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Are Widening Income Inequalities Making Canada Less Healthy?

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The Health Determinants Partnership

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Executive Summary

For most of the 20th century, Canadians have enjoyed continuously improving standards of health – including dramatic reductions in infant mortality, and large increases in life expectancy. But these health gains have not been shared equally: there still exists a large gap in health standards between the rich and the poor. Literally hundreds of scientific studies have established that an individual's socio-economic status (income, education, occupational status, etc.) is a powerful determinant of their health. But these health differences are not only a matter of concern for the poor. At each level of income or education, greater socio-economic status confers greater health.

Key Message #1: Social and economic factors strongly influence the health of all Canadians and such factors can be modified by social and economic policy.

The 'social gradient in health', as it is known, implicates everybody across the social spectrum, and its effects are large. Studies have shown that the influence of socio-economic factors on health outweighs other conventional factors, including access to curative health care, health behaviour modification (diet, exercise, etc.). In addition, for all but a few, very rare, single-gene diseases, social and economic environmental factors have been shown to interact with gene expression. It follows from the research evidence that policy levers, which would reduce inequality and improve living standards for all Canadians, and especially the poor, could narrow the large gaps that exist in standards of health across Canadian society. This would allow us all to share more equally in overall health gains.

This report gives an overview of the evidence base for the social gradient in health, demonstrates the strong trend towards greater social and economic inequality in Canadian society in the 1990s, and draws policy recommendations from these findings. The report also goes one step beyond the social gradient and extends the analysis by considering the relationship between the overall degree of income inequality in a society and its relationship to average health in that society. This question arises from international evidence, which suggests that when we consider the macro-level determinants of health in the affluent, industrialized societies, countries with a wider distribution of income have poorer health status, even after adjusting for the overall wealth (GDP per capita) of each country.

Key Message #2: Societies with a greater gap between rich and poor may have poorer overall health. Canada appears to have some attributes, which protect it from some of the impacts of provincial- and metropolitan-level income gaps.

More recently, a number of population health researchers have directed their attention to the relationship between indices of overall income inequality and average population health *within* affluent, industrialized countries. One such study compared Canada and the United States in 1990. Both countries demonstrate a strong social gradient in health, meaning that

individuals with higher incomes and better education have better health. But when the relationship between overall state/provincial income inequality and population health was analyzed, a different result was seen in the two countries. In the United States, greater inequality was strongly associated with higher premature mortality (poorer population health) in U.S. states, while in Canada, overall provincial income inequality was only very weakly associated with higher provincial mortality (poorer population health), and in Canada the association was not statistically significant.

At the metropolitan level (cities with greater than 50,000 population), a similar result was seen. In the United States, greater income inequality at the metropolitan level was strongly associated with higher premature mortality (poorer population health) in U.S. states, while in Canada, overall metropolitan income inequality was not associated with higher provincial mortality (poorer population health) at all. These Canada-U.S. differences at the population level exist despite a strong, clear socio-economic gradient in health for individuals in both countries.

Key Message #3: Canadians cannot afford to be complacent about income inequality in our society. The 1990s witnessed a dramatic widening of the gap between rich and poor, a substantial reduction in entitlements to social benefits, and an under-investment in human capital. If the United States can be used as a weather vane, the health effects of population-level inequality may already be on the way.

One possible explanation for the difference in the relationship between income inequality and population health in Canadian and American metropolitan areas and states / provinces is that there is just not enough inequality in Canada to produce such relationship at the metropolitan or provincial level. This hypothesis has been tested and dismissed: when all U.S. metropolitan areas with greater inequality than the worst Canadian city are excluded from the analysis, U.S. metropolitan areas still show a relationship between income inequality and population health.

But this does not mean that income inequality is not a health problem in Canada. At all levels of the social ladder, greater income (and education) is associated with better health. Yet, indices of overall inequality didn't show a relationship with health in Canada, at least not in 1990. But since 1990, income inequality in both Canada and the United States has widened substantially. Section B of this report documents the dramatic increases in inequality seen in both Canada and the United States over the 1990s. Although it won't be possible to determine if widening inequality in the 1990s has had an impact on the health of Canadians until 2003 when the census 2001 data are released, there is strong evidence that inequality widened substantially over this time.

Key Message #4: A commitment to social and economic equity may enhance economic growth and competitiveness. Research evidence does not support the claim that social policies, which produce equality, undermine economic growth.

Even if one accepts that widening income inequality may be compromising the health of Canadians, many argue that we couldn't possibly afford to take measures to reduce inequality because it would necessarily compromise economic growth. It is commonly believed that greater inequality is the price we must pay for economic growth and maintaining competitiveness in attracting investment to Canada. But this belief is founded on very little evidence. There is now very good evidence, as is described in Section B of the report, that *greater inequality often undermines economic growth* in affluent, industrialized economies. One of the reasons for this is that where there is a wide distribution of income, people of lower income have less opportunity (no money) and less incentive (no hope of upward mobility) to invest in their own human capital, for example through education.

A similar belief is that Canada simply cannot afford to pay for a universal health system, high quality, universal elementary and secondary education, affordable university education, and social services and still hope to remain competitive in attracting investment and business. Again, this belief has little foundation in fact. There is good research evidence that the Canadian health care system, for example, *saves* industry a considerable amount of money in benefit costs because the single-payer, public system is able to provide health insurance at a much lower cost. Indeed, it follows that if benefit costs are lower in Canada than the U.S., we will be more competitive.

Key Message #5: Traditionally, Canada's system of progressive taxation and strong 'public goods' (e.g., public infrastructure, health care, education) has been instrumental in ensuring an equitable society, providing us with a high quality of life, and producing high standards of health. The United States, by comparison has a poor record in these areas. The public goods Canadians enjoy are in decline and any further loss may have the potential to undermine our health.

There are several hypotheses that might explain Canada's advantage over the U.S. in the relationship between population-level income inequality and population health. The report reviews these in Section C and finds that the factors which could most likely account for such a finding include: progressive taxation systems, universal health care, more equal access to primary, secondary, and post-secondary education, and race. While each has its merits, the report highlights two key points: the importance of universal access to primary care (family physicians) free of cost and the influence of progressive taxation systems and universal public services in redistributing non-cash benefits.

Health care is an important difference between Canada and the United States, not so much because Canadians have access to life-saving technology, but more so because they have access to primary care. If there is a financial disincentive to seek care when someone is sick, they will wait until their symptoms are intolerable before seeking care (indeed, many Americans are only insured for catastrophic costs), and by this time they are typically much

sicker and may face a poorer prognosis. It also tends to be more costly to treat patients once their symptoms have become quite severe, because they are more likely to require things like lab tests and referrals to specialists, which are expensive.

But moving outside the formal health care system, where it is believed most of the key determinants of health in Canadian society lie, this report argues that the key difference between Canada and the United States is that because of the high level and quality of 'public goods' (goods and services everyone receives free of cost, like health care, education, safe streets, municipal infrastructure, public recreation, etc.) that all Canadians receive to support them in achieving a high quality of everyday life. In U.S. metropolitan areas there are wide disparities in public goods and quality of life between the best neighbourhoods and the worst neighbourhoods – much wider than in Canada. This report argues that such disparities are caused by the way cities are governed and the way tax revenues for municipalities are raised in the U.S.

In the U.S. municipal governments are responsible for more services than in Canada and municipalities must use regressive tax instruments (the poor pay a greater proportion of income to such taxes: e.g., sales tax, user fees, property taxes, etc.) to generate the revenue to deliver those services. Coupled with the high degree of municipal fragmentation in U.S. metropolitan areas, this means that municipalities with wealthy people are able to offer good services at low cost, while municipalities with many poor people can only offer poor services at high cost. Such a situation creates wide disparities in the bundle of public goods received by different areas of the city, much wider than in Canada. This report argues that this may partly explain why metropolitan level income inequality is strongly associated with population health in the U.S. but not in Canada.

It is valuable to consider the value of universal public goods to be 'non-cash benefits' and to recognize that in Canada enjoys a more generous bundle of public goods, which tend to be funded by tax instruments, which are progressive (i.e., they better reflect ability to pay), whereas the United States is the opposite. This means that inequality in total *effective* income (cash income plus the value of all public goods received) is much greater in the U.S. than implied by cash income inequality and in Canada, inequality in effective income is much lower than inequality in cash income.

Key Message #6: Poor health, illness and disease have substantial economic costs, both in terms of direct expenditures on services (health care, etc.) and in terms of indirect costs resulting from lost productivity. These costs may be significantly exaggerated by the existence of strong socio-economic inequalities in health.

While there are few studies which directly estimate the social and economic costs of socio-economic inequalities in health (mainly because of a lack of data which would allow such an analysis), there is good evidence that many of the major causes of death (heart disease, cancer) and disability (mental illness) in Canadian society are much more common in people of lower socio-economic status. In Section D, the report reviews the evidence on the

direct and indirect costs of the major causes of mortality and morbidity in Canada, with a special emphasis on the economic burden of mental illness.

It is likely that increasing income inequality and rising poverty have a detrimental effect on mental health, and recent studies suggest that this will translate into substantial direct and indirect costs. The Business and Economic Roundtable on Mental Health estimates that over the next 20 years, depression will disable more people than AIDS, cancer and cardiovascular disease combined in Canada. They also estimate that the economic cost of mental disorders ranges from $8 billion a year in Canada to what former Finance Minister Michael Wilson, Honorary Chairman of the BECRMH, says may be twice that figure, or 13.8 per cent of the net operating income of all business enterprise in Canada. Such figures provide a powerful argument for taking action to take drastic action to address the root causes of the common mental disorders, especially depression and anxiety.

Message #7: There are readily identifiable policy levers, which could make a substantial difference to reducing health inequalities and protecting our health advantage over the United States.

The final section of this report develops five key public policy principles which follow from the analysis of the health inequalities, in terms of the individual-level relationship between socio-economic status and individual health, as well as the relationship between the degree of population-level income inequality and population health. The public policy principles recommended include: 1) invest in human capital; 2) improve working conditions and reduce unemployment; 3) enhance 'public goods' and invest in infrastructure to support a high quality of life for all Canadians; 4) prioritize 'progressive' sources of public finance and reduce dependence on 'regressive' sources of revenue; and 5) strengthen programs and services which redistribute cash and non-cash benefits from wealthier households to poorer ones.

Concluding Comments

Canada enjoys a quality of life and a standard of health that is the envy of the world. We have, by world standards, safe streets free of violence, high standards of health and well-being, good employment standards, very good housing standards, and a rich endowment of recreational, cultural and social facilities and opportunities. These are the products of substantial investments in human, social and physical capital over a long period of time. As of 1991, our stock of public goods may have insulated us from possibly corrosive health effects of widening income inequalities. Those inequalities have widened over the 1990s, eroding investments in public goods, and undermining individuals' ability to invest in their own human capital, especially for individuals of lower socio-economic status. As a matter of prudence, it is important that Canadians support policies that protect and enhance the substantial stock of public goods we enjoy. Our very health and quality of life may depend on it.

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SECTION A. INTRODUCTION

Canada is known as a country with a strong health care system, and a place that enjoys one of the highest standards of health and quality of life in the world. When agencies like the World Health Organization, the World Bank and UNESCO highly rank Canada's health virtues, our newspapers and media broadcasts are eager to highlight Canada's consistently strong showing. Indeed, Canadians' high quality of life and our strong health care system are factors that contribute to our sense of national identity.

But despite our strong interest in health matters such as these, seldom do we ask, "What makes some people healthy and others not?" Usually Canadians are too preoccupied with curing specific diseases and 'fixing' the health care system to think about what factors contribute to our collective health. Even less often do we ask, "What makes some ***societies*** healthy and others not?" and "What makes some ***communities*** healthy and others not?" Some of the world's best researchers in public health, economics, sociology, medicine, and other disciplines have devoted a great deal of energy to answering these questions, and their findings are not necessarily what one might expect.

Such questions are of crucial importance. They affect the desirability of Canada as a site for international migrants and visitors, global capital investments and our international reputation as a just society. Moreover, good answers to these questions have implications for the quality of life that we enjoy and wish to perpetuate.

Canadian researchers have been leaders in bringing questions about the determinants of population health to the world stage over the past decade. The Population Health Program of the Canadian Institute for Advanced Research, in particular, have been instrumental in collecting and synthesizing the large body of international evidence on such topics as the relationship between working conditions and health, the role of social environments in early child development, and the ways in which public policies make a difference to health. This interdisciplinary group's early efforts have culminated in what is now known in public policy circles as the 'population health perspective'. The primary elements of this

perspective are as follows: 1) the major determinants of health are not medical care inputs and utilization, but cultural, social and economic factors - both at the population and individual levels; 2) at the population level, there is evidence that societies which have high levels of income and a relatively equal distribution of wealth enjoy a higher level of health status; and 3) at the individual level, one's immediate social and economic environment and the way that this environment interacts with one's psychological resources and coping skills, shapes health much more strongly than the medical model would suggest.[1,2]

These key determinants of health stand in stark contrast to the popular view that equates health with high-tech health care and good health behaviours. This report demonstrates that access to health care and healthy behaviours are certainly important, but social and economic factors at the individual and the population level are at least, if not more important in the creation of health. Such a perspective has implications for *balanced* healthy public policy: it implies that policies must address the reasons why differences in health status "are systematically distributed across identifiable social characteristics, and how public expenditures ought to be deployed to maximize the health status of the population." [3]

This report provides attempts to redress this imbalance of popular understanding of the determinants of population health, by providing a broad overview of the relative importance of social and economic factors in the creation of population health in Canadian societies. It also includes a detailed analysis of a recent research discovery with profound implications for public policy. This discovery suggests that among the industrialized societies, those with a more equal distribution of income are more healthy.

The widening gap between rich and poor in Canadian society is a public policy issue that received a great deal of attention in the 1990s. During this period, there was a perception

[1] Evans, R.G. *et al.* 1994. *Why are some people healthy and others not?* Aldine DeGruyter: New York.
[2] Frank, J.W. 1995. Why 'population health'? *Canadian Journal of Public Health*, 86(3): 162-164.
[3] Hayes, M.V. 1994. Introduction. In Hayes, M.V., et al. (eds.) *The Determinants of Population Health: A Critical Assessment*. University of Victoria: Western Geographical Series No. 29.

that the gap between rich and poor was widening very quickly, in part due to recession and industrial restructuring, but also due to a severe retrenchment of a range of government programs, but particularly those intended to address economic security for the poor. Evidence presented in this report strongly suggests that perceptions of widening inequality in the 1990s were well-founded. The report goes on to speculate on what the health consequences of this trend will be. It is possible to speculate from this analysis that many Canadians, possibly even a majority, will pay for widening inequalities with their health. The report closes with an analysis of differences in public policy that may be protecting Canadians from some of the health consequences of inequality and a short overview of the broad spectrum of public policies that have the potential to shape health.

Health – what is it and how is it created?

Being healthy is more than just not being sick. This idea was entrenched in international policy several years ago when the World Health Organization adopted its definition of health: "Health is not merely the absence of disease, it is a complete state of physical, social and emotional well-being." But what factors create health for individuals, communities and whole societies? In other words, what makes some people healthy and others not?

Canadians are inundated with answers to this question on a daily basis: high blood pressure, cholesterol, smoking, exercise, nutrition, access to surgery, pharmaceuticals, etc. But a 1994 book edited by Canadian health economists Robert Evans and Morris Barer, entitled ***Why Are Some People Healthy and Others Not?*** ushered in a radical new perspective on this question.[4] One particularly strong and universal finding was the existence of a 'social gradient' in health in the industrialized societies. For example, Figure 1 shows the relationship between income level and mortality amongst American men. Notice there is a strong relationship between income and health, but not only for the poor. In fact, the figure shows that people in the highest income bracket have a better health status than people in

[4] Evans, R.G. *et al.* 1994. *Why are some people healthy and others not?* Aldine DeGruyter: New York.

the next highest income bracket and so on down the social ladder. Health inequality, in other words, implicates everyone in society, not just the poorest of the poor. Moreover, its effects are large.

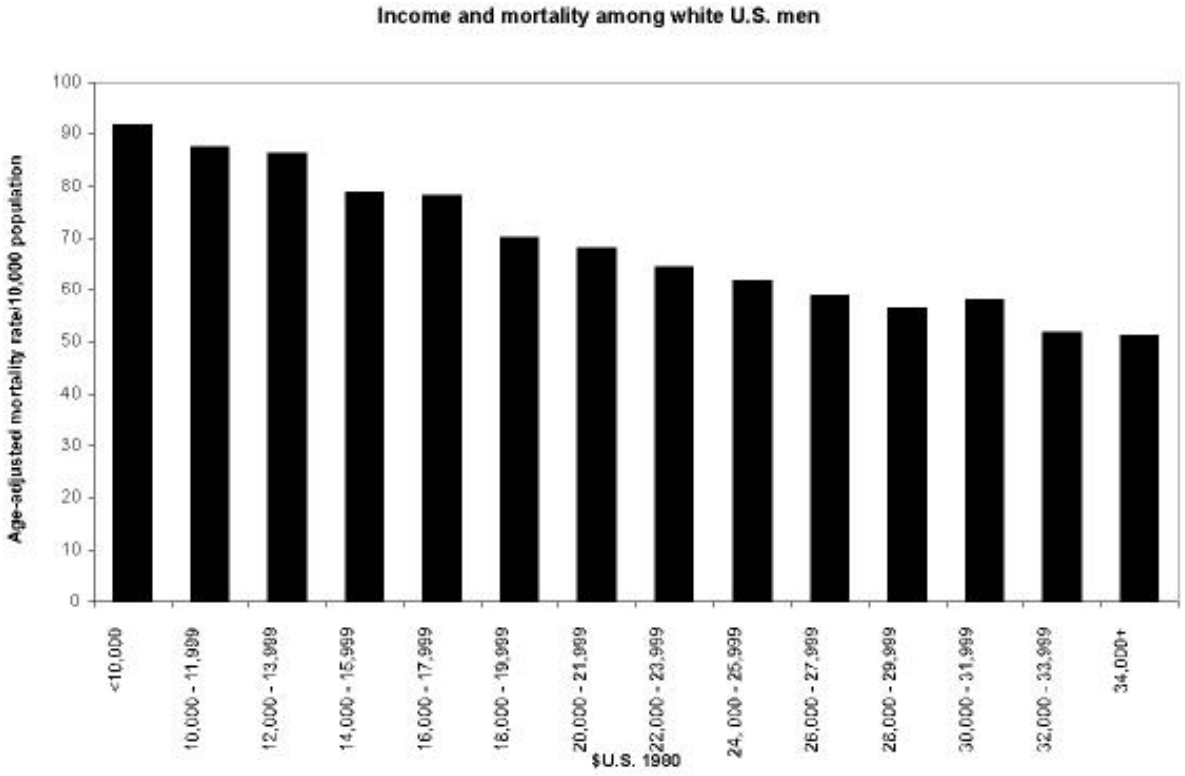


Figure 1. Income and mortality among white U.S. men.
Source: Wilkinson, R. 1996. *Unhealthy societies: The afflictions of inequality*, London, UK: Routledge. p.73.

What is remarkable about this social gradient in health is that literally hundreds of studies in the industrialized world[5] have shown its existence. Moreover, if income is substituted by

[5] The following three literature reviews are testimony to the sheer volume of studies showing a relationship between socio-economic status and health status:

a) Feinstein, J.S. 1993. The relationship between socioeconomic status and health: A review of the literature. *Milbank Quarterly*. 71(2):279-322.

just about any measure of social status, say for example, educational attainment (see Figure 2) or position in the job hierarchy, the same relationship will exist. Similarly, if we measure health by using incidence of just about any health condition, from lung cancer, heart disease and suicides to accidents, injuries and poisonings, the same relationship can be observed: the higher your position on the social ladder, the better your health status.

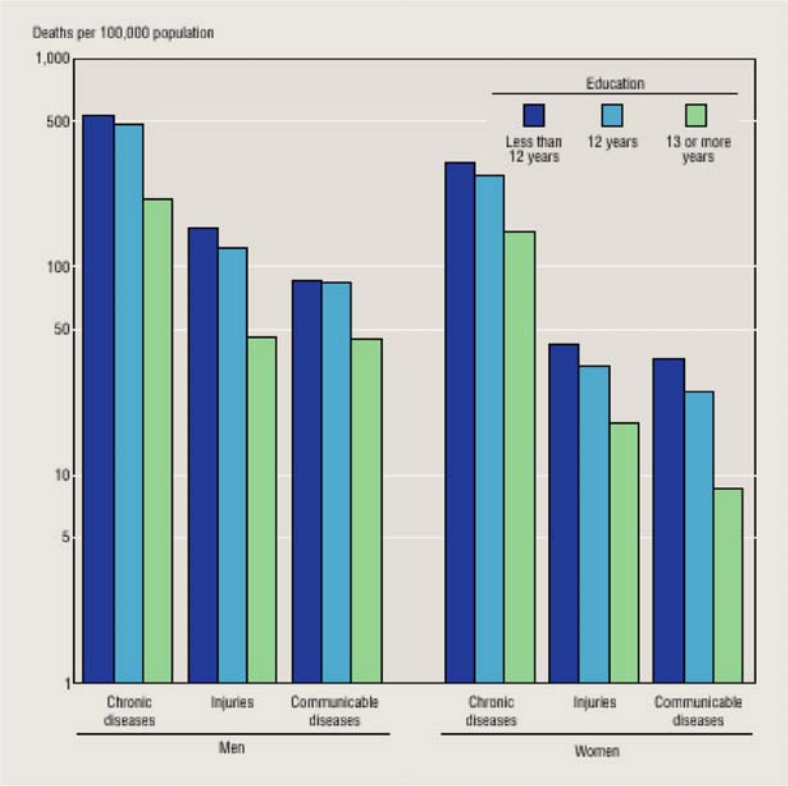


Figure 2: Death rates for selected causes for adults 25-64 years of age, by education level, and sex: selected States, 1995.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System

Not only is the social gradient in health strong, it has existed for the entire 20th century–a period during which the major causes of death and illness changed drastically. In the early part of the century, infectious diseases most often killed people–such as typhoid, cholera, red measles, etc. In the latter half of the century, however, the main killers changed from infectious to non-infectious diseases such as heart disease and cancer, but the gradient remained. It is now believed that the social gradient in health represents some generalized

b) Wing, S.B. and Richardson, D. 1999. *Material Living Conditions and Health in the United States, Canada, and Western Europe: Review of Recent Literature and Bibliography*. Washington, D.C. PanAmerican Health Organization, Health and Human Development Division. April 1999

c) Kaplan, G.A. and Lynch, J.W. 1997. Whiter studies on the socioeconomic foundations of population health? *American Journal of Public Health*. 87(9):1409-1411.

vulnerability to whatever happens to be going around at any given time, and merely expresses itself through these different diseases and conditions.

An obvious objection to this interpretation of the relationship between income and health is that relatively poor people could be less healthy because they have become sick or disabled, and this has undermined their earnings capacity. There is an element of truth to this, as it does happen to some people, but it is only a small part of the explanation. Studies that have followed large groups of people over time report that less than five percent of the income-health relationship can be attributed to people who got sick and then became poor. In fact, the vast majority of the gradient can be attributed to people who are poor first who are then more likely to become sick or die.[6] Moreover, on purely logical grounds, if one considers that greater educational attainment, another measure of social status, is also associated with better health, the direction of the gradient is hard to question. Once you have attained a certain level of education, you can't lose it, no matter how sick you get.

But what about access to health care? Presumably health is strongly influenced by insufficient access to health care for people who can't afford it. Actually, that's not the case. Nearly every industrialized country, except for the United States, has universal health insurance, which effectively removes financial barriers, at least in principle, to obtaining health care. Yet in each of the industrialized countries with universal health insurance, there exists a social gradient in health: poorer people are less healthy, despite the absence of financial barriers to health care.

For many years, the United States has spent a greater proportion of GDP on health care (about 14 percent in 1999) than any other industrialized country, but has received little in health dividend. In a recent survey of health indicators conducted by the World Health Organization, the U.S. ranked 24th in its overall level of health and 1st in health care

[6] Wilkinson, R.G. 1996. *Unhealthy Societies: The Afflictions of Inequality*. London: Routledge Press. p.59, 81

expenditure per capita.[7] In addition to this, on average, Americans die younger than people living in much poorer countries such as Spain, Greece, Costa Rica, and Jamaica do. These data suggests that the health care system is less influential on health than often thought.

That said, many argue that access to primary health care (e.g. family physicians) is a particularly important determinant of health.[8] People who are uninsured cannot easily obtain timely access to primary health care, and are therefore at a health disadvantage. In the United States, about 17% of the population have no health insurance at all (Table 1).[9] This number amounts to an estimated 44 million uninsured Americans uninsured. As a measure for comparison, 44 million people is more than the combined populations of Canada (29,964,000), Norway (4,370,000) and Sweden (8,901,000). There is also a significant number of Americans who are *under*insured, although precise estimates are difficult to make.[10]

Table 1: Comparison of Health Care Systems in Canada and the U.S.[10]

	Canada	**United States**
Health Costs as Percentage of GNP	9%	14%
Health Spending Per Capita	$2,250	$4,270
Percent of Population Uninsured	0%	17%
Life Expectancy for Men, 1997	75.7 yrs.	73.6 yrs.

Source: Himmelstein D, *et al.* 2001. *Bleeding the Patient*. Maine: Common Courage Press.

Lack of health insurance has both personal and collective costs. In terms of the personal, it is estimated that medical costs were a major factor in over 45% of personal bankruptcies in the U.S. in 1999. This is not simply a matter of no insurance at all, however. An estimated 79% of the families filing for bankruptcy in the U.S. in 1999 had at least some health insurance. It follows that *under*insurance, which is characterized by high deductibles, large

[7] World Health Organization. 2000. *World Health Report 2000*. Geneva. See Annex Table 5. http://filestore.who.int/~who/whr/2000/en/pdf/AnnexTable05.pdf

[8] Shi, L. and Starfield, B. 2000. Primary care, income inequality, and self-rated health in the United States: a mixed-level analysis. *International Journal of Health Services*, 30(3):541-55.

[9] Estimates of the uninsured range from 15% to 17%, or between 42 and 44 million people.

[10] Himmelstein, D., Woolhandler, S., and Hellander, I. 2001. *Bleeding the Patient*. Maine: Common Courage Press. See pages 9, 11 and 24.

co-payments and insurance only for catastrophic illness, is a significant problem in the United States.[10]

In terms of systemic costs, Americans who lack health insurance often wait until they become very ill before seeking medical care. This is very costly for the system, both in direct costs (e.g. more expensive procedures are required) and indirect costs (e.g. loss of productivity due to short- or long-term disability).

Canadians value the health care system for its ability to care for people when they are sick, and in some cases extend the life span of individuals. However, access to health care doesn't have much to do with why people get sick in the first place, who gets sick, or why some are more vulnerable than others are.

Consider, for example, the relationship between access to health care and income in the United Kingdom. One of the explicit goals of the introduction of the National Health Service (the NHS–Britain's universal health care system) in 1948 was to reduce class inequalities in mortality. If all financial barriers to health care were removed, it was thought, the class differences in health status would diminish. Many years later, the Labour government of the late 1970s attempted to evaluate the effectiveness of the NHS in reducing class inequalities in health. It commissioned Sir Douglas Black, a prominent physician, to conduct an inquiry.

The Black Report, as it is known, was delivered to the government in 1980 and provided very strong evidence that the NHS had not reduced the gradient. The report argued that universal health insurance was an achievement Britons should be proud of, but that it did not do much to reduce class inequalities in health. In fact, between 1948 and 1980, class inequalities in health had *widened*. For this reason and many others, the health care system is less influential on health than we might like to think.

Another popular model of the factors responsible for creating health suggests that behavioural factors, such as smoking, diet, and exercise are the most important. Almost daily Canadians are told about the importance of such behavioural factors. Sometimes these

messages can be difficult to interpret, something that is reflected in the cartoon shown in Figure 3. In it, the broadcaster spins three wheels to generate the latest findings from the "New England Journal of Panic-Inducing Gobbledygook." On any given day, the latest report suggests that some factor (smoking, fatty foods, etc.) can cause some condition (heart disease, breast cancer, etc.) in some population group (men 25-40, rats, etc.). The cartoon illustrates how we are inundated almost daily with information about how to be healthier. With so much information about how to take control of our own health, one would think that health behaviours were the most important factors in producing the social gradient--but that's not the case either, although the story is somewhat complicated.

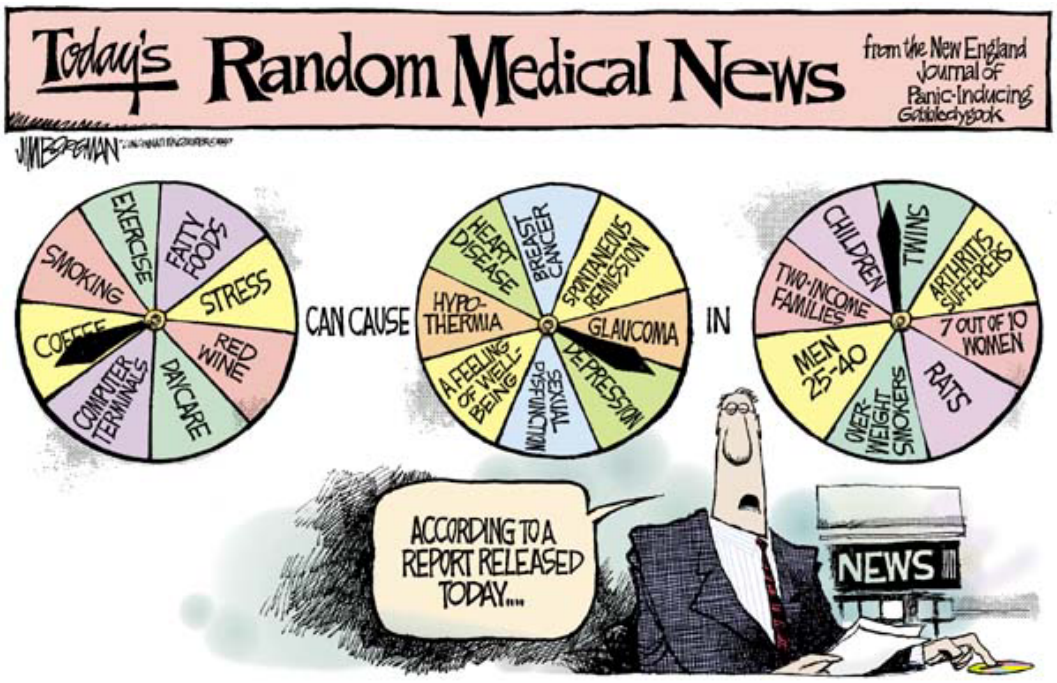


Figure 3: New England Journal of Panic-Inducing Gobbledygook.
Source: Jim Borgman, The Cincinnati Enquirer (27 April 1997, E4).

There is little doubt that many people who adopt healthier lifestyles enjoy better health, and this claim is well supported by evidence. Smoking, exercise and diet are most certainly important factors in health. But how important? It's difficult to conduct studies that allow researchers to assess the relative influence of behavioural factors and socio-economic factors head-to-head. One of the few studies which does allow such a comparison has been going on in the United Kingdom for the past 30 years. The first wave of the Whitehall study (1970s – 1980s) looked at 17,000 British civil servants in greater London who worked at government office jobs characterized by a rigid hierarchy of job grades.[11] One of the first studies in the Whitehall project compared the death rate from heart disease amongst workers from each of four occupational grades. What they found was the familiar, but steep social gradient in health (Figure 4).

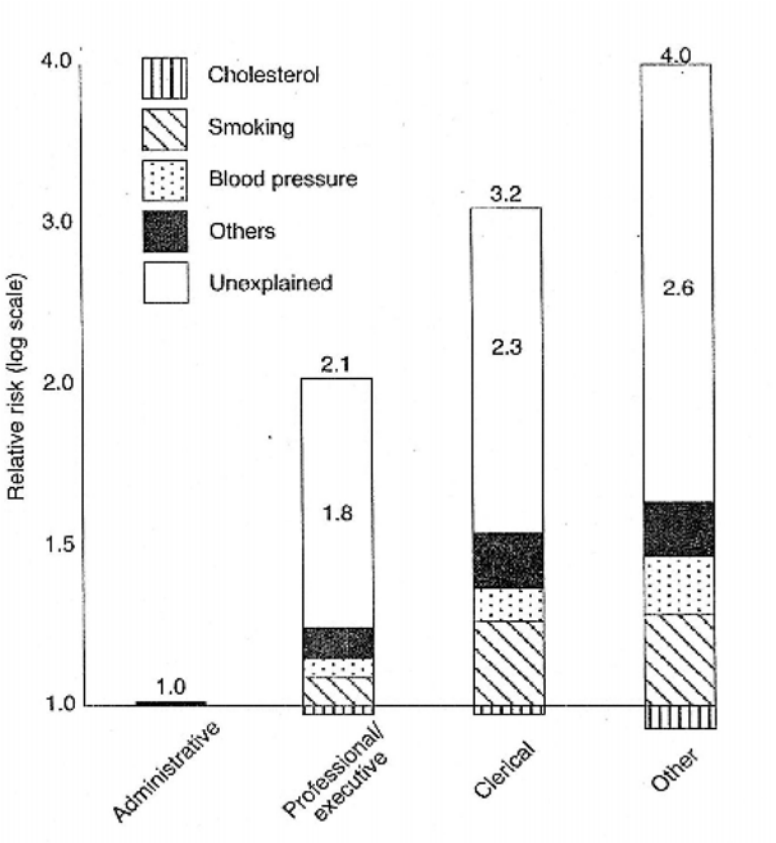


Figure 4: Relative risk of death from heart disease according to employment grade, and proportions of differences that can be explained by various risk factors.

Source: Rose, G & Marmot, M. 1981. Social class and coronary heart disease. *British Heart Journal*. p.13-19.

[11] The occupational grades were administrative, professional/executive, clerical, and other.

Over a 10-year period, low-grade workers (the 'other' category in Figure 4) had a ***four times*** greater chance of dying of heart disease than high-grade workers. This difference is very large, and since the Whitehall workers represent only a narrow slice of the overall social spectrum in British society, one can only imagine the health differences that must exist in British society at large. But the story doesn't stop there. The researchers also collected information on the health behaviours of Whitehall workers, specifically the well-known risk factors for heart disease.[12] An analysis that parcelled out the influence of these risk factors on death from heart disease showed that behavioural factors explained only about 38 percent of the class differences in heart disease mortality–more than 60 percent could not be explained at all. The authors suspect that factors related to the stress of low-control and high demand jobs (and low-control and high-demand lives) are responsible for the large 'unexplained' differences. This study is but one example of a pattern that has been observed in hundreds of studies. Lower income, poorer education, on average, means poorer health. This phenomenon obviously affects poor people very severely, but appears to affect us all, at least to some extent.

Why should Canadians care about health inequalities?

If for no other reason than the social gradient in health spans the entire social spectrum, health inequalities are something that should concern us all. As Figure 1 showed, people in the top 10% of income earners have better health than people in the next 10% of income earners, and so on down the social ladder. Similarly, Figure 4 shows very large health differences between people at different points in the job hierarchy of the British civil service. All of these people are middle-class people who are employed with stable jobs, yet a strong social gradient in health is evident. This suggests that at some level, inequalities in health affect us all.

[12] The risk factors used in this study were cholesterol, smoking, blood pressure, and others (e.g. height, body mass, exercise, and glucose tolerance).

But most of what Canadians hear in the media about health inequalities relate to the effects of extreme poverty in underdeveloped countries. Poverty, indebtedness, a poor public health infrastructure and a large number of infectious diseases contribute to low levels of life expectancy and high infant mortality rates in those countries. Health inequalities, however, are not confined to underdeveloped countries. Developed countries like Canada enjoy unprecedented levels of wealth and affluence, which has had an unquestionable influence on the level of health we enjoy, but all Canadians have not shared equally in the health benefits brought by this prosperity.

Despite this, beyond a certain level of national wealth, it appears that affluent countries don't gain much in health terms with each additional dollar of GDP. Early in the 20th century, there was a sharp relationship between per capita national income and life expectancy, with each dollar of income buying a large health benefit. Figure 5 shows the relationship between per capita national income at four different points in the 20th century.

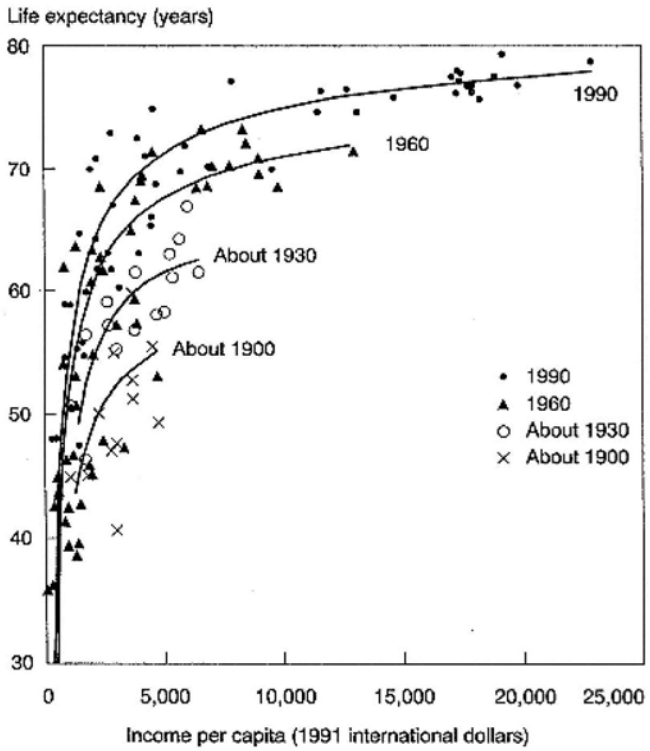


Figure 5: Life expectancy and income per capita for selected countries and periods.

Source: World Bank. *World Bank Development Report*. 1993.

As the century progressed, the relationship between national income and life expectancy has persisted for those countries in the underdeveloped world. But for the affluent countries (the flatter part at the right of the 1990 line) there is only a weak relationship between

national income and life expectancy. This means that each additional dollar of national wealth will not buy Canadians much more health.

This is a somewhat surprising discovery especially given the importance we put on economic growth as an indicator of social progress in the industrialized countries. The findings of this analysis so surprised Richard Wilkinson, a British economic historian, that he dug deeper. Intrigued by the fact that the social gradient in health spanned all socioeconomic groups, Wilkinson guessed that in affluent societies the distribution of income might be more important than the overall level of wealth. He analyzed the relationship between income inequality (measured by something called the Gini coefficient)[13] and population health, measured by national life expectancy, for a selection of industrialized countries. The results, shown in Figure 6, suggest that countries like Sweden and Norway with a more equal distribution of income have longer life expectancy.

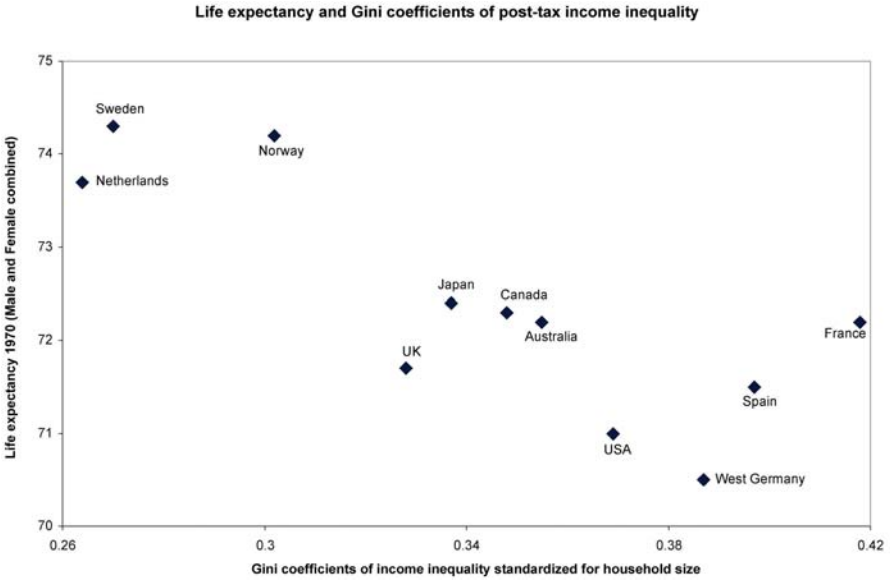


Figure 6: Life expectancy and Gini coefficients of post-tax income inequality

Source: Organization for Economic Cooperation and Development. 1976. *Economic Outlook*.

This means that in addition to the individual-level relationship between income and health (the social gradient in health), it seems that at the population level, above a certain level of national wealth, a more important factor than overall national income is the *distribution of*

[13] The Gini coefficient can have a value between 0 and 1, with 0 indicating every individual has the same income and 1 indicating all the income is held by 1 person. A higher Gini therefore implies a more unequal distribution of income.

that income. In other words, for individuals, wealthier is healthier; and for populations, equality appears to be healthier.

This is a remarkable finding by any standards. It implies that economic growth and productivity cannot be the only indices by which we measure national well-being. In fact, it would make sense that standards of national health would be a sensible way to measure our overall national well-being. What purpose does the national economy serve if not to maintain and enhance the well-being of Canadians? Economic growth is a crucial factor in attracting investment and maintaining a certain average standard of living, but a focus *purely* on economic growth and an inattention to *economic inequality* may be costing Canadians their health. If Figure 6 is any indication, it suggests that an improvement in Canada's income distribution may have a positive effect on the country's health.

Further insights into economic inequality and health

Wilkinson's findings have inspired other researchers to examine the relationship between income inequality and population health, although at different levels of analysis. In particular, a team led by two researchers from the University of Michigan, George Kaplan and John Lynch, have published studies investigating the relationship between income inequality and health among U.S. states and cities. These studies were published in the *British Medical Journal* and the *American Journal of Public Health*, two of the most well-respected medical journals in the world.

Kaplan and Lynch's findings are similar to Wilkinson's. In their analysis of U.S. states, they looked at the relationship between median share of income and all-cause mortality among the 50 U.S. states. This is a slightly different measure than the one used by Wilkinson - median share of income is the percentage of total state income held by the least well-off half of the population. For example, if the median share is 0.21, this means that 21 percent of total state income is held by the least well-off 50 percent of the

population. Thus, the higher the median share, the more equal the distribution of income. By North American standards, 0.21 is a relatively equal distribution of income.

The results of the analysis of state-level data by the Michigan team appear in Figure 7. It clearly shows that those states with a more unequal distribution of income, like Louisiana and Missouri, have significantly higher mortality rates (poorer health). By the steepness of the relationship, it is easy to see that the association is strong: state-level income inequality is a significant and strong predictor of state-level mortality.[14] Put simply, small differences in the level of inequality appear to have the capacity to produce large differences in population health.

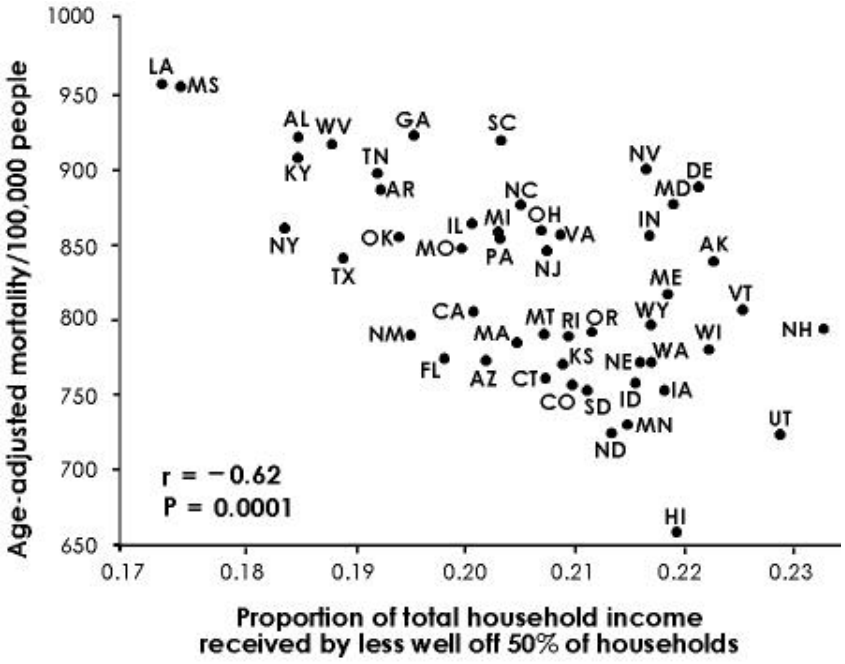


Figure 7: Mortality rate and median share of income in U.S. states.

Source: Kaplan, G.A. *et al.* 1996. Inequality in income and mortality in the United States: Analysis of mortality and potential pathways. *British Medical Journal.* 312: p. 999-1003.

In a similar analysis, the same researchers analyzed the relationship between median share of income and all-cause mortality among the 282 metropolitan areas with a population greater than 50,000. The results for the metropolitan areas are similar to that of the states: the more unequal metropolitan areas have much higher mortality rates.

[14] The strong relationship between income inequality and mortality at the state level remained the same, even after adjusting for average state income.

Cities that tolerate an unequal distribution of income appear to pay for it with their health. As Figure 8 shows, the cities with a more equal distribution of income have lower mortality rates (better health), as we might expect. This is reflected by the fact that the horizontal rows of bars all slope to the right. Not surprisingly, the lowest mortality rates (lower right hand corner of Figure 8) are in metropolitan areas with high per capita income and low mortality, and the highest mortality rates are seen in places with low per capita income and high inequality (back left hand corner of Figure 8). But in addition, if one compares the bar in the back right hand corner to the bar in the front left hand corner of Figure 8, it shows that it is much better for health to live in a metropolitan area with low per capita income and low inequality (812.4 deaths/100,000) than one with high per capita income and high inequality (895.5 deaths/100,000). The ill effects of living in a metropolitan area with high inequality, in other words, outweigh the health benefits of living in a metropolitan area with high per capita income.

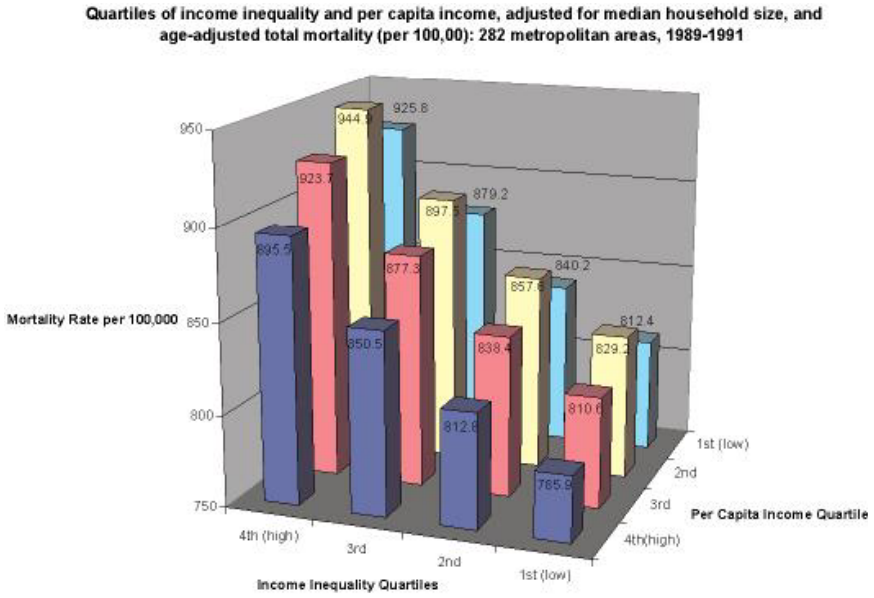


Figure 8: Income inequality, per capita income and mortality rate, for 282 U.S. metropolitan areas in 1990.

Source: Lynch, J.W. *et al.* 1998. Income inequality and mortality in metropolitan areas of the United States. *American Journal of Public Health.* 88(7): p. 1074-1082.

The authors of this study summarized the importance of the health differences as follows:

> "Death rates in the most economically divided metropolitan areas--such as Pine Bluff, Arkansas, and Mobile, Alabama--are sharply higher than the national annual average of 850 deaths per 100,000 people. The increase in mortality--an extra 140 deaths per 100,000 people--is equivalent to the combined loss of life from lung

> cancer, diabetes, motor vehicle accidents, HIV, infection, suicide and homicide during 1995."[15]

If these findings are an accurate picture of reality, there may be considerable self-interest for all Canadians to be concerned about income inequality.

Does income inequality affect the health of Canadians?

Having seen the corrosive effects of income inequality on the health of Americans, we need to ask how and if income inequality affects the health of Canadians. One way to find out is to refer back to Figure 5 to see Canada's position, relative to other countries, in the relationship between national income inequality and life expectancy. From this perspective, it appears that Canada is roughly in the middle, meaning that any reduction in inequality may have the capacity to produce a future national health benefit.

But it's also useful to dig a bit deeper and see what's happening within Canada, and determine if income inequality is associated with measures of health within Canada. A group of researchers led by Nancy Ross and Michael Wolfson of Statistics Canada set out to answer that very question. Working with the team from Michigan, they extended the analysis done in the U.S. to Canada, using data from the 10 provinces and the 53 Canadian metropolitan areas with a population greater than 50,000 people.

The findings of this study, published in the *British Medical Journal*, are shown in Figures 9 and 10. The income data used in the analysis come from the 1991 census, and include all income, including income from wages, salaries, and self-employment, investment income and income from government transfers (e.g., welfare, employment insurance, etc.). In Figure 9, each U.S. state is represented by a hollow dot and each Canadian province is represented by a solid dot (the dots of the U.S. states represent the exact same data Kaplan

[15] Lynch J.W., Kaplan G.A., Pamuk E.R., et al. 1998. Income inequality and mortality in metropolitan areas of the United States. *American Journal of Public Health.* 88(7):1074-1082.

and Lynch used in their analysis; only the Canadian dots have been added). The addition of the Canadian provinces extends the overall North American relationship between income inequality and mortality. Lower mortality (better health) is associated with higher median share indices (more equal distribution of income). But if one looks at the line drawn through the Canadian provinces (which is mathematically fitted to the data points), Canada exhibits a different relationship than the U.S.: there is only a weak relationship between income inequality and mortality among Canadian provinces.[16]

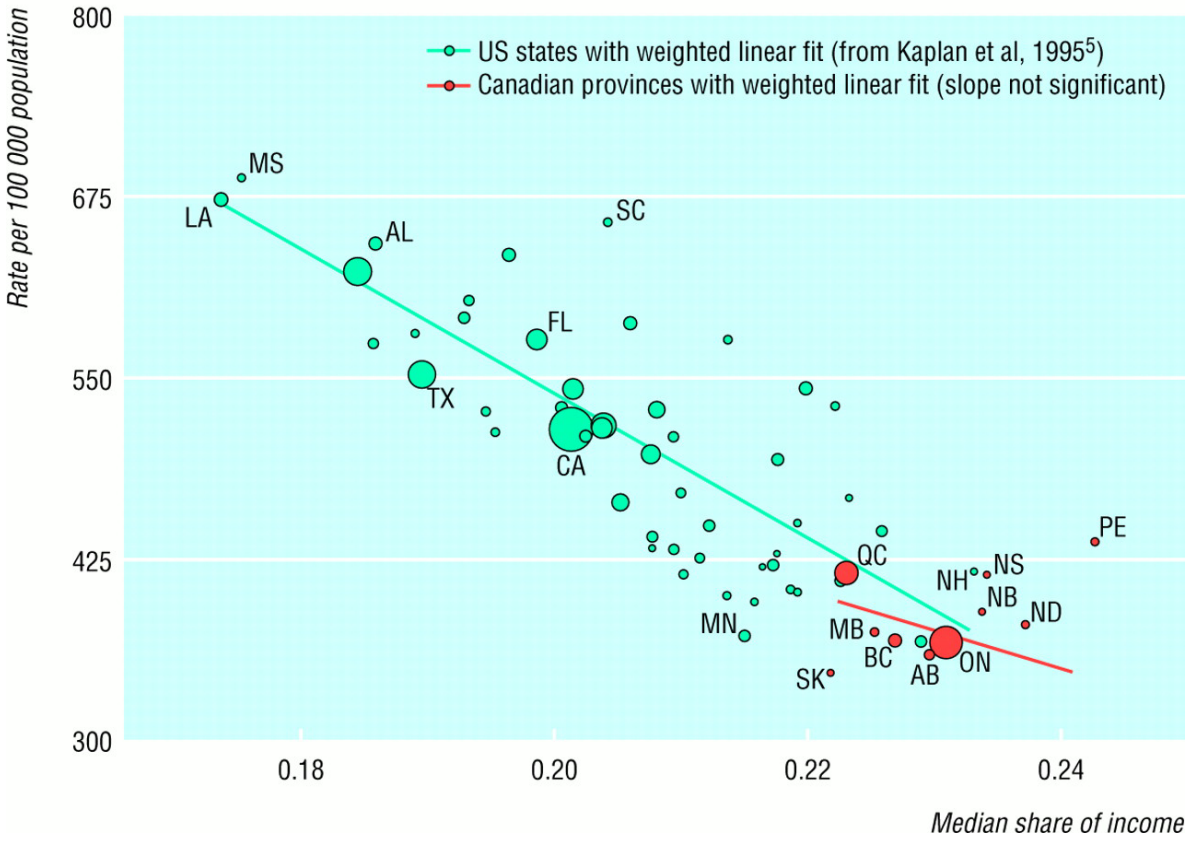


Figure 9: Mortality in working age men by proportion of income belonging to less well-off half of households, U.S. states (1990), Canadian provinces (1991).

Source: Ross, N.A. *et al.* 2000. Relation between income inequality and mortality in Canada and the United States: Cross sectional assessment using census data and vital statistics. *British Medical Journal.* 320(April 1): p. 898-902.

[16] The slope of the line mathematically fitted to the Canadian points is not statistically significant.

In Figure 10, a similar pattern is observed for metropolitan areas in North America. The Canadian cities extend the overall North American trend towards greater inequality being associated with higher mortality and the line mathematically fitted to both the U.S. and Canada data indicates this.

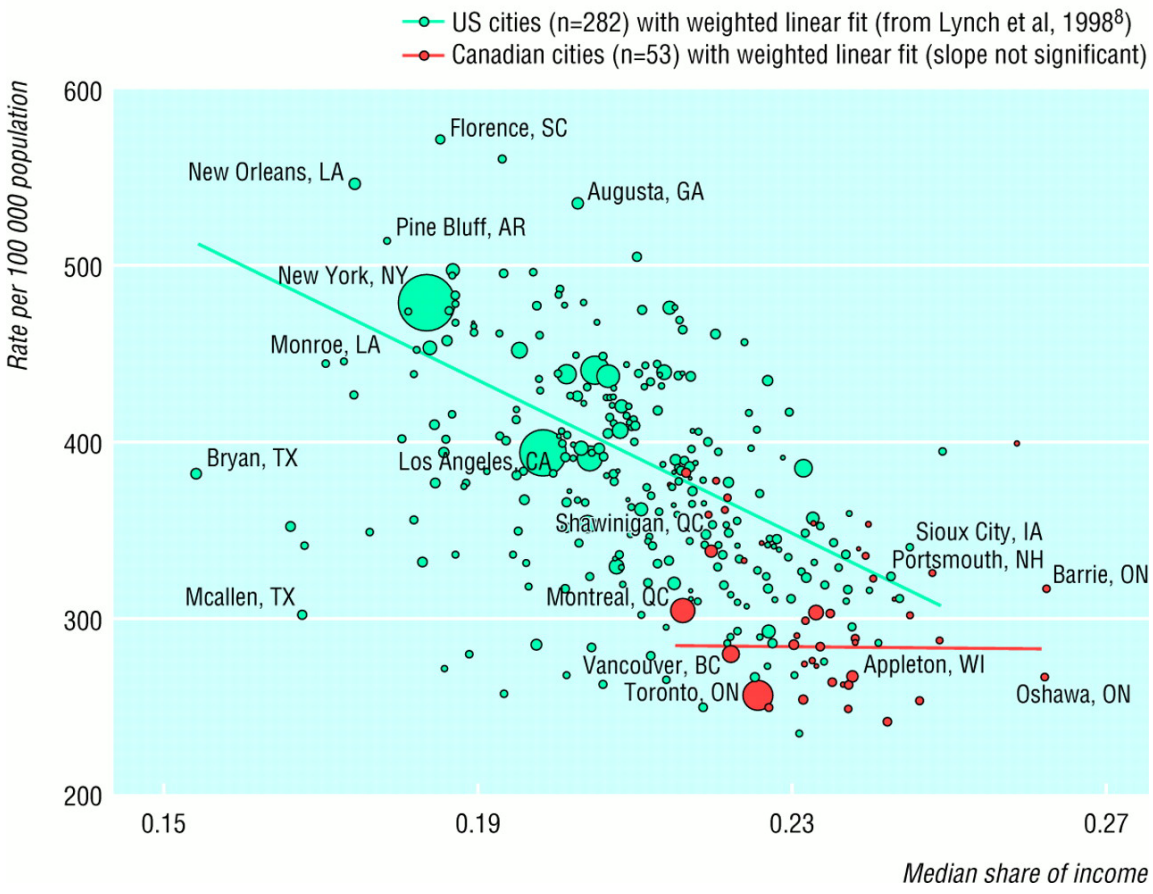


Figure 10: Mortality in all working people by proportion of income belonging to less well-off half of households, U.S. metropolitan areas, Canadian cities.

Source: Ross, N.A. *et al.* 2000. Relation between income inequality and mortality in Canada and the United States: Cross sectional assessment using census data and vital statistics. *British Medical Journal.* 320(April 1): p. 898-902.

But the line in the lower right of the graph, which was mathematically fitted to just the Canadian points is completely flat, indicating that the relationship between income inequality and mortality among Canadian metropolitan areas (at the population level *only*) is not statistically significant. In other words, on average, Canadian cities with a more equal

distribution of income in Canada were no more or less healthy than cities with a less equal distribution of income according to the data available in 1991. The results did not change even after controlling for median provincial and metropolitan income.

Reason to Care

Does this mean Canadians don't need to worry about income inequality? In short, the answer is no, and there are at least three reasons why the results of the Canada – U.S. comparative study cannot justify complacency about income inequality. First, the measure of income inequality used in the study, 'median share of income' is a population-based measure that captures only one dimension of the overall social and economic fabric of a province or metropolitan area. That's not to say that median share is not a useful summary measure, but simply that it offers a limited perspective. This is particularly evident when we remind ourselves that for individuals, there is a steep social gradient in health for individuals in both Canada and the U.S. despite the existence of different patterns of population-level income inequality and mortality in the two countries.

Second, if we consider that the function of income is to allow individuals to acquire resources for good health, when we compare Canada and the U.S., it becomes apparent that the significance of income is very different in the two countries. Because of the wealth of public goods and strong public services that Canadians enjoy, income is less of a factor in the ability of Canadians to acquire resources for health (e.g., housing, education, health care, food, recreation, and transportation) than it is for Americans. Cash income, in other words, is a better indicator of individuals' access to resources for good health in the U.S. than in Canada. The reason for this is something that is addressed in subsequent sections of this report, but consider this brief explanation for the moment. There are many things that affect the health of Canadians (e.g., housing, education, health care, food, recreation, transportation) that Canadians just simply get for free (for example, public goods like health care, education, recreation, public transportation, subsistence social benefits, safe streets, etc.). This has a particularly important effect on the health of low-income

Canadians. This means that inequality does matter in Canada (remember the individual-level gradient in health), but because of the many public 'goods' we enjoy (the cash value of which aren't reflected on our census forms and tax returns), the effects of inequality don't show up in the data on population-level income inequality and mortality.

The third reason we cannot afford to be complacent about income inequality is that the data from the Canada – U.S. comparison are from 1991 and it is widely argued that income inequality has widened and social benefits diminished in the last 10 years. It may also be that a threshold governs the relationship between population-level income inequality and mortality: the relationship to health only kicks in once a certain level of inequality has been reached. *If this is the case (and it is plausible), Canadians need to worry about income inequality more than ever before.* As Section B of this report will show, inequality in Canadian society, measured in several different ways, became much worse in the 1990s, and this may already have translated into a population-level income inequality and population health relationship that looks like the one in the U.S.

An approach to public policy based on prudence would take the strong relationship between income inequality and population health in the U.S. as a potential warning sign. Indeed, the 1991 finding that Canada shows no relationship between population-level income inequality and mortality means that there was something about living in Canada that protected us from the corrosive effects of income inequality that we see so clearly in the United States. This presents an enormous opportunity, which if taken, could alter the future of the country in a way that enhances (and at least maintains) the health of *all* Canadians.

The urgency of this window of opportunity cannot be understated. Although researchers won't be able to determine the health impact in Canada for another two years (when the 2001 census is available), the following section of this report will show that in nearly every aspect of social and economic life, inequalities have widened in Canada in the 1990s. Although inequality in Canada has not reached American levels yet, the trends toward more American-style inequality are strong, and the national media and industry lobby groups are encouraging Canadians to look to the U.S. as an example of 'successful' social and

economic policy. *But if we were to measure the success of social and economic policies in terms of the standard of health they are able to produce, we would consider American public policy a dismal failure and we would consider past Canadian public policy a success.*

In the remainder of this report, two key questions are considered. The first one starts from the possibility that the reason why income inequality and health are not associated at the population level in Canada is because some threshold of inequality must be reached before the relationship kicks in. This is one possible conclusion that can be drawn from the results shown in Figures 9 and 10. If we are to take the threshold explanation seriously, we need to assess how much inequality increased over the 1980s and 1990s, and we would need to seriously consider adopting policies to interrupt and reverse the trend. In the following section, this report considers the trends towards widening inequality in Canada over the 1980s and 1990s.

The second question that is considered in this report takes a slightly different angle. It asks, 'what is common to all Canadians, and unique to Canada, that could explain the difference between Canada and the U.S. in terms of the income inequality and health relationship?' Several important social, economic and policy differences are analyzed.

But first, the report reviews trends towards widening inequality in Canada. This widening inequality may represent a potentially substantial health burden, although it will be a few years before we know what its true health effects are.

SECTION B. WHAT'S HAPPENING IN CANADA?

Income Inequality

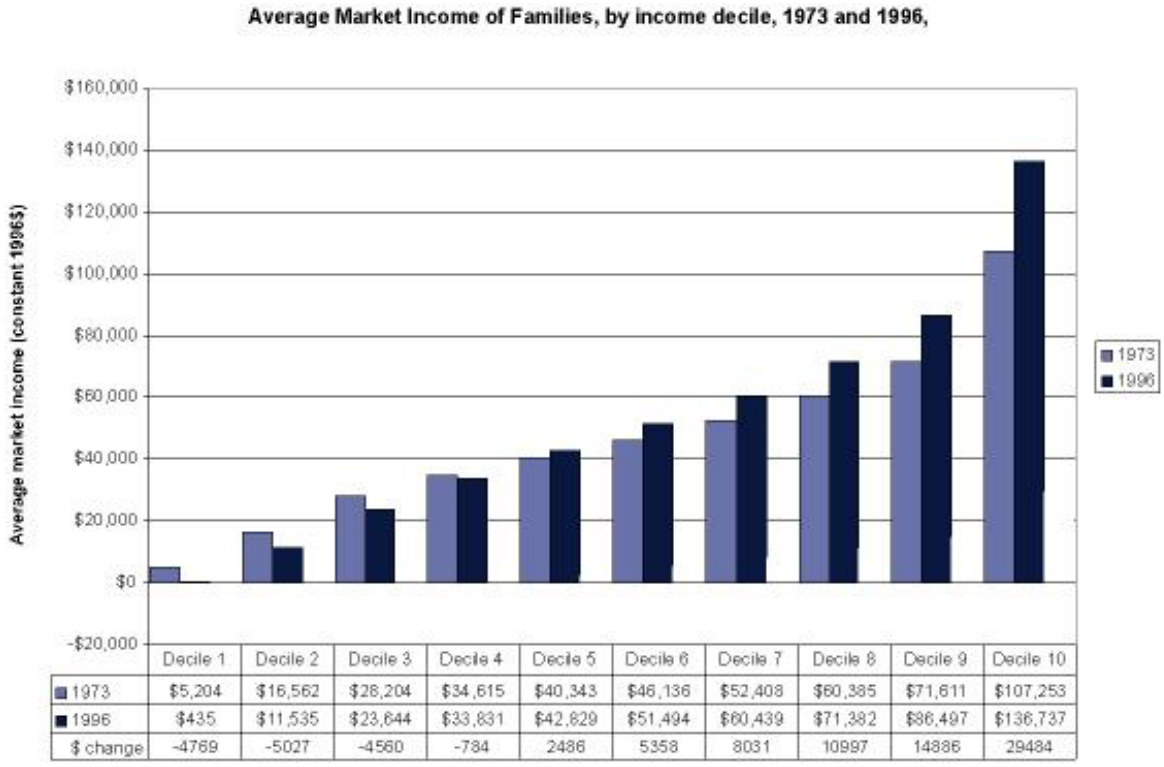
The relationship between health and income inequality in Canada is important because there is considerable evidence that the gap between the poor and rich has been growing over the 1980s and 1990s. In Canada, we have traditionally taken pride in our collective policy mechanisms that ensure a high standard of living and health for all citizens. There is evidence that the best prescription for a healthy society is through investing in the determinants of health. Resources invested in early childhood development, community programs, and public goods such as education and health care not only make people healthier, they save money in the long run. When the economic returns of such an investment are considered, such policies make for good value.

As one of the most pervasive, yet underestimated, determinants of health, income inequality merits special attention in this paper. The upcoming section will present data on the distribution of income among Canadian families. Then, the discussion will be extended to include an examination of wealth inequality. By briefly comparing these statistics to their American equivalents, it is possible to gain a deeper understanding of the strengths of Canada's tax and transfer system as well as the potential for weakness.

Canada's economy experienced strong growth during the past decade. Despite this growth, the benefits haven't been equally shared across the entire social spectrum. Stark differences in the income that families earn from wages and self-employment (market income) have caused income and wealth inequality to rise in Canada.[17] In fact, Figure 11 shows that families in the four lowest income groups saw the real value of their market income decline (from 1973 to 1996) by an average of $3,785.

[17] For a thorough introduction to income inequality in Canada, see Armine Yalnizyan's 1998 publication, *The Growing Gap: A report on growing inequality between the rich and poor in Canada.*

The gap between the rich and the poor grows ever wider. In 1996, the top 10 percent of Canadian families earned an average market income 314 times higher than those at the bottom 10 percent ($137,000 compared to less than $500). While the richest 40 percent of families benefit from increased market-generated wealth, the economic security of families in the bottom 60 percent is at risk. Not only are the poor are getting poorer, there are more poor people living in Canada.



	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
1973	$5,204	$16,562	$28,204	$34,615	$40,343	$46,136	$52,408	$60,385	$71,611	$107,253
1996	$435	$11,535	$23,644	$33,831	$42,829	$51,494	$60,439	$71,382	$86,497	$136,737
$ change	-4769	-5027	-4560	-784	2486	5358	8031	10997	14886	29484

Figure 11: Distribution of Income by Income Growth
Statistics Canada, Survey of Consumer Finances

The degree to which the gap has widened in the past 25 years is powerfully portrayed in Figure 12. It shows the increase in the ratio of richest 10% to the poorest 10% of Canadians from 1973 to 1996. In 1973, the top 10% of income earners brought in 21 times more than the bottom 10% of income earners. In 1996, the top 10% of income earners brought home 314 times more than the bottom 10% of income earners.

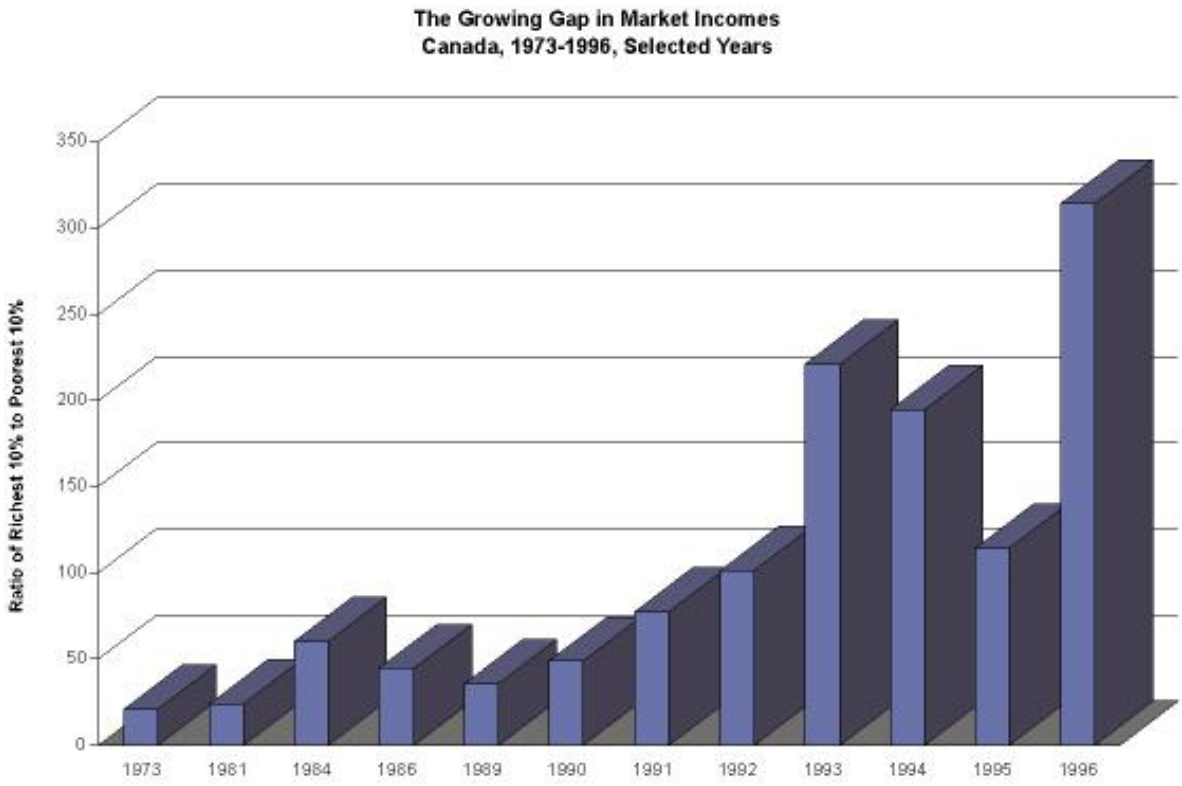


Figure 12: The Growing Gap
Statistics Canada, Survey of Consumer Finances

Despite reports of prosperity sweeping the country, the situation in the United States is even worse. From 1979-1997, market income inequality in the United States, already higher than in Canada, continued to rise. Figure 13 shows the change in the Gini coefficient (a measure of income inequality) in Canada and the U.S. in 1979 and 1997. The world's richest country, by any measure, also saw robust growth, but this prosperity was accompanied by increases in *both* market and after-tax income inequality. While differences between Canada and the U.S may be partially attributed to Canada's more progressive income tax and more aggressive redistribution efforts, a range of other factors must be considered in comparing the relationship between economic growth and inequality in these two countries.

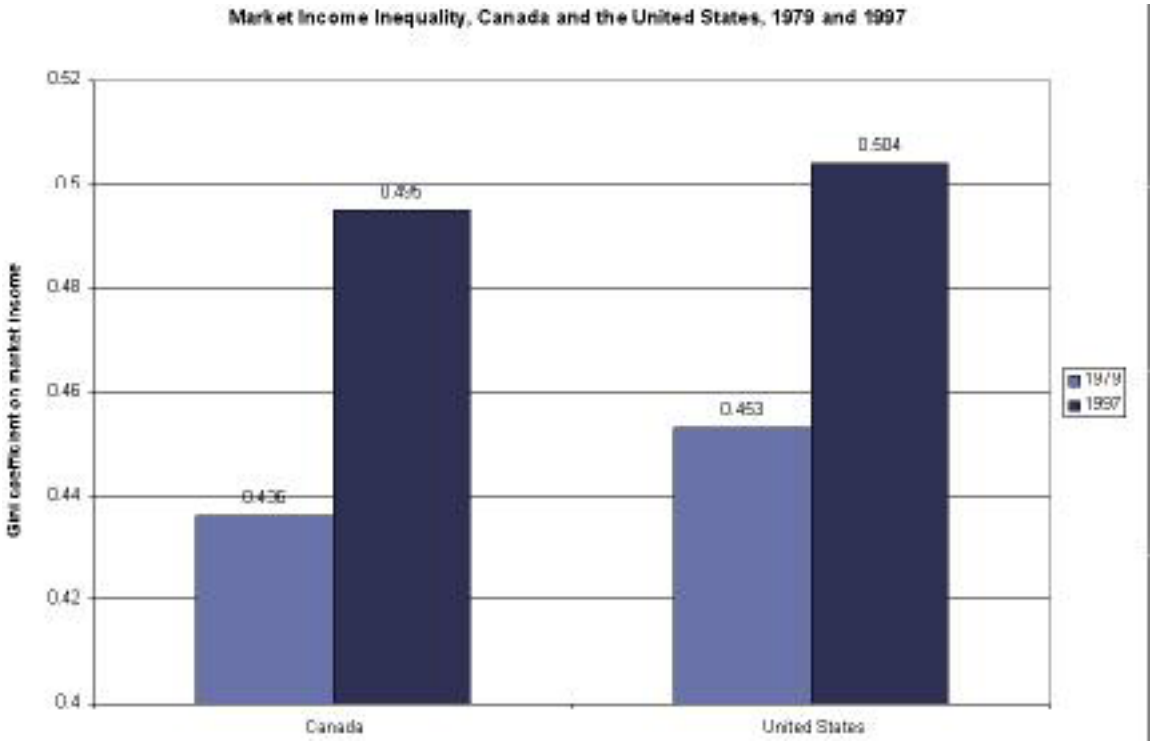


Figure 13: Gini coefficient in Canada and the U.S., 1979 & 1997
Source: Statistics Canada and U.S. Bureau of Labor Statistics

Inequality in Wealth

As alarming as the increase in market income inequality is, the trend towards greater inequality in the distribution of wealth is equally disturbing. Wealth is an equally important measure of a household's economic well-being, but it is reported less often because the information is difficult to obtain.[18] Examining the components of wealth (combined assets and debts) provides a clear picture of the financial situation of Canadian households rather than considering income data alone.

[18] As defined in the 1999 Statistics Canada Survey of Financial Security, wealth reflects the net worth of an individual or family after selling all assets (real estate, cars, RRSPs, etc.) and paying off all debts (mortgages, credit card debt, student loans, etc.)

It is socially desirable to ensure that households accumulate at least some wealth over their lifetimes because it endows them with a source of economic security. This may take the form of net assets such as savings, home ownership or Registered Retirement Savings Plans. Yet these types of assets are meagre or even non-existent for a significant proportion of Canadian families. A 1999 Statistics Canada report[19] estimates the total net worth of all Canadian households at $2.4 trillion, a 32 percent increase from 1984 (adjusting for inflation), when the last survey was conducted. Yet the stratification of wealth, shown in Figure 14, reveals a striking picture of the advantaged and disadvantaged amongst us. Households in the top 10% of the wealth distribution had, on average, over 700,000 times more wealth than those in the bottom 10% (who had negative wealth).

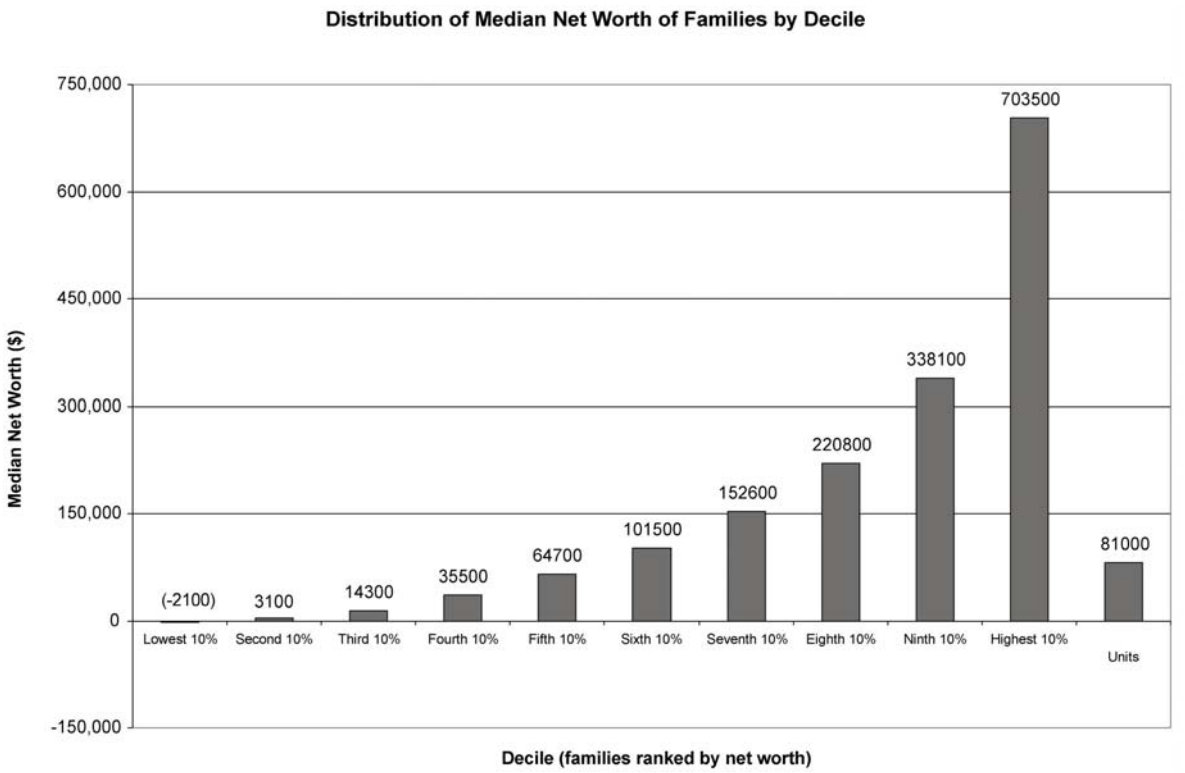


Figure 14: Distribution of Median Net Worth by Income Decile.
Source: Statistics Canada, Survey of Financial Security.

[19] Statistics Canada, 1999. *The assets and debts of Canadians: an overview of the results of the Survey of Financial Security*. Catalogue number 13-595-XIE.

Although the net worth of Canadian families increased by 11 percent from 1984 to 1999, on average, the benefits of this windfall weren't shared equally among all families. The families with the highest net worth held just over half (53 percent) of all personal wealth in the country. The poorest 10 percent of Canadian families actually owed more than they owned, representing a negative net worth of $-2100. Put another way, the bottom half of the population holds less than 6 percent of the wealth, while the wealthiest 10 percent of the population holds over 50 percent of the wealth (see Figure 14).

Similar to the pattern for market income, inequality in the distribution of wealth is also increasing over time. As depicted in the Figure 15 below, the lowest two quintiles (the 40 percent of the population with the lowest net worth) experienced little change in their net worth between 1984 and 1999. In contrast, the wealthiest 20 percent of families saw a 39 percent increase in their median net worth ($112,300 in 1999 dollars).

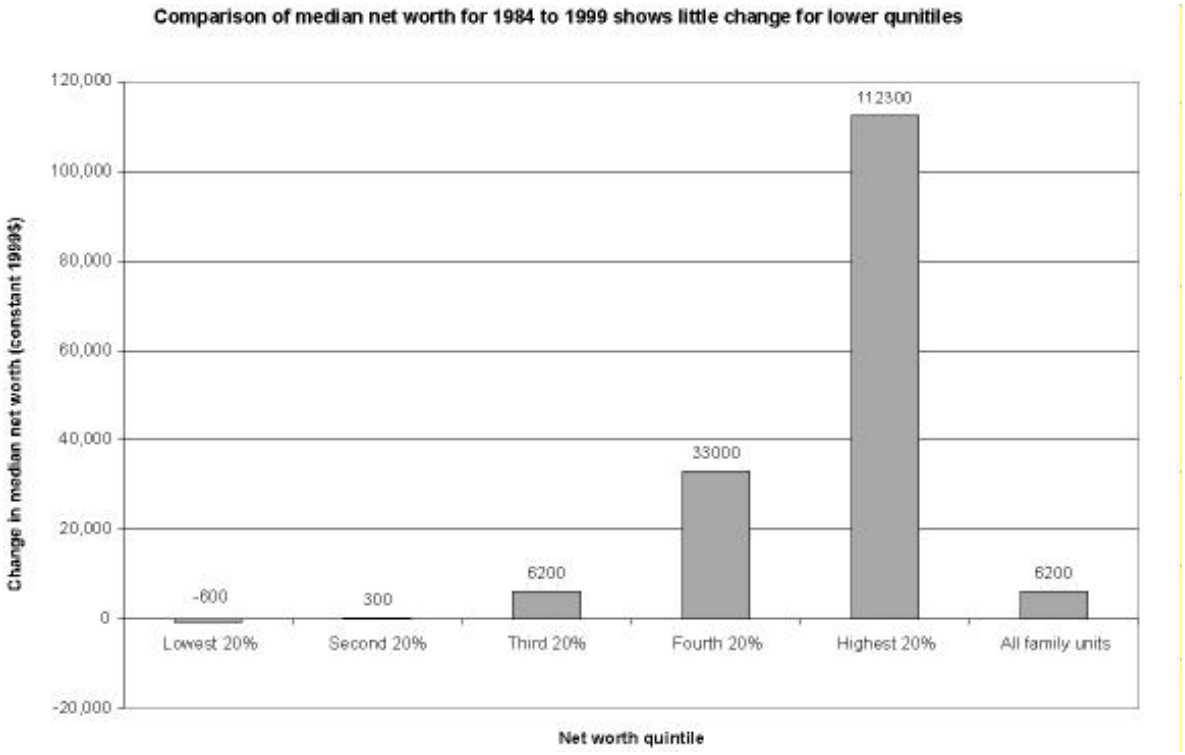


Figure 15: Change in Median Net Worth by Quintile, Canada
Source: Statistics Canada, Survey of Financial Security.

In comparison, the top 10 percent of families in the United States hold over 70 percent of all personal net worth, according to 1995 data,[20] although it is worth noting that cross-national comparisons are problematic due to differences in measurement and definition of concepts. A 1999 analysis of two national surveys conducted in the United States showed that after controlling for age, gender, race, education, employment status and household income, household wealth was a statistically significant predictor of general physical health and depression.[21] Inequality in wealth, this suggests, is linked to population health, too. Therefore it is in the self-interest of Canadians to be concerned about wealth inequality in addition to income inequality.

The Corporate Pay Gap: The Average worker vs. the Average CEO

The data on wealth inequality data reinforce many of the truisms portrayed in the media. Wealth really does beget wealth. More families than ever before find themselves in sinking boats with water leaking in faster than they can bail it out. While the media glamorizes the financial triumphs of the "haves", the economic woes of the "have-nots" fuel political debate. And, even though the juxtaposition of wealth and poverty in society is increasingly evident, we don't seem as troubled by reports of "plenty in the midst of poverty" as in the past.

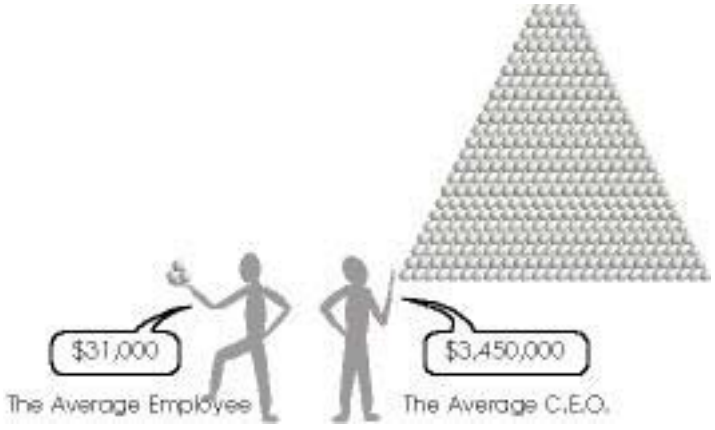


Figure 16: Annual Salaries of the Average Worker vs. the Average CEO in Canada

[20] U.S. Census Bureau. 1995. *Household Net Worth and Asset Ownership*.
[21] Ostrove, J. and Feldman, P. 1999. Education, income, wealth and health among whites and African Americans. *Annals of the New York Academy of Sciences, 896:335-7*.

Most Canadians are aware that company executives have historically fared better than their employees have, but just how much better? Would it be surprising to learn that the 100 best-paid Canadian CEOs took home an average compensation of $3.45 million in 1997? Regardless of whether their company boomed or slumped that year, the typical CEO received a 56 percent raise. To put this in perspective, the average Canadian worker earned $31,000, roughly 110 times *less* than the average CEO (see Figure 16).[22] The disparity in worker-executive pay is even greater in the U.S.: in 1996, American CEOs made 209 times more than the average worker did.

Of course, the corporate pay gap is only one element of the problem. We cannot simply portray the population as either extremely wealthy or extremely poor. The majority of Canadians are striving to balance their budgets each month and finding it increasingly difficult to get ahead. Banks and creditors are making the struggle easier, or even more challenging, depending on how you look at it. Almost every day a credit card application arrives in the mail. And, as Earl Wilson, a New York Post columnist, observes, "Today, there are three kinds of people: the haves, the have-not's and the have-not-paid-for-what-they-haves."

Household debt now exceeds average household income

Perhaps enticed by low interest rates or the widespread availability of attainable credit, more people at all income levels have assumed a heavy burden of debt and appear willing to gamble with their economic security. Or, as some would say, we're living beyond our means. After 1993, Canadian household debt began to exceed 100 percent of total average income (after taxes). By 1999, the average debt-to-income ratio climbed to 113 percent by 1999.[23]

[22] Stanford, J. 1998. Pay vs. Profits. *Canadian Centre for Policy Alternatives, Behind the Numbers.* 1(2).
[23] Vanier Institute of the Family. 2000. The Current State of Canadian Family Finances.

While we know that a stack of unpaid bills can do to your credit rating, what effect does debt have on your health? Researchers from Ohio State University recently published a study testing the link between financial anxiety and health.[24] Their findings show that people who are stressed about debt tend to be in worse physical health than people without money troubles.

While Canadians of all ages are incurring more debt, one group in particular faces a bleak future. Young Canadians are carrying a disproportionately high burden of debt. Student loan and credit card payments represent a major source of debt. Overall, 12 percent of families report student loan debt. But in families where the major breadwinner is under 25 years of age, this figure increases to as high as 31 percent of families. The median student loan owed by families is $7,300.[25]

With respect to credit card debt, the Statistics Canada Survey of Consumer Finance asked how much was owed after the last bill was paid. Overall, 38 percent of Canadians held a balance on their credit cards, with a median credit card debt of $1,800. In addition, half of unattached individuals or major earners between 25 and 34 years old reported credit card and instalment debt. Older age groups were less likely to carry such debt. Only 15 percent of individuals or families 65 and older reported credit card or instalment debt. [26]

In the United States, credit card debt is soaring, with an outstanding balance of $580 billion in 1999. In American households with at least one credit card, the average credit card balance increased by 266 percent between 1990 and 2000 (the average balance rose from $2,985 to $7,942).[27] Some speculate that making monthly mortgage, car or credit card payments is becoming more difficult for families, making accumulated debt harder to

[24] Drentea, P. and Lavrakas, PJ. 2000. Over the limit: the association among health, race and debt. *Social Science and Medicine*. 50(4):517-29.
[25] Statistics Canada, Survey of Consumer Finances
[26] Statistics Canada, Survey of Consumer Finances
[27] http://www.cardweb.com/cardtrak/news/2000/june/28a.html

eliminate. And the U.S. government has recently encouraged the use of credit cards even further: Americans can now pay their taxes with plastic.

Why is inequality increasing?

The factors that cause inequality to increase are widely debated. Two main trends, however, help to explain the majority of the rise in earnings inequality.

Changes in the Labour Market

More Canadians than ever express a growing sense of insecurity in the labour market. Changes in the global economy have led to an increase in non-standard and highly-skilled jobs, creating insecurity in the marketplace. There is also a trend towards a declining reliance on wages as the primary source of income among all Canadians, not just the poor. The shocking drop in market income for low and middle-income families is largely due to declining real wages[28] and the smaller proportion of low-income families with work. In 1996, approximately 75 percent of low-income families did not have any work, compared to around 33 percent in 1973.[29] The lack of full-time, steady work opportunities and low hourly wages is seriously threatening the well-being of Canada's poorest families.

Trends in Family Structure

Increasingly, families must rely on more than one income to meet their basic needs. While one would expect a greater number of dual-income families (with or without children) to raise the average income of all families, other changes have offset this impact. One factor contributing to the rise in earnings inequality is an increase in the number of lone-parent families and families without any earner. Between 1991 and 1996 the number of lone-

[28] In other words, wages are not keeping pace with inflation.

parent families increased by 19 percent (from 953,640 to 1,137,505 families). Lone-parent families are commonly detached from the labour market or have little market income, and rely on government transfers as a significant source of income.

The Balancing Act

Although the benefits of economic growth are not shared equally among all Canadians, earnings disparities don't tell the entire story. In Canada, we have a strong (but gradually weakening) social safety net that families can rely on in difficult times. Without social assistance and employment insurance, for example, many more Canadian families would have suffered the effects of increasing market inequality.

Many government transfers[30] are designed to supplement the incomes of lower income families. As illustrated in Figure 17, families in the bottom income quintile received the largest share of total government transfers. In 1998, families in the lowest quintile collected 29.8 percent of total government transfers, compared to 11.9 percent for families in the highest quintile.

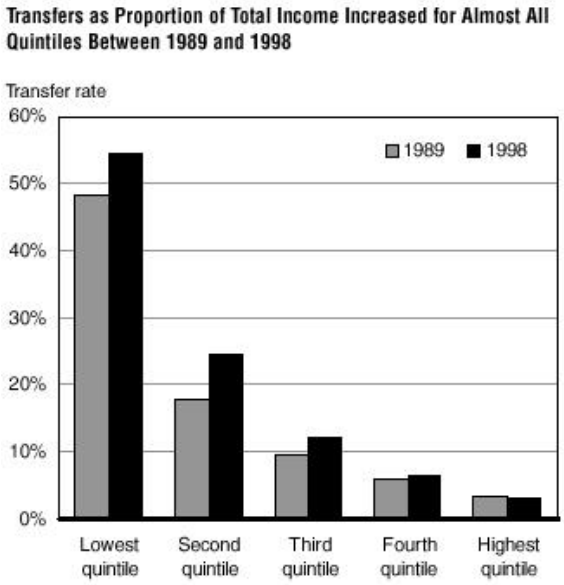


Figure 17: Transfers as a Proportion of Income
Source: Statistics Canada. 1998. *Income in Canada.* Catalogue Number 75-202-XIE.

[29] Yalnizyan, A. 1998. *The Growing Gap: A report on growing inequality between the rich and poor in Canada.* Centre for Social Justice.

[30] Government transfers include payments made to individuals through programs such as: Employment Insurance (EI), Old Age Security (OAS), Canada and Quebec Pension Plans (C/QPP), Guaranteed Income Supplements (GIS), Spouse's Allowance, and the Child Tax Benefit (CTB). Social assistance from provincial

Households across the socio-economic spectrum benefit from government transfers, although they have their greatest impact in the lowest income groups.

While market income inequality has steadily risen, income inequality after transfers (and income inequality after taxes and transfers) has remained relatively stable over time. Figure 18 shows trends in the Gini coefficient (a measure of the degree of income inequality) for income inequality between 1970 and 1995. The top line represents earned income, which includes income from wages, salaries and self-employment. The middle line shows the trend in total income, which is earned income plus all government transfers. The bottom line shows the trend in income after taxes and transfers, or disposable income. It is clear from Figure 18, that since 1970, the contribution of government transfers to families and individuals has almost offset increases in market-generated disparities and kept inequality in after-tax income relatively constant.

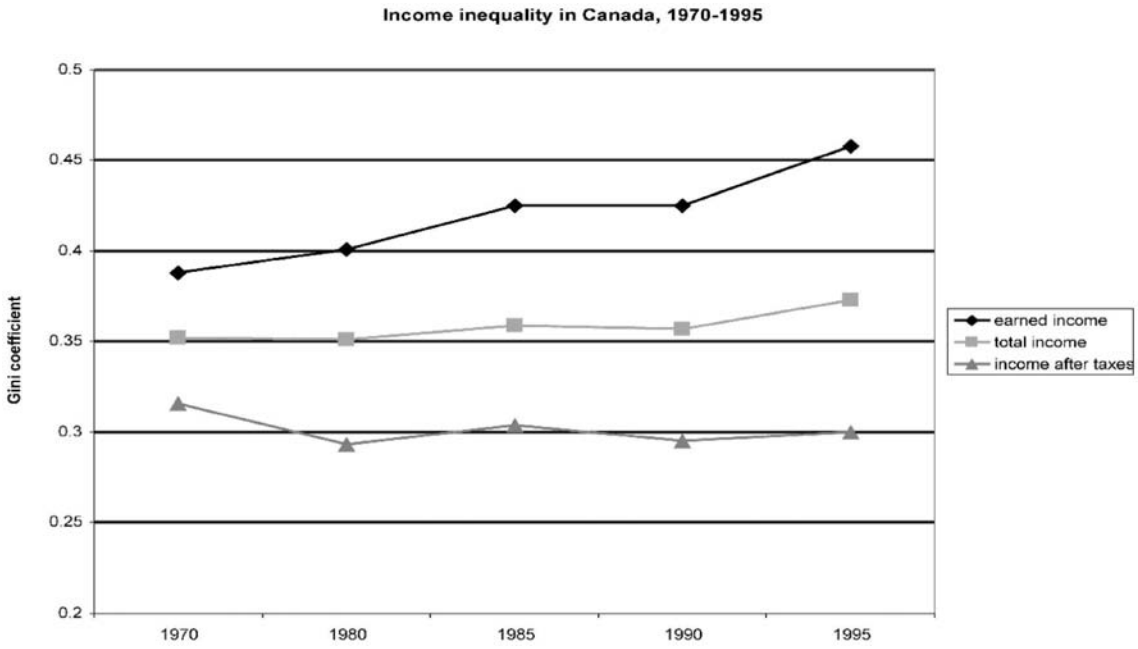


Figure 18: Income inequality in market income, total income (post-transfers), and post tax income.
Source: Statistics Canada, Survey of Consumer Finances

or municipal programs, Worker's Compensation Benefits, GST/HST Credits and other provincial/territorial tax credits are also considered government transfers.

Unfortunately, rising market income inequality in the late 1990s reduced the effectiveness of transfers to lift families out of poverty. The most evident conclusion from this trend is that we must generate greater equality in market income in order to reduce total income inequality for all families.

Do rising tides still lift all boats?

Many people argue that the best way to alleviate poverty is through economic growth. Indeed, many would argue that "rising tides lift all boats." In the past, it has been true that a booming economy served to create jobs and stimulate income growth for everyone. Today, the fluctuation of business markets still leads to normal cycles of expansion and recession. However, recent times have led to the disproportionate prosperity of the rich, causing the income gap to widen.

These days, the reality is that economic growth benefits only those "boats" that haven't already washed ashore. A landmark Canadian study on the topic of economic growth and low-income reduction concludes that while growth still "trickles down," its effectiveness is "fizzling out."[31] Impediments such as the de-skilling of work, job flexibility, and the proportion of families whose incomes are unresponsive to economic expansion (e.g., the elderly, disabled, and lone-parent families) have weakened the ability of growth to reduce low income (poverty) since 1980. A more extensive body of U.S evidence reports a similar experience for Americans. While locating a job may not be a problem, finding a good paying job is proving to be difficult during recent U.S. economic expansions.

It is true, to some extent, that a strong economy is good for everyone. However, the ability of economic growth to reduce poverty/inequality ultimately depends on how the gains from growth are distributed. Canada has a progressive taxation system in which higher income individuals pay a larger percentage of their income in tax than lower income individuals.

[31] Zyblock, M. and Z. Lin. 1997. *Trickling Down or Fizzling Out? Economic Performance, Transfers, Inequality and Low Income.* Statistics Canada Catalogue No. 11F0019MPE(110).

The tax and transfer system is designed to address market-driven inequality in the distribution of economic resources. Although transfers have partially offset rising inequality by compensating for the declining share of market income held by Canada's poorest families, disposable income for these families remains low and has been decreasing for the past decade. For middle- and lower-middle income families, transfers remain a critical source of income support, but they have not been sufficient to compensate for a decline in earnings.

It seems that although an improving economy is important for reducing poverty, rising inequality weakens the potential of Canadians, particularly the poor, to experience the benefits of economic growth. If we agree that it's prudent to maintain a relatively equal distribution of income in Canada, what costs may come with it?

Economic Growth and Inequality

Many argue we cannot afford a strong social safety net (social assistance, employment insurance) and universal public services (health care and education) if we are to be competitive in the world market and maintain robust economic growth. For this reason, many politicians want to cut government spending and implement personal tax cuts, on the argument that this will stimulate the Canadian economy. In the business community, some argue that high taxation rates are a barrier to growth as they deter investment and drive skilled workers and entrepreneurs away from the Canadian market, thereby eroding the tax base on which we rely.

The basic argument for cutting personal taxes is, of course, simple: put more money in the pockets of consumers and lost revenue will be returned to the government through sales taxes, property taxes and so on. Advocates of reducing taxes also argue that tax cuts promote personal savings and boost the labour supply. More jobs means more taxpayers, and ultimately more revenue, it is argued. Ultimately, this will improve the public services we want and need. In addition, advocates of reducing taxes argue that there will be less

'brain drain' because people won't be forced to hand over such a high proportion of their income in tax, thereby making Canada a more attractive place to live and do business.[32] There are, however, alternative policy options to deal with fluctuations in the market. One alternative would be to simply let the fluctuation run its course, particularly if it is a temporary or minor fluctuation. But often it is important for politicians to be seen to be doing something. In that case, there are even more attractive options available.

First, if the intent is to stimulate economic activity, cutting taxes is a less effective public policy option than government spending. For example, a $1 billion increase in government spending translates into an immediate $1 billion increase in economic activity, while a $1 billion tax cut will only be partially spent. Moreover, tax cuts usually benefit people in proportion to their incomes, meaning wealthier people get larger rebates and poorer people get smaller ones. This also compromises the effect on consumer demand and spending, because wealthier people may spend a smaller proportion of their tax cut.

Second, when government revenues go down, either spending must be reduced or the lost revenue replaced through other, often regressive sources,[33] including user-fees and residential property taxes. In the case of Ontario (and now BC), tax cuts were funded by massive borrowing. Cutting taxes can therefore threaten the quality and accessibility of public goods and undermine investments in infrastructure. Investments in public goods and infrastructure are not, in fact, the drain on the economy that they're so often made out to be. For example, Canada's tax-funded health care system *alone*, gives auto manufacturers a $6/hour/worker cost advantage to producing trucks in Canada over the U.S.[34] In addition, there is ample evidence that most people prefer to live in a place with social and economic

[32] Do high taxes cause a brain drain? The reasons for individuals to move to the U.S. are much more complex than that. In a survey of departed Ontario nurses, only 1.7% said that taxes would induce them to return to Ontario. Not only that, although people do leave, there is evidence that Canada attracts 4 university graduates for every one that leaves. Registered Nurses Association of Ontario. 2001. *Earning Their Return: When & Why Ontario Nurses Left Canada, and What Will Bring Them Back*. Toronto: RNAO, Feb. 23, 2001.

[33] A regressive source of revenue is one that takes a greater share of income from the poor than the rich. A regressive tax, in other words, is proportionately more burdensome on the poor than the rich.

[34] Canadian Auto Workers. *Ford Ontario Truck Facts.* www.caw.ca/campaigns&issues/ongoingcampaigns/ford/truck_facts.asp

advantages such as universal, high quality public education. Access to higher education and a well-educated workforce are crucial underpinnings to economic growth in the 'information age'.

Third, out of respect for its redistributive role, the government should set its sights on long-term economic security. Tax cuts are often introduced to promote growth and productivity during economic downturns. If we choose to align financial policy with the cyclical ups and downs of the market, we not only stand to undermine the values and quality of life for which Canada is praised, but will render daily life more precarious for more Canadians.

Public Policy Expenditures and Economic Competitiveness

In the name of global competitiveness, some Canadians argue for higher out-of-pocket costs for essential services, greater inequality, and lower employment standards. Yet two recent studies provide strong evidence that Canada's current policy mix is better than its global competitors. The first of these studies was conducted by the Canadian Centre for Policy Alternatives (CCPA), B.C. Division, and it compared the competitiveness of British Columbia to its southern neighbour, Washington State.[35] The 'B.C. Advantage,' according to the report, is attributable to its emphasis on progressive taxes (e.g., income tax) as sources of revenue and its investment in public goods. These two approaches to public policy "make B.C. a more attractive place to live and work."[36] The advantage is detailed in Table 2.

Despite the fact that the average B.C. family pays $1,663 more per year in provincial taxes than a family earning the same amount pays in state and local taxes (all figures adjusted for purchasing power parities), this apparent financial disadvantage is more than offset by per capita public spending in Canada and much lower out-of-pocket expenditures for goods and

[35] Vogel, D. 2001. *"Competitiveness" and Well-Being in British Columbia and Washington State.* Vancouver: Canadian Centre for Policy Alternatives, B.C. Division.

services essential to a high quality of life and health.[37]

Table 2: Taxes, Public Spending and Private Costs in British Columbia and Washington

	BC	WA	The BC Advantage
Total provincial and local taxes (two income family earning $55,000 CAN at PPP), 1998	$6,518	$4,855	-$1,663
Public program spending per capita, 1998	$4,983	$3,865	$1,118
Average university tuition, undergraduate, 2000	$2,300	$3,950	$1,650
Average college tuition, undergraduate, 2000	$1,700	$1,969	$269
Average expenditure: water, fuel, electricity, 2000	$1,216	$1,756	$540
Average expenditure: health care, 1998	$1,499	$2,267	$768
Average expenditure: personal insurance and pension contributions (including life insurance and social security contributions), 1998	$2,632	$4,937	$2,305

Source: Vogel, D. 2001. *"Competitiveness" and Well-Being in British Columbia and Washington State.* Vancouver: Canadian Centre for Policy Alternatives, B.C. Division.

The competitiveness comparison also suggests that B.C. has an efficiency advantage as well. For slightly more in taxes, but much less in out-of-pocket expenditures, B.C. is able to extend public benefits to more people for longer. Some examples, such as annual social assistance benefits, health insurance coverage, and maternity leave policie are illustrated in Table 3.

The CCPA study is important because, unlike much of the information presented by policy

[36] *ibid*, p.1.
[37] *ibid.*, p. 15

think-tanks about taxes in Canada, it compares Canada to the U.S. using the complete picture of taxes, out-of-pocket expenditures and benefits received. This perspective shows that although taxes are slightly higher in Canada, at least on the west coast there are some unexpected efficiencies in Canada compared to the U.S. The B.C. advantage in out-of-pocket expenses and benefits available is substantial, as shown by Tables 2 and 3. The CCPA study, while presenting a very strong case for higher quality of life at lower cost for residents of B.C. compared to Washington, says little about the costs and benefits faced by businesses.

Table 3: Inequality and Benefits in British Columbia and Washington

	BC	WA
Annual social assistance income for single parent family with one child (WA in $CAN at PPP), 2001	$13,660	$8,500
Number of individuals without health insurance, 1999	0	910,000 (15% of total population)
Ratio of total family income, top 20% to bottom 20%, 1998	6.2 to 1	9.2 to 1
Ratio of total family income, top 20% to bottom 20%, 1989	5.2 to 1	7.0 to 1
Weeks of paid maternity leave, guaranteed by law	52 (paid)	12* (unpaid)
Infant mortality per 1,000 births, 1998	4.03	5.7

* this benefit is only extended to women working in workplaces with more than 50 employees. It applies to just 55% of the workforce

Source: Vogel, D. 2001. *"Competitiveness" and Well-Being in British Columbia and Washington State.* Vancouver: Canadian Centre for Policy Alternatives, B.C. Division.

A recent report by KPMG consulting, however, shows that the B.C. advantage seen in the CCPA report also extends to the costs of doing business across most of the country.[38] According to the report, Canada does better than all of its major competitors in terms of the

costs of doing business. The report compared business costs in North America, Europe, and Japan. The study measures 27 cost components (including labour costs, taxes, transportation costs, and energy costs) that are most likely to vary by location, as applied to specific business operations (e.g., manufacturing, computer software and content development, biomedical research and development and electronic systems development and testing). The study covered over 85 cities. The basis for comparison is the after-tax cost of start-up and operation for 12 specific types of business, over a 10-year time span. Canada had the overall lowest costs, with a cost index of 85.5, representing a 14.5% cost advantage over the United States. Comparing major international cities (with more than 2 million population), Montreal, Toronto, and Vancouver ranked 1st, 2nd and 4th respectively, in the analysis. Mid-sized cities such as Edmonton, Halifax, Moncton and Quebec City all had particularly favourable cost indices (better than the Canadian average) as well.[39]

The results of these two reports provide powerful evidence to contradict the claim that to remain competitive in the global marketplace, Canada needs to cut expenditures on public services such as health care, in favour of lower taxes. These reports strongly suggest that it is possible to have a package of public goods that provide the raw materials for a high quality of life for all Canadians *and* be competitive in the global marketplace at the same time. Based on the evidence, therefore, there should be no reason to dispute a public policy agenda that emphasized low levels of inequality and a wise investment in public goods.

Discussion

Although inequality in Canada has not reached American levels yet, the trends towards more American-style inequality are strong, and the national media and industry lobby groups are encouraging Canadians to look to the U.S. as an example of 'successful' social and economic policy. If the strong relationship between income inequality and population

[38] KPMG Consulting. 2002. *Competitive Alternatives: Comparing Business Costs in North American, Europe and Japan.* G-7 2002 Edition. www.competitivealternatives.com

health in the U.S. is a harbinger of what could happen in Canada, then using the U.S as an example is particularly unwise. Our country has reached a critical turning point. As a society, we need to engage in a balanced evaluation of the consequences of inequality for our nation's health, well-being and quality of life.

The contemporary economics literature has effectively debunked the common perception that social spending compromises economic growth and competitiveness. Since the 1980s, a handful of countries including Canada, Australia, Ireland and the Netherlands have exhibited a negative relationship between economic growth and income inequality.[40] In other words, the aggressive redistributive policies and greater equality in these countries do not appear to impede their economic performance.

Furthermore, the findings of these studies reveal that inequality is neither a necessary condition of economic growth nor a necessary outcome. In fact, there are numerous instances where greater inequality in the distribution of income appears to undermine economic growth. In a knowledge-based economy, greater inequality generates less opportunity, for example, for people to invest in their own education, undermining the population's stock of human capital. Also, inequality may create social unrest among those who don't directly benefit from a period of growth.[41]

An earlier section identified the rising proportion of people with a weak attachment to the labour force (i.e. those not able to directly benefit from economic growth through higher market income) as one reason for increasing market inequality. However, this specific group may benefit indirectly if a portion of increased tax revenues from growth is distributed through social transfers and services. Market-generated disparities will be partially offset in doing so. Moreover, policies that redistribute wealth from the richer to the poorer and can have a positive net effect on productivity. These policies include provincial

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[39] *ibid.*

[40] Organization for Economic Cooperation and Development. 1996. *Employment Outlook.*

[41] Benabou, R. 2000. Unequal Societies: Income Distribution and the Social Contract*. American Economic Review.* (March): p. 96-129.

or state-level funding of education, residential integration and income security programs through progressive taxes.[42]

In order to extend the benefits of economic growth, government needs to invest in areas like affordable housing, childcare, and education and training. In the same line, the role of tax reform in income distribution should not be underestimated. Raising the basic tax exemption and increasing child tax benefits and GST credits, for example, would significantly enhance the income security of working families and ensure that all Canadians benefit from a strong economy.

Despite our 'healthy' and highly competitive economy, we face high levels of homelessness, household debt, child poverty, diminishing health care services and declining quality of education. These trends have already begun to undermine to the high quality of life Canadians enjoy. But it is that very quality of life which is a major factor in attracting economic investment and a skilled labour force. If this is the case, why do we continue to hear that we need to cut taxes further, reduce the size of the public sector and become more competitive? Why do many interest groups continue to promote a public policy approach that would further undermine public goods and widen inequalities, knowing full well that such moves would undermine investment in human capital and health and well-being?

What, then, does buy us more health? In that respect, good schools, a well-oiled transportation system and public safety nets are all important. But the cost of sustaining that social infrastructure matters too. A rising standard of living and improved quality of life flow from our ability to sustain the range of high-quality public goods in Canada.

The benefits of growth should be shared among the entire population. One of the best ways to achieve this is to boost participation in the labour market. More effective active labour market programmes, such as job-search and counselling schemes, would help. Likewise, making work pay policies, such as the working families tax credit in the United Kingdom, can encourage would-be workers to join the labour market and contribute to productivity and growth. In short, well-designed social protection would not only tackle inequalities but also contribute to growth."

4-Quote from the Organization of Economic Cooperation and Development website.

SECTION C. HOW COULD INCOME INEQUALITY AFFECT HEALTH?

The comparative analysis of income inequality and mortality in Canada and the U.S. reveals that there may be an added dimension to the uphill struggle for health. In addition to the effects of an individual's own social position, it appears that people who live in more unequal states and cities of the U.S. have a large added health disadvantage. While being poor puts individual Canadians *and* individual Americans at risk for poorer health, living in a highly unequal Canadian city or province does not seem to carry the same health disadvantage that living in a highly unequal American city or state does (at least it didn't in 1991).[43] What factors differ between Canada and the U.S. that could explain why living in an unequal place give Americans and added health disadvantage?

Why the Canada – U.S. Difference in Income Inequality and Health?

Canadians frequently compare themselves to Americans. It's understandable, considering that the United States is our next door neighbour, our largest trading partner, and also the largest and most politically and economically dominant country in the world. In the last couple of years it has become common for Canadian lobby groups to conduct studies comparing Canadians' standard of living to that of Americans'. Given the size and international dominance of the country and its economy, it is not surprising that the United States comes out on top, as such analyses usually only measure *average* standard of living. At the same time, however, Canadian cities (and the country as a whole) routinely receive international awards for being the best place in the world to live. Canada consistently ranks better than most countries if we measure standard of living in health terms.

[43] Remember that the research described in Section A was conducted with data for 1991. In Section B, evidence was presented that showed inequality has been increasing over the 1990s. It may be that this widening inequality has already changed the situation in Canada and undermined the Canadian health advantage. The data for such an analysis will not be available until 2003, when the 2001 Census of Canada has been compiled.

But what gives Canada its health advantage? More specifically to the purposes of this report, why is the distribution of income at the population level associated with population health in the United States but not in Canada, while for individuals, income is a very strong and robust predictor of health?

There are a few immediate responses that can be given to this question. One is that Canada has universal health insurance. Another common response is to point out the different role, history and social position of racial minorities have in the two countries, with black African Americans still suffering from the long legacy of slavery and racial discrimination that has been a fundamental part of the social fabric of the United States. While the differences between Canada and the U.S. on race and health care are probably influential, this report will argue that they are influential for reasons that are not easily discernible.

So if the differences between Canada and the U.S. that give Canada its health advantage are not obvious, what are they? There are, in fact, three major differences between Canada and the U.S. that are the most likely suspects in the Canadian health advantage. The first concerns Canada's income tax system. Canada has a much more progressive income tax system than the U.S. and taxes collected are redistributed to low-income households to narrow the gap in the standard of living between Canadians. There is little question that this kind of investment pays a large health dividend. Second, Canada possesses a much greater wealth of "public goods" than the United States. This simply means that there are many things (like public spaces, parks, recreation centres, cultural activities, high-quality elementary and secondary education, health care, etc.) that Canadians can access for free or at little cost.[44] There are good reasons to believe that the public goods Canadians enjoy raise the standard of living of all citizens very efficiently and also pay a large health dividend. One of these important public goods, universal access to primary health care, was discussed earlier. A final important difference between Canada and the U.S. is the degree of

[44] It is true that there is generally little or no cost to people using these public goods. However, it is important to remember that although there is no cost to access the service, there are costs associated with funding it.

residential segregation by income. Although segregation is increasing in Canada, is not nearly as strong than in the U.S., nor is its effects as corrosive to health.[45]

The Health Effects of Canada's Income Tax and Redistribution System

Canada has a much more progressive income tax and transfer system than the U.S. The term 'progressive' simply means that the more money you earn, the greater the percentage of income you pay to income taxes. In other words, the system is based partly on an ability-to-pay principle. Other taxes, like sales taxes and property taxes are inherently regressive, which means that they are proportionately more burdensome for the poor. Revenues received by provincial and the federal governments from sales, income and business taxes are used, in part, to fund income redistribution programs like income assistance, child benefits, employment insurance and old age security. These programs are based on the principle that the economy is something that will experience cyclical ups and downs, and that we need to have measures in place to protect people, especially lower income households, from the vagaries of the economy.

For many people, providing social programs is viewed simply as an altruistic gesture. But the social and economic importance of these programs goes well beyond altruism – these programs are important investments in human capital. Like other capital assets, human capital can depreciate with under-use or it can become obsolete with changing circumstances. Unlike other capital assets, however, human capital can be renewed – people can be re-trained and their skills can be upgraded to change with the times. Thus, investments in human capital are shrewd because they help to maintain human capital during economic downturns and individual transitional periods. This is the crucial role that income redistribution programs play.[46]

[45] For a detailed account of increasing residential segregation in Canada see: Myles J., Picot G., and Pyper W. *Neighbourhood Inequality in Canadian Cities.* Statistics Canada Catalogue No. 11F0019MPE No. 160.
[46] Benabou, R. 2000. Unequal Societies: Income Distribution and the Social Contract*. American Economic Review.* (March): p. 96-129.

Canada's income redistribution programs appear to work well. The best available evidence suggests that at least until the early 1990s, the income redistribution system was doing a relatively good job of protecting people from inequalities in market income. Figure 18 (Section B) shows that although inequality in earnings increased quite substantially over the 1980s and 1990s in Canada, inequality in income after transfers and taxes remained constant.

There is a disturbing trend in Figure 18, however. There were two sharp upturns in wage inequality, one in the early 1980s and one in the early 1990s. The latter received a great deal of public attention, as people lamented the growing gap between the rich and poor in Canada. The high-tech economic explosion of the late 1990s drowned out the calls for more equality. What is disturbing about these two sharp increases in earned income inequality is that they appear to be relatively permanent adjustments in the labour market. In other words, the income redistribution system is still working as it should, but must deal with a more challenging labour market than before. It follows that we cannot be complacent about growing inequality in Canadian society.

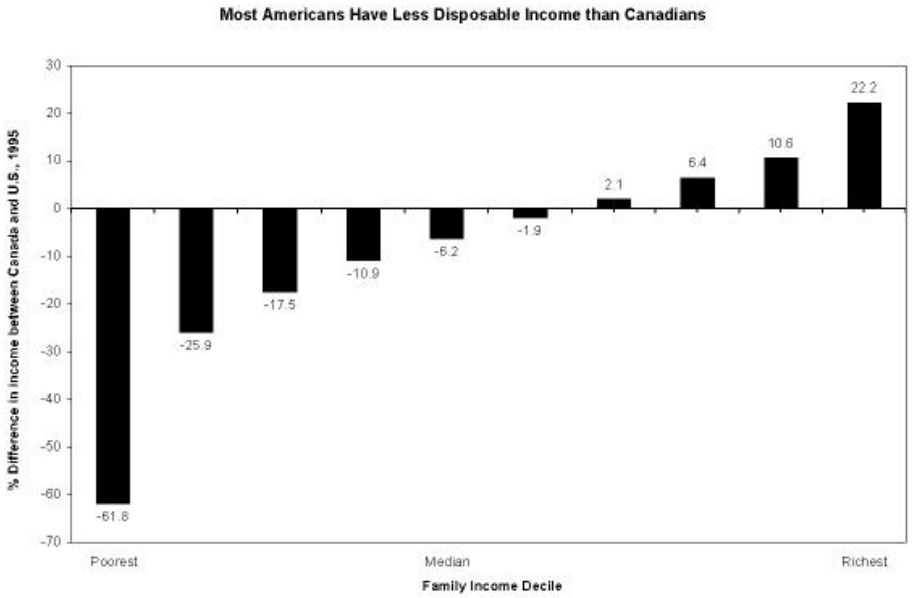

Figure 19: Difference in disposable income, by income decile, Canada vs. U.S. (adjusted for purchasing power parity)
Source: Wolfson, M.C. and B.B. Murphy. 1998. New views of inequality trends in Canada and the United States. *Monthly Labor Review.* 121(4).

It is also likely that the Canadian income redistribution system has health benefits. Specifically, Figure 19 shows that far fewer people live in poverty in Canada than in the U.S. and those who do are much better off than their American counterparts. In the analysis in shown in Figure 19, the authors split the population of each country into 10 income deciles, and compared the Canada-U.S. difference in average disposable income in each decile (adjusted for purchasing power parities). The bottom 10% of Canadian income earners were 61% better off than their American counterparts in 1995, and the second lowest decile of Canadian income earners were 25% better off. It's only when you look at the upper 40% of the income distribution that you can say Americans are better off. As the situation in the U.S. clearly illustrates, the rising tide of a buoyant economy does not lift all boats in health terms.

The health effects of poverty are well established. And when you consider that the social gradient in health touches us all (the ladder of health has rungs at all income levels), the distribution of economic benefits matters crucially. Consider that the infant mortality rates of all income groups in Canada are below the U.S. average (Figure 20).

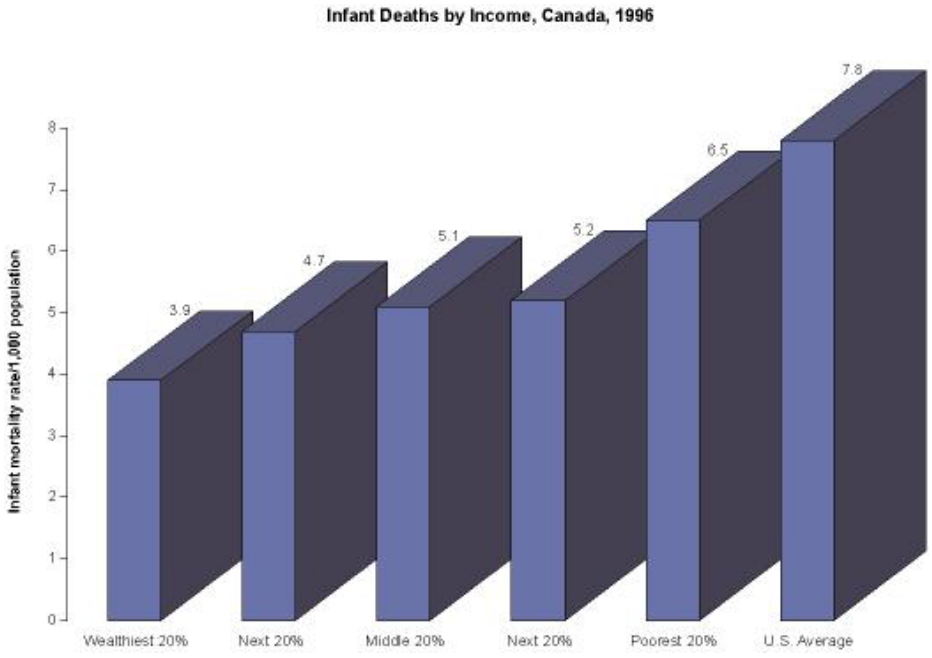

Figure 20: Infant Mortality Rate by Income, 1996
Source: Statistics Canada, Health Reports 1999. 11(3): 25.

The favourable position of Canada's lower-income people vis-à-vis the U.S. should not be a cause for celebration, however. Canada's child poverty record, for example, is an international embarrassment. A number of researchers have estimated that 20% of Canadian children live below the poverty line, a line that is set very low to begin with.[47] Similarly, Canada's homelessness problem is bad and worsening.

It is estimated that 30,000 different people use Toronto's homeless shelters in any given year.[48] The looming health burden that child poverty and homelessness represent is extremely large and is likely to have profound consequences for the school system, the health care system and for economic performance and quality of life for all Canadians. Consider remarks made on housing and homelessness by Elyse Allan, President of the Toronto Board of Trade, in a speech given on June 9, 2000,[49]

> "A successful business community is very much dependent on a workforce that is woven into the social fabric of the city. The lack of affordable housing presents a barrier to full participation in our community. It also means that businesses are unable to attract and retain an available and motivated workforce.
>
> "And, without a full range of housing options for its workforce, businesses may choose to locate or move elsewhere.
>
> "It has an impact on business activity, particularly the tourism and retail sectors. Unless it is addressed, homelessness will continue to reduce Toronto's global competitiveness and erode the quality of life in our city.
>
> "For the parents among us here, we know that a stable home environment, a safe community and the ability to participate in the economic and social life of our city is an absolute must. Without such an environment, children, in particular, are demonstrably at risk".

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[47] Jackson, A. 2001. *Background Notes for a Presentation to the House of Commons Subcommittee on Children and Youth at Risk*. Ottawa: Canadian Council on Social Development. www.ccsd.ca/pubs/2001/ajncb.htm.

[48] See: http://www.onpha.on.ca/nph/need.html. Also, City of Toronto Councilor Jack Layton's website is another good resource: http://www.jacklayton.com.

[49] http://www.bot.com/home6speech.html

It is evident that the tax and transfer redistribution system is essential to mitigating widening inequalities in wage income and to maintaining a standard of living that can support good health for all. Such policies improve the quality of life for everyone, and economic investment is sensitive to quality-of-life concerns. Despite the apparent effectiveness of the tax and transfer system through difficult times in the 1980s and 1990s, the ability of all Canadians to attain a healthful standard of living is in serious jeopardy. Based on what is known about the social gradient in health, cuts to welfare rates and eligibility, especially in Ontario and Alberta, as well as the tightening of eligibility for employment insurance (despite a huge surplus in the program), are grave threats to the health of Canadians.

Canada has an unquestionably better and stronger social safety net than the United States, and the recent round of cutbacks under the label of "welfare reform" in the U.S. has only solidified Canada's position. It is likely that these programs are one of the important factors that have protected Canadians from the corrosive health effects of income inequality. But Canada cannot be complacent about its superior position. Recent drastic cutbacks to such programs in Canada (in particular income assistance, employment insurance, social housing)[50] may already have pushed us past the point where the increasingly unequal distribution of income undermines population health. If such connections can be verified by further research, the policy prescription is to maintain our progressive tax and transfer system and pay close attention to the quality of life for all Canadians. Indeed, it is in our interest to do so, both economically and in terms of our health.

[50] Both Federal and Provincial spending, as a proportion of GDP, decreased in the 1990s. In Ontario, for example, program spending declined from 15.6% of GDP in 1994-95 to a budgeted 12.2% in 2001-02 (Based on Ontario's Budget in 1998, 1999, 2000, and 2001: calculations by the Registered Nurses Association of Ontario. Federal program spending declined from 16.6% of GDP in 1993-94 to a budgeted 12% in 2000-01: from Canadian Centre for Policy Alternatives, *Behind the Numbers*, Vol. 2, No. 3, Jan. 20, 2000.

'Public Goods', Income Inequality and Population Health

One of the things that distinguishes everyday life in Canada compared to most places in the U.S. is that there are a great many things that Canadians receive simply by virtue of living in Canada. We all receive, irrespective of our individual income: health insurance for medically necessary services, including basic primary care; very high-quality, free public education for elementary and secondary students; high-quality, low-cost post-secondary education; relatively safe streets; relatively good and well-maintained infrastructure (roads, bridges, sewers, water supply, etc.); relatively good and low-cost public transportation; public recreation centres (with swimming pools, gymnasiums, hockey rinks, etc.) and recreation programs with low user fees, and a myriad of other things that are fundamental to the quality of our day-to-day lives. It is important to reiterate that Canadians receive these public goods irrespective of their income, and the quality of these "goods" does not differ substantially across households with different incomes. The situation is substantially different in the United States. In the U.S., a household's ability to access high-quality education, health insurance, safe streets, good infrastructure, easy transportation, recreation opportunities, and so on, is fundamentally tied to that household's income, e.g. their ability to pay for it. These public goods fundamentally shape an individual's "life chances" (chances of succeeding in life), and we know from the social gradient in health that an individual's life chances are strongly connected to their "health chances". Public goods are thought to be important factors in the health of Canadians.

Canadians often take for granted the importance of public goods to their quality of life. Increasingly we are led to believe that if taxes were cut, our quality of life would improve. But, in fact, for the vast majority of people, the benefits they receive from public goods far outweigh the costs. Consider a few concrete examples. Skateboarding has become very popular among North American youth. But teenagers don't want to just skateboard on their own driveway - it's impossible to do jumps and tricks and it's too small. Since few households could afford a yard big enough and the cost of installing a really good skateboard park, we rely on collective mechanisms to provide universal access to skateboard parks. It's very efficient, as everybody gets access to a skateboard park for a

relatively low individual contribution (an even lower contribution if the costs of the park are amortized over its estimated lifespan, which is only fair because any given household will only use it for a maximum of ten years while the park may exist for 50 years). It's also a capital investment with huge human capital spin-offs. Every teenager, regardless of their parent's income, has a chance to belong to something meaningful, meet friends of all walks of life, and feel like they belong to the collective. This perpetuates a desire to give something back to the larger society and contribute productively.

But what if you don't like skateboarding? Well, the same story is true for hockey, basketball, tennis, health care, education, transportation, etc. For example, it is very efficient for a pool to be shared by a few hundred households, because no one swims all day, all their life. But swimming enthusiasts will swim for a couple of hours a week for probably 30 years of their life and the rest of the time the pool will be used by others, rather than sitting idle. Very few individual households could afford to build such facilities, but if we act collectively, we have access to them *all* for a relatively low cost and with incredible efficiency. This is the case for all investments in most public goods and it makes as much sense as it ever did. Indeed, *it is unlikely that if a given household's contribution to the collective goods was returned to them in tax cuts, that any more than a small percentage of them could purchase better health care, education, transportation, recreation, etc.*

Almost everyone would agree that improvements to their quality of life will improve their health and that access to education, health care, transportation, recreation, etc. are fundamental to quality of life. It follows that the progressive income tax policies and the public goods funded by revenues from those taxes contribute strongly to our health. If we continue to strain the income redistribution system by relying less and less on progressive taxes (income tax) and more and more on regressive sources of revenue (sales taxes, user fees, etc.), it will become harder to raise the revenues needed to sustain Canada's wealth of public goods. Indeed, the last few years have seen all of the public goods listed here – education, health care, transportation, recreation, etc. – deeply eroded by cuts. With the economy strong as it is right now, it makes sense to renew Canada's public goods, which

have weakened from neglect, and restore Canadians' confidence in the value that they're getting for their taxes. Public goods are good value for money.

Segregation, Public Goods, and Population Health

One of the other important differences between Canada and U.S. is the level of segregation in our cities and the effects that segregation have on quality of life. It has been known for a long time that housing markets are remarkably effective at sorting people of similar socio-economic status into similar parts of the city. This is reflected in the fact that most cities have working-class neighbourhoods, middle-class neighbourhoods and so on. This is partly orchestrated by city planners and the real estate development industry, but regardless of the sources of segregation, it has consequences that researchers are beginning to understand more effectively.

But how could segregation affect health and well-being? In the first place, residential segregation by socio-economic status has the capacity to create distinct social environments, which can pass on distinct life chances to individuals. A good deal of research has shown that there can be significant neighbourhood influences on the health, well-being, and competence of children and youth.[51] The importance of socio-economic factors in early child development and youth outcomes, especially educational and behavioural outcomes, cannot be understated. The developmental environment in which children and youth grow up can have a lifelong effect on health, well-being and competence.[52] While there is no question that the family environment is the most important influence on child and youth development, neighbourhood environments can also be very influential. There is good evidence from the United States, for example, that children from lower socio-economic families who live in mixed income neighbourhoods have better

[51] Kohen, D.E. and Hertzman, C. 1999. Neighbourhood affluence and school readiness. *Education Quarterly Review.* 6(2): p. 44-47.
[52] McCain, M. and Mustard, J.F. 1999. *Early Years Study, Final Report: Reversing the Real Brain Drain*. Toronto: Publications Ontario.

educational, economic and social outcomes in adulthood than similar children growing up in poor neighbourhoods.[53] There are a number of plausible explanations for such a phenomenon. One suggests that mixed income neighbourhoods have more positive role models who have already succeeded in life and that this is influential on developmental outcomes. It is also believed that the existence of peer groups with high aspirations and social norms conducive to success (e.g. to finish school, go on to higher education, etc.) can make such life choices seem possible for children who may not have such aspirations intrinsically. It follows from these findings that one possible way to maximize the social development of Canada's children and youth is to plan our cities for social mix rather than social exclusion.

For adults, similar outcomes have been observed, although there are many unanswered questions. It is plausible, however, that mixed income neighbourhoods can be beneficial because of the network such an environment may provide individual access to. A mixed income neighbourhood may be more effective in demanding better police protection, may be able to resist unwanted land uses (with environmental threats, for example), and have more resources to invest in high-quality public goods. Such advantages accrue to everyone in that neighbourhood. It may also be that living in a mixed income neighbourhood can give individuals access to more social networks with more opportunities – for better jobs and economic opportunities or immersion in social norms more conducive to better health (e.g. non-smoking norms, norms that support appropriate use of alcohol, etc.).

Financing Local Public Goods

The manner in which distinct neighbourhood social environments can create distinct life chances is similar in both the United States and Canada. Residential segregation by income and social exclusion can compound the disadvantages of low socio-economic status, while

[53] Brooks-Gunn, J., *et al.* 1993. Do neighborhoods influence child and adolescent development? *American Journal of Sociology*. 99(2): p. 353-395.

the advantages of higher socio-economic status can be multiplied by living in a higher income neighbourhood. But despite this similarity, segregation is far more corrosive to health in the U.S. than in Canada due to a crucial structural difference between Canadian and U.S. cities that has consequences for the distribution of public goods. In the U.S., there is extremely wide variation in the available stock of public goods in different neighbourhoods in the same metropolitan area. Much of this difference can be linked to the way that public goods are financed and the relative roles of local governments in the two countries.

In the United States, public goods tend to be provided mainly by municipal governments and they tend to be financed by local property taxes much more so than in Canada. As described above, property taxes are a regressive source of revenue. Therefore, when it comes to services financed by property taxes, the lower one's income the greater the proportion of income that will go to taxes. The situation is quite a bit different in Canada (although changing rapidly). Traditionally, Canadian municipalities have been the recipients of substantial transfer payments from provincial governments. However, the provinces' proportional contribution has declined substantially over the past decade, as they passed on the cutbacks in transfer payments they receive from the federal government. In Canada, many of the service responsibilities of U.S. municipalities are fulfilled directly by provincial governments. The implication of provincial transfer payments and direct service provision is that many services consumed in Canadian cities are funded by progressive sources of revenue, like income taxes. An important difference between Canada and the U.S., therefore, is that the progressive nature of the Canadian tax system permeates the everyday life of the cities we live in, because the public goods we use every day are funded either directly or indirectly by progressive revenues. But there is a further difference that is important too.

In the U.S., the problems created by a high dependence on property taxes are compounded by the relative autonomy of municipalities compared to Canada. In both countries municipalities have a similar constitutional status, but a different set of powers in practice. In fact, in both countries, municipalities technically have no constitutional status at all, and

are only deemed to exist by the province/state. In practice, however, American municipalities have considerably more autonomy than Canadian municipalities and more responsibilities (should they choose to accept them – many of them are voluntary).

Since municipalities rely heavily on property taxes for their revenues, it is logical that a given municipality would want to enhance its own tax base and one of the best ways to do that is to attract wealthy residents. A good way to attract wealthy residents, in turn, is to implement exclusionary zoning by-laws that prescribe single-family dwellings with large minimum lot sizes (or even triple-car garages, which are mandatory in some U.S. municipalities!). Obviously, only more affluent people can afford such houses and this means the citizens of our hypothetical municipality will have low social service needs as well as lots of money. As a result, the municipality is likely to provide excellent services and charge low taxes. Other municipalities within the same metropolitan area, however, will have to house the less affluent families, which means they will face greater social service needs and a lower tax base from which to draw upon. This in turn will often lead to both higher taxes and poorer services for these municipalities. Exclusionary zoning measures are not only used by the most affluent municipalities, but are available (and used by) municipalities all across the social spectrum. Some middle-class municipalities may allow for multiple-family dwellings as well as single-family dwellings, but will pass by-laws forbidding any apartments with more than one bedroom. This means that they will limit the number of poor children who will need schools and will likely limit the number of special needs kids in those schools as well.[54]

Indeed, in U.S. metropolitan areas, there are usually a wide variety of municipalities along this continuum of excellent services/low taxes $\Rightarrow$ poor services/high taxes. Moreover, it is very difficult for the less affluent municipalities to get ahead, because they face an uphill battle. Those people who are able to will leave a high tax/poor service municipality for a municipality with a better value of taxes and services. They leave behind a population,

[54] A municipality with only one-bedroom apartments will attract few poor families with children. The cynical name for this practice, of zoning only for one-bedroom apartments, is 'hysterectomy zoning'.

however, with an even lower tax base and the same social service needs. The rich become richer and the poor become poorer.

In addition, in many U.S. states (e.g., California), the laws governing municipal incorporation are very liberal, meaning that it is possible for a number of landowners living contiguously to band together and incorporate as a municipality (if they can pay the legal fees, of course). The newly created municipality is then free to purchase services from the county in which it is located or it can offer its own services. For example, it would be common for a small municipality to purchase water and sewer services from the county but to have their own police force. If they are effective at keeping crime out of their municipality, then they will save money and can either reduce taxes or enhance services. There are other things which municipalities have an incentive to exclude for financial reasons as well. Indeed, a given municipality has a huge incentive to keep activities and people with high needs out of their municipality and a similarly large incentive to attract people with money to their municipality. At one time it was very easy to keep unwanted people out of a municipality through the use of restrictive covenants on deeds. It was not so long ago (as recently as 1948 in some places) that restrictive covenants were legal as a means to exclude black, Jews, or other identifiable groups from living in certain areas. Now that restrictive covenants are illegal, municipalities must resort to more subtle measures, like exclusionary zoning.

Finally, a high dependence on property taxes, in combination with municipal autonomy and liberal municipal incorporation laws promotes a high degree of municipal fragmentation across the metropolitan landscape. The Minneapolis-St. Paul metropolitan region has 187 different municipalities; the greater Pittsburgh metropolitan area has 442 municipalities. This sets up an internal competition for property tax base that reduces the competitiveness of the metro area as a whole. Municipalities are inclined to reduce their standards and their taxes in order to attract "good" residents, and the burdens of crime, poverty, and other social problems are shuffled into those municipalities with the fewest resources to resist and the fewest resources to cope with the problems. The so-called problem of 'fiscal disparities' in the U.S. has become so bad, that the state of Minnesota passed legislation

that mandates a modest redistribution of commercial property tax revenues from the affluent suburban municipalities to the poorer inner-city municipalities – just to stem the encroachment of social problems into the aging suburbs of the city.[55] The competition for municipal tax base within metropolitan areas in the U.S. has also contributed to urban sprawl. Suburban municipalities on the outskirts of metro areas have such low taxes that they need to keep developing the countryside so that the development fees of each successive suburban estate can pay for the services promised to the previously developed suburban estate. It's an unsustainable game that has dire environmental consequences (automobile air pollution, destruction of arable farmland, etc.), as well as social consequences.[56]

It's worth making two final points about the U.S. urban fiscal regime. The fragmented, autonomous, property-tax-based system of the U.S. is both inefficient and unfair. The inefficiency stems from the competition between municipalities of the same metropolitan areas for the same investment and property tax base. This pits the municipalities against one another in a race to the bottom, but everybody loses, because it creates a situation where metropolitan areas have great difficulty in producing public goods and ensuring adequate investment in human capital. Indeed, suburban sprawl makes it difficult to achieve the population density needed to support public transit, recreation centres, swimming pools, etc. efficiently.

Secondly, this haphazard system is fundamentally unfair. This can be illustrated through the issue of so-called "free-riders". Imagine that you live in a suburban municipality but work in a downtown municipality and commute back and forth every day. In a system where services are funded by *local* property taxes, this means that during the workday you benefit from the police, fire, public health, road, infrastructure etc. services in the downtown municipality but pay nothing for them. In fact, you're getting a terrific deal because your

[55] Orfield, M. 1998. *Metropolitics: A regional agenda for community and stability*, Washington, D.C.: Brookings Institution Press and the Lincoln Institute of Land Policy.
[56] Katz, B. and Bradley, J. 1999. Divided we sprawl. *The Atlantic Monthly*, December 1999. http://www.theatlantic.com/issues/99dec/9912katz.htm

municipal government has probably used exclusionary zoning by-laws to exclude the needy people who are being supported by the tax base of the same downtown municipality you are free-riding on. Due to the work and economic activity patterns of the typical city, however, there are not nearly enough people doing the opposite commute to make it an even trade. The outcome of this system is also undesirable: there are hundreds of inner-city neighbourhoods in American cities that are so desperately poor that they are unsafe for most everybody. In Canada, there are a few "no go" areas and most of us enjoy relatively free, easy and safe access to all parts of our cities.

The metropolitan fiscal regime of Canadian cities is quite a bit different. Most major municipal structures are the responsibility of the provincial government. Changes to municipal boundaries, for example, are the decision of provincial governments alone, as Ontarians have recently discovered. This raises an important point. Based on this discussion of the problems with municipal incorporation, one could conclude that the "mega-city" movement in Ontario was a positive one, since it involves large-scale municipal amalgamation, the opposite of fragmentation. In principle, at least, this is true. But municipal amalgamation in Ontario has also been accompanied by considerable downloading of costs and service responsibilities. Where this downloading concerns services sensitive to migration, real problems can arise. For example, the municipal amalgamation process in Ontario has been accompanied by downloading of social housing. Social housing exists to house poor people. Normally, having poor people within its boundaries is not necessarily a problem for a municipality, but when it is accompanied by the traditional 80% - 20% provincial – municipal cost sharing arrangement for general welfare, then it can be a problem. For many Ontario municipalities, their 20% obligation to welfare is their single largest annual expense[57]. If mega-municipalities are responsible for social housing *and* welfare, there is no incentive for any given municipality to offer good social housing because it will simply attract welfare recipients and burden their local property tax base.

[57] Ontario and Manitoba are the only provinces in which municipalities are responsible for paying some proportion of welfare.

In fact, the situation in Ontario may not be that different from the situation in many U.S. cities, although at a different scale. The new, larger Ontario municipalities, with more service responsibilities have an incentive to enter a race to the bottom – reduce services, discourage the poor from living within their boundaries and try to attract investment with the tax savings. This, however, reduces the capacity of municipalities to produce public goods and undermines *everyone's* quality of life in the ways described earlier.

One final point is worth making. The lack of municipal autonomy (under conditions of financial austerity) is something that municipal leaders in Ontario have complained about recently. Several Canadian mayors have sought more autonomy for municipalities and more taxing powers (especially Toronto). The problem these cities complain about, however, has two possible solutions. The first is to give more taxing authority to the municipalities, as they have requested. The other, equally effective and equally logical solution would be to restore transfer payments from the provinces to the municipalities for urban services. If the transfer payments the provinces once received were restored, then the urban fiscal crisis currently in the news could be averted. The latter solution would be far more progressive, more equitable, and more efficient and would be to the betterment of the quality of life, and probably the health and well-being of us all.

Questions of Health Care and Race

As mentioned at the beginning of this chapter, two of the obvious differences between Canada and the U.S. that might account for the difference in the relationship between income inequality and population health are health care and race. What could be the role of these factors?

Health Care

One of the most important social differences between Canada and the United States is that Canada has a universal, public health insurance system, while the private sector plays a much bigger role in health care insurance and delivery in the United States. In Canada, every person is entitled to universal coverage, free of charge[58], for medically necessary services. In the United States, however, health insurance is only guaranteed for seniors and people on social assistance. The U.S. federal government provides health insurance to these groups, with the Medicare program providing insurance to seniors (over 65 years of age) and Medicaid covering people on social assistance. The remainder of the U.S. population is only covered if they purchase health insurance directly, or if it is provided as an employee benefit.

This patchwork of health insurance in the U.S. leaves large gaps. Roughly 15% of the U.S. population (about 42 million people) has no health insurance at all.[59] Having health insurance in the U.S. does not mean access without financial obstacle as it does in Canada, however. There are significant out-of-pocket expenses (deductibles, co-payments, etc.), in the U.S. system. It is estimated that over 45% of all bankruptcies in the U.S. in 1999 were reported to be due to the crushing burden of medical expenses (about 500,000).[60]

How does universal health insurance contribute to the Canadian health advantage? Many would assume that the advantage is attributed to the fact that all Canadians have access to high-tech medical interventions to help treat their illnesses when they become sick. But in fact, high-tech medical interventions do not make a large contribution to reductions in premature mortality. Of course, medicine does extend individual people's lives, but if you add up the magnitude of this effect across the entire population, it is small compared to the

[58] Alberta and B.C. charge premiums. This is technically illegal under the terms of the Canada Health Act, but not enforced by the federal government.
[59] Institute of Medicine. 2001. *Coverage Matters: Insurance and Health Care*. Washington, DC: National Academy Press. See also: www.iom.edu
[60] Himmelstein, D., and Woolhandler, S., and Hellander, I. (2001) *Bleeding the patient*. Maine: Common Courage Press. Page 24.

impact of preventive and public health measures. In fact, a physician-researcher at the Johns Hopkins University, Barbara Starfield, argues that the main effect on health of uninsurance is a lack of access to primary care – the family physician.[61] Why does this matter so much? If someone who is under-insured (e.g., they have a high deductible or co-payment) gets sick, they're likely to avoid going to the doctor if possible, and will only go once their condition becomes intolerable. The cumulative impact of this can substantially compromise an individual's health and cost the health system a great deal more for treatment. If someone waits until their condition is intolerable, it may increase the likelihood that they will require expensive laboratory tests and possibly hospitalization. Add to this the indirect costs of sickness absence and lost worker productivity, and the U.S. system reveals itself as a false economy. Canadians, on the other hand, have universal access to primary care, and this contributes to the protection from the health effects of population-level income inequality they appear to enjoy.

Race, Income Inequality and Health

The other major difference between Canada and the U.S. is the role and history of racial minorities. In the U.S., the history of slavery still looms large. A substantial proportion of Americans living in poverty are African American, and racial discrimination is still very much part of everyday life in the U.S. It is also the case that African Americans are at a substantial health disadvantage compared to whites. On nearly every health indicator routinely collected, African Americans are at a substantial disadvantage (Figure 21).

But what does race have to do with the relationship between income inequality and health? Does the absence of a group similar to African Americans in Canada explain the differential impact of inequality in the two countries?

[61] For more on this, see: http://medicalreporter.health.org/tmr0699/importance_of_primary_care_to_he.htm See also: Shi, L. Starfield, B. *et al.* 1999. Income inequality, primary care, and health indicators. *Journal of Family Practice*. 48(4):275-84.

The explanation certainly cannot be genetic. Research has shown that for the major causes of death and disease common to both Canada and the U.S. (heart disease and cancer), genetics play little part - and what part they do play has a great deal to do with gene-environment interactions that are not well-understood.

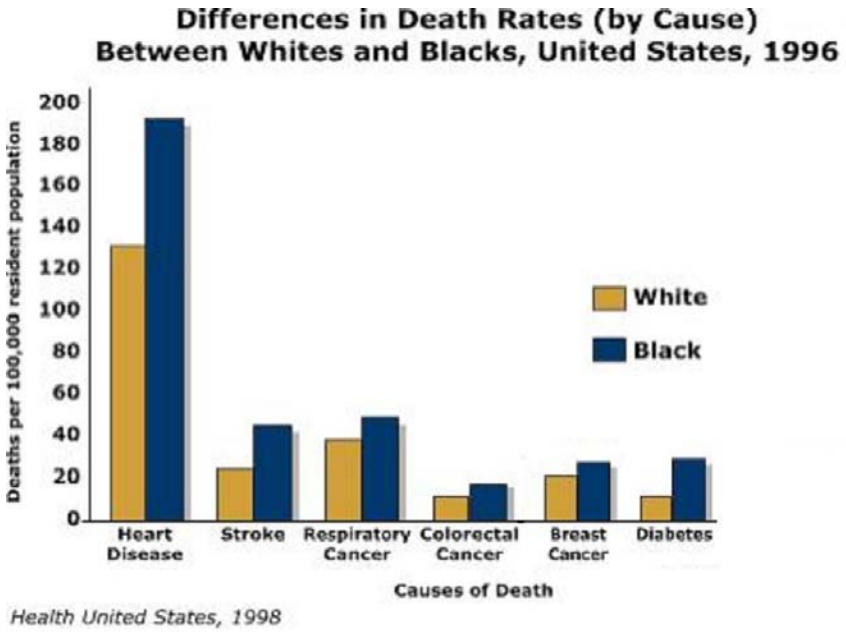

Figure 21: Differences in Death Rates Between Whites and Blacks, United States, 1996. Source: Health, United States, 1998.

Nor is it likely that the explanation is behavioural. Diet, smoking rates, exercise rates, and the like are not so dissimilar between the two countries as to have an effect. And recall that, in Section A, it was shown that behavioural factors are not as big a factor in what makes some people healthy and others not as might be predicted by the amount of media coverage they attract.

The most likely role of race is its association with poverty.[62] Systematic racial discrimination puts African Americans at a considerable economic disadvantage, and this unquestionably translates into health differences. But the ultimate causal factor here is not the discrimination *per se*, but its social and economic consequences. African Americans are less likely than whites to complete high school, college, or university; are more likely to be

poor; and are likely to have earnings much lower than whites. African Americans are also more likely to live in a highly segregated neighbourhood with a high proportion of people below the poverty line.[63] The multiple, overlapping disadvantages, which are the *consequences* of racism are likely to be the most important factor in the health of African Americans. This means that race *per se* probably has mainly an indirect effect on the relationship between income inequality and health, except insofar as poverty amongst racial minorities is tolerated more easily in the United States. In addition, the U.S. appears to tolerate a much larger gap between rich and poor (and black and white) and appears to tolerate depths of poverty that far exceed the depths to which Canadians will knowingly let people sink.

The implication of this is that Canada cannot dismiss the income inequality and health warning from the United States as simply a matter of race. The effect of race, it seems, is highly bound up with the effect of poverty. It follows that the most important differences between Canada and the U.S. are in the magnitude of inequality and the incapacity of the United States to produce public goods.

[62] In this respect, Canada does have a similar group – First Nations people. The poverty – health link is acute amongst native peoples, but they represent a small percentage of the population in Canada and therefore don't make a large contribution to the overall income inequality – mortality picture.

[63] Massey, D., *et al.* 1994. Migration, Segregation, and the Geographic Concentration of Poverty. *American Sociological Review.* 59(3):425-45

SECTION D: PAYING FOR INEQUALITY

In previous sections, this report has argued that there is good evidence that there is a strong relationship between individual socio-economic status and health. There is also evidence that at the level of populations, a more egalitarian distribution of income is associated with better average health. A recent comparative study of the relationship between population-level income inequality and health in Canadian and U.S. metropolitan areas suggests that as of 1991, Canada may have enjoyed a degree of immunity from the ill effects of the wide distribution of income experienced by the United States.

What is it about Canadian society that could account for the difference in the relationship between income inequality and population health? This report identifies Canadian social policies that redistribute income and ensure a high quality of everyday life for all Canadians that may be influential upon the good health of Canadians. The preceding sections of this report also showed evidence that since 1991 inequalities in income and wealth have increased substantially in Canada. If the relationship between income inequality and mortality is characterized by a threshold, above which income inequality is damaging to health and below which it is not, then the widening inequalities Canadians have witnessed in the past decade could indeed have the capacity to undermine our nation's health. Moreover, even though population-level measures of income inequality did not show an association with average population health, within Canada there still exists an underlying individual socio-economic gradient in health, with individuals of lower socio-economic status experiencing poorer health, at all levels of the social ladder. This means that poverty and deprivation already compromises individual Canadians' health, just not to the same extent as it does for our neighbours to the south. It follows that while aggregate inequality measures may not show an association with average population health, insofar as inequality may undermine the socio-economic status of poorer Canadians, it undermines their health status as well.

But many would argue that income inequality is a necessary evil that we must tolerate if we are to maximize the performance of the Canadian economy. Previous sections of this report

have presented evidence that economic growth is not necessarily weakened by egalitarian social policies. There is some evidence, in fact, that greater equality in the distribution of national income may enhance growth, as it can enhance social cohesion and participation and can help to encourage investment in human capital.

The possibility that inequality in the distribution of income compromises our national health may be surprising to some Canadians, but those convinced that income inequality compromises economic growth may argue that the health compromise may too be a necessary evil in the drive to maintain our national prosperity. But with such health costs also come substantial economic costs.

Economic Burden of Illness in Canada

Although it is a somewhat under-researched area, there is some good evidence on the economic burden of illness in Canada. A report by Health Canada[64] based on 1993 data suggests that the costs of illness in Canadian society are very large. Figure 22 shows the direct and indirect costs of Canada's leading illnesses for 1993. Cardiovascular disease accounted for the largest economic burden of illness in 1993, with combined direct and indirect costs approaching nearly $20 billion.

Health Canada's calculations include both direct and indirect costs of illness. Indirect costs are often forgotten, but as Figure 22 shows, their impact is large. Direct costs are defined as those resulting from drug expenditures, physician care expenditures, hospital care expenditures (including acute care, long-term care, and psychiatric hospitals), expenditures for care in other institutions (usually residential care facilities) and health science research expenditures. Indirect costs of illness in the Health Canada report include mortality costs (lost productivity due to premature death), morbidity costs due to long-term disability (lost

[64] Moore, R, Mao, Y., Zhang, J. and Clarke, K. 1993. *Economic Burden of Illness in Canada*. Health Canada, Health Protection Branch. http://www.hc-sc.gc.ca/hpb/lcdc/publicat/burden/

productivity), and morbidity costs due to short-term disability (lost productivity for paid and unpaid work).

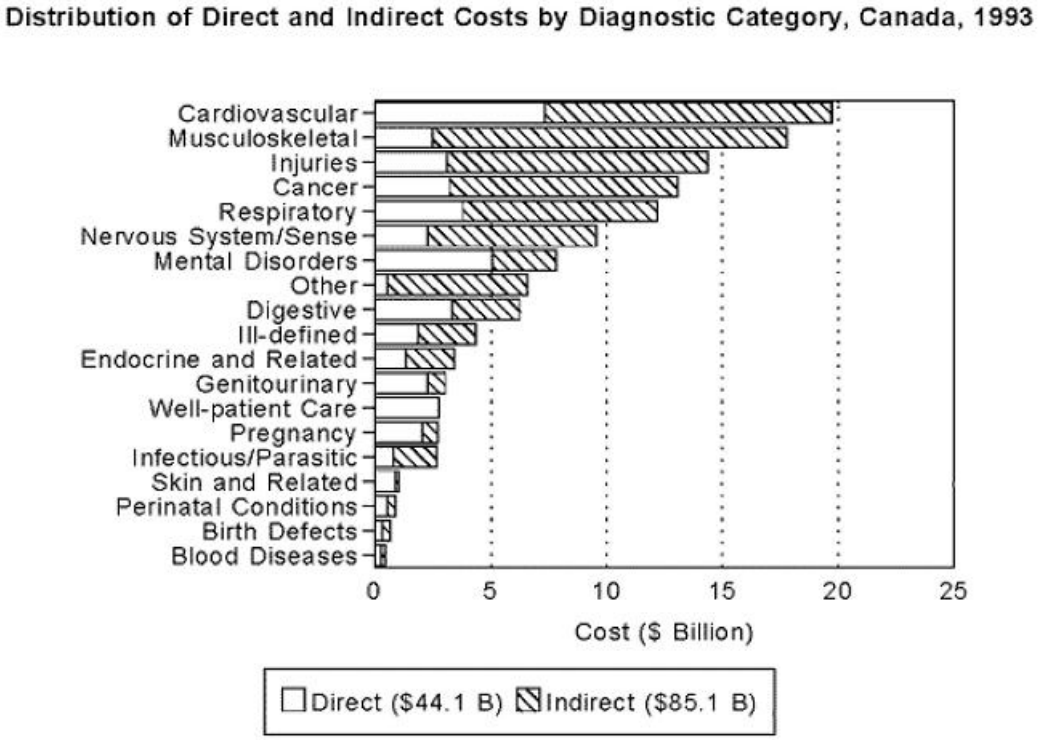

Figure 22: Direct and Indirect Costs of Major Illnesses in Canada
Source: Health Canada, 1993.

Cardiovascular diseases are the leading cause of death in Canada, have the largest economic burden of illness, and typically exhibit a steep social gradient, with poorer people suffering from these diseases more often. Paying attention to the causes of cardiovascular diseases and other diseases with a social gradient makes good economic sense. It is not enough to encourage people to stop smoking, eat better and exercise more (although these are important things to do), because as was shown above in Figure 4, the socio-economic determinants of health exert an even stronger effect on cardiovascular diseases than behavioural factors. It follows that it makes good economic sense to improve the socio-economic conditions of everyday life for all Canadians, especially those with lower incomes. It will improve their health and probably save money too. This same argument could be extended to some of the other diseases which represent large components of the economic burden of illness in Canada.

Taking an approach based strictly on the total costs of health care use, without reference to specific diseases, it is possible to add up the dollar value of health care use by people in the lower socio-economic groups and compare their health services utilization to the median, for example. Data published by Mustard, *et al*.[65] allow such an analysis to be done. They added up the dollar value of all health care services used by all insured individuals in Manitoba in 1994, and estimated each individual's income level by using the median household income of their neighbourhood of residence as a proxy measure (neighbourhood income has been shown to provide good estimates of individual income).[66] They were then able to estimate the total health care services used by individuals by income decile. These results are shown in Figure 23.

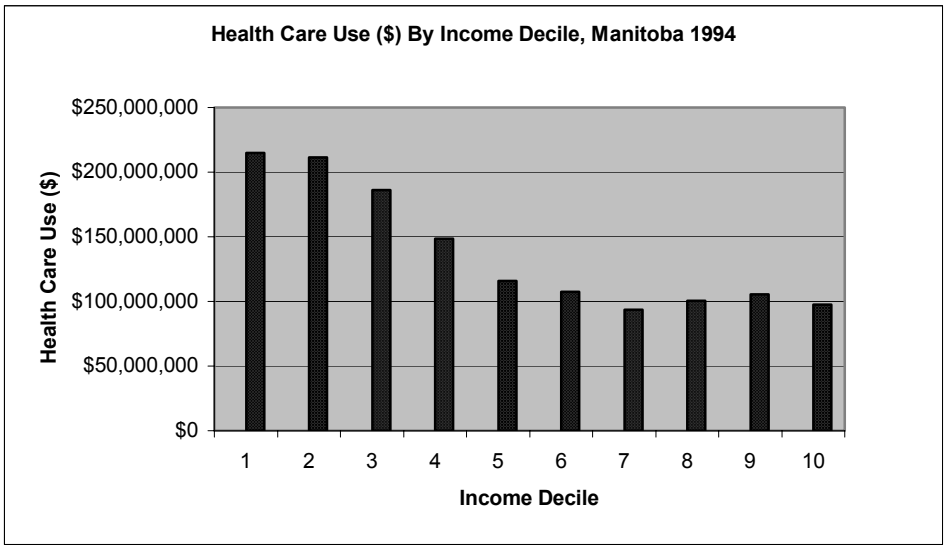

Figure 23: Dollar Value of Health Care Services Used, By Income Decile, Manitoba, 1994. Data from: Mustard, et al. (1998) [65]

Not surprisingly, the use of health care services is distributed across income groups in a roughly similar fashion to the social gradient in health status seen in previous sections, with people in lower income groups using more health services (each income decile has the

[65] Calculations by the author, based on data reported in: Mustard, C., Barer, M., Evans, R.G., Horne, J., Mayer, T., and Derksen, S. 1998. *Paying Taxes and Using Health Care Services: The Distributional Consequences of Tax Financed Universal Health Insurance in a Canadian Province*. Ottawa: CSLS Conference on the State of Living Standards and the Quality of Life in Canada.

same number of people in it). The lowest income decile ($0-$15,600 annual income) used services valued at $216 million in 1994 (representing 12.2% of all expenditures), while the top income decile ($86,200+) used health care services valued at $97 million (representing 5.5% of all expenditures).[67] Earlier in this report, it was acknowledged that some of the health status differences between people in different income groups could be attributed to 'reverse causation'. Some people, in other words, may become sick first, and unable to work, reducing their income. But previous studies have shown that only a small proportion (roughly 5%)[68] of income differences in health can be attributed to reverse causation. The majority of the relationship between income and health is attributable to the health effects of relative deprivation.

Nevertheless, in the Manitoba data, it is reasonable to estimate that the use of health services in the lower income groups is partly due to the effects of low income on health and partly due to the opposite effect: poor health on income. It is difficult to conclude with precision from these data, therefore, what the impact of low income is on health care costs. But if the gradient in health care consumed is similar to the gradient in health status, then it is possible to speculate that only a small proportion of income differences in health care utilization are attributable to sick people becoming poor.

After acknowledging this important qualification, the impact of income inequality on health care costs can be seen in a simple calculation. If all individuals in the bottom 5 income deciles (the least well-off half of the population) used the same amount of health care (measured in dollars) as the median, the Manitoba government would have reduced overall health care costs by 23.1%, or $319 million in 1994, on a total budget of $1.38 billion. Projected forwards to 1999 dollars, this would have represented a savings of $345 million. If the same calculation was performed on national data, a 23.1% savings in health care

[66] Mustard, C., Derksen, S., Berthelot, J-M. and Wolfson, M.C. 1999. Assessing ecologic proxies for household income: a comparison of household and neighbourhood level income measures in the study of population health status. *Health and Place*, 5(1999): 157-171.
[67] It is worth pointing out that 21.4% of all health care expenditures in Manitoba in 1994 went to institutionalized individuals (in psychiatric hospitals, long-term care homes, etc.).
[68] Wilkinson, R.G. 1996. *Unhealthy Societies: The Afflictions of Inequality.* London: Routledge. Page 59.

expenditures would have reduced total *public* spending on health care services in Canada by $12.5 billion in 1997.[69]

As mentioned above, there have been relatively few studies of the economic burden of illness created by income inequality.[70] Some evidence has been presented suggesting that income-related differences in costs associated with illness are substantial. The following section presents an extended example of the impacts of a particular set of conditions, mental illness, upon Canada's economy.

Economic Inequality and the Economic Burden of Mental Illness

To date there has been little research on the relationship between income inequality and mental health at the population level, but there are reasons to believe that there could be a strong connection, and that unequal societies may bear a substantial economic burden of mental illness. Professor George Davey-Smith, of the University of Bristol in the UK, argues that it is likely that "Inequality may make people miserable long before it kills them".[71] If Davey-Smith's argument is sound, then income inequality could be contributing to substantial economic costs due to mental illness.

The Business and Economic Roundtable for Mental Health[72], based in Toronto, has been studying the economic burden of illness created by mental health and the estimates are staggering. Consider the following estimates by the BECRMH:

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[69] Calculations by the author, based on data reported in: *Health Indicators 2000*. Ottawa: Canadian Institute for Health Information and Statistics Canada. www.cihi.ca

[70] A recent report acknowledged this lack of evidence and estimated that the costs of income-related differences in cardiovascular disease to be $4 billion annually. See: Raphael, D. 2001. *Inequality is Bad for Our Hearts: Why Low Income and Social Exclusion are Major Causes of Heart Disease in Canada.* Toronto: North York Heart Health Network.

[71] Davey-Smith, G. 1996. Income inequality and mortality: why are they related? *British Medical Journal*. 312:987-988

[72] Information on the BECRMH can be found at: http://www.gpcinternational.com/insights/roundtable.html

- depression afflicts one-in-ten Canadians at any given time and upwards of 20 per cent of the population at least once in their lives
- today, 20 per cent of the patients seeing their family doctor present symptoms of mental anxiety and low-grade depression
- BECRMH estimates that in a company of 1,000 employees, it is predictable that at any given time, 100 individuals are suffering depression. But only 25 of those will be diagnosed and, among those, only six will be properly treated
- according to a canvass of medical leaders by the BECRMH, "the number of people occupying hospital beds with undiagnosed addictions and mental health problems in Ontario alone may be as high as one-third of the total hospital patient population" (Bill Wilkerson, President of the BECRMH)
- over the next 20 years, depression will disable more people than AIDS, cancer and cardiovascular disease combined.
- estimates of the economic cost of mental disorders ranges from $8 billion a year in Canada to what former Finance Minister Michael Wilson, Honorary Chairman of the BECRMH, says may be twice that figure or 13.8 per cent of the net operating income of all business enterprise in Canada.
- mental health disorders are costing businesses in North America about $80 billion (US) annually in lost productivity. About two-thirds of that is related to depression. By comparison, at stake in the softwood lumber dispute is a marketplace estimated to be (in the US) $10 billion (Cdn).

These figures suggest the importance of designing policy to address the determinants of mental health and illness. Of course a good deal of serious mental illness, like schizophrenia, is believed to have a substantial genetic component, but many of the more common mental illnesses like minor depression and anxiety have a substantial environmental component. Given the estimates of the BECRMH, it seems crucial to the prosperity of our country and the health of Canadians that policies address the socio-economic determinants of mental health and well-being.

Job stress and economic pressures are well-known factors that increase the likelihood of mental illness. The Whitehall study, described in detail in Section A, has shown a

substantial social gradient in sickness absence amongst British civil servants. Lower-grade workers, in other words, have higher rates of sickness absence than higher-grade workers, and are more likely to have sickness absence periods that exceed seven days.[73] Recall that the people in the Whitehall study are all securely-employed office workers living in greater London, so the sickness absences are not likely to be the result of exposure to physical hazards. The findings of the Whitehall study and the estimates of the BECRMH underscore the need for policy to address the socio-economic determinants of mental health. This is further emphasized by Dr. Sharyn Salsberg Ezrin, a member of the Business and Economic Roundtable on Mental Health, who argues that: "the new economy depends on the mental performance of working people in every walk of life."

The emphasis placed on mental health in this section also has a connection to physical health. Recent medical evidence suggests that the body and the mind are much more closely linked than we are usually inclined to admit. A study of 3,000 individuals showed that people with pre-existing heart disease who were depressed were up to four times more likely to suffer a fatal heart attack than heart patients without psychological disorders.[74] The effect was greater in people who had no heart disease at the start of the study: they were four times more likely to die of a heart attack if they were seriously depressed, compared to people with neither heart nor psychological problems. The results of this study suggest that doctors will have to take depression as seriously as smoking and high cholesterol in cardiac patients. They also reinforce the importance of understanding the socio-economic determinants of mental health and well-being: mental illness may have physical consequences (for heart disease). Recall that cardiovascular disease is the leading cause of death and has the leading economic burden of illness in Canada.

Discussion

[73] North, F. and Syme, S.L. 1996. Psychosocial work environment and sickness absence among British civil servants: The Whitehall II Study. *American Journal of Public Health*. 86(3):332-340.
[74] Penninx, B.W. *et al*. 2001. Depression and cardiac mortality: results from a community-based longitudinal study. *Archives of General Psychiatry*. 58(3):221-227.

These arguments suggest that the loss of population health (or slowing of health gains) that may result from economic inequality in Canada is not economically neutral. There are substantial direct and indirect costs associated with both mental and physical illness, and there is preliminary evidence that such costs could be reduced by narrowing income differences and reducing the health impacts of inequality. It is true that a large proportion of health costs associated with economic inequality are borne directly by governments through expenditures on health and social services, but those services are funded by the taxes paid by individuals and corporations. It follows that it is not only poor people who stand to benefit from narrowing inequality and reducing the economic burden of illnesses in Canada. Moreover, there are substantial indirect costs associated with income-related differences in illness, mainly related to lost productivity, that are borne by business. As the Business and Economic Roundtable on Mental Health has shown, these indirect costs are very large, and they undermine national productivity and economic growth.

The evidence is very strong that individuals who have lower incomes have poorer health, and that it is people's poor economic circumstances that undermine their health, and not the other way around. This relationship has existed in the industrialized countries for over a century. A summary measure of income inequality, however, (the share of (1991) income held by the least well-off half of the population) did not show an association with average mortality in Canadian metropolitan areas, while in the U.S., the degree of inequality in the distribution of income is strongly associated with average population health. The results from the United States suggest that as income inequalities widen in Canada, our health will be compromised.

When faced with the Canada-U.S. paradox of population-level income inequality and health it is important not to lose sight of the fact that there still exists an underlying individual socio-economic gradient in health, with individuals of lower socio-economic status experiencing poorer health, at all levels of the social ladder in *both* countries. It follows that while aggregate inequality measures may not show an association with average population health, insofar widening inequalities undermine the socio-economic status of poorer Canadians, it undermines their health status as well.

An approach to policy based on prudence in the absence of proof would demand that policy levers be used to preserve our substantial health advantage. With all indications pointing to Canada's strength as a competitor in the international economy, it is important that Canadians be urged to think what must be done to maintain our standards of health and well-being. This demands that we pay careful attention to preserving and enhancing public policies that are believed to contribute to the country's superior health status.

SECTION E: POLICY IMPLICATIONS AND FORECAST FOR THE FUTURE

One of the defining features of the 1990s was the trend towards widening inequality in Canadian society. It is already well-established by numerous credible studies, that in the affluent countries of the world, individuals and households with lower income and/or lower educational attainment are likely to have poorer health, at every point in the social ladder.

More recently, research has investigated the relationship between income distribution and population health, and shown preliminary evidence that above a certain level of affluence, populations with a more unequal distribution of income have poorer average health status. This pattern is particularly evident and strong in the United States. American states and metropolitan areas with a more unequal distribution of income have higher death rates, even after adjusting for average income. Using some of the same data as American studies, a Canada-U.S. comparison published in the British Medical Journal suggested that at least until 1991, Canada enjoyed some protection from the ill effects of income inequality – there was no relationship between income inequality and mortality amongst Canadian provinces or Canadian cities. This report has argued that the Canada's system of income redistribution and endowment of public goods available to all Canadians has likely played a contributory role in protecting us from the health consequences of inequality.

But there is no justification for complacency about Canada's better inequality – health performance. Since 1991, the most recent data we have on income distribution (the U.S. only conducts a census every 10 years), both countries have witnessed widening inequalities in income and wealth. The pattern of widening inequalities seems to be continuing unabated. Moreover, even though aggregate measures of income inequality have not shown an association with average population health, within Canada there still exists an underlying individual socio-economic gradient in health, with individuals of lower socio-economic status experiencing poorer health, at all levels of the social ladder. It follows that while aggregate inequality measures may not show an association with average population health, the health of low-income Canadians is clearly undermined by their poor socio-economic status. It has been argued in this report that widening inequalities in Canadian

society may have already produced adverse health consequences for Canadians, as well as substantial economic costs. Moreover, failure to reverse current trends may impose further health and economic costs. These health and economic costs affect not only marginal groups in society - they have implications for us all.

If current trends are projected into the future, without corrective action, it is likely that the following dimensions of inequality will persist or worsen in the coming years:

- inequalities in income and wealth will widen
- residential segregation by income will worsen
- there will be an under-investment in public goods and human capital, and existing public goods will diminish in quality or become less accessible to the least well-off in society
- the efficiencies created by universal health care and education will be undermined
- in the name of cutting personal income taxes, regressive sources of revenue, such as user fees, premiums, and consumption taxes (e.g., sales taxes) will form a greater proportion of government revenues
- municipal downloading and amalgamation, coupled with Provincial government spending cutbacks will undermine public goods and increase inequalities

Some of these predictions have already been set in motion. The implementation of federal tax cuts and cuts in several provinces will likely mean that the distribution of income will become more unequal. These effects are layered upon reductions in welfare and unemployment insurance benefits (not to mention restricted eligibility) that were implemented in the 1990s in most jurisdictions. The virtual elimination of government-funded housing construction will put more pressure on the already tight housing market. Rental vacancy rates are dangerously low in major Canadian cities[75] and rental price and

[75] Hulchanski, D. 2001. *A Tale of Two Canadas: Howeowners Getting Richer, Renters Getting Poorer*. http://www.newsandevents.utoronto.ca/misc/Hulchanski.doc

starter-home purchase prices are very high relative to entry-level and unskilled wages. This means that low-income households will be out-bid for all but the most marginal housing, which is likely lead to increased segregation and homelessness. The downloading of a very large proportion of responsibility for public goods provision to the municipalities in Ontario has created considerable instability in, and uncertainty about, the province's endowment of public goods, which are believed to have attendant health benefits.

Taxes, Transfers, Inequality and Public Goods

This report has pointed to a fundamental difference between Canadian and U.S. societies, which may account for some of the difference between the two countries in the relationship between income inequality and population health. In the U.S., not only is the basket of public services available smaller, a larger proportion of public services are funded and delivered by municipal governments, relying on property taxes for revenues. The reliance on property taxes exacerbates inequalities in income between individual households, by helping to sort low-income households into municipal jurisdictions with a poor tax – service ratio, and higher-income households into municipalities with a much better tax – service ratio. The higher income households, after all, are the ones with the wider set of choices about where to live. This process of segregation by income is suspected to have consequences for health, well-being and competency, especially in terms of the development of children into adults.

While inequalities have widened at an alarming rate in the U.S., a similar but somewhat attenuated pattern has been observed in Canada. The reaction of many Canadians to this trend is that widening inequality is an unfortunate but inevitable consequence of our efforts to maintain our competitiveness in the world market. But in health terms, we need to be asking what we will do to stay ahead. What will ethos will guide us? Unlimited growth no matter what the cost, or a balanced approach to growth that includes investments in human capital? This report has shown that economic growth does not *necessarily* come at the

expense of equality of income. There is evidence, in fact, that severe inequality may undermine growth.

What approach do Canadians support? Many would have us believe, in this era of reduced government spending and tax cuts, that Canadians are relinquishing their values and embracing American myths of social mobility. This is simply false. Michael Adams, founder of The Environics Group, and author of two books on Canadian social values, reports that:

> "...in spite of the general retreat of governments, most Canadians continue to cling, however tenuously, to the principle of a kinder, gentler society. This stands in stark contrast to the social darwinistic ideology that is dominant in the Unites States. Theirs is a world where the fittest flourish while others languish."
>
> "Despite these fundamental differences, there are indications that Canadian politics are replicating some American – or rather, some international trends."[76]

While Canadians still believe that the quality of our social programs distinguishes us from the United States, a significant proportion of the population has come to question the price we pay for this benefit.

This report has argued that the value of those benefits has been grossly underestimated, allowing tax cuts and spending rollbacks to win favour. Tax cuts will deliver only a very small improvement in disposable incomes for most Canadians, at the expense of continuing crisis in public goods and services. It has been estimated that each Canadian household received, on average, over $16,000 worth of non-cash public services in 1998.[77] This is more than the total average household disposable income of the poorest fifth of society. Even for middle-class Canadians, these programs make up 25% or more of total consumption. And even the best-off Canadians benefit from knowing that their lifelong

[76] Adams. M. 1997. Sex in the Snow: Canadian Social Values at the End of the Millennium. Viking: Toronto.
[77] Canadian Auto Workers. 2000. *Tax cuts: Why not? A Discussion Paper*. http://www.caw.ca/whatwedo/research/taxcuts.cfm.

quality of living is depends on more than simply the cash they have in their pockets. This security seems even more valuable given the recent collapse of the high tech market in North America that now sees layoffs instead of the unlimited prosperity that had been predicted. It is already well established in the health sciences literature that unemployment has severe health costs for both individuals and populations.[78] In an analysis of the health costs of the last recession, Trent (1992) estimates that for "every 1% rise in the jobless rate, there is a 2% increase in the number of cardiac deaths, a 3% to 4% growth in infant mortality, a 4% to 5% rise in suicides and homicides, and a 5% to 6% jump in admission to psychiatric hospitals". McMurtry and Brown (1997) note the association between the low inflation policy of the Bank of Canada in the 1990s and the jobless rate, showing how economic policies may have indirect health impacts.

This report has argued that governments must reinvest in public programs. Failure to do so will come at the expense of Canada's stock of human capital and its health. By tolerating high levels of chronic poverty, especially child poverty, as well as unemployment and homelessness (all the consequences of widening inequalities), we are unwittingly eroding our stock of human capital, and our advantages in quality of life and health. Reinforcing the effects on human capital, Krahn and others note that in debate over anti-inflationary policy there is a casual attitude towards unemployment – a common casualty of low-inflation policies. The attitude towards unemployment underlying such policies, Krahn argues, usually takes "for granted that the worker will re-enter the labour market in the same state of physical and mental health as when he or she was laid off".[79] In current economic circumstances, it is widely agreed that human capital is a crucial asset, without which we will be less competitive in the world marketplace.

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[78] D'Arcy, C and Siddique, C. 1985. Health and Unemployment: Findings from a National Survey. *International Journal of Health Services Research.* 15(4):609-635.

Trent, B. 1992. Recession has taken more than an economic toll, physicians report. *CMAJ.* 147(5):741-744, 747-751.

McMurtry, R.Y. and Brown, A.D. 1997. The Bank of Canada as a determinant of health. *Social Indicators Research*. 40:179-187

[79] Krahn, H et al. 1985. The socio-psychological impact of unemployment in Edmonton*. Canadian Journal of Public Health.* 76(2):88-92.

What Government Policies Make a Difference?

One of the more challenging aspects of taking an approach to the study of health that focuses on questions like 'What makes some people healthy and others not?' or 'What makes some communities healthy and others not?' is that the policy implications are not confined to government ministries or departments of health. Rather, the analysis in this report, and others like it, have policy implications for numerous policy sectors, at all levels of government. This report has touched upon numerous policies that span all levels of government and a number of policy sectors, arguing in most cases that such policies can be adjusted to pay a health dividend and an economic dividend at the same time. In general, to preserve Canada's health advantage, it is important that public services work to improve the everyday living conditions of Canadians, especially people who are vulnerable.

But the multi-level, multi-sector nature of the relationship between economic inequality and population health makes it extremely difficult to develop an exhaustive list of the policy implications of this report. Instead, the following policy recommendations take the form of five 'public policy principles' that can and should be applied to a wide variety of more specific policies. Some specific policy options are offered as examples under each of the principles.

Recommendation #1: Invest in human capital

One of the consequences of large disparities in income in the United States, where the public sector offers much less to its citizens, is a systematic under-investment in human capital. This is particularly evident when one considers the elementary and secondary school system. The quality of education available to a given child depends very strongly on the income of that child's family. On the upper end of the spectrum, a given child's family may be able to afford private schools, giving them a clear advantage on top of the advantage they already have from living in a high socio-economic status family. But even within the public school system, there is a great deal of variation in the quality of the

schools from school district to school district, mainly due to the fact that a large majority of public school funding comes from local property taxes: wealthy school districts have a high tax base and good schools, poorer school districts have a low tax base and poor schools. Wealthier families are able to buy housing in neighbourhoods with good schools. Indeed, the quality of the schools is a central part of the residential decision-making process in the U.S. Of course it is a factor in Canadians' decision-making too, but the variability in school quality is much smaller in Canada. This means that irrespective of their family income, every child has a relatively equal chance at getting a good elementary and secondary education. Canada is known in the global economy for having a well-educated workforce,[80] and the equity built into the elementary and secondary school system is unquestionably a factor in this.

The strength of Canada's university system is also a competitive advantage on economic and health grounds. An undergraduate education has been relatively accessible to young adults from families across the socio-economic spectrum for a long time, but in recent years that access has been eroded by disinvestment in universities by provincial governments, resulting in unprecedented increases in tuition fees. A greater burden of the cost, therefore, is borne by students themselves, and this has resulted in stifling levels of student debt for many. Not only does this have an impact on those individuals carrying the debt, it also has an impact on the economy, as young people who are starting up their own households are more likely to delay the purchase of consumer durables like automobiles, appliances, etc.

It follows from this point that as inequalities in income widen, and tuition fees rise at a pace that far outstrips inflation, a growing number of individuals have a disincentive to invest in their own human capital. In other words, there are a growing number of people in, for example, the bottom 30% of the income distribution, who are unable to afford the cost of a university education. It is well established by previous research that wide disparities in

[80] KPMG Consulting. 2002. *Competitive Alternatives: Comparing Business Costs in North American, Europe and Japan.* G-7 2002 Edition. www.competitivealternatives.com

income provides a disincentive (and larger obstacle) for individuals to invest in their own human capital.

Finally, maybe the wisest investment that could be made in human capital is in children under the age of 5. It is now well established[81] that the period between birth and age 5 is a 'sensitive' period of brain development. The effects of positive stimuli in this period have lifelong developmental, social and health consequences. In other words, this is an opportune time for stimulating children in ways that help them optimize their emotional, social, cognitive, and behavioural development. Yet a vast number of children do not receive adequate or appropriate stimulation in early life. Some examples of policies that would address this issue, include starting elementary school at least one year earlier than the current standard, or the implementation of a national child care plan, accompanied by a massive effort to attract top-notch people to the *profession* of early child care and train them in the most advanced approaches to early child development. Additionally, policies that eased the financial burden on households with young children would be extremely valuable. Research has shown that parental stress is strongly associated with poor parent-child attachment, which is a very strong predictor of a child's future economic, social, emotional and health success.[82]

Investments in human capital are crucially important to the future economic success of this country. It is commonly predicted that there will be a severe shortage of skilled labour in the coming years. This, coupled with the need for as many labour force participants as possible to support pension and health care benefits for the aging baby boomers, underscores the need for investments in human capital in Canada. It is crucial that public policies be developed to deal with these issues immediately, because, for instance, the dividend from investments in early child development, although large, take 20-25 years to fully pay off.

[81] Keating, D. and Hertzman, C. (eds.) 1999. *Developmental Health and the Wealth of Nations*. New York: Guilford.

Recommendation #2: Improve working conditions and reduce unemployment

It is well-established by research that unemployment, under-employment, job insecurity and workplace stress are major risk factors for poor health. Canada's anti-inflation monetary policy of the 1990s contributed to a high rate of unemployment and over the same period there was an overall decline in real wages, job security and availability of full-time work. Much of this was branded as the need for a more 'flexible' labour force, but this flexibility served to substantially increase job instability and insecurity.[83]

It is common for governments to plead that they are powerless to do much about unemployment (despite celebrating their influence on job creation), yet policies like monetary policy are well-established as influential on unemployment.[84] A number of other policies could go a long way to increasing job security and blunting the effects of labour market instability. The EI (employment insurance) program, for example, has been running a substantial surplus for many years since the tightening of eligibility. It would be perfectly logical to restore benefits to their previous levels and actually pay out benefits to the people who are paying into the system.

A popular public policy platform in recent years has been to 'make work pay'. This principle, however, has been used as the justification for making welfare and social assistance less attractive and liveable, and only indirectly making work pay. Benefits on these programs have been cut by upwards of 20% in some provinces. It's true, therefore, that welfare has become less attractive, but at the same time, so has work. Recent legislation concerning overtime pay in Ontario allows hours to be aggregated over as long as a *four-week* period in the calculation of overtime. In other words, under the previous legislation, once a person exceeded 44 hours in *one* week, any extra hours they worked

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[82] *ibid.*

[83] Wallulis, J. 1998. *The New Insecurity: The End of the Standard Job and Family*. Albany: State University of New York Press.

[84] McMurtry, R.Y. and Brown, A.D. 1997. The Bank of Canada as a determinant of health. *Social Indicators Research*. 40:179-187.

were paid at overtime rate (time-and-a-half), but now it is possible for an averaging agreement of up to 4 weeks to be struck between an employer and its employees. Under a 4-week agreement, only after someone exceeds an *average* of 44 hours per week in a given 4-week period would they be eligible for overtime. This means that someone would only get paid time-and-a-half on the 177th hour they work in a 4-week period.[85] Clearly this policy undermines the principle of making work pay.

But there are policies that can be adopted which would make work pay. Minimum wage legislation is an obvious one. Another option is to re-structure the way that employment insurance (EI) and Canada Pension Plan (CPP) premiums are paid. Currently, there is an annual cap on the amount of CPP and EI premiums an individual pays. For CPP, the employee and the employer each contribute 4.7% of earnings to a maximum of $1,673.20 and the first $3,500 of income is exempt from premiums. Similarly for EI, employees pay 2.2% of earnings, to a maximum of $858.00. The maximum 'insurable' income for CPP is $39,100.00 per year and $39,000.00 for EI. The premiums, therefore, have a proportionately larger impact on the incomes of people earning less than $39,000 per year, because all earnings in excess of that amount are 'premium-free' (people who earn less than $3,500 annually also go 'premium-free'). If the exemption was raised (say, by double), this would make the first $7,000 of work pay more, and the lost revenue could be made up by raising the cap on contributions at the other end of the pay scale.

These are but some examples of how policy could be used to make work pay, reduce unemployment, increase job security, and reduce workplace stress. The report of the Business and Economic Roundtable on Mental Health described in Section D also makes clear the costs of inaction on such issues. Lost productivity due to undiagnosed and untreated mental illness from workplace stress is estimated at $80 billion (US), more than 8 times the value of the Canadian softwood lumber industry in the U.S. It seems that we may

[85] The *Employment Standards Act, 2000* (ESA) and its regulations came into force September 4, 2001. See: http://www.gov.on.ca/lab/esa/esa_e/gu_e_9.htm

not be able to afford *not* to do something about unemployment, work stress, job insecurity and job instability.

Recommendation #3: Enhance 'public goods' and invest in infrastructure to support a high quality of life for all Canadians

Investments in public goods and infrastructure are exactly that: investments. The strong Canadian economy and the high quality of life Canadians enjoy depend on investments in public goods and infrastructure. Roads, public transportation, communications networks and other components of the national infrastructure are crucial to the success of our economy. Community centres, schools, hospitals, and public recreation facilities are crucial components of the quality of life Canadians enjoy. Moreover, the availability of infrastructure and public goods, irrespective of an individual's income, is fundamental to good health and prosperity for all Canadians. When we invest, as a society, in public goods and fundamental infrastructure we create important ties that bind us to our neighbours and fellow citizens coast-to-coast.

Most importantly, however, public goods are fundamental to narrowing inequalities in the capacity to acquire resources for good health. Because Canada has such a strong system of public services and public goods, the negative effects of income inequality are somewhat blunted compared to that of the United States. In other words, it is because of our endowment of public goods, which are available to everyone, income is a somewhat weaker determinant of an individual's life chances in Canada compared to the U.S.,. So although while an individual's income is an incredibly important predictor of their health status, without the widespread availability of public goods, income-related differences in health status could be worse.

Many argue that our society cannot afford investments in infrastructure and public goods. Of course, without much of the infrastructure built in Canada over the last 150 years, our economy and our society would not be as strong it is now.

Recommendation #4: Prioritize 'progressive' sources of public finance and reduce dependence on 'regressive' sources of revenue

The income tax system in Canada is a 'progressive' system. The greater an individual's income, the more they pay in tax. The tax burden on the rich, therefore is disproportionately heavy. The pressure for tax cuts over the past several years, coupled with overall budgetary pressures, has meant that the relative proportion of total government revenues raised by progressive taxes has shrunk. User fees, consumption taxes, flat taxes, health care premiums, property taxes, co-payments and other 'regressive' tax instruments have increased in importance. These sources of revenue put a disproportionate tax burden on the poor. When the revenue mix shifts away from progressive sources to regressive sources, this amounts to a tax cut for the rich and a tax hike for the poor, relative to income.

For some government services, particularly those with some indirect public good for those people not directly receiving the service, it is sensible to charge user fees. Land development or building permits, for example, are services that confer a large individual benefit, but little public good. There is some public good to prudent land use management, of course, but the private good exceeds the public good in such an example (it is also unlikely that building permits are priced to reflect the full cost of providing the service). For other government services, the public good may exceed the private good, and it may also be desirable to have people of all income levels use the service. An example might be admission fees for the use of a public swimming pool. It is desirable to have people from all income levels use the service, because it will help to improve health and fitness for all and may, for example, keep youth productively occupied and out of trouble. These serve a public good as well as a private good for the individual receiving the service. Using regressive sources of revenue for such purposes does not serve the public good. It follows that instead of increasing user fees for public services, as governments are increasingly doing, they should be reducing or eliminating such fees, especially for services that promote health.

Health care premiums are another regressive source of revenue currently used in Alberta and B.C. and receiving attention on a national scale. In both provinces, very poor households are eligible for premium subsidies, which introduces a very small element of progressivity, but this only has a modest overall effect. Economist Jon Kesselman of the

University of British Columbia suggests more widespread use of provincial 'employer payroll taxes' as an efficient way of raise revenues for public services without compromising investment and employment.[86] Four provinces currently impose such taxes at a modest rate (under 4%) on very large firms and raise considerable revenue with little or no overall effect on job creation. Limiting the application of the tax to very large firms protects small business from undue tax hardship and means that a large proportion (upwards of 90%) of workers would be exempt. Provincial payroll taxes also have the added benefit of raising revenue from employees of the Federal government.

Recommendation #5: Strengthen programs and services which redistribute cash and non-cash benefits from wealthier households to poorer ones

These final three public policy principles are strongly inter-linked. One of the health advantages Canadians have is access to a wide variety of high-quality, health-enhancing services, facilities and programs, irrespective of our personal income. Universal health insurance and universal elementary and secondary education, funded by a progressive income tax system, have the indirect effect of transferring 'non-cash' benefits from wealthier households to poorer ones. The redistributive impact of these services is justified by the fact that they serve the public interest. A healthy and well-educated populous has benefits for all Canadians.

Another service which should be strengthened because of its redistributive impact is public transportation. A fast, efficient and practical public transportation system serves the public interest by making it possible for people across the social spectrum to travel widely and easily. This serves to increase employability, the capacity to donate volunteer labour, engage in health-promoting recreation, maintain social relationships, and so on. These are all important factors in the production of public health and should be encouraged. A public transportation system, it follows, serves the public good. It especially benefits low-income

[86] Kesselman, J. 2001. Payroll tax could take B.C. off fiscal collision course. *The Vancouver Sun*. October 21, 2001, p. A13.

households and youth, and appreciates the fact that to acquire private transportation (an automobile) requires a significant up-front investment that is not practical for many households.

Final comments

Canada enjoys a quality of life and a standard of health that is the envy of the world. We have on the whole, by world standards, safe streets free of violence, high standards of health and well-being, excellent employment standards, very good housing standards, and a rich endowment of recreational, cultural and social facilities and opportunities. These are the products of substantial investments in human, social and physical capital over a long period of time. As of 1991, our stock of public goods may have insulated us from possibly corrosive health effects of widening income inequalities. Those inequalities have continued to widen unabated, eroding investments in public goods, and undermining individuals' ability to invest in their own human capital, especially for individuals of lower socio-economic status. As a matter of prudence, it is important that Canadians support policies that protect and enhance the substantial stock of public goods we enjoy. Our very health and quality of life likely depends upon it.

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