetown and Summerside, Prince Edward Island, had the second-highest rate at 16.1%. (Figure 10).

**Figure 10. Atlantic health districts with highest percentages of female lone-parent families, as a proportion of all census families, 1996, (%)**



Source: Statistics Canada, 1996 Census, 20% sample.

### 4.3 LOW-INCOME CHILDREN

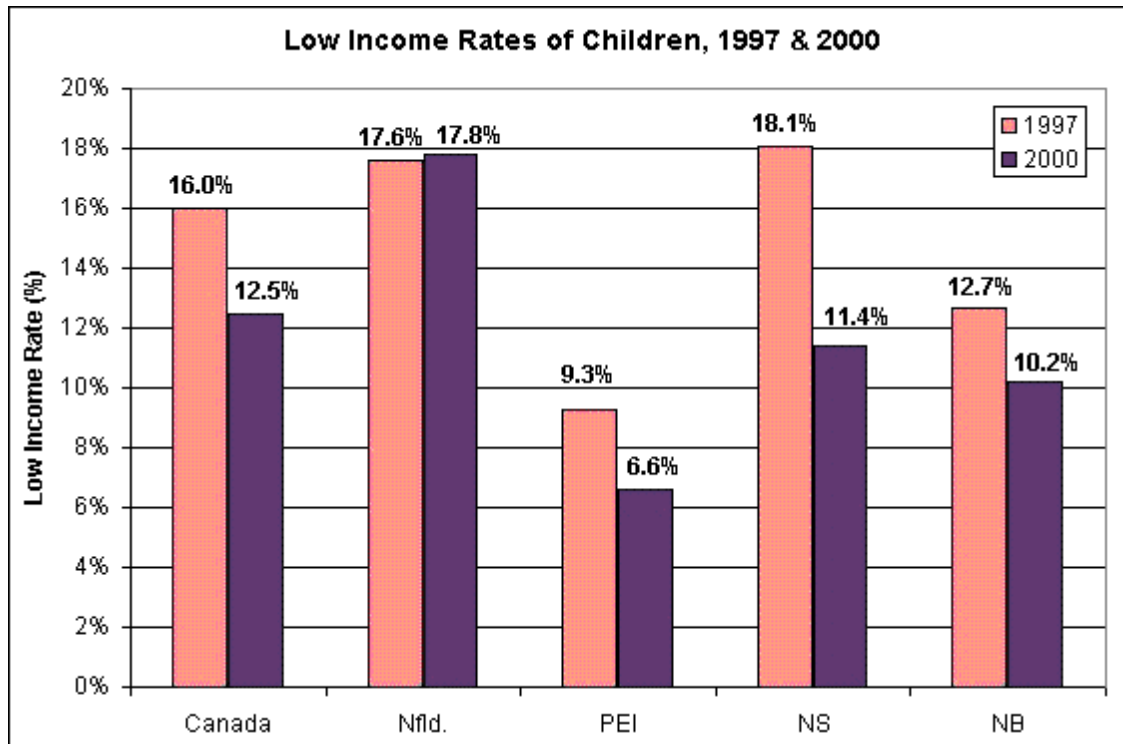
On 31 different indicators, children are more likely to experience health and developmental problems as family income falls.<sup>160</sup> Children from the poorest neighbourhoods have more health problems than children in more affluent neighbourhoods. One Canadian study found that poor children are twice as likely to die before their first birthday and are over twice as likely to suffer long-term disability and other health problems.<sup>161</sup> Children from the poorest neighbourhoods in Canada have a life expectancy between 2 and 5.5 years shorter than children from wealthy neighbourhoods.<sup>162</sup> Low-income children are more likely to have respiratory illnesses and other poor health outcomes, low birth weights, higher rates of hyperactivity, and delayed vocabulary development. They are more likely to suffer from Fetal Alcohol Syndrome and to have higher rates of Sudden Infant Death Syndrome.<sup>163</sup> Although they engage in less organized sports, poor children have higher injury rates and twice the risk of death due to injury than children who are not poor.<sup>164</sup>

The social disadvantages of children have a direct impact on their health in adulthood. Researchers such as Hertzman,<sup>165</sup> Davey Smith,<sup>166</sup> and Lynch<sup>167</sup> note that the health impacts associated with low socioeconomic status accumulate over the life course and are passed on inter-generationally.<sup>168</sup> Davey Smith observed that “human bodies in different social locations become crystallized reflections of the social experiences within which they have developed.” Lynch et al. found that the material circumstances of children predict disease in later life more accurately than does social position during adulthood.<sup>169</sup> Low socioeconomic position in childhood is linked to adult diabetes, cancer, respiratory

disease, cardiovascular disease, and risk factors such as obesity and smoking.<sup>170</sup> Other studies show that children who are poorly supervised or otherwise neglected or abused have a higher risk of engaging in behaviours that can lead to HIV/AIDs or hepatitis C.<sup>171</sup> Rodgers has found that childhood adversity increases susceptibility to mental illness in later life.<sup>172</sup>

Child poverty has fallen across the country in recent years. The percentage of low-income children in 2000 (12.5%) was among the lowest rates recorded over the past 20 years.<sup>173</sup> However, nearly half of low-income families with children are single-parent families. The low-income rate of children of single mothers in 2000 was 38.1%, four-and-a-half times greater than that of children in two-parent families (8.5%). In 2000, Prince Edward Island’s low-income rate for children was 6.6%, the lowest in the country, and just over half the national average (12.5%). Newfoundland and Labrador had the highest rate of low income for children in the country (17.8%), nearly three times the rate of Prince Edward Island. The rate for New Brunswick was 10.2% and 11.4% for Nova Scotia. Nova Scotia had the highest drop in child poverty since 1997 – down from 18.1% (Figure 11).<sup>174</sup>

**Figure 11. Low income rates of children, Canada and Atlantic provinces, 1997 and 2000**



Source: Statistics Canada, *Income in Canada 2000*.

The size of the drop in child poverty is directly related to the higher incomes of employed single mothers. These significant drops in child poverty do not apply to the children of

single mothers without paying jobs, whose incomes after taxes and transfers have actually fallen since the mid-1990s and whose low-income rate remains close to 90%.<sup>175</sup> Nevertheless, the higher incomes of employed single mothers have helped reduce the overall child poverty rate by 22% nation-wide and the poverty rate of children of single mothers by a third.

#### **4.4 POPULATION AGED 65 AND OVER**

Although poverty rates for seniors have benefited from government initiatives including pension plans and taxation policies, poverty among seniors still exists. This is especially true for unattached senior women living alone who may not have adequate pensions and accumulated financial resources. Senior women living alone have a rate of low income (19.9%) that is more than 10 times higher than seniors living in families (1.9%). Low-income rates among Canadian women aged 65 and over have historically been more than double those of elderly men and were almost three times higher in the mid-1990s.<sup>176</sup> Because women tend to live longer than men, there are 35% more female seniors in Canada than male seniors.

Canada's population is aging, and all three Maritime provinces have a higher percentage of senior residents than the national average which is 13% (7.1% women). By contrast, the population of Newfoundland and Labrador is younger than the national average, with 12.3% (6.3% women) being over age 65. According to 2001 Census results, New Brunswick has 13% (7.4% women) and Prince Edward Island has 13.7% (7.6% women) over age 65. In Nova Scotia, 13.9% (7.7 %) of the population is now 65 or older, up from 13% in 1996.<sup>177</sup> Demographic trends predict that by 2039, seniors in Atlantic Canada will be 30% of the population.<sup>178</sup>

Seniors experience mainly noncommunicable chronic diseases such as cancer, respiratory illness, cardiovascular disease, and degenerative conditions like osteoporosis. As well, mental health problems such as dementia are prominent.<sup>179</sup> Seniors need more health care services than any other age group. Under conventional scenarios, these demographic trends are projected to stretch health care resources beyond the breaking point. Twenty-five years ago, with just 11% of the population, the elderly already occupied one-third of all hospital beds in Canada and consumed one-quarter of total health care expenditures. As their proportion in the population increases, according to traditional analyses this disproportionate consumption of health services will escalate.<sup>180</sup>

According to more optimistic scenarios, the aging of the population requires more concerted health promotion efforts that can reduce the incidence of chronic illness and enhance independence in old age.<sup>181</sup>



## 4.5 RURAL POPULATION

The rural-urban mix in the Atlantic region is dramatically different from that in the rest of Canada, a reality that also affects health outcomes. At present, just 20% of the Canadian population lives in rural areas, compared to 55% in Prince Edward Island, 50% in New Brunswick, 44% in Nova Scotia, and 42% in Newfoundland and Labrador.<sup>182</sup> Rural populations have lower incomes than those in urban regions, with Nova Scotia registering the greatest rural-urban income disparity in Canada and the other three Atlantic provinces recording the smallest disparities. Communities dependent on fishing, farming, mining, and other natural resources have suffered declines in economic viability in the last decade.<sup>183</sup>

A 2001 qualitative study of six Nova Scotia fishing communities, which related the daily experiences of women, may be typical of rural experiences. It discusses how the collapse of the ground fishery in the early 1990s has affected women's health and well-being adversely.<sup>184</sup> The women related to their health in broad terms and included both mental and physical health. The major health problem that the women reported was stress. Diabetes, anxiety, ulcers, depression, high blood pressure, heart problems, and premature aging were all reported. More gambling addiction, alcohol and other substance abuse, and domestic violence were appearing in the communities, especially among men. It is not clear how community health is being affected, but community members suffering from loss of income are all at risk for developing chronic disease.<sup>185</sup>

For the people in the six communities included in this study, cuts in income security, social programs, health care, and government services have created great hardships. The women reported often feeling stigmatized because they have to rely on social assistance since there are no jobs available to them or their families. A general atmosphere of tension, despair, and hopelessness has accompanied increased isolation and loss of pride. There are fewer opportunities and public spaces to gather for recreation and mutual support. Lack of transportation is a problem. They feel that governments are not respecting them or listening to their opinions and ideas. It is clear from the way women spoke about their communities that they care deeply about them. One woman expressed a general feeling, "There is not value to people any more. It's only what is on paper. There is no heart left in anything."<sup>186</sup>

## 4.6 IMPLICATIONS

As we have seen, vulnerable groups in Atlantic Canada experience poverty and other social and economic inequities that affect their health and well-being. Because these groups have special needs and do not always have the capacity to respond to general population health interventions, strategies are needed that target these vulnerable groups. These strategies, however, must be carefully designed so that they do not create further stigma and exclusion of these groups and so create further inequities.<sup>187</sup> In 2002, an

international consultation on equity and health, which included representatives from Health Canada, was held in Toronto. The participants defined equity as meaning that greater resources and more services should be made available to the most vulnerable and needy groups in society.<sup>188</sup> It clarified that *equal shares* would mean every district having the same amount of money to spend on each person; however, *equity* would mean that districts with the most vulnerable populations and worst facilities would receive more money than “better-off” districts. Participants agreed that the long-term goal of promoting equity is to improve the health of the most vulnerable groups.<sup>189</sup>

## 5. CULTURAL, SOCIAL, AND ECONOMIC CONTEXT

*Key Message: Inequities in society affect the whole population, not just the poor.*

### 5.1 CULTURAL AND SOCIAL CONTEXT

Evidence from literally hundreds of studies confirms that social and economic conditions are root causes of communicable, noncommunicable, and mental diseases.<sup>190</sup> Atlantic Canada has seen the demise or decline of several key industries associated with the “old economy” (e.g., mining, steel making, logging, and fishing) and is therefore in the midst of major societal shifts that are likely to impact health in significant ways.<sup>191</sup> These changes currently manifest in sharp intra-provincial differences. For example, Cape Breton has suffered from the loss of key industries like mining and fishing resulting in unemployment and deepening poverty. While the pathways between these macro-economic changes and health outcomes are not well understood, results from the 2000/01 Canadian Community Health Survey show, as we have seen, that Cape Bretoners have generally poor health and currently live more years with disabilities than residents of any of the other 138 health districts in Canada, while the health profile of Halifax in many ways more closely resembles that of central Canada.<sup>192</sup>

In the past 25 years, Atlantic Canada has seen rapid and dramatic economic and social changes, which could have direct and indirect health impacts. For example:

- The dismantling of trade barriers in an increasingly competitive global economy has had domestic impacts on firm structure, real wages, income disparities, work hours, the environment, and other health determinants.
- An economy based increasingly on knowledge and information, rather than plant and equipment, has affected educational and health disparities.
- Unbridled energy and natural resource consumption has had impacts on climate, fish stocks, forests, farmland, and water resources that were unanticipated 25 years ago.
- The shift from family farms and local food sources to industrial agriculture, highly processed foods, and long-distance transportation of food may have affected the nutritional value of food and produced unintended health impacts.
- Women have doubled their employment and labour force participation rates, with impacts on gender roles, children, family structure, increased unpaid work, time stress rates, and free time.
- An era of increasing social spending, taxation, and government deficits has been replaced by fiscal restraint, government surpluses, and tax cuts that have affected family well-being as well as access to health services and social supports.

The Atlantic provinces reflect trends affecting contemporary culture worldwide. However, as Conrad and Hiller suggest:

While reform, retrenchment, and restructuring have been the mantra of the new world order, Atlantic Canada has embraced them more out of necessity than conviction. Few can dispute that the dismantling of the interventionist state has taken a heavy toll in a region where private institutions are ill positioned to take up the slack. Toll highways, home-based care, food banks, call centres, and corporate sponsorship of education and research may represent a brave new world to those converted to the religion of the marketplace, but many Atlantic Canadians regret the abandonment of the noble dream that made human welfare rather than corporate profits the measure of a civil society.<sup>193</sup>

The impact of these changes on health is not yet well understood. In fact, there has been frank acknowledgement on the part of many researchers of the inadequacy of knowledge about the nature of the changes themselves and particularly about the reasons for the increasing co-variance of income, education, age, and other factors with health status.<sup>194</sup>

## 5.2 IMPORTANCE OF GEOGRAPHICAL AREA

There is evidence that “place,” with its particular regional, historical, and cultural factors, may influence the health of the entire population despite individual incomes. The fact that geographic locations influence health is well established in the research.<sup>195</sup> This research often assumes that areas differ because of the characteristics of the individuals who live there. However, research is now looking at how the context of place also affects health. A new groundbreaking textbook, *Neighborhoods and Health*, demonstrates how the physical and social characteristics of a neighbourhood shape the health of its residents.<sup>196</sup> Research has linked neighbourhood characteristics with mortality rates, general physical health, and psychological well-being, even after controlling for individual risk factors and income.<sup>197</sup> Noting that multiple dimensions of poor health cluster in disadvantaged neighbourhoods, it asks: What is it about these neighbourhoods, above and beyond the attributes of individuals who live there, that might contribute to health outcomes?<sup>198</sup>

Recently, this line of inquiry has broadened to include the health of the entire population living in generally disadvantaged regions. With few exceptions, studies find that individual health is associated with community socioeconomic level over and above individual socioeconomic position.<sup>199</sup> Although effects are most pronounced for the poor, individuals at all income levels living in poor communities tend to have worse health than those living in areas with higher overall income.<sup>200</sup> For example, one study in England found that both low- and high-income people living in deprived wards tended to have poor health. It also found, however, that in less deprived wards, the socioeconomic disparities in health were greater. That is, those with higher incomes had better health

than those with lower incomes.<sup>201</sup> Another study, examining ages 30 to 64 in a mixed economic area, found worse health associated with individuals with household incomes of less than \$15,000. However, those in the \$15,000 to \$49,000 range also had adverse health effects. The study did not find adverse health effects for individuals with family incomes over \$50,000.<sup>202</sup>

The research implies that there are things about areas themselves that are important to the health of their residents. Explanations for these observations include social and economic factors such as levels of poverty, income distribution, racial segregation, social networks, and social and political organization. Other hypotheses include aspects of the physical environment such as air and water quality and housing conditions.<sup>203</sup> We will look at some of these explanations in the next section.

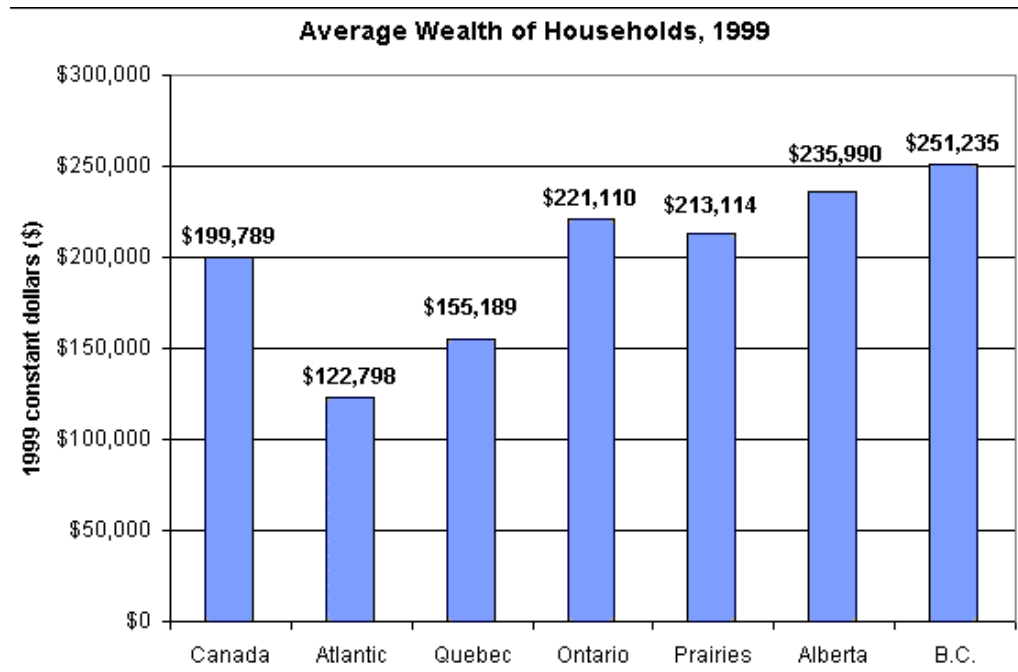
Understanding the specific contextual factors in particular areas is a first step in discovering the root causes of chronic disease. In turn, this understanding can have implications for disease prevention and health policy.<sup>204</sup> As Diez Roux points out:

Neighborhood differences are not “naturally” determined but rather result from social and economic processes influenced by specific policies. As such, they are eminently modifiable and susceptible to intervention. In addition, the improvement of neighborhood environments is likely to have a multitude of benefits for people and society as a whole.<sup>205</sup>

As a whole, the Atlantic provinces are poorer than the rest of Canada, which may contribute to the elevated levels of some chronic diseases in the region. In fact, the regional disparity is widening. In 1990, for example, the average Nova Scotia and Newfoundland and Labrador household had 82 cents in disposable income for every \$1 in Ontario. By 1998, the average disposable income had dropped sharply to 73 cents in Nova Scotia and 72 cents in Newfoundland and Labrador, for every \$1 in Ontario.<sup>206</sup>

The wealth gap between rich and poor provinces has also widened in the last 20 years, with the Atlantic region registering declining shares of national wealth. In 1984, the four Atlantic provinces together had 5.4% of the nation’s wealth. By 1999, they had just 4.4%, despite having 7.6% of households in the country. In 1984, average personal wealth in Atlantic Canada was 61.6% of that in Ontario. In 1999, it was just 52.8% of that in Ontario.<sup>207</sup> Today, the average wealth (assets minus debts) in Atlantic Canada is less than half that in British Columbia and about 56% of that in Ontario (Figure 12).<sup>208</sup>

**Figure 12. Average wealth of households by region, 1999, (1999 constant \$)**



Source: Statistics Canada, *Survey of Financial Security*, cited in Kerstetter, *Rags and Riches*.

Note: The Prairies here include Alberta, which has considerably higher average wealth than Manitoba or Saskatchewan, and is therefore also listed separately.

### 5.3 INCOME DISTRIBUTION

The way income is distributed within society affects the society as a whole.<sup>209</sup> In fact, a growing body of evidence indicates that the distribution of income in a society may be an important determinant of population health.<sup>210</sup> The income difference, between rich and poor, male and female, Atlantic Canadians and other Canadians, and among regions within the Atlantic provinces, can signal inequities in economic status that, in turn, impact health. Poorer regions within Canada and within provinces, as we have seen, have poorer health. Statistical evidence further indicates that inequalities in health have grown in parallel with inequalities in income and that relative economic disadvantage has negative health implications.<sup>211</sup>

According to the editor of the British Medical Journal:

What matters in determining mortality and health in a society is less the overall wealth of the society and more how evenly wealth is distributed. The more equally wealth is distributed, the better the health of that society.<sup>212</sup>

Studies have found that some wealthy countries, like the United States, which have a large gap between the incomes of the rich and the poor, also have lower levels of health than less wealthy but more egalitarian societies like the Nordic countries.<sup>213</sup> Research has found that in the United States, mortality attributable to income inequality equals the combined total mortality from lung cancer, HIV/AIDS, unintentional injuries, diabetes, suicide, and homicide.

People live longer and have better health not in the wealthiest countries, but in countries such as Japan and Sweden, where income inequality is the smallest.<sup>214</sup> Societies with a smaller gap between the rich and the poor also have lower rates of unemployment, less crime, improved education and living standards, and a more inclusive society. They also spend less on health care per capita and more on social infrastructure.<sup>215</sup>

Researchers have pointed out that Canadians should take this as a warning.<sup>216</sup> In Canada, the gap between the rich and the poor has been widening despite strong economic growth as measured by the Gross Domestic Product (GDP).<sup>217</sup> In 1973, the top 10 % of Canadian families earned an average market income 21 times higher than those at the bottom 10 %. By 1996, that figure had risen to 314 times higher.<sup>218</sup> In 1999, the wealthiest 10% held 53% of all personal wealth in the country.<sup>219</sup>

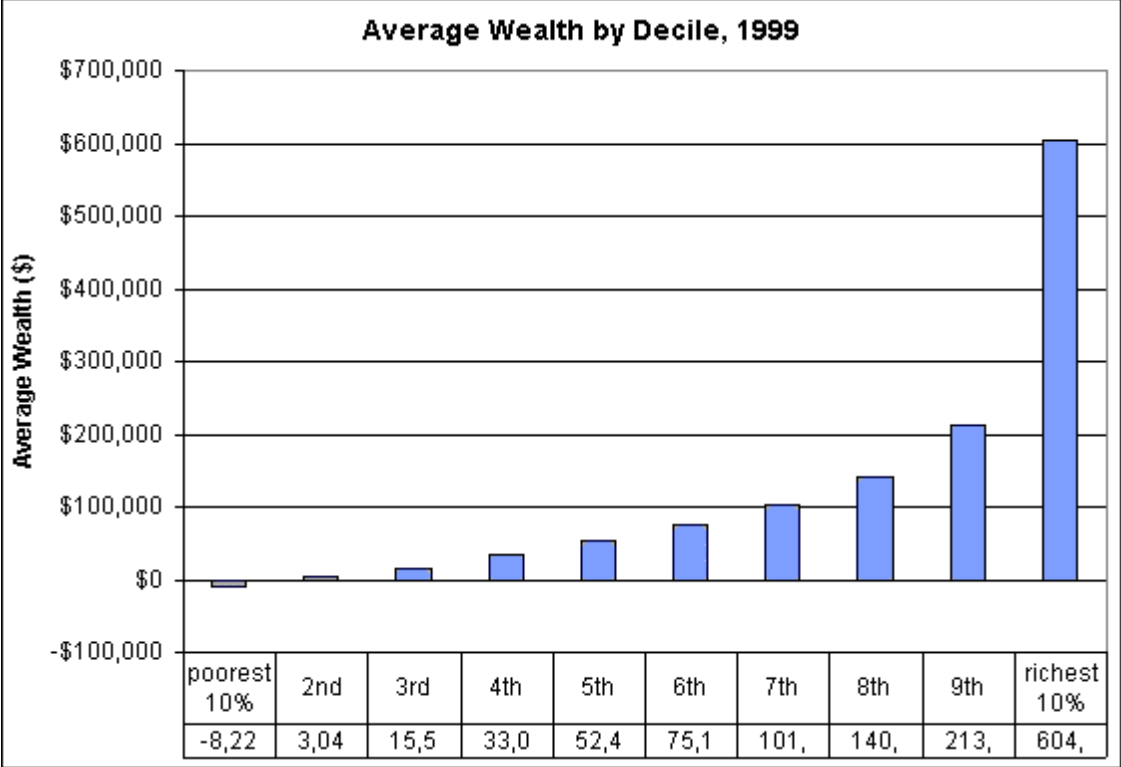
In the 1990s, the real incomes of poor and middle-income Canadians, including those in Atlantic Canada, fell sharply, while those of the wealthiest 20% increased. In Atlantic Canada, the richest 10% of households now owns 49% of the region's wealth. The richer 50% of Atlantic households controls 92.2% of the region's wealth, leaving 7.8% for the poorer 50%.<sup>220</sup> A higher percentage of Atlantic households (7.8%) have negative wealth, or debts that exceed assets, than in any other region.

The provincial statistics also conceal marked income disparities within each of the Atlantic provinces. According to the 1996 Census, average incomes in the Halifax region were almost as high as in Canada (98% of the Canadian average) but were more than \$6,000 or 34% higher than in Cape Breton. Similarly, incomes in St. John's were about \$5,000 higher than in the rest of Newfoundland and Labrador, and in southern New Brunswick they were similarly higher than in northern New Brunswick.<sup>221</sup> This income disparity has detrimental consequences for the society as a whole.

The distribution of wealth in Prince Edward Island is different from that in the other Atlantic provinces in that nearly 40% of all assets on the Island is tied up in equity in a business. This compares to just 9.4% in Newfoundland and Labrador, 9.1% in Nova Scotia, and 21.5% in New Brunswick. As a percentage of all households, more than twice as many Islanders have equity in a business (23.3%), as in the other Atlantic provinces (12% in Newfoundland and Labrador, 11% in Nova Scotia, and 11.5% in New Brunswick). While data from Statistics Canada's Survey of Financial Security are not available to explain this disparity, it seems likely that a significant percentage of Prince

Edward Island family units have their wealth tied up in family farms and related businesses.<sup>222</sup>

**Figure 13. Average wealth by decile, Atlantic Canada, 1999, (\$)**



Source: Statistics Canada, *Survey of Financial Security*, cited in Kerstetter, *Rags and Riches*.



## 6. PATHWAYS LINKING CHRONIC DISEASE AND INEQUITY

***Key Message: Pathways that lead from inequity to chronic disease are multiple and interdependent.***

As we have seen, the factors that influence health are many and complex.<sup>223</sup> Social and economic factors may affect health outcomes through several different mechanisms or pathways. Researchers most often refer to these main processes as materialist, psychosocial, and political/economic pathways.<sup>224</sup> Although direct cause and effect are difficult to establish, correlation between the pathways and population health is clear.<sup>225</sup>

For example, poorer people have higher rates of cardiovascular disease, with one recent study attributing 6,366 Canadian heart disease deaths a year to poverty and nearly \$4 billion a year in health care costs to poverty-related heart disease.<sup>226</sup> There is less agreement on *how* these conditions translate into specific chronic diseases or on the most appropriate interventions.

Researchers observe that material deprivation, social and psychological factors, risk behaviours, and health outcomes are linked and interdependent.<sup>227</sup> They observe that health inequalities result from an accumulation of factors that cluster together. Poverty may reflect an under-investment in social and economic infrastructure. Poverty leads to lack of resources such as access to education, recreation, and employment, which in turn, may lead to a breakdown and fragmentation in the social and economic fabric of society. These social and economic disadvantages include unhealthy child development, disparities in economic development, unemployment, crime, violence, psychological factors such as depression and stress, and a general sense of social and economic exclusion.<sup>228</sup>

Social and economic inequities, in turn, have biological consequences such as lowering immune functions.<sup>229</sup> They increase the prevalence of health risks and unhealthy behaviours like smoking, alcohol and drug abuse, poor diet, and lack of physical exercise that are often precursors of chronic disease.<sup>230</sup> The bi-directional relationship between inequity and disease is demonstrated by the fact that ill health and disability themselves may cause poverty. The disability generated by disease may inhibit employment prospects and deepen poverty, vulnerability, and exclusion. However, while this may often be the case, empirical investigations have not found bi-directionality functioning as a major determining factor in the relationship between inequity and disease.<sup>231</sup> At the same time, intervening social variables like strong social networks and supports also may mitigate some negative impacts of adverse economic circumstances.

The political/economic pathway looks more deeply at the root causes of material and psychosocial inequities and their implications for health. Recently, researchers have suggested that in order to understand these deeper root causes, societal structures,

systems, and policies must be analyzed.<sup>232</sup> This includes re-examining various market economies, globalization, and issues of the welfare state that could lead to poverty and chronic disease.<sup>233</sup> Shared social values, as well as historical, cultural, economic, and political structures can profoundly affect the creation of poverty and inequity and determine which groups are disproportionately afflicted.<sup>234</sup> Studies have found evidence that higher levels of social spending are associated with greater life expectancy.<sup>235</sup> This includes investing in structural factors such as education, transportation, affordable housing, libraries, affordable recreational facilities, parks, and uplifting the physical surroundings in neighbourhoods.<sup>236</sup>

Following is a brief description of the materialist, psychosocial, and political/economic pathways. An understanding of these pathways is essential to determining where strategies might intervene and be most effective. Existing data sets do not allow a linking of macro-economic shifts with health outcomes; therefore, we must rely here on more conventional indicators and statistics such as unemployment rates and incidence of low income to assess the likely relationships between inequity and disease in Atlantic Canada.

## **6.1 MATERIALIST PATHWAY**

### **6.1.1 Poverty and access to resources**

The materialist explanation focuses on the ways that social and economic inequities deprive disadvantaged groups of the material necessities for health. It points to ways in which poverty reduces access to the basic resources necessary for good health, including the lack of basic necessities such as food, clean water, shelter, and clothing, as well as lack of opportunities for education, livelihood, transportation, and recreation. There is evidence internationally that higher levels of social spending are associated with greater life expectancy.<sup>237</sup>

The largest body of empirical evidence on equity and disease refers to the influence of poverty and income inequities on health.<sup>238</sup> Low-income Canadians are more likely to have poor health status and to die earlier than other Canadians.<sup>239</sup> Canadians in the lowest-income households are four times more likely to report fair or poor health than those in the highest-income households, and they are twice as likely to have a long-term activity limitation.<sup>240</sup>

A review by the Canadian Heart Health Inequalities Project of studies on health status by income level found that the lowest-income Canadians had almost eight fewer years of life expectancy and significantly more disability than higher-income persons. Canadian men in the lowest 5% of incomes were twice as likely to die before the age of 70 than men in the top 5%.<sup>241</sup> Raphael found that income differences account for 23.7% excess in premature deaths prior to age 75 among Canadians due to cardiovascular disease.<sup>242</sup>

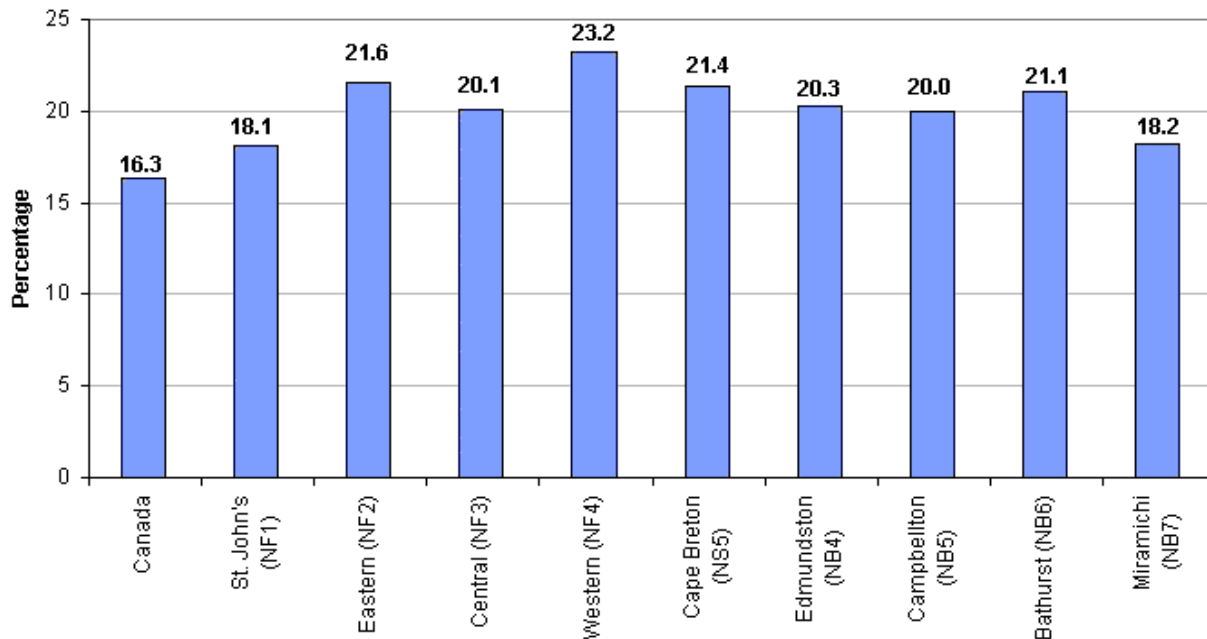
A 10-year study of people living with HIV/AIDS in Vancouver found that low socioeconomic status prior to infection was associated with disease progression and survival chances.<sup>243</sup> Another Vancouver study showed that those engaging in high-risk behaviours had lower incomes than those not taking risks.<sup>244</sup>

In 1999, the San Francisco Department of Public Health analyzed the impact of increasing the living wage to see how this would improve health and increase the educational achievement of children. The health impact showed that a minimum wage of \$11 per hour predicted decreases in the risk of premature death for adults aged 24 to 44 by 5%. For the children of these workers, the living wage predicted a 34% increase in high school graduation.<sup>245</sup>

Food insecurity is a problem among those with low income as evidenced seen by a growing use of food banks and child feeding programs. Food insecurity is defined as “the inability to acquire or consume an adequate diet quality or sufficient quantity of food in socially acceptable ways, or the uncertainty that one will be able to do so.”<sup>246</sup> A recent study looked at food insecurity and hunger of 141 low-income single mothers with children in Atlantic Canada. It found that 96.5% of the families experienced food insecurity during the year of the study.<sup>247</sup> Of the families in this sample, 87% were dependent on social assistance.

The above study adds to a growing body of research that suggests that welfare benefits in the Atlantic provinces are not sufficient for families to purchase basic necessities.<sup>248</sup> Many studies use Statistic’s Canada’s Low-income Cut Offs (LICOs) as a measure of poverty. The LICOs represent the amount of money a family needs for food, clothing, and shelter. In 2000, the year of the above study, social assistance benefits for a single parent with one child were 72% of the LICOs in Newfoundland and Labrador, 64% in Nova Scotia and New Brunswick, and 63% in Prince Edward Island.<sup>249</sup> Nine health regions in Atlantic Canada had significantly higher proportions of economic families living below the low-income cut-off level in 1996 than the Canadian average. These included three of Newfoundland and Labrador’s five rural health regions and all four rural health regions in New Brunswick. In Nova Scotia, only Cape Breton (NS5) had a higher proportion of economic families living below the low-income cut-off than the national average. Among Atlantic Canada’s 21 health regions, Newfoundland and Labrador’s western region (NF4) had the highest rate of low income in 1996, at 23.2% (Figure 14).

**Figure 14. Atlantic regions with higher rates of low income among economic families than the national average, 1996, (%)**



Source: Statistics Canada, 1996 Census, 20% sample.

Opportunities for physical activity may also be restricted in low-income communities where residents do not feel safe walking in their neighbourhoods or cannot afford to take advantage of recreational facilities.

### 6.1.2 Employment

There is much evidence to show that unemployment has detrimental effects on the mental, physical, and social well-being of individuals as well as their families and communities.<sup>250</sup> A study of unemployment and health attributable to the East Coast fishery closures found that the unemployed had very high levels of stress, a predictor of chronic disease.<sup>251</sup> Unemployed people tend to have poorer health than those who are employed.<sup>252</sup> According to Statistics Canada, “unemployed people suffer a disproportionate share of health problems, such as depression, morbidity and reduced life expectancy.”<sup>253</sup> A study in Newfoundland and Labrador found that 67% of HIV-positive persons were unemployed, and 62% had an income less than \$15,000 per year.<sup>254</sup>

Marie Jahoda’s seminal study of the 1930s’ depression showed that employment provides far more than income. The following quote from Jahoda illustrates an interconnection between the materialist pathway and the psychosocial pathway described in the next section:

Employment makes the following categories of experience inevitable: it imposes a time structure on the waking day; it compels contacts and shared experiences with others outside the nuclear family; it demonstrates that there are goals and purposes which are beyond the scope of an individual but require a collectivity; it imposes status and social identity through the division of labour in modern employment; it enforces activity.<sup>255</sup>

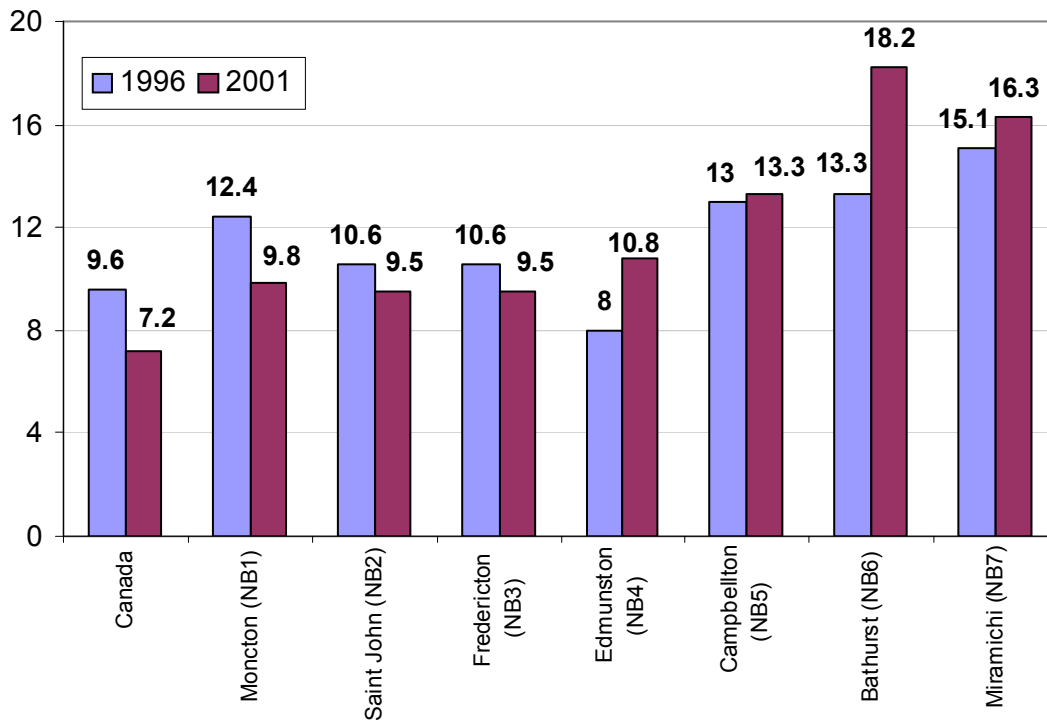
Conversely, Jahoda demonstrated that unemployment damages mental health because of the psychological deprivation and lack of psychological supports.

The Canadian Institute for Health Information, at its National Consensus Conference on Population Health Indicators, confirmed youth unemployment as a key determinant of health.<sup>256</sup> Unemployment here only refers to those actively looking for work and excludes full-time students. Every year since 1997, unemployment rates have been more than twice as high for those under 25 as for those aged 25 and over. In 2001, 12.8% of Canadian youth were unemployed, compared to 6.1% of those 25 and over.<sup>257</sup> In sum, there is an age inequity here that is concealed by the composite employment statistics.

All four Atlantic provinces have higher rates of unemployment than the Canadian average (7.2% in 2001): 16.1% in Newfoundland and Labrador, 11.9% in Prince Edward Island, 9.7% in Nova Scotia, and 11.2% in New Brunswick. But these provincial averages again mask sharp intra-provincial differences. With a few exceptions, like industrial Cape Breton's high unemployment rate and the low unemployment rate in Nova Scotia's Annapolis Valley, the disparities largely follow an urban-rural split. For example, rural Prince Edward Island has 15% unemployment, compared to 9% in Charlottetown and Summerside. Unemployment in St. John's is 9.4% while rural Newfoundland and Labrador has unemployment rates in excess of 20%. In Nova Scotia, unemployment in Cape Breton as a whole (18.6%) and in Sydney (19.1%) is 2.5 times higher than in Halifax (7.1%) and the Annapolis Valley (7.5%). Halifax actually has a lower unemployment rate than the Canadian average.<sup>258</sup>

Youth unemployment rates in Atlantic Canada are higher: 24.7% in Newfoundland and Labrador, 17.7% in Nova Scotia, 17.2% in New Brunswick, and 16.3% in Prince Edward Island.<sup>259</sup> It is not surprising that the 1994/95 National Population Health Survey found the highest rates of depression and poor psychological well-being among youth, with mental well-being increasing with age. Remarkably, this is a reversal from the patterns of a generation ago, when seniors were more likely than younger Canadians to be depressed.<sup>260</sup> The fact that low-income rates among the elderly have fallen by half since 1980, while poverty and unemployment among youth have increased sharply, may have contributed to this change in mental health status.

**Figure 15. Unemployment rates, New Brunswick health regions, 1996 and 2001, (%)**



Source: Statistics Canada, *Labour Force Survey*, special tabulations.

Note: In southern New Brunswick, with its three large urban centres, unemployment rates fell between 1996 and 2001 to below 10%, as they did in most of Canada. In rural and northern New Brunswick, on the other hand, unemployment rates increased during this period, with the Bathurst region recording 18.2% unemployment in 2001.

### 6.1.3 Education

Educational attainment is positively associated with both economic status and favourable health outcomes.<sup>261</sup> It is also positively associated with self-rated health status and with healthy lifestyles and health behaviours. For example, obesity rates are inversely proportional to educational attainment.<sup>262</sup> In the 1996/97 National Population Health Survey, only 19% of respondents with less than high school education rated their health as “excellent,” compared with almost 30% of university graduates.<sup>263</sup> Self-rated health, in turn, has been shown to be a reliable predictor of health problems and longevity.<sup>264</sup>

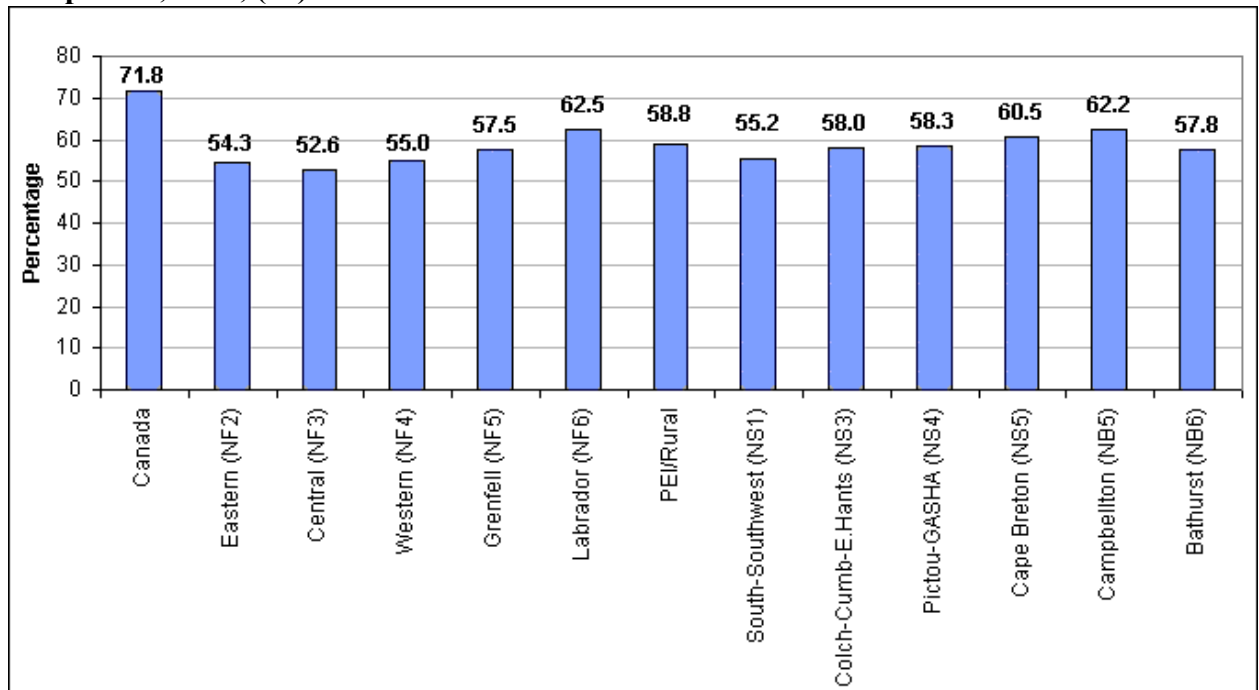
Educational attainment has also been reliably linked to health care utilization. George Kephart in Nova Scotia found that those with no high school degree use 49% more physician services than do those with an undergraduate university degree. And those with just a high school diploma use 12% more than those with a university degree.<sup>265</sup>

From a health determinants perspective, education is clearly a good investment that can reduce long-term health care costs.

Atlantic Canada’s major urban centres have a comparable or higher rate of high school graduation than the Canadian average, while many rural areas, with smaller towns and villages, have a lower rate. St. John’s (75%), Halifax (75%), and Fredericton (76%) have higher rates of high school completion than the national average (72%). Industrial Cape Breton is an urban exception, with a high school graduation rate of just 60.5%, well below the Canadian average. Nova Scotia’s Annapolis Valley is a rural exception, with the highest post-secondary graduation rate (53.9%) of any rural health district in Atlantic Canada, and higher than the national average for rural areas (51.5%).

Figure 16 indicates regions with a markedly lower proportion of the population aged 25 to 29 having completed high school than the national average. Rural Newfoundland and Labrador and Prince Edward Island, rural Nova Scotia with the exception of the Annapolis Valley, and northern New Brunswick have comparatively low rates of high school completion. Central Newfoundland (52.6%) has a significantly lower rate of high school completion than the national average (71.8%). In Nova Scotia, the southwest region (Yarmouth-Digby) has the lowest rate of high school completion (55.2%) in the province.

**Figure 16. Atlantic health regions with below-average rates of high school completion, 1996, (%)**



Source: Statistics Canada, 1996 Census, 20% sample.

Halifax (60%), St. John's (59%), and Charlottetown/Summerside (57%) also have significantly higher proportions of the population with post-secondary degrees than the Canadian average (51.5%), while rural regions (with the notable exception of the Annapolis Valley) generally have proportionately lower rates of post-secondary graduation.

It is beyond the scope of this paper to examine all of the social and economic determinants of health such as housing, transportation, recreation, and so on. However, we briefly will consider environmental factors. These factors, such as exposure to toxins and lack of clean air and pure water, also contribute to chronic disease.<sup>266</sup> Chernomas has examined changes in society since 1900 when communicable diseases, rather than heart disease and cancer, were the leading causes of death. By 1950, cardiovascular disease and cancer accounted for two-thirds of all deaths, and infectious diseases accounted for less than 10%.<sup>267</sup> Chernomas argues that socially and economically determined production and distribution conditions contributed a great deal to this change. He says that mechanization uses more energy and chemicals in production, which has "transformed food, water, air, and the labour process into mediums for heart disease and cancer."<sup>268</sup>

Chernomas explains that animals are fed food filled with chemicals, including growth hormones and hormones that transform their fat into saturated fat, a major contributor to coronary disease. These artificial carcinogens are everywhere in our society. Chemicals are added to our water, air, food, clothing, furniture, medicine, and so on.<sup>269</sup> People who live in poor circumstances are especially vulnerable to these health risks.

Poor neighbourhoods are often located in toxic, industrial areas, where environmental factors, such as exposure to toxins and lack of clean air and pure water, also constitute pathways to disease.<sup>270</sup> A recent study of cardiovascular disease and cancer mortality in Sydney, Nova Scotia, noted the area's high historical exposure to pollutants. While not conclusive, the study found evidence that "exposures to carcinogens found in Sydney's ambient environment may have contributed to increased cancer risk."<sup>271</sup>

## **6.2 PSYCHOSOCIAL PATHWAY**

To understand why lower-income groups have higher rates of chronic disease and premature death regardless of behavioural risk factors, researchers have examined psychosocial factors as key intervening variables. The epidemiological literature now points convincingly to the strong influence of psychosocial factors on health.<sup>272</sup>

Unlike the materialist pathway, which focuses on the material resources necessary to health, the psychosocial pathway investigates the intermediate social and psychological processes that may be precursors to physical disease.<sup>273</sup> It also takes into account the fact that social and economic inequities can produce mental health problems such as



depression, anxiety, uncertainty, insecurity, and lack of connection to others, to meaning in life, or to something larger than oneself.

The psychosocial pathway has been used by researchers to explain how ethnic, racial, or immigrant inequities may have poor health outcomes. It also looks at the effect of chronic stress on disadvantaged groups, such as Aboriginal people, visible minorities, single mothers, children, and youth, who are particularly affected by poverty and other inequities. This pathway also includes consideration of early childhood development, occupational groups at risk, the social advantages of educational attainment, and other societal issues such as crime and violence.<sup>274</sup>

The psychosocial pathway particularly highlights the impacts on health of the chronic stresses produced by disadvantaged life circumstances and so works in conjunction with the materialist pathway. Substantial research has found that stress negatively affects health, weakens the immune system, and increases susceptibility to a wide range of illnesses.<sup>275</sup> Stress is thought to affect health mainly in two ways. First, stress leads to changes in health-related behaviours, such as alcohol and tobacco use, substance abuse, or diet. These behaviours lead to worse health directly, through damage to organs of the body, and indirectly, by making one more susceptible to contracting illnesses.<sup>276</sup> For example, the correlation between high stress and smoking is well documented. Statistics Canada's National Population Health Survey found that among Canadians reporting very low stress rates, just 21% of women and 27% of men are smokers. Among those reporting high stress rates, 45% of women and 46% of men are smokers, with an almost direct linear relationship between stress level and smoking prevalence for both sexes.<sup>277</sup>

The second way stress affects health is identified in the field of psychoneuroimmunology. This has found direct, measurable links between health and the body's physiological reactions to stress. Stress triggers the release of steroid hormones responsible for a series of physiological responses, typically labeled the "fight-or-flight" response. They do so, for example, by raising the heart rate, blood pressure, and flow of blood to muscles. When these stress responses are persistent, they can lead to illness or make one more susceptible to illness by limiting production of key immune system cells.<sup>278</sup> Studies have found that stress responses affect processes and functions that can lead to or exacerbate serious illnesses such as heart failure and stroke.<sup>279</sup>

Everyone experiences some level of stress in his or her life. However, the disadvantaged experience more unrelenting and chronic stress. The British Whitehall Study found that all workers had high levels of stress at work. However, when senior administrators went home, their blood pressure dropped. When low-level workers went home, their blood pressure remained elevated.<sup>280</sup> It is this chronic nature of stress that causes consequences to accumulate over time and lead to illness.<sup>281</sup>

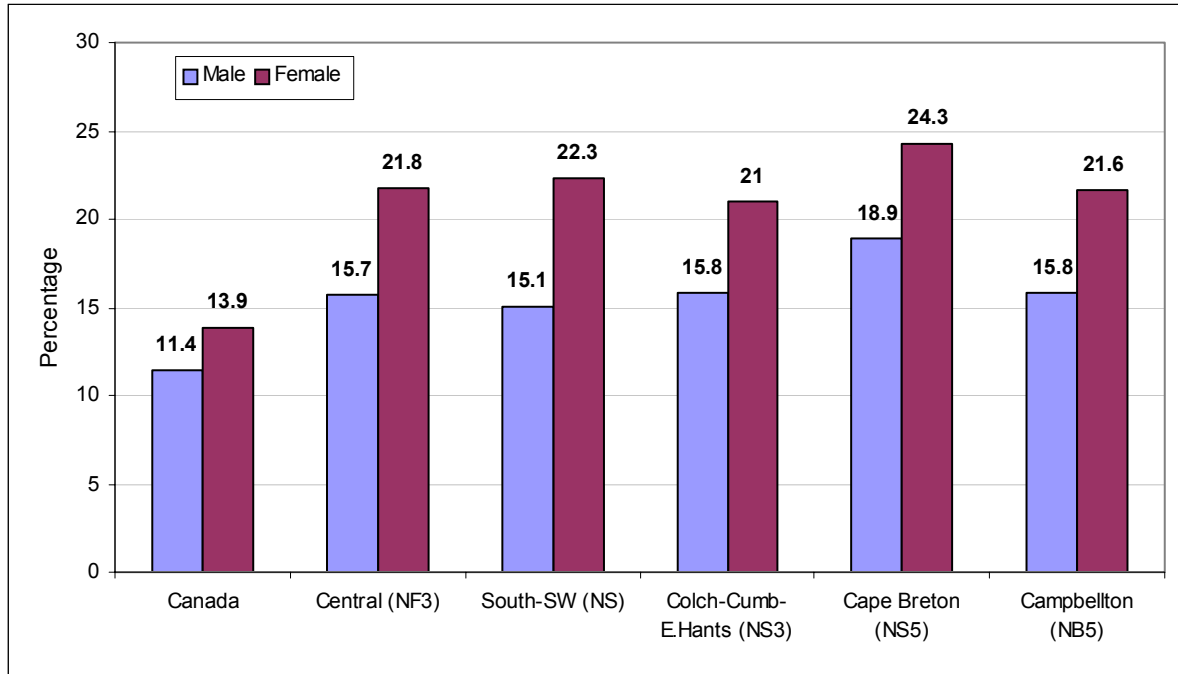
Work stress has been particularly identified in many studies as an important predictor of hypertension and coronary heart disease. It may derive from low levels of responsibility,

lack of control, non-supportive superiors, time pressures, and/or work overload. In one American study, male workers with the highest levels of job strain were found to have four times the risk of heart attack as those with the lowest levels of strain, indicating a risk level equal to that of smoking and high blood cholesterol.<sup>282</sup>

There is also considerable evidence that lack of social supports can contribute to illness. People who are socially isolated tend to be less healthy and more likely to die prematurely than those who have strong social relationships.<sup>283</sup> Strong social support has also been shown to improve resilience and aid recovery from illness. Conversely, lack of social support from family, friends, and communities is linked to higher rates of cardiovascular disease, premature death, depression, and chronic disability.<sup>284</sup> According to Health Canada:

Families and friends provide needed emotional support in times of stress, and help provide the basic prerequisites of health such as food, housing and clothing. The caring and respect that occur in social networks, as well as the resulting sense of well-being, seem to act as a buffer against social problems. Indeed, some experts in the field believe that the health effect of social relationships may be as important as established risk factors such as smoking and high blood pressure.<sup>285</sup>

**Figure 17. Atlantic health districts with a notably higher percentage of the population aged 12 and over with high blood pressure, for both genders, compared to Canada, 2000/01, (%)**



Source: Statistics Canada, *Canadian Community Health Survey 2000/01*, health file, available at [www.statcan.ca/english/freepub/82-221-XIE/00502/hlthstatus/conditions2.htm#high](http://www.statcan.ca/english/freepub/82-221-XIE/00502/hlthstatus/conditions2.htm#high) (extracted December 30, 2002).

A Montreal-based study concluded that HIV-positive gay men were more able to use safe sex practices when they had social support, belonged to a peer group, and had high self-esteem.<sup>286</sup> The effect of mourning on spouses who had lost their partners was examined in a group of 12,522 pairs between 1964 and 1987. During this period, 1,453 men (12%) and 3,294 women (26%) lost their spouses. Of those, 30% of the bereaved men and 15% of the bereaved women died between 7 and 12 months following their spouse's death.<sup>287</sup>

Wilkinson observes the deterioration in social relations that occurs when social hierarchy becomes more unequal:

In effect, coping with the social environment has been every bit as taxing as the material environment in human development, and this is why such intensely social risk factors as social affiliation, low social status and emotional development early in life, have been identified by modern epidemiology as key influences on population health in developed societies.<sup>288</sup>

While some of these indicators may be quantified, other researchers have given greater weight to individuals' *subjective* experiences of relative deprivation and to the emotional responses that arise when they compare themselves with others in their culture.<sup>289</sup> The comparison itself may not be conscious, but will manifest in stress, hopelessness, anger, and feelings of inadequacy and exclusion, all of which may have health consequences.<sup>290</sup>

Hopelessness has been identified as a strong, independent predictor of cardiovascular disease morbidity and mortality in studies of both American and Finnish populations.<sup>291</sup> Hostility, aggression, cynicism, and isolation have also been related to heart disease risk; suppressed anger has been linked to cancer and high blood pressure; and repressed emotionality has been found to predict both cancer and heart disease. Those emotional states are closely linked to social and economic inequities.

More than one in four Canadians experience “quite a lot” of life stress, with more women experiencing high levels of stress than men (26.8% compared to 25.3%). In the 2000/01 Canadian Community Health Survey, all four Atlantic provinces registered a lower rate of stress than the rest of Canada. As in previous population health surveys, residents of Newfoundland and Labrador in 2000/01 registered the lowest stress levels in the country, with Prince Edward Islanders recording the second-lowest levels.

In 1985 and 1991, there was a clear east-west stress gradient in the country, with higher levels of stress reported in Ontario and the West, and all four Atlantic provinces ranking well below national levels. But throughout the 1990s, both Nova Scotia and New Brunswick gradually moved towards national levels.

But the provincial averages conceal some sharp disparities. Women in Charlottetown and Summerside, for example, have far higher rates of stress than men in those towns. And the proportion of residents experiencing high levels of stress in Cape Breton, the Annapolis Valley, the Sussex/Saint John area in southern New Brunswick, and the Campbellton region in northern New Brunswick approaches national levels. The Edmundston region in western New Brunswick is the only health region in Atlantic Canada that substantially exceeds national stress levels. The lowest levels of stress are in rural Newfoundland and Labrador and Prince Edward Island.

More detailed analysis of specific regions within the Atlantic provinces is needed to determine how both material and psychosocial pathways are contributing to the incidence of communicable, noncommunicable, and mental health chronic diseases.

### **6.3 POLITICAL/ECONOMIC PATHWAY**

The social, economic, and political spheres are interconnected and embedded within each other. A growing body of research now suggests that existing inequities are the result of historical, cultural, economic, and political processes and that these inequities cannot be

effectively reduced without understanding their systemic roots.<sup>292</sup> These researchers therefore suggest that broad societal structures including various market economies, globalization, and the welfare state must be analyzed in order to understand the deeper root causes of inequities in health status.<sup>293</sup> According to one analyst:

It is absolutely essential for states and individuals to locate that delicate balance between ... a world of high-tech, instantaneous communication, idolatry of markets and investment and “Darwinian brutality” ... and ... a world with a heartfelt sense of belonging, rootedness, community and identity.<sup>294</sup>

Understanding how the material and psychosocial pathways can lead to chronic disease is necessary in order to develop effective prevention strategies. As we have seen, lack of sufficient resources to lead a healthy life puts especially vulnerable groups at risk for a broad range of chronic diseases – communicable, noncommunicable, and mental. As Lynch points out, material conditions structure day-to-day existence, but political-economic processes determine these conditions. Policies that can generate inequality exist before their effects are felt at the individual level.<sup>295</sup>

The general consensus in the population health literature is that addressing only one risk factor at a time will probably not be effective. Addressing a cluster of risk factors may be more helpful.<sup>296</sup> However, these factors are not root causes. They are inequities that lead to stress and physical and mental suffering and then to ill health and chronic disease. Intervening in the materialist or psychosocial pathway – for example, supporting children’s feeding programs – can be very helpful in relieving that suffering. It might also be an investment in the children’s futures, as well as not letting them go hungry. These types of programs are therefore very useful. However, in order to change child hunger, it is important to relate to its root cause.<sup>297</sup> For example, why do children need a feeding program in the first place? What is causing these children to be hungry? Are existing policies having negative health impacts?

The political/economic pathway suggests that, in order to change an inequitable situation, analysts must examine the processes of exclusion. In addition, it is necessary to look at how those processes work. Coburn argues that population health improvements depend on an understanding of the market-based ideology that underlies the dominant current ideologies.<sup>298</sup> Since social supports are recognized as a key determinant of health, a market ideology that values everyone being independent may adversely affect population health. Researchers observe that incomes are mainly the result of both market-driven distributions and government-sponsored redistributions of income. Therefore, any reduction of inequities depends on active government intervention.<sup>299</sup> According to Coburn:

Degrees of inequality are clearly influenced by international, national and local political policies, which are amenable to change. We can either ignore these processes or seek to understand and begin to change them.<sup>300</sup>

Muntaner and Lynch contend that a society using the market as its primary guide and doctrine creates greater income inequalities, reduces social cohesion, and lowers health status.<sup>301</sup> It has this effect partly through undermining the welfare state, which, in that view, interferes with the normal functioning of the market. However, analysts show that globalization has not decreased poverty. With the rise of globalization, inequality is increasing in most countries but appears to be tempered in countries with stronger welfare policies and less market-oriented systems.<sup>302</sup> Davey Smith points out that:

Cross nationally, higher levels of both social expenditure and taxation as a proportion of gross domestic product are associated with longer life expectancy, lower maternal mortality, and a smaller proportion of low birthweight deliveries.<sup>303</sup>

These and other wide-ranging analyses of the more systemic root causes of chronic disease reveal that Canadians traditionally value cultural diversity, social justice, and the welfare state. They traditionally resist pressures from powerful market economies. Since the mid-1970s, analysts show a change in these guiding values and in actual state practices in Canada. Values have shifted from the notion of shared risk and social rights to the notion of individual risks and responsibilities and consumer rights. That shift may have significant implications for the health of Canadians.

The growing reliance on market mechanisms for employment, redistribution, fiscal management, and privatization has contributed to service reductions in the health sphere and to growing socioeconomic gaps among Canadians.<sup>304</sup> Welfare recipients are seen to be abusing the system, and federal supports are seen as corrupting individual initiative and thus are subject to justifiable cuts.<sup>305</sup> In this view, policies are justified because, by giving the rich more disposable income, particularly through tax cuts and keeping wages for workers low, higher profits and incomes for the wealthy will lead to more investment, better allocation of resources, and therefore more jobs and well-being for everyone. The alternative view is that this redistributed wealth will not go into the local or national economy but to international stock markets.<sup>306</sup>

James Dunn in a recent paper, *Are Widening Income Inequalities Making Canada Less Healthy?*, warned that if governments do not reinvest in public programs, Canada's stock of "human capital" and its health will decline. He argues that there is no trade-off between health and economic prosperity and that policies can be framed to improve health and economic productivity at the same time. From that perspective, Dunn recommends policy principles that can be applied to a wide variety of disease prevention and health promotion strategies in many sectors.<sup>307</sup>

As sociologist John Gray says:

It is true that restraints on global free trade may not enhance productivity, but maximum productivity achieved at the cost of social desolation and human misery is an anomalous and dangerous idea.<sup>308</sup>

These ideas are the subject of considerable debate, but have profound implications for social and economic inclusion and equity, and ultimately for health outcomes.





## 7. DISCUSSION

It is clear from the evidence that the health of populations is dependent on social and economic conditions. A society that has social and economical inclusion has better health than one that excludes large segments of the population from opportunities to lead productive and fulfilling lives. It is also clear from the evidence that social and economic inclusion, in turn, depends on the material well-being of its citizens and on a relatively equitable distribution of resources. Conversely, societies that exclude groups based on income, socioeconomic status, race, or ethnic background are correspondingly more fragmented. They have more crime and violence, higher rates of depression and stress, and are generally less healthy than more equitable societies. As one researcher observes, inequality is not a social and economic investment in growth. Systems that push people down do not value the human talents that can generate a productive economy and result in robust health in the future.<sup>309</sup>

The literature recognizes a wide range of pathways between inequity and disease. The effectiveness of any policy will depend on its capacity to identify the optimal points in these processes and pathways where interventions can best reverse the potential for disease onset. As we have seen, pathways to ill health include lack of material resources such as sufficient income, access to education, and employment opportunities; lack of psychosocial supports in the community and workplace; and political and economic policies that increase inequities. While cause and effect relationships are not well understood, sufficient evidence now exists to indicate that these pathways can lead to unhealthy coping behaviours and to chronic disease.

It may appear from the above discussion that much of the evidence relating chronic disease with inequities in Atlantic Canada is negative. However, it must be emphasized here that important successes have already been achieved in this region and that Atlantic Canada has inherent strengths that might help, in part, to reduce the incidence of chronic disease. Research on civic and voluntary work in Atlantic Canada has found strong evidence that social support networks are still more vibrant here than in other parts of the country.<sup>310</sup> The Atlantic Centre of Excellence for Women's Health has specifically identified support groups in the four Atlantic provinces that are playing a major role in strengthening these community networks.<sup>311</sup>

A report prepared for the Atlantic Centre of Excellence for Women's Health by GPI Atlantic noted that the strength of family, social, and community supports is also a profound Atlantic region asset that undoubtedly buffers adverse health impacts. These strengths are not measured in our standard economic indicators and are thus always in danger of being neglected and overlooked in the quest for economic growth and material wealth. But there is no doubt that it will serve the region and the health of its population well to nurture, maintain, and strengthen the network of community supports that contributes so much to the quality of life in Atlantic Canada.<sup>312</sup>

The Atlantic region leads the country in high levels of social support. Throughout Canada, and in the four Atlantic provinces, women report higher levels of social support than men. Since 1994, however, Nova Scotians have slipped by comparison with residents of Newfoundland and Labrador and Prince Edward Island in the degree to which they can rely on social supports. In Nova Scotia, the highest levels of social support are in the Pictou-Guysborough-Antigonish-Strait area, with lower levels reported in south and southwest Nova Scotia and in Colchester-Cumberland-East Hants.

In New Brunswick, the Moncton and Miramichi health districts report somewhat lower levels of social support than in the rest of the province. Social support levels are consistently high throughout Newfoundland and Labrador and Prince Edward Island. It has been noted that strong social supports might play an important role in buffering adverse economic conditions, reducing stress, and protecting health in Newfoundland and Labrador. It is recommended that further research explore these strengths in greater depth for their potential to prevent disease throughout Atlantic Canada.

Many healthy city and healthy community projects in various locations have created models of public involvement in policy development.<sup>313</sup> A few of these projects are listed in the Appendix. The People Assessing Their Health (PATH) project helped pioneer this strategy in Atlantic Canada.<sup>314</sup> PATH, which began as a pilot project in three communities in eastern Nova Scotia, was designed to enable more community involvement in decisions regarding health. It created Community Health Impact Assessment Tools (CHIATs) to help community members assess policies and programs in their area for their impact on health. This approach helps ensure that a population health strategy includes the knowledge and wisdom found in local communities. It also acknowledges that participation, empowerment, and capacity building are crucial elements in overcoming health inequities.

Another example of a highly successful initiative is the Community Action Program for Children (CAPC), one of three programs funded by Health Canada (with the Canada Prenatal Nutrition Program and Aboriginal Head Start) to help families improve the health and well-being of children under the age of 6. The CAPC funds local groups within communities to provide services for low-income families, single parents, or isolated families. The programs directly address at least four major determinants of health including healthy child development, personal health practices and social skills, social support networks, and social environment. Over 40 community-based organizations offering CAPC programs are located throughout the Atlantic provinces. Results from one of the largest qualitative research evaluations ever conducted in Canada show that 87% of the parents participating in the CAPC in Atlantic Canada reported a positive change in their lives, and 75% of the children had observable changes in their development.<sup>315</sup>

All four Atlantic provinces have made new commitments to health promotion and chronic disease prevention. Newfoundland and Labrador has initiated a comprehensive

Strategic Social Plan to integrate social, economic, and health goals for the first time. Nova Scotia has created a new Office of Health Promotion under the direction of a minister and is in the process of developing a Chronic Disease Prevention Strategy through the Department of Health. New Brunswick's 2002 report, *Health Renewal: A Report from the Premier's Health Quality Council*,<sup>316</sup> recommends a shift from a treatment to a wellness focus in policy and program formation. And Prince Edward Island, as part of the government's five-year Strategic Plan,<sup>317</sup> has developed a "Wellness Plan," that acknowledges social determinants of health such as income, education, gender, and early childhood development.

The descriptive data presented in this report can serve as a first step toward understanding specific aspects of inequity in the Atlantic region. The next step is to examine specific high-risk areas in more detail and to tailor policies where needs are greatest. We have long known that national and provincial averages conceal major rural-urban and other intra-provincial differences in health status. Although basic patterns are clear, a deeper analysis of all variables is needed to clarify root causes of chronic diseases. The recently released Canadian Community Health Survey data now enable the correlation of health status and health outcomes at the health district level with census, demographic, and labour force data on income disparity, low income, unemployment, and a wide range of other variables.

## 7.1 POLICY IMPLICATIONS

***Key Message: Social and economic factors are modifiable. Effective strategies must address the root causes of social inequities in society.***

The physical and mental, communicable and non-communicable disease patterns in the Atlantic provinces are cause for concern. Coherent and effective strategies to reduce health inequities in Atlantic Canada must be based on an understanding of existing regional inequities, social and economic risk conditions, and particular chronic disease patterns in this region. Such strategies must be specific to the social and economic circumstances and cultural conditions of the Atlantic provinces. Again, the good news is that the detailed intra-provincial data available for the first time in the 2000/01 Canadian Community Health Survey will encourage new research that provides policy makers with the information they need to target interventions where needs are greatest.

Over the years, all levels of government in Canada have adopted a wide range of income, employment, health, education, housing, and social policies designed to alleviate poverty and reduce socioeconomic inequality. While these programs have achieved marginal improvements in many areas, they have had limited success in changing the underlying social and economic inequities and patterns leading to chronic disease in this country. According to one analyst, this is because there has been no integrated, comprehensive agenda and because only a few programs have improved health as their explicit aim.<sup>318</sup>

The current public debate on reforming health care in Canada, for example, overlooks the substantial role that poverty and inequality reduction could potentially play in reducing health care costs.<sup>319</sup> Commissions to examine health and health care have acknowledged the social determinants of health but have not translated this recognition into policy recommendations designed to improve population health.<sup>320</sup>

The next step is to develop coordinated, comprehensive plans for the Atlantic provinces that address all of the social determinants of health and recognize the interactions among them. Fortunately, there are many good local, national, and international examples of societies that have adopted such a comprehensive approach and instituted far-reaching social and economic policies designed to improve population health. The United Kingdom's Acheson Report<sup>321</sup> and Sweden's New Public Health Policy,<sup>322</sup> as well as Canadian initiatives like the Newfoundland and Labrador Strategic Social Plan<sup>323</sup> and Quebec's new anti-poverty law<sup>324</sup> can serve as models for Atlantic Canada. Sweden's new public health policy, for example, is coordinated by a central body; organized around the social determinants of health rather than health outcomes; focused on wellness rather than disease; aimed to work toward broad, popular support and consensus; and coordinates the entire Swedish governmental policy with a view to improving public health as an explicit national goal.<sup>325</sup>

We have extrapolated some key elements from these models for Health Canada's Population and Public Health Branch, Atlantic Regional Office, to consider as potential next steps in the development of strategic policies designed to reduce inequities and improve population health in Atlantic Canada. What follows is certainly not an exhaustive list, but it offers some rudiments of a potential framework for forward movement. This framework should include long-, intermediate-, and short-term objectives; the creation of structures and processes to coordinate policy; the development of analytical tools and research priorities; and the involvement of communities in implementing programs and policies.

## 7.2 RECOMMENDATIONS FOR ACTION

***Recommendation 1: New population health strategies must reflect an understanding of the social and economic conditions that support and sustain population health.***

The evidence supports the necessity of social and economic inclusion for the well-being and health of the population.<sup>326</sup> This must be the primary goal of any new population health initiative in Atlantic Canada. Strategic investments that result in a more equitable distribution of public and private resources will likely have the most impact on reducing health inequities and improving public health. Strategies should also build on strengths that already exist in Atlantic Canada.

The root causes of inequities and chronic disease must be addressed rather than the more limiting and less effective focus on individual behaviours. Working with individual diseases in isolation ignores their common basis in the social and economic determinants of disease. Future work must be based on a comprehensive framework that integrates the three chronic disease areas – communicable, noncommunicable, and mental health.

Strategies must begin to shift the focus from disease to assets, strengths, health, well-being, and quality of life.

Innovative changes and policies designed to reduce inequities and improve health in this region may reverberate in other parts of the country and beyond. Socioeconomic inequities in health affect every country to varying degrees. Many nations are contemplating solutions and policy interventions, and some are implementing social and economic reforms. All, however, are still looking for answers. It is remarkable that a social and health experiment in a small area of Finland called North Karelia is referenced globally by population health analysts.<sup>327</sup> Just as Nova Scotia has become renowned as a leader in recycling, there is no reason why the Atlantic provinces cannot become known for effective population health policies that address the root social causes of health and illness.

***Recommendation 2: New population health strategies must be based on common values and coordinated around a central vision.***

The strategies must be guided by commitments to the population health principles of equity, sustainability, and social justice; to a holistic approach; to intersectoral action; to the use of multiple strategies; and to the empowerment and participation of communities and ordinary citizens in improving population health.<sup>328</sup> Modeling the social and economic systems of this region on these values could have a profound effect on the well-being and health of individuals and communities in Atlantic Canada.

Atlantic Canadians have long valued social justice, cultural diversity, civic participation, social equality, fairness, compassion, and social solidarity.<sup>329</sup> For example, in 1998, the

New Brunswick government initiated a broad public consultation to discover what the population thought of its social policies. The resulting report, *Report on Social Policy Renewal*, stated that New Brunswickers recognized that social development and economic development go together. Respondents stated that they:

... would like the two fields to be more integrated, and focus more on improving the quality of life for individuals and families ... The state must develop an approach based on real needs of the population ... If this condition is met, community-based organizations and natural helpers can establish various types of partnerships between the government and the community ... To create real partnerships and promote the growth of the social economy, the population should get more involved in developing programs, and the government should support community projects.<sup>330</sup>

***Recommendation 3: New population health strategies must include a multilevel and multisectoral approach.***

The strategies must aim to incorporate the common values into public policy making at all levels so that a broad social and economic commitment to “healthy public policy” and multisectoral action guides all policy decisions. Working cooperatively is crucial in order to gather collective strength; guide long-term, nonpartisan strategies; define priorities; avoid duplication; and coordinate approaches. The federal government and the provincial governments of Atlantic Canada need to cooperate on their strategies for population health, social justice, and healthy communities. Government accountability must go beyond the four-year agenda mandated by elections and incorporate long-term goals.

Improving population health through the elimination of existing inequities requires a collaborative and coordinated approach on the part of all policy departments, as many potential policies that affect health lie outside the traditional domain of the health sector. Therefore, the health sector should play an influencing, rather than a leading, role. A multisectoral approach will recognize, for example, that macro-economic, taxation, minimum wage, and social assistance policies affect the health of the population. For that reason, Raphael and other researchers point to the importance of actions that raise incomes and access to resources, increase social relationships and supports, decrease chronic stress, and change economic and social policies that undermine health.<sup>331</sup> Dugger recommends that the solution to inequality is “institutional reconstruction” that eliminates the *system* of inequality, rather than programs that “smooth off the rough edges.”<sup>332</sup> He suggests that understanding inequity begins with the study of social and economic processes and institutions.

In addition to cooperation at the government level, strategies also must involve the professional, business, labour, volunteer, and community sectors in decision making and implementation.

***Recommendation 4: New population health strategies must strengthen assessment, data collection, research, and evaluation to measure progress towards greater equity.***

Toward these ends the strategies must:

- encourage data collection on population health issues that link health indicators with measures of socioeconomic status, race/ethnicity, and other elements of equity and inequity
- expand health indicators to encompass the full range of social and economic determinants of health
- encourage participatory, action-oriented, qualitative research
- involve community in setting indicators and research agendas
- develop an Atlantic Canada Research Strategy that will avoid duplication, gather and coordinate existing knowledge, and focus on cooperation, rather than competition, among research groups
- evaluate what has been successful and support these initiatives on a long-term basis
- develop mechanisms to translate knowledge into policy.

It will be difficult to make genuine progress towards greater social and economic equity and improved population health while these issues are invisible in the core measures of progress used to assess social and economic well-being and prosperity. Current measures, based on economic growth statistics, assess how much production and income are generated but provide no information on how that income is distributed or shared. While the Gross Domestic Product statistics are released monthly, Statistics Canada provides information on the income gap much less frequently, with the latest available statistics generally three years old.

If equity, and its impact on population health, is to assume its rightful place on the policy agenda, then it must be measured and reported regularly as part of our core measures of progress in order to assess whether inequities are growing or narrowing. Income gaps can be measured both by quintiles and using the GINI coefficient,<sup>333</sup> with information provided on regional and local inequities, including changes over time. The gender wage gap can also be monitored, along with specific information on the status of vulnerable and marginalized groups. Statistics on assets and debts can similarly measure changes in wealth distribution. A first step in this direction is the more frequent provision of data on equity by Statistics Canada.

***Recommendation 5: New population health strategies must give extra help to vulnerable groups and regions with the greatest needs, taking care to avoid creating further stigma and discrimination.***

Inequity issues are societal issues and are not limited to issues of different groups. Therefore, strategies that relate to the root causes of disparity will have the most beneficial effect. However, since vulnerable groups and regions suffer directly from

inequities, they need special interventions. It is important to recognize and respect the inherent wisdom and value to society within these groups and regions and to avoid considering them as “problems.” In developing strategies, capacity must be developed so that vulnerable groups, regions, and communities can identify and determine their own needs and solutions, which the government can then support.

In particular, regional policy interventions can be targeted where needs are greatest, such as in Cape Breton, northern New Brunswick, Labrador, rural areas, and African-Canadian and Aboriginal communities, where current inequities produce particularly adverse health outcomes. Intra-provincial comparisons within Atlantic Canada demonstrate quite clearly that poor health outcomes tend to be clustered in particular geographical areas. Cape Breton and the Campbellton area in northern New Brunswick, for example, have lower average incomes, higher rates of unemployment, higher proportions of single mothers, higher rates of low income, and poorer health status than Halifax or Fredericton.

On the other hand, simplistic generalizations on income and health will miss key patterns in the relationship between inequity and disease. Labrador, for example, overall exhibits the anomaly of relatively high incomes, low rates of low income, and few single mothers. Yet, it has the lowest life expectancy of any region in Atlantic Canada – an outcome that may be related to its high proportion of Aboriginal people. The island of Newfoundland has the lowest average incomes and the highest rates of unemployment in the country, but, as we have seen, has low stress and high rates of mental well-being, self-rated health, and functional health – outcomes that may be related to strong social networks. It is essential to study the effect of intervening social and economic variables in deepening or mitigating inequities and adverse economic circumstances.

In some cases, this health region analysis may lead to very specific policy interventions. Cape Breton and western Newfoundland, for example, have the lowest rates of mammogram screening in Atlantic Canada and also the highest breast cancer mortality. Practical health policies that seek to reduce inequities can use this sub-provincial information to target interventions that reduce such health risks and improve access to essential preventive services. Where deeper systemic disadvantages are revealed, as in Labrador and northern New Brunswick, for example, more far-reaching, coordinated, multisectoral, economic, and social policy initiatives will be needed to narrow the gap and improve the health profiles of these disadvantaged regions.

The Atlantic provinces can take concerted action to reduce low-income rates among single mothers, Aboriginal people, the disabled, and other vulnerable groups. It has been done before in Canada. In the early 1980s, low-income rates among the elderly were unacceptably high. Concerted social action succeeded in cutting low-income rates among Canadian seniors from 34% in 1980 to 19% in 1997, and from 31% to 15% among Atlantic Canadian seniors during the same period. Low-income rates among Canadian seniors have fallen further in recent years and are now 9.5% for elderly women and 4.4% for elderly men.<sup>334</sup> If low-income rates can be deliberately and successfully



reduced for such a large demographic group, then there is no obstacle to reducing low-income rates among other vulnerable groups with similar determination and success.

Dramatic improvements demonstrated in the psychological well-being and rates of depression among seniors demonstrate the health impacts of such action. Higher rates of youth poverty have correspondingly shifted the profile of poor psychological well-being to younger groups. Actions such as those described above can therefore be based on successful models already developed. They can highlight and reduce inequities in a targeted way, improve the health of Atlantic Canadians, and create a working model for other jurisdictions in Canada and beyond.

### 7.3 SPECIFIC PUBLIC POLICY INITIATIVES

Beyond the coordinated and comprehensive population health strategies described above, it is also possible to take very specific and innovative policy initiatives that can reduce inequities and improve population health. A few suggestions are provided here. Specific strategies can be initiated at the federal, provincial, municipal, and community levels and can work within and across jurisdictions.

#### 7.3.1 Federal level

The federal government, for example, can:

- Engage researchers, policy makers, and nongovernmental organizations in areas both within and outside the traditional health field, such as economics, environment, urban and rural development, labour, and other disciplines to examine the role played by social and economic factors in creating health and well-being in the population.
- Play a role creating background papers with the long-term view of developing major policy papers such as the United Kingdom's *Independent Inquiry Into Inequalities in Health*,<sup>335</sup> and Minnesota's *A Call to Action: Advancing Health for All Through Social and Economic Change*.<sup>336</sup> These papers can also address key areas outside the traditional health sphere to examine how agriculture, workplace structures, urban and rural renewal, housing, economic policies, and other areas influence health.
- Identify and research specific processes and policies from countries and areas that have coordinated strategies in place, e.g., United Kingdom, Sweden, and Minnesota.
- Encourage research into the effects that systemic structures have on food, air, water, labour, and other processes underlying inequities and health. Recent federal changes in transfer grants, employment insurance, and pensions could also be the focus of health impact analyses.<sup>337</sup>
- Create intersectoral fora for dialogue to discover how each sector influences and affects the others.
- Influence a shift in focus from an almost exclusive preoccupation with illness and lack of health, where mortality and morbidity statistics have conventionally been used

in health research, to a greater emphasis on research into the determinants of *positive* health and well-being.<sup>338</sup>

### **7.3.2 Provincial level**

Provincial governments, for example, can:

- Analyze and create briefs on the impact of local policies and power structures upon health and social and economic inclusion. For example, policies reducing social assistance rates, eliminating new social housing and rent control, and providing transfers of money from the poor to the wealthy through income tax reductions can be examined for their health effects.
- Identify and look specifically at existing policies designed to help people move out of poverty, meet basic needs, and elevate their standard of living.
- Look specifically at resource distributions in housing, education, wages and benefits, zoning and other local policy concerns and their health effects.
- Develop cost-specific information on particular issues, such as how much affordable housing is needed and how much money must be allocated to this area.
- Identify geographical areas that have particular strengths (to serve as local models and best practices) and areas that have particular inequities.
- Develop preliminary socioeconomic and health profiles of these areas in order to understand both the existing assets and the root causes of difficulties. This would involve looking specifically at factors such as local environment, income, career opportunities, employment, school effectiveness, community assets, social supports, and other determinants of health at the community level and seeing how these factors influence health and inclusion.
- Specifically identify ongoing and previously successful programs in the region that can be encouraged and supported.
- Build and strengthen the capacity of institutions and the public to identify and address population health issues. This can encourage joint action on the ground that can provide practical input and increased debate in policy discussions.
- Explore modes of civic engagement, provide tools and resources to identify and address population health issues at the community level, research community-based innovations designed to increase self-reliance, bring together interests, and help initiate dialogues to improve community health.

### **7.3.3 Municipal level**

Municipalities, for example, can:

- Create health impact analyses, for example, to assess the effects of user fees for libraries, recreation and park services, and increases in public transportation fares.
- Bring together leaders in different municipal departments whose resources can quickly be deployed to improve population health. One example of this intersectoral

approach is the way a depressed neighbourhood in San Francisco worked quickly to decrease inequities. A neighbourhood forum identified major chronic health issues, including exposures to chemicals and indoor mould, lack of access to affordable and healthy foods, and violence. To deal with some of these issues, the local transit authority created a shuttle bus between the neighbourhood and grocery stores; the parks department published a guide to recreational services specifically oriented to the neighbourhood; and the city improved key services such as street lighting, city-sponsored cheque cashing, areas for community gardens, “green” school yards, and so on.<sup>339</sup>

- Involve specific community groups. For example, in the same San Francisco neighbourhood cited above, a youth group, ENVISION Youth, was inspired to research barriers to accessing healthy food in its neighbourhood. The group surveyed corner stores, researched supermarket and food production practices and the role of fast food establishments in school and hospital economics, conducted healthy snack taste tests, held community meetings to share its research findings, and developed strategies to influence storeowners to stock fresh food and local producers to create farmers’ markets.<sup>340</sup>

#### **7.3.4 Community health board level**

Community health boards, for example, can:

- Create local target areas as pilot projects that have the potential to expand to other local areas. For example, the United Kingdom has created “Health Action Zones” (HAZs),<sup>341</sup> and areas in the United States have created “Environmental Justice Neighbourhoods” (San Francisco).<sup>342</sup> These are pilot programs for community renewal.
- Develop tools and processes for working with geographical and/or vulnerable groups to improve community health. Existing local examples include the community-based work of the Population and Public Health Branch, Atlantic Regional Office, Health Canada; the Coastal Communities Network; the Halifax Inner City Initiative; the Community GPI Atlantic projects in Glace Bay and Kings County, Nova Scotia; the Atlantic Centre of Excellence for Women’s Health; and the Atlantic Health Promotion Research Centre.
- Conduct rapid health impact assessments (HIAs) on particular issues of importance to the community. For example, an HIA might examine whether a carpet-free policy in public housing would improve indoor air quality and health or it might examine the likely effect of proposed zoning or other policy changes on health.
- Conduct community fora to identify what the community wants to do, what it needs in terms of information and research, and what resources are needed to improve community health and well-being. These fora can also identify community assets and strengths.
- Evaluate programs for potential use in other areas of the region.

In sum, the complex problem of reducing social and economic inequities in order to reduce chronic disease, whether communicable, noncommunicable, or involving mental health issues, requires complex solutions. These solutions need to be coordinated and involve all parties working together toward common goals based on common values. It is possible to work together to create a physically, mentally, socially, and economically healthy society. And by working together, it is possible to create a society that is uplifting, sustainable, and inspiring for future generations.

## **APPENDIX**

### **ATLANTIC INITIATIVES ADDRESSING THE DETERMINANTS OF HEALTH**

Many innovative programs have been initiated in the Atlantic region to address determinants of health such as income levels, social support, employment levels, and other population health indicators. These initiatives have ranged from self-employment programs, to community consultations, to housing projects, to cross-cultural exchanges. Following is a very small sample of the many positive initiatives representing the strength of Atlantic Canadian communities. Many of these examples come from research compiled by the Atlantic Centre of Excellence for Women's Health.

#### **FEDERAL INITIATIVES**

##### **Atlantic Aboriginal Health Research Program (AAHRP)**

In February 2003, the Government of Canada committed \$1.4 million over four years toward the formation of the Atlantic Aboriginal Health Research Program (AAHRP). In collaboration with the Aboriginal community, the program's goal is to improve the health of Aboriginal people and to increase the number of Aboriginal people engaged in health research. Specifically, this research will be in the following three areas:

- prevention: reducing smoking and alcohol consumption, improving nutritional practices and physical exercise
- mental health and addictions: the connection between addictions and stress, depression, and suicides among Aboriginal youth
- understanding the determinants of health: housing conditions, impact of physical environments, the effects of poverty and unemployment, and the role of cultural and spiritual factors.

##### **Understanding the Early Years (UEY)**

Two communities in Atlantic Canada are participating in this five-year program started in 1999. It aims to provide communities with information to help make informed decisions related to policy and programs for families with young children. Using the National Longitudinal Survey of Children and Youth (NLSCY) instruments and the Early Development Instrument (EDI), the program explores family socioeconomic background, family processes including positive parenting practices, and community factors such as social support, neighbourhood safety and quality, and the use of recreational, cultural,

and educational resources. Mapping community resources is a key component. Both communities involved have contributed reports. Among the highlights of these reports:

In Prince Edward Island, children scored higher than the national averages for all outcomes measured with the EDI and the NLSCY instruments. In addition, many children that were living in poor areas were faring quite well. Despite relatively low levels of socioeconomic status, PEI had high scores on community indicators for social support, social capital and the quality and safety of its neighbourhoods.

There was limited mobility in PEI, as few residents move within or out of the province. Parents also had relatively strong parenting skills and lived in safe and high quality neighbourhoods. These factors undoubtedly contribute to PEI's success in achieving high levels of children's outcomes.

The community of South-western Newfoundland can take pride in their children and themselves for having safe, low transition neighbourhoods which enable the children to be above the national average in many areas such as their vocabulary, behaviour and cognitive development. Parents also had strong parenting skills and were frequently involved in their children's learning activities.<sup>343</sup>

### **Community Action Program for Children (CAPC)**

The CAPC is one of three programs funded by Health Canada (with the Canada Prenatal Nutrition Program and Aboriginal Head Start) to help families improve the health and well-being of children under the age of 6. The CAPC funds local groups within communities to provide services for low-income families, single parents, or isolated families. The programs directly address at least four major determinants of health including healthy child development, personal health practices and social skills, social support networks, and social environment. Programs have included community kitchens, nutrition and cooking classes, toy libraries, drop-in centres, parenting programs, and family resource centres. In addition, the CAPC provides a place where parents can get together and form supportive groups, and where children can play together. Over 40 community-based organizations offering CAPC programs are located throughout the Atlantic provinces. Results from one of the largest qualitative research evaluations ever conducted in Canada show that 87% of the parents participating in the CAPC in Atlantic Canada reported a positive change in their lives, and 75% of the children had observable changes in their development.<sup>344</sup>

### **Canada Prenatal Nutrition Program (CPNP)**

Another national program that has had a positive impact in Atlantic Canada, the CPNP was created by Health Canada in 1995 to support pregnant women in local communities who are at risk due to poor health, nutritional status, and their social and economic condition. It aims to improve the health and birth weights of Canadian infants. The

program provides food supplements, nutrition counseling, support, and education to pregnant women both before and after birth. In 2000/01, Atlantic Canada had approximately 30 CPNP projects, each serving a number of communities and almost 2,000 women. Evaluations of the program report the many positive effects that the CPNP is having in areas such as social support, health practices, coping skills, and income.<sup>345</sup> Evaluations of the health outcomes of the infants will be possible in the future as data become available.

### **Canadian Rural Partnership's Pilot Projects Initiative<sup>346</sup>**

The Canadian Rural Partnership's overall goal is to enhance the quality of life in rural communities and to encourage rural development. It values listening to rural residents, responding to their needs, and providing grassroots support. The Partnership promotes consideration of rural issues and concerns in the design and delivery of all federal policies and programs. It encourages all federal departments and agencies to view potential policies and programs through a rural lens in order to understand their potential impact on rural Canada. Coordinated by a secretariat within Agriculture and Agri-Food Canada, it is implemented by an interdepartmental working group, consisting of representatives from 29 federal departments and agencies, and rural teams working in each province and territory. This initiative is currently funding 21 projects throughout Atlantic Canada, designed to give rural and remote communities the opportunity to develop their own solutions to daily challenges. These projects deal with everything from programs for seniors and offering youth counseling and support on a number of health and life issues, to the hiring of a family resource facilitator to increase the academic and workplace skills of potential employees.

## **NOVA SCOTIA INITIATIVES**

### **Antigonish Movement<sup>347</sup>**

The Antigonish Movement was a response to the dire economic and social situation of farmers, fishers, and miners in eastern Nova Scotia in the 1930s. It is recognized worldwide as an innovative community-based program of economic reform, which included a network of credit unions, 39 cooperative stores, and over 1,000 study groups. The study groups were key in terms of literacy and also in terms of bringing people together to dialogue about common community challenges. Many current community economic development projects in Nova Scotia take their inspiration and methods from the Antigonish Movement.

### **People Assessing Their Health (PATH) Project<sup>348</sup>**

The PATH project was designed to provide a means for people in select communities in eastern Nova Scotia to have greater decision-making ability in the province's

decentralizing health care system. This was a pilot project in three Nova Scotia communities, as a part of the provincial government's health system reform, which promised to enable more community involvement in decisions regarding health.

The PATH project challenged community committees to develop Community Health Impact Assessment Tools (CHIATs) for their areas. The process enabled community members to think more deeply about the broad determinants of their community's health. The most important determinants of health, according to participants on the community committees, were employment opportunities, healthy child development, life-long learning, lifestyle practices, physical environment, safety and security, stable incomes, social support, and health care. Community members acknowledged the importance of these as population health determinants.

The resulting CHIATs have helped community members assess policies and programs in their areas based on health impact. The same tools have been developed and used by government, and these tools have enabled government departments to work across jurisdictional boundaries to consider the broad spectrum of factors influencing health.

The PATH project is grounded in the belief that community members know what it takes to make their community healthy. Adult education models (such as storytelling) were used to bring out this knowledge and to help community members talk about health and the determinants of health. The project is also based on the idea that people at the community level should be involved in planning and decision making related to policies and programs that affect them. Because of cost restrictions, however, the Government of Nova Scotia removed community health board representatives from regional health boards. At this point, it remains unclear how the recommendations of community members will reach policy makers.

*Pathways: The PATH Project Resource* has been developed and circulated to other communities across Nova Scotia, to help them develop CHIATs for their own communities. There is no government funding, however, designated for the coordination of the PATH project in these communities.

### **Creighton Gerrish Development Association<sup>349</sup>**

The Creighton Gerrish Development Association (CGDA) was formed by the Black Community Workgroup, Metro Non-Profit Housing Association, Harbour City Homes, and the Affordable Housing Association of Nova Scotia. The object of the association has been to build and manage a mixed-use building complex in the north end of Halifax, including affordable condominiums, apartment housing, and a multi-purpose centre. The CGDA has been working on this plan since 1994, when the project was initiated as a response to a government action canceling all funding for new social housing. The CGDA has been successful in negotiating the sale of the land and has been working with investors and government to put together the financial package required to support



construction. The process has been positive for the members of the CGDA in working with a variety of stakeholders and experts and in tailoring the project to fit the community's needs. The members recognize, however, that the process has been very long, as are the realizations of many community-based initiatives, and the need in the community for affordable housing remains immediate. The members suggest that government can better fill the immediate needs of low-income people in their community for affordable housing.

### **Coastal Communities Network (CCN)<sup>350</sup>**

With funding from both Heritage Canada and Canadian Rural Partnership, the CCN was mandated to facilitate open, face-to-face dialogue among the coastal communities in Nova Scotia. The sustainability of coastal communities and the resources on which they rely is the main focus in bringing together representatives from each of the cultural communities in Nova Scotia (including the Black, Aboriginal, Acadian, and European communities). Participants in the CCN-facilitated dialogue include community economic development professionals, municipal leaders, church and community officials, resource harvesters and processors, union representatives, and university professionals. The object of the CCN is to encourage dialogue, share information, create strategies, and undertake actions that promote the survival and development of Nova Scotia coastal and other rural communities, because, "it doesn't matter what your ancestry is – if the resources upon which your community relies are threatened, you need to be able to work with your neighbors to protect them." The result of the process of inter-cultural dialogue and socialization has been an increased commitment on the part of the participants to work towards community-based management, with the knowledge that they share the responsibility for investment and the opportunity to reap benefit from community resources equally.

### **Rural Communities Impacting Policy (RCIP)<sup>351</sup>**

The Coastal Communities Network and the Atlantic Health Promotion Research Centre are partnering to work on this three-year project to help rural and coastal communities take an active role in policy development. They plan to develop resources to allow individuals and community organizations to access information relevant to issues in their communities and to provide communities with practical tools and guidelines for influencing and developing policy.

### **Health Literacy in Rural Nova Scotia<sup>352</sup>**

This project, initiated by St. Francis Xavier University in Antigonish, is an example of the many research projects that have taken place in Atlantic Canada. It will study the experiences of a rural Nova Scotia population in order to better understand the interface of literacy and health. The goal is to provide a basis on which to improve public policy and programs to enhance the capacity for health of less literate adults living in rural

northeastern Nova Scotia. This project will be sensitive to the unique literacy and health issues that face people living in Mi'kmaq communities, in isolated rural Black communities, and in Acadian communities. A multidisciplinary research team with expertise in adult literacy education, community health nursing, and nutrition will work in partnership with community members knowledgeable about local literacy and community health issues. The team expects to report on their research in 2003.

## **NEW BRUNSWICK INITIATIVES**

### **Monquarters at Work (MAW)<sup>353</sup>**

MAW is an umbrella organization in Bath, developed as an incubator for members' small enterprises. The members are mostly rural citizens, living in subsidized housing, and the project allows them to move toward self-employment and self-sufficiency. Three government departments have come together to collaborate on this project and to provide project funding for the first two years to support the entrepreneurs and business mentors who sit on the board of directors. This project has been important in developing the skills and confidence of the members. Regardless of business viability, the experience of being in business increases the operators' chances for social and economic inclusion. One noted success of the project has been the way in which the community has welcomed these previously marginalized people and valued what they have to offer. Community enterprise development has contributed positively to self-sufficiency, inclusion, and wellness.

### **Saint John Human Development Council (SJHDC)<sup>354</sup>**

The SJDC is a community social planning agency and an incubator for new community projects. It is funded through a combination of municipal, provincial, and non-governmental sources. The council invites the community to discuss and plan around social issues through workshops and fora and has a Community Loan Fund available for community enterprises. The organization becomes involved in projects around housing, literacy, health, teen pregnancy, poverty, and employment in the Saint John area. Members of its volunteer board of directors also sit on local grassroots organizations, keeping the perspective of the SJHDC community-based. The organization highlights the overlap of social and economic goals in its mandate.

## **PRINCE EDWARD ISLAND INITIATIVES**

### **Women Influencing Health Public Policy<sup>355</sup>**

Women's Network PEI sponsored this project, with the goal of including women's voices – particularly those most vulnerable because of poverty, violence, or other issues – in a

scan of public opinion surrounding health policy reform. Twenty-seven women, with diverse backgrounds, met several times over the course of a year. They worked with the concept of holistic health and wellness. Several workshops, entitled *Women Taking Leadership: Inspiring Healthy Public Policy*, were also delivered in this time period. Participants identified that they benefited most from the concept of self-advocacy.

### **Community Voice in Health Reform**<sup>356</sup>

The Cooper Institute, with support from the Health Promotion and Programs Branch of Health Canada, consulted shell fishers and other seasonal workers in a rural community in western Prince Edward Island about their health concerns and how these were related to their social and economic realities. Participants in workshops identified a link between dignified employment and healthy community and developed strategies for increasing employment in their community within a new organization, called Coalition for Dignified Employment. Employment security, working conditions and income security were identified as basic determinants of health.

## **NEWFOUNDLAND AND LABRADOR INITIATIVES**

### **Helping Skills Training Program**<sup>357</sup>

The Helping Skills Training Program was established by the Canadian Mental Health Association in 1996 to train facilitators to go back to their own organizations and deliver workshops on the core aspects of helping. The emphasis in these workshops is for the participants to use their experiential knowledge as the basis for knowing what is most helpful for others. The goal of the program is to build capacity in rural communities where services are hard to access. Participants have reported that the sessions have helped them deal well with others in professional and informal situations.

### **Community Asset Mapping**<sup>358</sup>

Established in 1995 by the Humber Environmental Action Group, the Community Asset Mapping project asks communities to identify the environmental features that reflect the values (cultural, economic, and spiritual) that comprise their sense of place and identity. This project has had a positive impact on community health by asking people to focus on the positive aspects of their surroundings. Health Canada provided resources to train volunteers in community asset mapping. The resulting maps were distributed widely. The project influenced various economic reporting agencies to include cultural features as part of their provincial asset inventories. The project had the subtle effect of increasing participants' wellness, simply by asking them to recognize the places they value in their surroundings.

## **Fogo Process**<sup>359</sup>

The Fogo Process is a method of introducing film and video technology into communities, with its precedent established on Fogo Island in the 1960s. The principle of the process is that the ownership of the footage and the editing process is shared between the community and film/video makers. It is also important that the resulting film/video piece be screened and approved in the community. The work often serves an animating purpose in the community, allowing the community to reflect itself and recognize some of its strengths and resolvable differences. The work has been very useful in facilitating community dialogue and conflict resolution. The work can also be used effectively to represent the interests of the community to government.

## **Conne River**

The Miawpukek First Nation of Conne River is a MicMaq community located on the Connaigre Peninsula, found on the southern coast of Newfoundland. The Miawpukek Band has been delivering health services for the community of Conne River since 1975. A broad range of health and social support services are offered to community members through Conne River Health & Social Services Center and its new satellite Wellness facility. Services provided include daily clinical nursing services, weekly physician clinics, nurse practitioner clinics, dental therapy, addiction services, home care, prenatal nutrition, healthy meals program, diabetes treatment and prevention, physiotherapy, foot care, chiropractic, massage, public health nursing, continuing care nursing, youth program, seniors support, and child care services. Health is viewed in a holistic manner and attention to cultural issues is woven throughout the planning, delivering and evaluation of services. Holistic health is witnessed in community supports including wilderness retreats, walking trails and exercise facilities which are complemented by community events such as the healing conference and the annual community Pow Wow.

## **Courduroy Brook Association**

In 1994, the Corduroy Brook Enhancement Association (CBEA) was formed to restore as much of the Corduroy Brook as possible to its original state and to provide scenic, accessible trails for all ages and abilities. Currently there are more than 14 km of trails that can be accessed through a variety of entrance ways throughout the town of Grand Falls-Windsor, Newfoundland and Labrador. Funding from various community groups, the town of Grand Falls-Windsor and various federal and provincial agencies assist the CBEA to promote and ensure the health of the brook and to create trails which community members and visitors can enjoy. The trails provide a free venue for individuals, families and groups to be physically active and to learn about nature. Events such as Corduroy Brook Day and nature camps provide adults and children provide additional fun, recreation and education.

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