Racialization and Health Inequities in Toronto

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About this Report:

A large number of international studies have found that members of racialized groups experience poorer health outcomes compared to members of non-racialized groups and that experiencing racial discrimination contributes to poor health outcomes. Canadian research has only recently begun to look at these issues. Greater understanding of racialization and health inequities in Toronto is important as almost half of the city's residents identify as members of a group that has been racialized.

Toronto Public Health examined Toronto-level data to explore racialization and health inequities. The analyses found health inequities for specific racialized groups on some of the outcomes examined, and that experiencing racial discrimination is associated with poorer health outcomes. The analysis also examined factors that contribute to racialized health inequities, including racial discrimination, socioeconomic status, access to health care, and health behaviours. The results showed that members of racialized groups were more likely to report experiencing racial discrimination and to report having lower socioeconomic status than the non-racialized group. Overall, the analysis did not find evidence of racialized differences in access to health care or that racialized groups were more likely to engage in negative health behaviours. However, other Canadian research finds that members of racialized groups have poorer access to quality health care than non-racialized groups.

The findings presented contribute to an emerging body of research on racialization and health inequities in Toronto. Better data and more research are needed. This report raises concerns about the health and well-being of racialized groups in Toronto. Action is needed to reduce racialized socioeconomic disparities, reduce the prevalence of racial discrimination, and address emerging evidence of racialized health inequities.

In addition to this technical report, there is a TPH staff report that summarizes *Racialization and Health Inequities in Toronto* and makes recommendations regarding action to better understand and address racialization and health inequities in Toronto. TPH also commissioned Ilene Hyman and Ron Wray to conduct a literature review on Canadian research on racialization and health inequalities. The findings of the literature review are presented in a report entitled *Health Inequalities and Racialized Groups: A Review of the Evidence*.

The staff report and technical report were presented to the Toronto Board of Health on November 4, 2013.

Copies of these reports can be found at: www.toronto.ca/health/reports.

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Executive Summary

Background
A substantial body of international health research has found that members of racialized groups experience poorer health outcomes compared to members of non-racialized groups. For example, research in the United States and United Kingdom has found higher infant mortality rates, and higher rates of fair or poor self-rated health, high blood pressure, and diabetes among racialized group members compared to non-racialized group members. There is also a substantial body of evidence demonstrating a relationship between experiencing racial discrimination and negative mental and physical health outcomes. In Canada, research has only recently begun to look at differential health outcomes between racialized and non-racialized groups, and exploration of the relationship between experiencing racial discrimination and health outcomes is virtually non-existent. A number of data related factors have contributed to the limited Canadian research on this topic.

Toronto's ethno-racial diversity makes understanding racialization and health inequities in the city an important topic for public health consideration. In 2006, almost half of the City's population identified themselves as a member of a group that has been racialized. Moreover, population projections demonstrate that the percentage of racialized group members will continue to increase.

This report follows two previous Toronto Public Health reports – *The Unequal City: Income and Health Inequalities in Toronto* and *The Global City: Newcomer Health in Toronto* – which examined the relationship between income and immigration and health outcomes. Both of these reports recommended that Toronto Public Health further investigate the health of racialized groups, as they are more likely to have low incomes and be immigrants than non-racialized group members.

Objectives
The objectives of this report are to increase understanding of the impact of racialization on health inequities in the Toronto context; to identify data and research gaps; and to inform service design and policy advocacy.

Scope
This report teases apart the effect of racialized group and racial discrimination from immigrant status and income. As such, it is not intended to be a comprehensive picture of the health of racialized groups in Toronto.

The report draws on international, Canadian, and Toronto literature and includes findings from Toronto Public Health's analyses of Toronto-level data from the 2006 long-form Census, the Canadian Community Health Survey (CCHS; 2005-2011), and the Neighbourhood Effects on Health and Well-Being (NEHW; 2009-2011) study.

In framing this report, conceptual models that explain the pathways that lead to racialized health disparities were considered. Institutional racism is viewed as the most basic cause of racialized health inequities; racism undermines health through a number of pathways. Therefore, as well as examining racialized disparities in health outcomes, the report presents analyses of the following possible explanatory factors: racial discrimination and other stressors, socioeconomic inequities, access to health care, and health behaviours.

Key Findings

Racialized Groups and Health Outcomes

The report presents analyses that examined whether there were racialized disparities across a number of health outcomes. This analysis was limited to indicators for which there was sufficient Toronto-level data that could be disaggregated by racialized group: self-rated health, overweight or obesity, pain or discomfort, high blood pressure, self-rated mental health, and depressive symptoms.

Self-Rated Health – There were no differences in self-rated health between racialized and non-racialized groups.

Overweight or Obesity – Compared to non-racialized group members, people who identified as East/Southeast Asian were less likely to report being overweight or obese. People who identified as Black were more likely to report being overweight or obese.

Pain or Discomfort – People who identified as Black were more likely to report pain or discomfort than the non-racialized group.

High Blood Pressure – People who identified as Black or Latin American/Multiple/Other were more likely to have high blood pressure compared to the non-racialized group.

Mental Health – There were no differences between racialized and non-racialized groups on self-rated mental health or depressive symptoms.

The findings regarding the relationship between racialized group and health outcomes showed racialized inequities for members of some racialized groups on a number of health outcomes, but did not find poorer health outcomes on other indicators. This is consistent with Canadian and international literature that does not show differences in all health outcomes between racialized and non-racialized groups. Canadian evidence on differences in mortality rates between racialized and non-racialized groups is limited to one study, which did not find an association between racialized group and age-standardized mortality rates. Racialization has not consistently been associated with poorer self-rated health. However, chronic diseases, including high blood pressure and diabetes have been found to be significantly higher among some racialized groups. There has been extremely limited Canadian research on the mental health outcomes of non-immigrant racialized group members and it would be premature to make any generalizations.

Racial Discrimination and Health Outcomes

The report presents findings on the relationship between experiencing racial discrimination and health outcomes in Toronto using NEHW study data. The specific indicators examined were self-rated health, high blood pressure, and depressive symptoms.

Self-Rated Health – People who reported experiencing racial discrimination were more likely to report fair or poor self-rated health compared to people who did not report experiencing racial discrimination. The likelihood of reporting fair or poor self-rated health increased with any report of racial discrimination, regardless of the frequency.

High Blood Pressure – There was no association between experiencing racial discrimination and high blood pressure.

Depressive Symptoms – People who reported experiencing racial discrimination were more likely to report depressive symptoms than people who did not report experiencing racial discrimination.

The deleterious relationship between experiencing racial discrimination and health outcomes described in the international literature was found in this analysis for self-rated health and depressive symptoms, but not for high blood pressure. Canadian quantitative evidence is too limited to make a comparison between the present study and other Canadian research. Qualitative research in Toronto and surrounding areas has found that racialized group members report experiencing racial discrimination and perceive that racism negatively affects their physical and mental health.

Pathways between Racism and Health Outcomes
A number of factors have been proposed to explain the existence of racialized health inequities. This analysis examined whether there were racialized disparities in experiences of racial discrimination and other stressors, socioeconomic status, access to health care, and health behaviours.

Racial Discrimination and Other Stressors – Racial discrimination, as well as other forms of stress, negatively affects health by triggering responses in the cardiovascular, immune and endocrine systems. This analysis examined data on self-reported experiences of racial discrimination in Toronto from the NEHW study. The results showed that 67 percent of racialized group members reported experiencing discrimination because of their race, ethnicity, or culture. This analysis provides further evidence of racial discrimination in Canada, which has been reported in other studies. Experiencing other forms of stress also contribute to racialized health inequities. The analyses explored life stress and work stress using NEHW and CCHS data. In the CCHS, no differences were found between racialized and non-racialized groups for life stress or work stress. However, analysis of NEHW data found that racialized group members were more likely to report a high level of life stress because they had lower incomes than non-racialized group members. Analysis of the NEHW data also found that racialized group members were more likely to report high work stress compared to non-racialized group members. The CCHS and NEHW studies assessed stress differently, which may account for the difference in findings. Analysis of NEHW data also found that people who reported experiencing racial discrimination were more likely to report high life stress and high work stress compared to those who reported never experiencing racial discrimination.

Socioeconomic Status – The impact of socioeconomic status on health has been well documented in literature on the social determinants of health. This is a particular concern for racialized group members, as there is a significant body of Canadian and Toronto-specific evidence showing that racialized group members have lower incomes and are more likely to live in poverty than non-racialized group members. Data from the 2006 long-form Census was analysed to examine education levels, incomes, poverty rates, and labour market characteristic for 13 racialized and non-racialized groups. The results showed that members of racialized groups had lower income levels than non-racialized group members. Poverty rates were also higher among all 12 racialized groups than the non-racialized group. The analysis found that income differentials could not be explained by differences in education level, which were comparable for racialized and non-racialized group members, or immigrant status. Differences were also found in a number of employment and labour market indicators between racialized and non-racialized group members.

Access to Health Care – International research has demonstrated that members of racialized groups experience systemic barriers in accessing health care and have health care quality concerns. Analysis of CCHS data found that people who identified as South/West Asian/Arab and East/Southeast Asian were more likely to report having a regular medical doctor than the non-racialized group. The analysis also

showed that racialized group members were less likely to have had a dental visit in the last 12 months because they had lower income levels than non-racialized group members. Studies examining other indicators of access to health care have found disparities, particularly that members of racialized groups experience lower patient satisfaction and have health care quality concerns.

Health Behaviours – Experiencing racial discrimination has been associated with engaging in unhealthy health behaviours in some international research. Analysis of CCHS data found that people who identified as South/West Asian/Arab or East/Southeast Asian were less likely to report being moderately active or active compared to the non-racialized group. No differences were found in fruit and vegetable consumption between racialized and non-racialized groups. The likelihood of exceeding the low-risk drinking guidelines or being a smoker was lower among all racialized groups compared to the non-racialized group. This finding is similar to a limited number of other studies that have examined racialized differences in health behaviours in Canada.

Discussion

In summary, the findings showed racialized inequities for members of some racialized groups on a number of health outcomes, but did not find poorer health outcomes on other indicators. This pattern is consistent with Canadian and international literature that does not show health inequities for all racialized groups on all health outcomes. Experiencing racial discrimination was associated with poorer health outcomes for self-rated health and depressive symptoms, but not for high blood pressure. The analyses demonstrated that racialized group members have worse outcomes than members of non-racialized groups on a number of factors known to contribute to poorer health outcomes, specifically racial discrimination and other stressors, and socioeconomic status.

Existing Canadian data do not allow for a comprehensive or conclusive exploration of racialization and health given that few data sources collect information on racialized group and fewer still collect information about people's experiences of racial discrimination. Canadian Vital Statistics databases, disease registries, and administrative data need to include a measure of racialized group to enable analysis of racialized disparities across a broader array of disease outcomes.

A number of areas for future research emerged from this exploration of racialization and health inequities. Further research on racism in Toronto and Canada is needed. A second area for future Canadian research is to tease apart the way in which the impact of racialization on health interacts with other forms of marginalization and varies by sex, age, immigrant status, and income. A third area for future Canadian research is to incorporate a life course perspective enabling an examination of experiences of racial discrimination and their impact on health outcomes over time.

Despite data limitations and the early stage of research knowledge on racialization and health inequities, the data presented in this report raises substantial concerns about racialized disparities in the health and well-being of the population of Toronto. While better data and more research are needed to provide a more comprehensive understanding of racialization and health inequities, what is known warrants action to reduce the prevalence of racism, reduce racialized socioeconomic disparities, and address emerging evidence of racialized health inequities.

Introduction

Toronto is one of the most ethno-racially diverse cities in the world and diversity in the city is projected to increase. An extensive body of international research has found evidence of racialized health inequities and that racism contributes to poor health outcomes. In Canada, research on the health of racialized groups is limited. Existing research has shown some evidence of racialized health inequities, particularly in diabetes and high blood pressure rates. The substantial international and emerging Canadian research, as well as the changing ethno-racial, cultural, and socioeconomic composition of Toronto, makes it important to explore racialization and health inequities in the Toronto context.

In 2008, Toronto Public Health (TPH) released the report *The Unequal City: Income and Health Inequalities in Toronto*, which demonstrated a clear link between income and health outcomes. More recently, TPH and Access Alliance Multicultural Health and Community Services released the report *The Global City: Newcomer Health in Toronto*. The findings of these reports are particularly relevant for members of racialized groups, as they are more likely to live in poverty and make up a substantial proportion of newcomers to Canada. Both reports recommended that Toronto Public Health further investigate the impact of racialization on health in the city.

Key Concepts & Definitions

Race is a "socially constructed way of judging, classifying and creating difference among people" on the basis of physical features such as skin colour (Ontario Human Rights Commission, 2005).

Racialization is "the process by which societies construct races as real, different and unequal in ways that matter to economic, political and social life" (Ontario Human Rights Commission, 2005).

Racism is "an ideology that either directly or indirectly asserts that one group is inherently superior to others." (Ontario Human Rights Commission, 2005).

The following key concepts and definitions guide the exploration of racialization and health in this report:

Race is a "socially constructed way of judging, classifying and creating difference among people" on the basis of physical features such as skin colour and hair texture. "Despite the fact that there are no biological 'races,' the social construction of race is a powerful force with real consequences for individuals" (Ontario Human Rights Commission, 2005).

Racialization is "the process by which societies construct races as real, different and unequal in ways that matter to economic, political and social life" (Ontario Human Rights Commission, 2005).

Racialized groups "can be understood as non-dominant ethno-racial communities who, through the process of racialization, experience race as a key factor in their identity and experience of inequality" (Galabuzi, 2006).

Racism is "an ideology that either directly or indirectly asserts that one group is inherently superior to others. It can be openly displayed in racial jokes and slurs or hate crimes but it can be more deeply rooted in attitudes, values and stereotypical beliefs. In some cases, these are unconsciously held and have become deeply embedded in systems and institutions that have evolved over time. Racism operates at a number of levels" (Ontario Human Rights Commission, 2005).

Institutional racism refers to social processes, policies, laws, and institutions that "tolerate, reproduce, and perpetuate judgements about racial categories and produce inequality in access to life opportunities and treatment" (Galabuzi, 2006).

Racial discrimination is "any distinction, conduct or action, whether intentional or not, but based on a person's race, which has the effect of imposing burdens on an individual or group, not imposed upon others or which withholds or limits access to benefits available to other members of society" (Ontario Human Rights Commission, 2005).

Internalised racism "refers to the acceptance of negative sociocultural beliefs about the intrinsic worth of one's own racial group" (Chae et al., 2011).

Health inequity refers to "differences which are unnecessary and avoidable but, in addition, are also considered unfair and unjust." (Whitehead, 1990).

Several researchers have proposed conceptual models that explain the basic and intermediary causes of racialized health inequities (Williams, 1997; Krieger, 2011; Williams & Mohammed, 2013). The most basic cause of racialized health inequities is racism, which is a social determinant of health. Racism, specifically institutional racism, leads to racialized health inequities through a number of pathways, four of which are elaborated in this report. First, racism negatively impacts health through stress, including the stress of racial discrimination. Second, racism limits socioeconomic opportunities. Third, racism limits access to societal resources, including health care. Finally, individuals may cope with racism through engaging in unhealthy health behaviours. Further details about the pathways are described in the relevant sections below.

There is evidence of institutional racism in Canada. The Ontario Human Rights Commission (2005) has described:

> *It is all too easy for those who do not experience it to deny the reality of racism. This is counterproductive and damaging to our social fabric. Racial discrimination and racism must be acknowledged as a pervasive and continuing reality.*

In Canada, racism has been documented in the country's institutions, policies, and "normal ways of doing things." In Canada, racism can be observed in racialized differences in employment, housing, education, policing, the justice system, immigration, and the media (Beck, Reitz, & Weiner, 2002; Galabuzi, 2006; Henry & Tator, 2009; Oreopoulos, 2009). For example, institutional racism in policing and the justice system are apparent in racial profiling and the overrepresentation of racialized groups in Canadian prisons (Ontario Human Rights Commission, 2003; African Canadian Legal Clinic, 2011) and media analyses have revealed that members of racialized groups are underrepresented in the media and presented in stereotyped ways when they do appear (Henry & Tator, 2000).

This report draws on international, Canadian, and Toronto literature and includes findings from Toronto Public Health's analyses of Toronto-level data from the Census, Canadian Community Health Survey (CCHS), and Neighbourhood Effects on Health and Well-Being (NEHW) Study. Appendix A contains details of data sources, data limitations, and analytic methods. Data tables describing the results of the CCHS and NEHW study analyses can be found at: www.toronto.ca/health/reports.

The availability of Canadian literature and data, as well as the scope of this report, meant that not all aspects of racialization and health inequities, as have been documented in international research, could be explored. What is presented is a preliminary exploration of racialized health inequities in Toronto.

This report is not intended to be a comprehensive picture of the health of racialized groups in Toronto. The analyses presented in the report tease apart racialized group or racial discrimination from other factors such as sex, immigrant status, and socioeconomic status, which also influence health. The objectives in writing this report are to increase understanding of the impact of racialization on health inequities in the Toronto context; to identify data and research gaps; and to inform service design and policy advocacy.

This report does not include an examination of the health of Aboriginal people. Aboriginal people's status as the indigenous people of Canada as well as the historical and contemporary injustices they have experienced as a result of racism and colonization make their situation unique. Toronto Public Health is committed to working with Aboriginal communities to understand and address the health inequities they experience. Currently, TPH is a partner in a Canadian Institutes of Health Research (CIHR) funded project exploring the health of Aboriginal people in Toronto.

The first section of the report provides a socio-demographic portrait of racialized groups in Toronto. Section two presents findings of the analyses of differences in health outcomes by racialized group. The third section considers the relationship between experiencing racial discrimination and health outcomes. Section four examines factors identified as intermediary pathways between racism and racialized health inequities; specifically, experiences of racial discrimination and other stressors, racialized inequities in socioeconomic status, access to health care, and health behaviours. The Toronto-specific data findings are contextualized with additional information on the pathways and relevant Canadian literature.

A Demographic Portrait of Racialized Groups in Toronto

Toronto is the most diverse city in Canada. Almost half (1,162,635 people; 47%) of the City's population identified as a racialized group member in 2006. This was an 11 percent increase from 2001 when 43 percent of the population was a racialized group member and a 32 percent increase from 1996. Moreover, population projections demonstrate that the percentage of racialized group members will continue to increase.

Changing immigration patterns have altered the ethno-racial makeup of Toronto. Prior to the 1970s, immigrants to Canada primarily came from Europe. Today, members of racialized groups are making up a greater proportion of new immigrants. Among newcomers arriving in Toronto between 2001 and 2006, 81 percent identified themselves as a member of a group that is racialized.

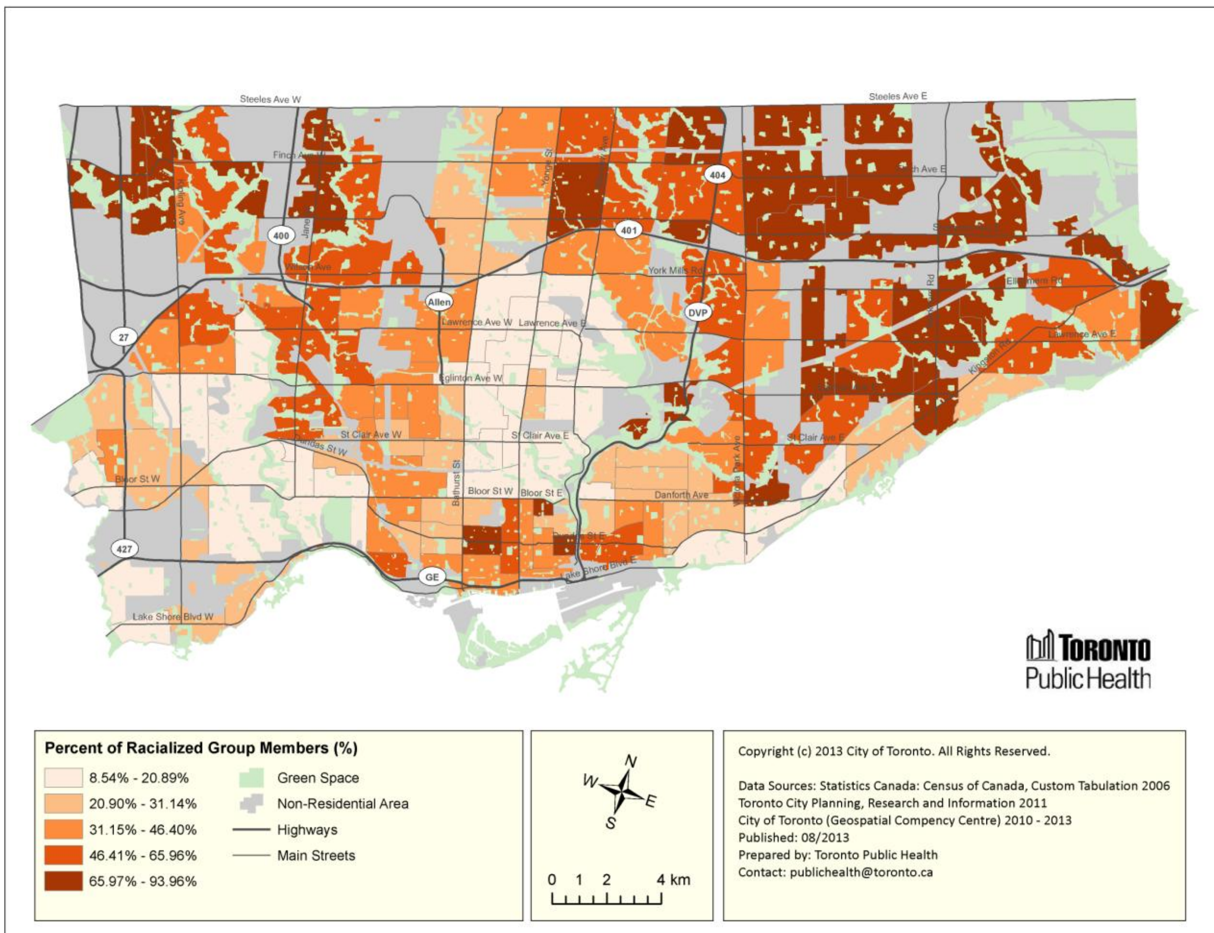
In 2006, 50 percent of racialized group members in Toronto were either South Asian (26%) or Chinese (24%), an additional 18 percent were Black, nine percent were Filipino, and six percent were Latin American. Between 2001 and 2006, Latin American was the fastest growing racialized group (Social Policy Analysis and Research Section, 2007; Toronto Public Health and Access Alliance Multicultural Health and Community Services, 2011).

On average, racialized group members were younger than non-racialized group members in 2006. Thirty-six percent of racialized group members were under 25 years of age compared to 23 percent of non-racialized group members. Only 16 percent of racialized group members were aged 55 or older compared to 32 percent of non-racialized group members. Sex distribution was similar between racialized and non-racialized group members.

In 2006, racialized group members were twice as likely as non-racialized group members to have a first language other than English or French (64% versus 32%, respectively). The three most common first languages among racialized group members were a Chinese language (32%), Tamil, and Tagalog (8% each). Eight percent of racialized group members reported that they cannot converse in English or French (Social Policy Analysis and Research Section, 2008; Ontario Trillium Foundation, 2010; Statistics Canada, 2010).

Racialized and non-racialized group members are not proportionally distributed throughout Toronto (Figure 1). In 2006, almost half (47%) of racialized group members lived in neighbourhoods where they made up two-thirds or more of the population. These neighbourhoods are concentrated in the inner-suburbs in the north- and east-ends of the city.

Figure 1: Percent of Racialized Group Members by Toronto Neighbourhoods, 2006



Racialized Groups and Health Outcomes

Research in the US, United Kingdom (UK) and elsewhere has found racialized groups experience poorer health outcomes compared to non-racialized groups. In the UK, research generally examines disparities in health by ethnicity and finds that ethnic minorities experience higher infant mortality rates, lower self-rated health, and higher rates of cardiovascular disease and diabetes compared to the White population. In the UK, poor health outcomes have consistently been noted for Bangladeshi, Pakistani, and Black-

Caribbean people (Nazroo, 2003; Sproston & Mindell, 2006; Smith, Kelly, & Nazroo, 2009; Gray et al., 2009).

In the US, research has traditionally focussed on health disparities between Black and White group members. Data illustrates racialized disparities in health, showing worse health outcomes for Black Americans compared to White Americans, including lower life expectancy, higher infant mortality rates, and higher rates of fair or poor self-rated health, high blood pressure, diabetes, and cancer (Smedley et al., 2003; Braveman et al., 2010; Hummer & Chinn, 2011; Olshansky et al., 2012; National Center for Health Statistics, 2012). Moreover, research shows that there are racialized differences in the age of onset, severity, and progression of disease. Black Americans tend to get diseases at earlier ages, the diseases are more severe, and progress in seriousness more quickly than White Americans (Williams, 2012). More recent research expanded the scope of study beyond Black and White health disparities to explore the health status of other racialized groups. Patterns of poor health have also been found for certain health outcomes for segments of the Hispanic and Asian populations (Williams & Mohammed, 2013).

Hyman and Wray's (2013) systematic review of the Canadian literature on racialization and health inequalities, commissioned by Toronto Public Health, noted that examination of racialization and health inequalities in Canada is in its infancy (see also Patychuk, 2011; Nestel, 2012). Their review also noted that Canadian research on racialized health inequalities emerged from research on immigrant health and that the effects of racialization and immigration on health need to be teased apart, as not all immigrants to Canada are members of racialized groups and not all members of racialized groups are immigrants. Differentiating these factors is important in light of significant research on the "healthy immigrant effect," which may confound research on racialization and health as recent immigrants to Canada disproportionately belong to racialized groups and are on average healthier than the Canadian-born population. Globally and locally, research has demonstrated that recent immigrants have better health than the native born population, but that this health advantage diminishes over time (McDonald & Kennedy, 2004; Newbold, 2005; Kennedy, McDonald, & Biddle, 2006; Toronto Public Health and Access Alliance Multicultural Health and Community Services, 2011).

A number of data related factors have contributed to the limited Canadian research on racialization and health. Currently, information on racialized group is not collected through Vital Statistics databases, which contain records of births and deaths, or administrative databases. Thus, a range of health outcomes cannot be assessed without linking data from multiple data sources. Furthermore, there is no longitudinal data with which to explore changes over time in racialization and health inequities. The majority of research in Canada examining racial disparities in health has used the CCHS, which provides self-reported data on a range of health topics and asks respondents to self-identify their racialized group.

The Canadian research that has been conducted demonstrates some evidence of racialized health inequities. Evidence on differences in mortality rates between racialized and non-racialized groups are limited to one study, which did not find an association between racialized group and age-standardized mortality rates. Racialization has not consistently been associated with poorer self-rated health. However, chronic diseases, including high blood pressure and diabetes have been found to be more prevalent among some racialized groups. There has been extremely limited research on the mental health outcomes of non-immigrant racialized group members and it would be premature to make any generalizations (Hyman & Wray, 2013).

To examine differences in health outcomes for racialized and non-racialized groups in Toronto, data from the CCHS and NEHW survey were analysed. The specific indicators examined were self-rated health, overweight or obesity, pain or discomfort, high blood pressure, self-rated mental health, and depressive

symptoms. This analysis was limited to indicators for which there was sufficient Toronto-level data that could be disaggregated by racialized group. The analyses could not examine mortality and diabetes in Toronto, but information on these outcomes from other Canadian research is presented.

Self-Rated Health

Analysis of CCHS data found that people who identified as Latin American/Multiple/Other reported poorer self-rated health than the non-racialized group, after adjusting for age, sex, and immigrant status. However, after adjusting for income, no differences in self-rated health remained between racialized and non-racialized groups.

Research examining self-rated health status in Canada has produced little or no evidence of differences between racialized and non-racialized groups, which is consistent with Toronto Public Health's findings. Wu and Schimmele (2005) used data from the 1996/1997 National Population Health Survey to examine the impact of racialized group on self-rated health status. They adjusted for socioeconomic status (family income, low income, and educational attainment) and health risk behaviours (physical inactivity, obesity, alcohol use, and tobacco use). They found that the self-rated health status of people who identified as Chinese, South Asian, Other Asian, West Asian or Arab was comparable to the sample average and that people who identified as Black had better self-rated health than the sample average. People who identified as French or English White were also found to have better self-rated health than the sample average. A similar analysis was conducted by Kobayashi, Prus, & Lin (2008) using data from the 2000/2001 Canadian Community Health Survey and stratifying the sample into Canadian and foreign born groups. In the Canadian born group, they found that people who identified as Chinese or Black had better self-rated health compared to the White group, whereas in the foreign born group, people who identified as West Asian/Arab had worse self-rated health compared to the White group.

Veenstra (2009) examined self-rated health using data from the 2003 Canadian Community Health Survey. The study found that people who identified as Chinese had higher odds of fair or poor self-rated health than the White group after adjusting for socioeconomic (education and income) and immigrant status. People who identified as Black, Filipino, Latin American, or South Asian had comparable self-rated health to the White group. In a study comparing the health of Canadian-born Black and White individuals using pooled data from four cycles of the Canadian Community Health Survey (2003-2008), LeBrun and LaVeist (2011) did not find any differences in self-rated health by racialized group after adjusting for income. Due to limited sample size, some studies aggregate different racialized groups and compare them to the White/non-racialized group. Siddiqi and Nguyen (2010) analysed data from the 2002-2003 Joint Canada-USA Survey of Health. Adjusting for socioeconomic (household income and education) and immigrant status, they found comparable levels of self-rated health between racialized and non-racialized groups.

Veenstra (2011) examined self-perceived and socially-assigned perceptions of racialized identity and the effect of these on health outcomes. He also looked at the effect of "colourism," whereby darker-skinned people tend to experience more discrimination than lighter-skinned people within the same racialized group. The analysis used data from a telephone survey of 1595 adults living in Toronto and Vancouver. After adjusting for socioeconomic (income and education) and immigrant status, Veenstra found that people who identified as Asian reported higher odds of good, fair, or poor self-rated health than the White reference group. Veenstra also found a health disadvantage for darker skinned Black people compared to the White reference group for good, fair, or poor self-rated health. Darker skinned Black people were also more likely to report good, fair, or poor self-rated health than lighter skinned Black people.

Research on the healthy immigrant effect has demonstrated that the health of immigrants deteriorates in the years following their arrival in Canada. However, differences in rates of health deteriorations have been observed between racialized and non-racialized immigrant groups. De Maio and Kemp (2010) examined a cohort of immigrants using data from the Longitudinal Survey of Immigrants in Canada. Adjusting for socioeconomic status, they found that racialized immigrants were more likely than non-racialized immigrants to report declines in self-rated health over the four-year study period. Kim et al. (2013), analysing the same data, examined men and women from specific racialized immigrant groups. They found that West Asian and Chinese men, and Arab/African, South Asian, and Chinese women experienced declines in self-rated health over the study period. No declines in self-rated health were found for European men and women or men and women from other racialized groups.

Overweight or Obesity

Analysis of CCHS data found that compared to the non-racialized group, people who identified as East/Southeast Asian were less likely to be overweight or obese whereas people who identified as Black were more likely to be overweight or obese. No association was found for other racialized groups.

These findings are similar to other Canadian studies. Liu et al. (2010) pooled data from the 2001, 2003, and 2005 Canadian Community Health Survey to determine if risk factors for cardiovascular disease differed between racialized and non-racialized groups after adjusting for socioeconomic (household income and education) and immigrant status. They found that people who identified as Chinese, Japanese or Korean, South Asian, Filipino or Southeast Asian were less likely to be obese, people who identified as Black were more likely to be obese, and there were no differences between people who identified as Latin, Arab or West Asian, or Others and the White reference group. Chiu et al. (2010) examined several health related behaviours in a study looking at cardiovascular risk factors in four groups of men and women (White, South Asian, Chinese, and Black). They pooled Ontario data from the 1996 National Population Health Survey and the 2001, 2003, 2005, and 2007 Canadian Community Health Survey. They found that South Asian and Chinese men and women and Black men were less likely than the sample average to be obese, and Black women were more likely to be obese. White men and women were consistent with the sample average.

Pain or Discomfort

Analysis of CCHS data found that people who identified as Black were more likely to report pain or discomfort than the non-racialized group. No association was found for the other racialized groups.

High Blood Pressure

Analysis of CCHS data found people who identified as Black or Latin American/Multiple/Other were more likely to report high blood pressure compared to the non-racialized group. No association was found for the other racialized groups.

Canadian studies have reported differences between racialized and non-racialized groups in the likelihood of having high blood pressure. Leenan et al. (2008) examined the prevalence of high blood pressure in Ontario using data from the 2006 Ontario Survey on the Prevalence and Control of Hypertension. They did not adjust for socioeconomic or immigrant status. They found that people who identified as Black or South Asian were more likely to have high blood pressure than the White group. They did not find any difference between people who identified as East Asian and people who identified as White. Liu et al.'s (2010) study found higher odds of high blood pressure among Filipino and Southeast Asian, and Black people when compared to the White group. No difference was found for those who identified as Chinese,

Japanese or Korean, South Asian, Latin, Arab or West Asian, or Other when compared to the White group. Chiu et al. (2010) found that South Asian and Black people had higher rates of high blood pressure than the sample average. Rates for White and Chinese people were consistent with the sample average. Veentra's (2009; 2011) found higher odds of high blood pressure for people who identified as Black when compared to the White group. Other groups had comparable odds of high blood pressure as the White reference group. LeBrun and LaVeist's (2011) study also looked at high blood pressure and found that people who identified as White and Black had a similar likelihood of high blood pressure after adjusting for socioeconomic status.

Mental Health

Data from the CCHS and NEHW surveys were used to examine self-rated mental health and depressive symptoms. Analysis of CCHS data found no differences in self-rated mental health between racialized and non-racialized group members. Analysis of NEHW data found no differences in depressive symptoms between racialized and non-racialized group members.

Summarizing the literature on mental health, Hyman and Wray's (2013) review concluded that there is "a near absence of Canadian empirical research on Canadian rates of psychiatric diagnoses for racialized groups in Canada." This echoes a literature review completed for the Mental Health Commission of Canada on mental illness and suicide in immigrant, refugee, ethnocultural, and racialized groups in Canada, which found little research on non-immigrant racialized groups (Hansson et al., 2012).

Wu et al. (2003) used data from the 1996/1997 National Population Health Study to examine rates of depression in racialized and non-racialized groups. They found that people with multiple racial identities had more depressive symptoms than the White/English group, and people who identified as Chinese or East and Southeast Asian had fewer depressive symptoms than the White/English group. People who identified as South Asian, Arabic and West Asian, or Latin American did not differ from the English/White group. These results held after adjusting for socioeconomic status and social support, suggesting that these factors do not explain the noted variation.

Veenstra (2011) found that people who identified as Asian reported higher odds of good, fair, or poor self-rated mental health than the White group. There were no differences between the other groups and White reference group for self-rated mental health. No differences were found in the odds of depressive symptoms between the racialized groups and White reference group. Veenstra also found a health disadvantage for darker skinned Black individuals compared to the White reference group for depressive symptoms. Veenstra (2011) measured the impact of the difference between respondents expressed racial identity (the racial identity with which a person identifies) and reflected racial identity (the racial identity that one thinks others ascribe to them). Respondents who sense that others perceive a different racial identity than the one they identify with, or "mismatch", were more likely to report good, fair, or poor self-rated mental health than people whose expressed and reflected racial identities were the same. Veenstra argues that people experience stress when racial identity is assigned by others rather than self-identified.

De Maio and Kemp's (2010) longitudinal study of immigrants did not find any difference in the deterioration of self-rated mental health between racialized and non-racialized immigrants after adjusting for income.

Diabetes

This analysis could not examine Toronto-level data on diabetes despite pooling multiple survey years and aggregating some racialized groups because of the small sample size of the CCHS. However, Canadian

studies have consistently found higher diabetes rates among racialized than non-racialized group members. Liu et al. (2010) found higher odds of diabetes among people who identified as South Asian, Filipino or Southeast Asian, Black, or Other when compared to the White group. No differences were found between people who identified as Chinese, Japanese or Korean, Latin, or Arab or West Asian and the White group. A second study found higher prevalence rates of diabetes among people who identified as South Asian or Black when compared to the White group. No differences were found in the prevalence rates of diabetes among Chinese, Arab/West Asian, Filipino, Southeast Asian, and White groups (Shah, 2008).

Chiu et al. (2010) found that people who identified as South Asian or Black were more likely than the sample average to have diabetes. For the White group, the prevalence of diabetes was lower than the sample average and for people who identified as Chinese the prevalence was consistent with the sample average. In a second study, Chiu et al. (2011) linked Ontario data from the 1996 National Population Health Survey and the 2001, 2003, and 2005 Canadian Community Health Survey to health-administrative databases. They explored the rate and age of diagnosis of diabetes over a 12.8 year follow-up period among South Asian, Chinese, Black, and White individuals in Ontario. After adjusting for socioeconomic (household income adequacy and highest level of education in the household) and immigrant status, as well as BMI, people who identified as South Asian, Chinese, and Black had higher rates of diabetes than the White group. Moreover, the average age of diabetes diagnosis was younger. The median age of diagnosis was 49 years among South Asian, 55 years among Chinese, 57 years among Black, and 58 years among White individuals.

Veentra's (2009) study also examined diabetes and found that the odds of reporting diabetes were higher for people who identified as South Asian, Black, or Filipino when compared to the White group. The odds for Chinese and Latin American individuals were similar to those who identified as White. The difference was not explained by socioeconomic or immigrants status. In contrast, LeBrun and LaVeist's (2011) work on Black and White health disparities found no differences between people who identified as Black and White in their odds of diabetes after adjusting for socioeconomic status.

Mortality

This analysis could not examine Toronto-level data on racialized group and mortality. Hyman and Wray (2013) identified only one Canadian study that explored racialized differences in mortality. Wilkens et al. (2008) linked socio-demographic data from the Census to death records and followed two million Canadians from 1991 to 2001. They found that all racialized groups had lower age-standardized mortality rates than White Canadians. They hypothesized that this health advantage may be explained by the healthy immigrant effect.

Summary: Racialized Groups and Health Outcomes

Analysis of CCHS data found poorer health outcomes for some racialized group members compared to non-racialized group members on three indicators:

- overweight or obesity (people who identified as Black)
- pain or discomfort (people who identified as Black)
- high blood pressure (people who identified as Black or Latin American/Multiple ethno-racial identities/Other)

Analysis of CCHS data found a better health outcome for members of one racialized group compared to non-racialized group members on one indicator:

- overweight or obesity (people who identified as East/Southeast Asian)

Analysis of the CCHS and NEHW data found no differences between racialized and non-racialized group members on three indicators:

- self-rated health
- self-rated mental health
- depressive symptoms

Research in the US and UK has found racialized groups experience poorer health outcomes compared to non-racialized groups, including, higher infant mortality rates, and higher rates of fair or poor self-rated health, high blood pressure, and diabetes. Canadian research on the topic is more limited, but has consistently found that chronic diseases, including high blood pressure and diabetes, are more prevalent among some racialized groups.

Racial Discrimination and Health Outcomes

Research in the field of racialized health inequities is increasingly examining the relationship between experiencing racial discrimination and negative mental and physical health outcomes with the strongest evidence reported for poor mental health outcomes. Specifically, studies have found that experiencing racial discrimination is associated with poorer self-rated health, high blood pressure, giving birth to lower-birth-weight infants, depression, and anxiety (Williams, Neighbors, & Jackson, 2003; Paradies, 2006a; Pascoe & Richman, 2009).

In Canada, the lack of information on experiences of racial discrimination in the majority of datasets, including the CCHS, means that there is very little information on the impact of racial discrimination on health outcomes in Canada. The Public Health Agency of Canada is seeking to improve data infrastructure to support the measurement of discrimination in the Canadian context. In collaboration with Statistics Canada they piloted a revised version of the Everyday Discrimination Scale (Williams et al., 1997) in a CCHS Rapid Response Module. Data were collected from approximately 20,000 respondents between July and October, 2013 (Cook, 2009; Noh et al., 2011; PHAC, personal communication, 2013).

This analysis examined the relationship between racial discrimination and health outcomes in the Toronto context by analysing NEHW data on self-rated health, high blood pressure, and depressive symptoms.

Self-Rated Health

Analysis of NEHW data found that people who reported experiencing racial discrimination had poorer self-rated health than those who did not report experiencing racial discrimination. The likelihood of

reporting poorer self-rated health increased with any experience of racial discrimination, regardless of the frequency.

Canadian quantitative research examining the relationship between experiencing racial discrimination and poor health outcomes is limited. De Maio and Kemp (2010) examined the impact of experiencing discrimination on declines in self-rated health among a cohort of immigrants to Canada. They found that immigrants who experienced discrimination were more likely to report deteriorations in self-rated health.

High Blood Pressure

Analysis of NEHW data found no association between experiencing racial discrimination and high blood pressure.

Mental Health

Analysis of NEHW data found that experiencing racial discrimination was associated with depressive symptoms. People who reported experiencing racial discrimination were more likely to report depressive symptoms compared to people who reported never experiencing racial discrimination.

De Maio and Kemp's (2010) study found that experiencing discrimination was associated with a decline in self-rated mental health among immigrants. Toronto-based qualitative research has also investigated the impact of experiencing racial discrimination on physical and mental health. Themes found across a number of studies are presented here. Participants primarily discussed the negative effect of racism on mental health and well-being. Participants described feelings of sadness, anger, and fear arising from racial discrimination or the threat of racism. They also talked about experiencing lower self-esteem, anxiety, stress, and depression. Participants described experiences of racism as preoccupying their thoughts and causing insomnia (Women's Health in Women's Hands Community Health Centre, 2003; Y-Connect, 2006; Hamilton Urban Core Community Health Centre Inner City Health Strategy Working Group Partners, 2010). Participants in Access Alliance's study in the Black Creek area also described that racism, labour market discrimination, employment insecurity, and poverty contributed to health problems, including stress, depression, fatigue, chronic pain, and high blood pressure. Moreover, they described that multiple and repetitive stressors had a cumulative, negative impact on their health (Access Alliance Multicultural Health and Community Services, 2011).

Summary: Racial Discrimination and Health Outcomes

Analysis of NEHW data found a relationship between experiencing racial discrimination and poorer self-rated health and depressive symptoms. No relationship was found between experiencing racial discrimination and high blood pressure.

International research has found that experiencing racial discrimination is associated with poorer health outcomes. Quantitative research on the relationship between racial discrimination and health outcomes is extremely limited in Canada, as information on racial discrimination has not been collected in population health surveys. Qualitative research in Toronto and surrounding areas has found that racialized group members report experiencing racial discrimination and perceive that racism negatively affects their physical and mental health.

Pathways between Racism and Health Outcomes

Experiences of Racial Discrimination and Other Stressors

International research has examined the physiological processes wherein racism and other forms of stress impact health. Stressful situations trigger negative psychological states, including depression and anxiety, which in turn initiate harmful physiological and biological processes in the cardiovascular, immune, and endocrine systems (Clark et al., 1999; Paradies, 2006b; Pascoe & Richman, 2009; Chae et al., 2011; Harrell et al., 2011). For example, in the US, racism has been associated with elevated nocturnal blood pressure, illustrating that the body is not recovering and repairing at night (Harrell et al., 2011; Brondolo et al., 2011). As well, studies have examined allostatic load, a marker of repetitive stress and "wear and tear," finding higher rates of allostatic load among Black people compared to White people (Chae et al., 2011). In understanding the effects of racism on health, a life course perspective is appropriate, as there are particular sensitive developmental periods, as well as latency periods before a negative health outcome emerges (Gee, Walsemann, & Brondolo, 2012).

This analysis investigated racialized differences in the experience of stress, including the stress of racial discrimination, by analysing NEHW and CCHS data. Analyses examined data on racial discrimination, the relationship between racialized group and life and work stress, and the relationship between racial discrimination and life and work stress.

Racial Discrimination

To understand the prevalence of racial discrimination in Toronto, the NEHW survey's measure of racial discrimination (Williams et al., 1997) was analysed. The analysis found that two-thirds (67%) of racialized group members experienced discrimination because of their race, ethnicity, or culture (Table 1). This compares to just over one-third (36%) of non-racialized group members. Racialized group members also reported more frequent experiences of racial discrimination compared to non-racialized group members.

Racialized group members were more likely than non-racialized group members to report having experienced all six measures of racial discrimination. For example, half of racialized group members reported being treated with less respect than other people because of their race, ethnicity, or culture, whereas 20 percent of non-racialized group members reported this experience. Nearly 25 percent of racialized group members reported being called names or insulted because of their race, ethnicity, or culture compared with 15 percent of non-racialized group members.

Table 1: Racial Discrimination Reported by Racialized and Non-racialized Group Members in Toronto, 2009-2011

In your day-to-day life, do you experience any of the following because of your race, ethnicity or culture?[1]	Ever experienced racial discrimination %			
	Total	Non-racialized	Racialized	χ^2 p-value
1. You are treated with less respect than other people	33.7	20.1	49.8	<0.001
2. You receive poorer service than other people at restaurants or stores	25.0	14.8	37.2	<0.001
3. People act as if they are afraid of you	15.6	11.4	20.5	<0.001
4. People think that they're better than you	40.3	27.8	54.8	<0.001
5. You are called names or are insulted	19.8	15.4	24.7	<0.001
6. You are threatened or harassed	15.4	13.4	17.2	0.03
Percent of individuals who reported ever experiencing racial discrimination				
No racial discrimination[2]	49.7	63.8	33.1	<0.001
Any racial discrimination[2]	50.3	36.2	66.9	
Less frequent racial discrimination[2]	27.9	22.1	35.4	
More frequent racial discrimination[2]	22.5	14.1	31.5	

[1] Response options: 1=Never, 2=Less than once a year, 3=A few times a year, 4=A few times a month, 5=At least once a week, 6=Almost every day.
[2] No racial discrimination: 'Never' reported for all 6 items (Sum of scale = 6), Less frequent racial discrimination: Sum of scale = 7-10, More frequent racial discrimination: Sum of scale = 11-36.
Data Source: Neighbourhood Effects on Health and Well-being (NEHW) Study. Centre for Research on Inner City Health, St. Michael's Hospital.
Prepared by: Toronto Public Health, July 2013.

More detailed analysis of the NEHW data revealed that members of all four racialized groups (Black, South/West Asian/Arab, East/Southeast Asian, and Latin American/Multiple/Other) were more likely to have reported experiencing racial discrimination compared to non-racialized group members. This analysis also looked at the association between racial discrimination and other demographic characteristics. The results showed that racial discrimination was more commonly reported by younger age groups, those who were born in Canada, those with lower English proficiency, and those with lower socioeconomic status.

Analyses of Statistics Canada surveys, qualitative data, public opinion polls, and other data sources have also reported on racial discrimination in Canada. The 2002 Ethnic Diversity Survey contained questions on discrimination and discomfort in Canada. Toronto-level analysis of that survey found that 22 percent of people (including both racialized and non-racialized group members) reported experiencing discrimination and 34 percent reported experiencing discomfort in the previous five years because of their ethnicity, race, language, or religion. People who identified as Black were most likely to report these experiences (55% for both) followed by people who identified as East and South Asian (Ray & Preston, 2009). Canada-wide analysis of the same survey indicated that the labour force was the most common context in which people reported experiencing racial discrimination (Statistics Canada, 2003).

Analysis of data from the 2004 Canadian General Social Survey found that across Canada, 28 percent of racialized group members compared to 13 percent of non-racialized group members reported experiencing discrimination. Among racialized group members who experienced discrimination, 81 percent attributed it to their race or ethnic origin (Perreault, 2008). A more recent public opinion poll

demonstrates racial discrimination continues in Canada. A 2010 nationally representative public opinion poll of 1,707 respondents found that 38 percent of all respondents and 58 percent of respondents aged 18-24 had witnessed a racist incident in the past year (Canadian Race Relations Foundation and Association for Canadian Studies, 2011).

Data on police-reported hate crimes provides further evidence of serious racism in Canada. In 2011, there were 1,332 hate crimes reported to police. Fifty-two percent of these were identified as motivated by race or ethnicity. Just over half of police-reported hate crimes occurred in Ontario (Allen & Boyce, 2013).

Life and Work Stress

Analysis of CCHS data found no association between racialized group and life stress or work stress. However, a different pattern of associations was found for life stress and work stress in the NEHW data. Racialized group members were more likely to report a high level of life stress than non-racialized group members, after adjusting for age, sex, and immigrant status. However, after adding household income to the model, no association remained between racialized group and life stress. This suggests that racialized group members are more likely to report a higher level of life stress because they have lower income levels than non-racialized group members. Analysis of NEHW data also found that members of racialized groups were more likely to report high work stress compared to non-racialized group members. This association remained statistically significant after adjusting for all variables, including household income. One explanation for the difference between the results of the CCHS and NEHW analyses for life stress and work stress could be that the measures used were different. The CCHS relied on a single question for each of these outcomes, whereas the NEHW survey used a more comprehensive scale that included multiple questions on stress.

Analysis of NEHW data found that experiencing racial discrimination was associated with life stress and work stress. People who reported experiencing racial discrimination were more likely to report high life stress and high work stress compared to people who reported never experiencing racial discrimination. The results of this analysis also suggest a dose-response relationship between racial discrimination and both life stress and work stress.

Summary: Experiences of Racial Discrimination and Other Stressors

Racial discrimination, as well as other forms of stress, negatively affects health by triggering responses in the cardiovascular, immune, and endocrine systems.

Racism is prevalent in Toronto and Canada. Analysis of NEHW survey data found that between 2009 and 2011, 67 percent of racialized group members in Toronto reported experiencing discrimination because of their race, ethnicity, or culture. Canadian research also finds substantial evidence of interpersonal and institutional racism.

Toronto Public Health's analysis showed some evidence that racialized group members were more likely than non-racialized group members to experience other psychosocial stressors. While the CCHS analysis showed no differences between groups in the likelihood of reporting life stress or work stress, the results of the NEHW analysis showed that racialized group members were more likely than non-racialized group members to report a high level of life stress because they had lower incomes than non-racialized group members, and racialized group members were more likely to report a high level of work stress than non-racialized group members. Moreover, the NEHW analysis showed that experiencing racial discrimination increases the risk of experiencing high life stress and high work stress. The results suggested a dose-response relationship, indicating that as the frequency of racial discrimination increases, the risk of high life stress and high work stress increases.

Racialized Inequities in Socioeconomic Status

Racialized inequities in socioeconomic status is another factor contributing to health disparities, as racialized groups are more likely to experience socioeconomic disadvantage compared to members of non-racialized groups (Nazroo & Williams, 2006). Systemic inequities in socioeconomic status reflect institutional racism, including in employment and education (Williams & Mohammed, 2013).

The impact of socioeconomic status on health has been well documented in literature on the social determinants of health (Wilkinson & Marmot, 2003; CSDH, 2008). Low socioeconomic status directly impacts health by creating high stress levels and subsequent detrimental physiological responses (Brunner & Marmot, 2006). Low socioeconomic status also reduces access to other resources needed to maintain a healthy life. These include access to good housing, nutritious food, and opportunities for physical activity (CSDH, 2008).

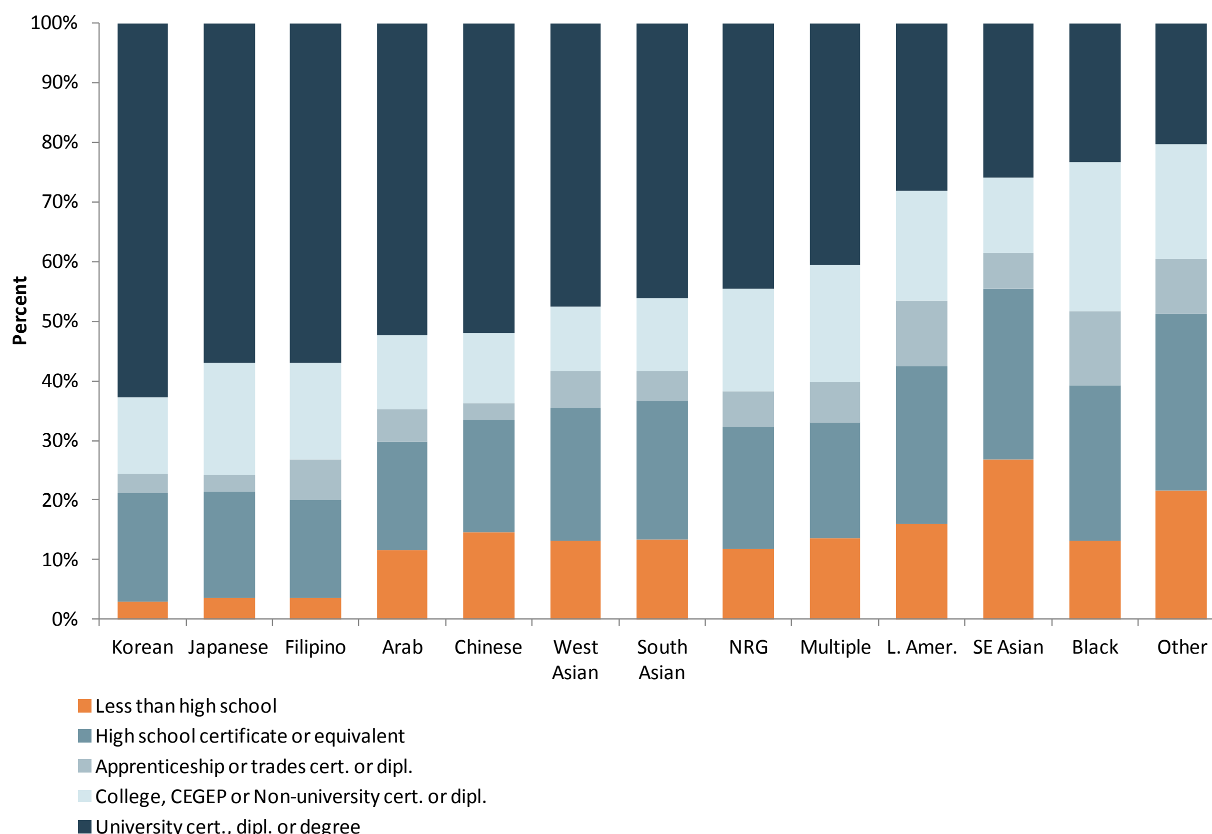
Across Canada, racialized group members tend to do worse than non-racialized group members on a broad range of employment indicators. Moreover, historic income analysis demonstrates growing income inequality between racialized and non-racialized groups. Data on education, however, indicates that racialized and non-racialized group members have comparable levels of education. When data are disaggregated to look at difference between racialized groups, considerable variation is found between groups in education, income, poverty rates, and employment rates, as outlined below (Galabuzi, 2006; Ornstein, 2006; Block, 2010; Block & Galabuzi, 2011; Lewchuk et al., 2013).

This report presents analysis of racialized differences in socioeconomic status using data from the 2006 census. The indicators examined were highest level of education attained, before-tax individual income, before-tax low income cut-off, labour force participation, unemployment, and occupation.

Education

In the City of Toronto in 2006, racialized and non-racialized group members had comparable levels of education. Among adults aged 25 to 64, 12 percent of non-racialized group members compared to 13 percent of racialized group members had obtained less than a high school education; 20 percent of non-racialized group members and 22 percent of racialized group members had a high school certificate; and 68 percent of non-racialized group members and 65 percent of racialized group members had more than high school. Some of these differences were more pronounced when specific racialized groups were considered (Figure 2).

Figure 2: Highest Level of Education Attained by Racialized Group, People Aged 25 to 64, Toronto, 2006



Notes: NRG: Member of a Non-Racialized Group. L. Amer: Latin American. SE Asian: Southeast Asian.
Data Source: Statistics Canada, 2006 Census of Canada.
Prepared by: Toronto Public Health, June 2013.

The graph (Figure 2) masks some noteworthy gender differences in levels of education. For example, South Asian, Arab, West Asian, and Korean women were more likely to have less than high school education than men from those same groups. No striking gender differences were observed for those with more than a high school education.

Data from the Toronto District School Board's Grade 9 cohort study demonstrates that inequitable academic achievement for different racialized groups continues, including among those educated in Toronto high schools. The study examined student achievement over a five year period. For the 2006 to 2011 cohort, the average drop-out rate was 14 percent. However, the rate among Black and Latin students was much higher (23% and 21%). The lowest drop-out rate was among East Asian and Southeast Asian students (6% and 9%). Data on confirmed acceptance to post-secondary education also showed disparities. On average, 47 percent of students confirmed a university admission. This ranged from 23 percent of Latin and 24 percent of Black students to 73 percent of East Asian and 60 percent of South Asian students (TDSB, 2012a; TDSB, 2012b).

Income

In Toronto, income data for different racialized groups reveals extensive income inequities. The distribution of before-tax individual income among people 15 years of age and over was divided into three groups, so that each group represented approximately one-third of the total population in Toronto. The three income groups are: less than $15,000 (34% of the total population); $15,000 to $39,999 (35%); and $40,000 and over (31%). On average, racialized groups were more likely to earn less than $15,000 (43% versus 27%) and less likely to earn $40,000 or more (21% versus 39%) compared to the non-racialized group. There was also variation among different racialized groups; and, within racialized groups, females were more likely to earn less than males (Table 2).

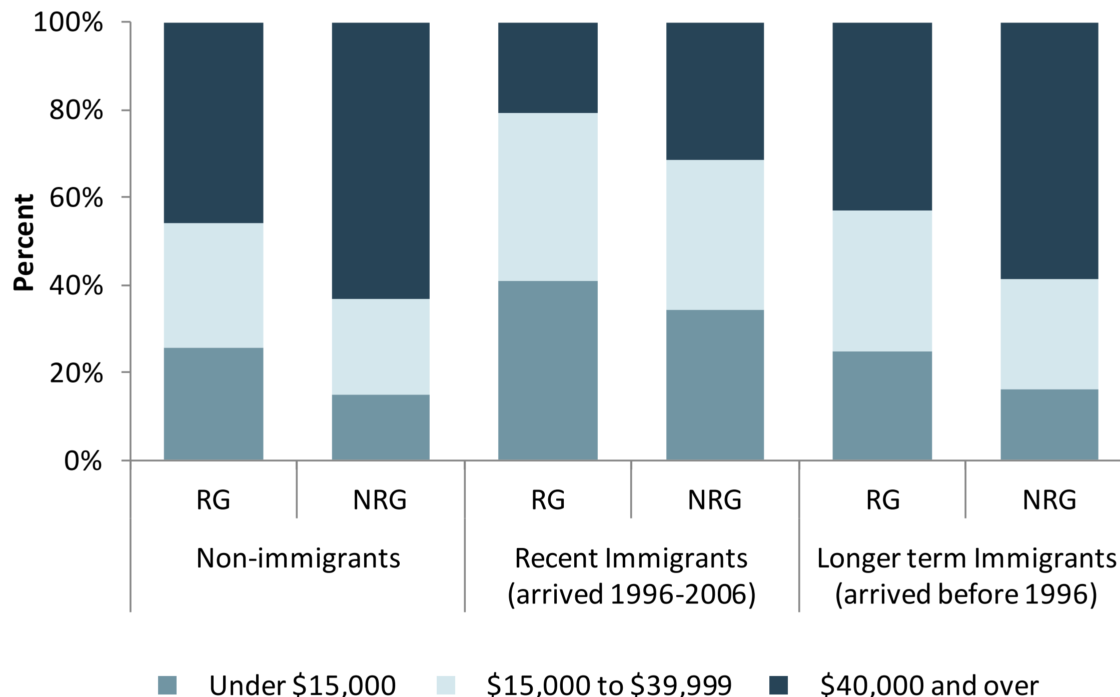
Table 2: Before-Tax Individual Income by Sex among those Aged 15 and Older, Toronto, 2006

	Total		Women		Men	
	Under $15,000	$40,000 and over	Under $15,000	$40,000 and over	Under $15,000	$40,000 and over
Korean	58.0%	15.3%	62.4%	12.7%	53.2%	18.2%
West Asian	56.5%	13.5%	62.3%	11.0%	51.1%	15.9%
Chinese	46.3%	22.5%	48.7%	19.1%	43.7%	26.3%
Arab	45.0%	20.5%	52.8%	13.6%	38.8%	25.9%
South Asian	43.9%	20.1%	52.3%	14.3%	35.8%	25.6%
Southeast Asian	43.9%	18.8%	50.7%	11.9%	36.2%	26.5%
Latin American	41.3%	17.9%	47.4%	11.6%	34.8%	24.5%
Other	39.7%	20.1%	43.4%	15.4%	35.2%	25.9%
Multiple	39.6%	27.6%	42.6%	23.5%	36.2%	32.4%
Black	39.2%	20.3%	38.6%	17.8%	40.1%	23.6%
Filipino	32.3%	22.6%	34.1%	19.9%	29.6%	26.8%
Japanese	29.7%	36.5%	33.1%	30.5%	24.6%	45.2%
Total Racialized Groups	43.1%	20.8%	46.7%	16.8%	39.2%	25.3%
Non-Racialized Group	26.8%	38.9%	30.2%	33.2%	23.2%	45.0%

Notes: Percentages based on people aged 15 and older with income.
Data Source: Statistics Canada, 2006 Census of Canada.
Prepared by: Toronto Public Health, June 2013.

A university degree did not translate into higher earnings as frequently for racialized group members as it did for non-racialized group members. Looking at the population 15 years and over with a university degree, 59 percent of non-racialized group members earned over $40,000 a year compared to 33 percent of those who identified as a member of a racialized group. West Asian and Korean people with a university degree were the most likely to report earning less than $15,000 (45% and 50%) and all groups fared worse than the non-racialized group. Income inequities persisted across immigration categories. Even when only those born in Canada were considered, university educated racialized group members earned less than non-racialized group members. This was also true among recent and longer-term immigrants (Figure 3). This echoes previous findings that neither immigrant status nor education level explain the income differential between racialized and non-racialized group members (Block & Galabuzi, 2011; Stolarick, 2012).

Figure 3: Individual Before-Tax Income by Racialized Status and Immigrant Status, People Aged 15 and Older with at Least a University Degree, Toronto, 2006



Notes: RG: Member of a Racialized Group. NRG: Member of a Non-Racialized Group. Percentages based on people aged 15 and older with income and at least a university degree.

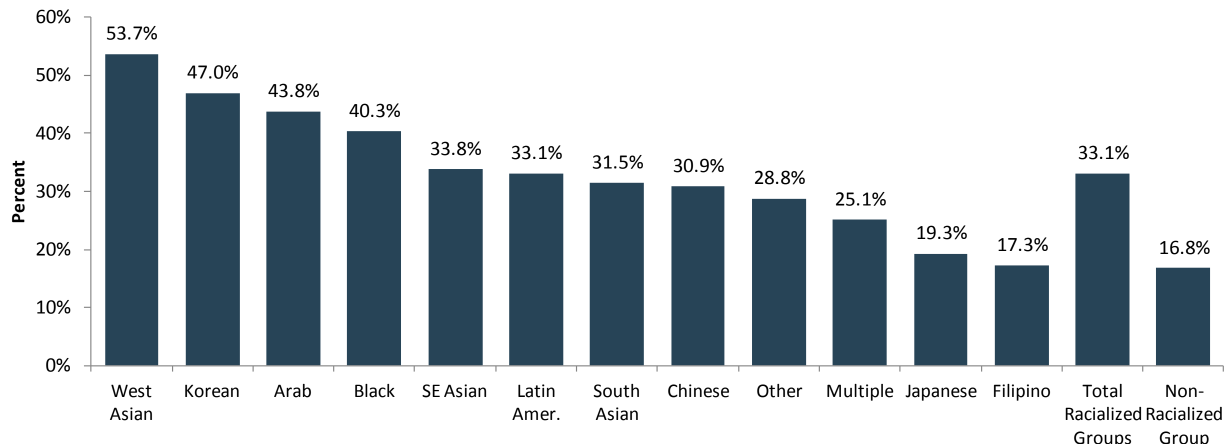
Data Source: Statistics Canada, 2006 Census of Canada.

Prepared by: Toronto Public Health, June 2013.

Poverty

In Toronto, there is substantial evidence of the racialization of poverty, whereby members of racialized groups are disproportionately more likely to live in poverty than non-racialized group members. Over the course of the last 30 years, poverty rates have been rising among racialized groups in Toronto, while they have been stable among the non-racialized group. This has increased the disparity in the level of poverty between racialized and non-racialized groups. In 1981, 20 percent of racialized families lived in poverty, as measured by Statistics Canada's before-tax low-income cut-off (LICO). This increased to 26 percent in 1991 and 30 percent in 2001. This compares to a constant poverty rate during this time among non-racialized families of about 12 percent (United Way of Greater Toronto and The Canadian Council on Social Development, 2004). Data from the 2006 Census showed that racialized group members continued to live in poverty at disproportionate rates. There was significant variation in the poverty rate among specific racialized groups (Figure 4). The poverty rate ranged from 54 percent for West Asian people to 17 percent for Filipino people. For members of non-racialized groups, the poverty rate was 17 percent (Social Policy Analysis and Research Section, 2011). Moreover, in 2006, 76 percent of Toronto children living in poverty were racialized group members (Toronto Public Health, 2008).

Figure 4: Before-Tax Low Income Rate by Racialized Status, Toronto, 2006



Notes: Not a visible minority includes Aboriginal Peoples.

Data Source: Statistics Canada, 2006 Census of Canada.

Prepared by: City of Toronto, Social, Development, Finance & Administration, Profile of Low Income in the City of Toronto, 2010.

The demographic portrait section above noted that racialized group members are not proportionally distributed in the city's neighbourhoods. Moreover, this analysis found that racialized group members are more likely to live in neighbourhoods with high poverty rates than those who are non-racialized. These neighbourhoods, in addition to being areas with higher poverty rates, also have limited economic opportunities and access to services. This includes limited employment opportunities, poor access to transportation, fewer health and social services, and generally inequitable public investment (United Way of Greater Toronto and The Canadian Council on Social Development, 2004; Hulchanski, 2010; Access Alliance Multicultural Health and Community Services, 2011; United Way Toronto, 2011).

Further analysis simultaneously considered two domains of geographic polarization: income and racialization, and found that while 75 percent of the city's 140 neighbourhoods have variable income and/or a mix of racialized and non-racialized group members, there is significant polarization on both domains in 25 percent of the city's neighbourhoods. Thirteen neighbourhoods had a high percent of low income (>30%) and a high percent of racialized group members (>66%). Twenty-one neighbourhoods had a low percent of low income (<16%) and a low percent of racialized group members (<21%). Only one neighbourhood had a low percent of low income and a high percent of racialized group members, and no neighbourhoods had a high percent of low income and a low percent of racialized group members.

Employment and Labour Market Activity

Inequities between racialized and non-racialized group members in Toronto were found for a number of employment and labour market indicators. Racialized and non-racialized groups had similar labour force participation rates (66% and 65%). Labour force participation was highest among people who identified as Filipino (76%), Latin American (71%), and those with multiple ethno-racial identities (71%) and lowest among people who identified as Korean (56%) and Japanese (59%). The unemployment rate was higher among racialized than non-racialized groups (10% and 6%). Unemployment rates were highest among people who identified as Arab and Black (12% for both) and lowest among Japanese and Filipino people (6% for both).

In Toronto, racialized group members were less likely than non-racialized group members to work in arts, culture, recreation, and sport; social sciences, education, and government; and management. They were more likely to work in sales and services, and processing and manufacturing. There were no differences in the percent of people who worked in business, finance, and administration by racialized status.

Canadian studies have found evidence of institutional racism in the labour market. In one study conducted in Toronto, the researcher sent out thousands of resumes in response to advertised jobs to examine the likelihood of receiving an interview. People with English-sounding names were 40 percent more likely to receive an interview than those with Chinese-, Indian- or Pakistani-sounding names, despite equivalent Canadian education and experience. The researcher concluded that employer discrimination was the cause for the differential call-back rates between these groups of applicants (Oreopoulos, 2009). Participants in a qualitative study in Toronto's Black Creek neighbourhood also reported that racialized discrimination in the labour market impacted their ability to get a job and how they were treated in the workplace (Access Alliance Multicultural Health and Community Services, 2011; Access Alliance Multicultural Health and Community Services, 2013). In other qualitative studies, participants have reported being subjected to racism by employers, as well as teachers and the police (Y-Connect, 2006; Hamilton Urban Core Community Health Centre Inner City Health Strategy Working Group Partners, 2010).

Differences in job security for racialized versus non-racialized people were also revealed by a recent study. In 2011, 4,165 people in the GTA and Hamilton were randomly selected to participate in a telephone survey focussing on employment. The study found that racialized workers were less likely to be in secure types of employment and more likely to be in precarious types of employment. Workers in this latter type of employment were more likely to be temporarily employed, work through a temp agency, have multiple jobs at the same time, work inconsistent hours and work on-call, have variable earnings and make low incomes, not have benefits, and fear losing their positions if they voice concerns, including health and safety problems (Lewchuk et al., 2013). The latter is a concern, as a Montreal-based study found that racialized workers were more likely than non-racialized workers to have jobs with a higher frequency of compensation for work-related injuries and diseases (Premji et al., 2010).

Lewchuk et al.'s findings concord with those of an earlier qualitative study conducted in Toronto's Black Creek area (Access Alliance Multicultural Health and Community Services, 2011). Black Creek is a very diverse community with 70 percent of residents identifying as a member of a racialized group. It is also an area with a high prevalence of poverty and where the community faces place-based stigmatization. The research found that temporary positions through temporary help agencies are a significant source of employment opportunities. The study also found that racialization and discrimination are significant barriers to entering the labour market, and play out in the workplace in job assignments and social relations.

Summary: Racialized Inequities in Socioeconomic Status in Toronto

The impact of socioeconomic status on health has been well documented in literature on the social determinants of health. This is a particular concern for racialized group members, as there is a significant body of Canadian and Toronto-specific evidence showing that racialized group members have lower incomes and are more likely to live in poverty than non-racialized group members.

This analysis confirmed that labour market and income inequities between racialized and non-racialized group members persist in Toronto. While there are notable differences between racialized groups, overall racialized group members do worse on these indicators than non-racialized groups. Analysis of the 2006 Census demonstrated that immigration patterns do not explain differences in labour market access, employment income, or poverty rates in Toronto. Moreover, inequities exist despite comparable levels of education among racialized and non-racialized group members.

Poverty is racialized in Toronto. While there is significant variation between specific racialized groups in poverty rates, all groups have higher poverty rates than the non-racialized group.

Access to Health Care

Disparities in access to quality health care can also contribute to unequal health outcomes between racialized and non-racialized groups (Smedley et al., 2003; Klonoff, 2009). Researchers have outlined a number of reasons why members of racialized groups may have worse access to quality care than members of non-racialized groups. Factors in the health care system may in part explain the noted disparities through both real and perceived forms of social exclusion. Health care encounters are often short and the health care system is difficult to navigate. These factors may be particular problems for those with low general and health literacy, lower socioeconomic status, or limited English proficiency. For people with limited English proficiency, interpreters are essential, but not always provided in clinical settings. Health care settings often do not emphasize culturally competent care, and the dominance of the biomedical model may also alienate people and groups.

A second factor that can contribute to disparities is the clinical encounter. Research has found that health care providers may have conscious or unconscious bias against members of racialized groups that can affect the care they provide. Health care providers may take histories, interpret symptoms, and assess risks and benefits of treatment differently in encounters with members of racialized groups versus non-racialized groups. Short clinical encounters may partly explain why clinicians draw on racial stereotypes about health and health behaviours, rather than learning more about individual patients. Beyond this, patient-level factors can impact whether care is sought and when and whether treatment recommendations are accepted or refused. These decisions are related to both patient preferences and previous health care encounters. Negative individual or group experiences engender distrust in the system. Smedley (2003), however, cautions against over emphasizing patient-level factors, as these are unlikely to explain much of the observed health care disparities.

For this report, data from the CCHS were used to examine racialized differences in access to health care. The specific health care access indicators that were examined were access to a regular medical doctor and having a dental visit in the last 12 months. Key findings are presented below. Drawing on the literature, other evidence related to health care access and quality is also presented.

Primary Health Care

Analysis of CCHS data found that people who identified as South/West Asian/Arab or East/Southeast Asian were more likely to have a regular medical doctor than the non-racialized group. No differences

were found between non-racialized group members and those who identified as Black or Latin American/Multiple/Other. As access to health care goes beyond having a regular medical doctor, including the ability to access health care when needed and the quality of care, understanding racialized disparities in access to health care should also include these factors.

The findings of this analysis are consistent with other Canadian studies examining access to a primary health care provider. For example, Quan et al. (2006), drawing on data from the 2001 Canadian Community Health Survey, examined health care access comparing racialized and non-racialized group members. They adjusted for socioeconomic (total household income and education) and immigrant status. They also adjusted for self-rated health and number of chronic conditions as proxies for need for services. Racialized group members were more likely to have had one or more visits with a general practitioner than non-racialized group members (see also Lasser, Himmelstein, & Woolhandler, 2006; Nabalamba & Millar, 2007). Drawing on data from the 2006 to 2008 Primary Care Access Survey, Bierman et al. (2012) found that in Ontario men and women across all racialized and non-racialized groups were equally likely to report having a primary care provider. Lennan et al.'s (2008) study on high blood pressure management found no difference in treatment or control of high blood pressure between racialized and non-racialized group members.

Studies examining screening tests and preventative health care have found inequities between racialized and non-racialized group members. Quan et al. (2006) found that racialized group members were less likely to have received prostate cancer screening, a mammogram, or pap smear than non-racialized group members. Lasser, Himmelstein and Woolhandler (2006) also found that racialized group members were less likely than the non-racialized group to have had a pap smear. Quach et al. (2012) examined influenza vaccine coverage in the last year using data from five cycles of the CCHS between 2003 and 2009. This study adjusted for socioeconomic (household income and education) and immigrant status. They reported higher odds of influenza immunization for racialized than non-racialized group members.

Specialist and Hospital Care

This analysis did not examine Toronto-level data on racialized inequities in access to specialist and hospital care. Other Canadian studies have reported mixed results on access to specialized health care. Quan et al. (2006) found that racialized group members were less likely than non-racialized group members to have had a hospital admission, but that there were no racialized differences in access to a specialist physician. On the other hand, Nabalamba and Miller (2007) found lower odds of a specialist consultation for racialized adults and seniors compared to non-racialized group members. In a study focussing specifically on access to care for people with diabetes, Shah (2008) found no racialized differences in access to primary or specialist care for people with diabetes, but that racialized group members were less likely to have had an eye exam than non-racialized group members.

Mental Health Care

This analysis did not examine Toronto-level data on racialized disparities in access to mental health care and few Canadian studies have assessed racialization and access to mental health care. Gadalla (2009) analysed data from the 2002 Canadian Community Health Survey on Mental-Health and Well-Being to examine health care service use for a major depressive episode. Adjusting for socioeconomic (education and income adequacy) and immigrant status, the study found that people who identified as South Asian, Japanese/Chinese/Korean, or Black had lower health care utilization than the White group. No differences were found between people who identified as Southeast Asian, Filipino, Arab/West Asian, Latin American, or Other/Multiple and the White group. Archie et al. (2010) examined health care access for a first episode of psychosis. They drew on an administrative database that tracks service use and outcomes

for first episode psychosis patients at four early intervention services in Ontario. The study found no statistical differences between racialized and non-racialized groups in the duration of untreated psychosis.

Health Care Quality

Bierman et al.'s (2012) study found differences between racialized and non-racialized groups in access to and satisfaction with primary health care. Black women, South/West Asian/Arab men and women, and East/Southeast Asian women reported more difficulty getting an appointment for a regular check-up than White men and women. Furthermore, South/West Asian/Arab men and women and East/Southeast Asian women reported more difficulty in seeing their doctor for an urgent, non-emergent health problem and lower levels of satisfaction with the care provided. Similarly, Lasser, Himmerlstein and Woolhandler (2006), found lower odds of patient satisfaction among racialized group members compared to non-racialized group members.

Qualitative research conducted in Toronto and adjacent communities has provided information on factors that contribute to poorer access to health care or experiences of lower patient satisfaction for racialized group members. Participants discussed the lack of health care resources in the neighbourhoods where they live as being a barrier to accessing care. User fees, prescription drug expenses, and the cost of transportation to health care appointments were mentioned as financial barriers to health care. Additionally, participants talked about delaying their health care seeking because work and family obligations mean that they do not have time for long commutes to doctor's offices and to spend in waiting rooms (Black Health Alliance, 2005; Women's Health in Women's Hands Community Health Centre and the Factor-Inwentash Faculty of Social Work, University of Toronto, 2011).

Racialized group members also reported experiencing racial discrimination, unequal and unfair treatment, a lack of cultural competence, and language barriers in health care encounters. Moreover, for some respondents, past experiences of racism made them less likely to access health care when needed (Women's Health in Women's Hands Community Health Centre, 2003; Black Health Alliance, 2005; Shahsiah & Ying Yee, 2006; Ethno-Racial People with Disabilities Coalition of Ontario and Ontario Women's Health Network, 2008; Hamilton Urban Core Community Health Centre Inner City Health Strategy Working Group Partners, 2010; Women's Health in Women's Hands Community Health Centre and the Factor-Inwentash Faculty of Social Work, University of Toronto, 2011).

Dental Care

Analysis of CCHS data on having a dental visit in the last 12 months showed that all racialized groups were less likely to report a dental visit in the last 12 months compared to the non-racialized group. The lower use of dental care among racialized Torontonians was explained by the higher likelihood of low income in this group compared to the non-racialized group. No differences in dental care between racialized and non-racialized groups were found after adding income to the model.

Summary: Access to Health Care

Poorer access to quality health care, because of systemic barriers in the health system or the conscious or unconscious bias of health care providers, is one of the pathways that may contribute to racialized health inequities. The results of the CCHS analysis indicate that racialized group members have equal or better access to a regular medical doctor than non-racialized group members. However, racialized group members are less likely to visit a dentist in the last 12 months than non-racialized group members because they had lower income levels. Other Canadian studies have found racialized inequities in health care access, including screening tests and preventative health care, and specialist and hospital care. As well, studies have found that members of racialized groups experience lower levels of patient satisfaction than non-racialized group members, experience racism and discrimination in health care settings, and face barriers to accessing quality health care.

Health Behaviours

Some studies have found a relationship between experiencing racial discrimination and engaging in some unhealthy health behaviours (Factor, Kawachi, & Williams, 2011). Researchers have proposed different explanations for this relationship. One is that engaging in unhealthy health behaviours may help individuals manage and cope with the stress of experiencing racial discrimination (Martin, Tuch, & Roman, 2003; Bennett et al., 2005). A second explanation is that experiencing and responding to racism exhausts psychological resources needed to avoid unhealthy health behaviours (Inzlicht, McKay, & Aronson, 2006). At a structural level, neighbourhood context may limit opportunities for healthy eating and physical activity. Neighbourhoods may not provide equal access to high quality, low cost food and recreation facilities. Personal safety concerns may also prevent people from being physically active (Williams & Mohammed, 2009).

Data from the CCHS were used to examine whether the likelihood of engaging in specific health behaviours differed between racialized and non-racialized group members in Toronto. The health behaviours that were examined were physical activity, fruit and vegetable consumption, alcohol use, and tobacco use. Key findings are presented below.

Physical Activity

People who identified as South/West Asian/Arab and East/Southeast Asian were less likely to be moderately active or active compared to the non-racialized group, after adjusting for age, sex, immigrant status, and household income. Income partly explained the relationship between racialized group and physical activity. That is, these racialized groups were less likely to be physically active partly because they had lower incomes. There were no differences in physical activity levels between the non-racialized group and those who identified as Black or Latin American/Multiple/Other, after adjusting for age, sex, immigrant status, and household income.

Few other Canadian studies have examined the prevalence of physical activity among racialized groups. Chiu et al. (2010) compared physical activity and found that South Asian or Chinese men and women, and Black women were less likely than the sample average to report adequate daily physical activity. Black men, and White men and women were as likely as the sample average to report adequate daily physical activity. This study did not adjust for immigrant status or socioeconomic status. Liu et al. (2010) found that those who identified as Chinese, South Asian, Filipino or South East Asian, Black, or Arab or West Asian were more likely to be physically inactive than the White group. There were no differences between those who identified as Japanese or Korean, Latin, or Others and the White group.

Healthy Eating

Analysis of CCHS data showed that racialized and non-racialized group members were equally likely to consume fruit and vegetables seven or more times per day.

In their analysis, Chiu et al. (2010) found that with the exception of South Asian men, men and women of all other racialized groups were as likely as the sample average to have inadequate fruit and vegetable consumption (i.e., consume fruits and vegetables less than three times a day). South Asian men were less likely than the sample average to have inadequate fruit and vegetable consumption.

Alcohol Consumption and Smoking

The results showed that all four racialized groups were less likely than the non-racialized group to exceed the low-risk drinking guidelines or be a smoker.

Chiu et al. (2010) found that South Asian, Chinese, and Black men and women were less likely to smoke and have regular alcohol consumption than the sample average, whereas White men and women were consistent with the sample average. Liu et al. (2010) also found that members of all racialized groups were less likely to smoke than the non-racialized group.

Summary: Health Behaviours

Some international studies have found a relationship between experiencing racial discrimination and engaging in some unhealthy health behaviours. CCHS analysis demonstrated that people who identified as South/West Asian/Arab or East/Southeast Asian were less likely to be physically active than non-racialized group members. On all other indicators examined, racialized group members had equal or better health behaviours than non-racialized group members. There is very limited Canadian research in this area.

Discussion

A significant body of international research, primarily from the US and UK, has demonstrated health inequities between racialized and non-racialized group members. In Canada, research on racialization and health inequities has only recently started emerging, and research investigating racial discrimination and health outcomes is almost non-existent. Understanding the relationship between racialization and health is an important public health issue in the City of Toronto. Approximately half of the city's population identifies as a member of a racialized group, and this proportion is expected to grow.

Toronto Public Health analysed racialized inequities across a number of health outcomes. This analysis was limited to indicators for which there was sufficient Toronto-level data that could be disaggregated by racialized group: self-rated health, overweight or obesity, pain or discomfort, high blood pressure, self-rated mental health, and depressive symptoms. International research has found racialized health disparities on some health indicators that could not be examined in this analysis because of insufficient sample size or data that did not include a measure of racialized group; including: mortality, infant mortality, low birth weight, and diabetes.

This analysis found racialized inequities for members of some racialized groups on a number of health outcomes, but did not find poorer health outcomes on other indicators. This pattern is consistent with Canadian and international literature that does not show differential health outcomes for all racialized

groups on all health outcomes. On three of the indicators examined, the analysis found that members of one or more racialized groups had worse health outcomes than the non-racialized group. People who identified as Black were more likely to experience pain or discomfort, have high blood pressure, and to be overweight or obese than the non-racialized group. People who identified as Latin American/Multiple ethno-racial identities/Other were also more likely to have high blood pressure than the non-racialized group. On the other hand, analysis of one of the indicators showed better health outcomes for one of the racialized groups. East/Southeast Asian group members were less likely to be overweight or obese than the non-racialized group. Finally, on two of the indicators examined, the CCHS analysis found no differences between the non-racialized group and members from any of the racialized groups: self-rated health and self-rated mental health. Analysis of NEHW data found no difference between racialized and non-racialized group members in the likelihood of depressive symptoms.

The analysis also examined the relationship between experiencing racial discrimination and three health outcomes: self-rated health, high blood pressure, and depressive symptoms. The deleterious relationship between experiencing racial discrimination and health outcomes described in the literature was found for self-rated health and depressive symptoms. No association was found between experiencing racial discrimination and high blood pressure. This latter finding may be related to the disease course of high blood pressure. Currently diagnosed high blood pressure is related to exposure to risk factors earlier in life. The measure of racial discrimination that was used in the analysis assessed current experiences of discrimination. This analysis, therefore, may not have been able to adequately capture the lag time between exposure to discrimination and the onset of high blood pressure. Nor was it able to capture the cumulative experience of discrimination over the life course, which may be important in determining future disease risk. It is possible that current experiences of racial discrimination will be a risk factor for future disease outcomes.

Increasingly, racism is understood as a social determinant of health. Racism has been well documented in Canadian institutions and is evidenced in a number of domains known to affect health. Analyses of racialization and health inequities examined pathways that have been conceptualized as contributing to disparities in health outcomes: racial discrimination and other stressors, socioeconomic status, access to health care, and health behaviours.

The analysis of the NEHW data demonstrated that racial discrimination is prevalent in Toronto, and other Canadian research has also found racialized group members experience significant racial discrimination in Toronto and Canada. Racial discrimination is one type of stressful experience that contributes to poor health outcomes by triggering harmful biological, psychological, and behavioural responses. The analyses also examined disparities in life and work stress between racialized and non-racialized groups and the relationship between racial discrimination and life and work stress. While the CCHS analysis showed no differences between racialized and non-racialized group members in the likelihood of reporting life stress or work stress, the results of the NEHW analysis showed that racialized group members were more likely to report a high level of life stress and work stress than the non-racialized group. Moreover, the analysis of NEHW data found that people who experienced racial discrimination were more likely to report work and life stress than those who did not report experiencing racial discrimination.

Socioeconomic status, including education and income, is a key social determinant of health. Research has found a clear relationship between socioeconomic well-being and health outcomes, whereby people with lower socioeconomic status have worse health outcomes than people with higher socioeconomic status. Socioeconomic status is also a domain where racialized inequities have been observed. Therefore, one of the ways in which racism can impact health is through socioeconomic inequities. The analysis of the Census found significant labour market and income inequities between members of racialized and

non-racialized groups. Moreover, historic analysis suggests that racialized group members living in Toronto are experiencing rising poverty rates.

Health care, as another pathway that may explain racialized health inequities, was examined. Analysis of the CCHS found that racialized group members in Toronto were equally likely or more likely to have a regular medical doctor. However, they were less likely to visit a dentist in the last 12 months because they were more likely to be in a lower income group. Canadian and Toronto research has found inequities in access to health care. Particularly, racialized group members are less likely than non-racialized group members to have had preventative screening tests for breast, cervical, and prostate cancer. Studies have also found that members of racialized groups experience problems with the quality of health care, level of access to health care, and patient satisfaction levels.

Health behaviours were the final pathway considered. Analysis of CCHS data on health behaviours found that racialized group members were equally likely or more likely to have health promoting behaviours than non-racialized group members. The exception was physical activity where some racialized group members had lower levels of physical activity than non-racialized group members. Racialized and non-racialized group members were equally likely to consume fruit and vegetables seven or more times per day. Racialized group members were less likely than non-racialized group members to smoke or consume alcohol.

These results demonstrate that racialized group members have poorer outcomes than members of non-racialized groups on a number of the pathways known to contribute to racialized health disparities; however, the concomitant poor health outcomes for racialized group members were not consistently found in the analyses. There are many potential factors that could be mitigating poor health outcomes and promoting health in Toronto. While studies have reported challenges with the quality of care experienced by members of racialized groups, it may still be possible that universal health care is mitigating poor health outcomes for members of racialized groups.

That the majority of racialized group members in Toronto are immigrants may also play a role in mitigating poor health outcomes. The immigration selection criteria mean that immigrants are likely healthy and well educated. Moreover, they may have had relatively high incomes in their countries of birth and might not have experienced racial discrimination during critical developmental periods. However, caution is needed, as we cannot predict for how long these factors will be protective or the latency period between exposure to racial discrimination or low socioeconomic status and detrimental health outcomes. The levels of racial discrimination and low socioeconomic status found in this study could be predictive of a future increase in racialized health inequities. Moreover, there is evidence of disparities in the rates of high blood pressure and diabetes between racialized and non-racialized group members, which are two health conditions known to be related to experiences of racial discrimination.

This report has focused most directly on the relationship between racialization and health; however, we know that racialization is experienced within the context of multiple and intersecting identities, social contexts, and life events. The interplay between these factors may create compounded disadvantage. For example, the experience of racism, the challenges of living in poverty, and other forms of social exclusion may build upon each other in ways that are particularly detrimental for health. Therefore, examining the impact of racialization on health is only one component of a very complex interplay of factors that contribute to health. Racialized health inequities and racism need to be considered alongside these other factors to fully understand the determinants of health.

Existing Canadian data does not allow for a comprehensive or conclusive exploration of racialization and health given that few data sources collect information on racialized group and fewer still collect information about people's experiences of racial discrimination. Therefore, the health topics that have been examined in this report are only a small component of the story. Canadian Vital Statistics databases, disease registries, and administrative data need to include variables on racialized group to enable analysis of a broader array of disease outcomes. A step towards this goal is that Toronto Central Local Health Integration Network (TC LHIN) hospitals are now collecting socio-demographic information following a pilot initiative in which Toronto Public Health participated. This information will assist Toronto hospitals and the broader health sector track and address health inequities.

Canadian and Toronto research on racialization and health inequities is in its infancy. A number of areas for future research emerged from Toronto Public Health's exploration of racialization and health inequities. Further research on racism in Toronto and Canada is needed. More research on racial discrimination with larger sample sizes would allow researchers to disaggregate experiences of racial discrimination by racialized group, as well as examine the relationship between racial discrimination and health outcomes by specific racialized groups. Racial discrimination, however, is only one component of racism in society. Particularly lacking is a comprehensive understanding of the extent of institutional racism and the effect of institutional racism on health. Research is also needed on effective strategies to reduce interpersonal and institutional racism.

A second area for future Canadian research is to further tease apart the way in which the impact of racialization on health interacts with other forms of marginalization, including sexism and classism. Researchers should also explore the way in which the relationship between racialization and health varies by sex, age, immigrant status, and socioeconomic status. For example, related to immigrant status, a larger sample size would have been needed to stratify the sample by immigrant status or examine if there was an interaction between racialized group and immigrant status in their relationship to health outcomes.

A third area for future Canadian research on racialization and health inequities is to incorporate a life course perspective. Such research could examine the impact of experiencing racism at sensitive developmental periods, as well as the latency period between experiences of racism and detrimental health outcomes. Research could also explore the cumulative exposure to racism, low socioeconomic status, or other risk factors over the life course and their effect on health. Researchers should examine intergenerational changes in health outcomes among racialized group members.

Despite data limitations and the early stage of research knowledge on racialization and health inequities, the data presented in this report does raise substantial concerns about the health and well-being of the racialized population of Toronto. While better data are needed to provide a more comprehensive understanding of racialization and health inequities, what is known warrants action to reduce racialized socioeconomic disparities, reduce the prevalence of racial discrimination and racism, and address emerging evidence of racialized health inequities.

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Appendix A – Data Sources, Data Limitations, and Analytic Methods

Census Data

The Census is conducted by Statistics Canada and provides information about Canada's demographic, social, and economic characteristics. The Census is conducted every five years. The data used in this report were drawn from the 20 percent sample of the 2006 Census for the City of Toronto. The 20 percent sample (i.e., the long-form Census) was used as it contains information on racialized group, socioeconomic status (e.g. education, income), immigrant status, and length of time in Canada. Census 2006 was the last mandatory long-form Census before the federal government cancelled it in 2010. The National Household Survey, the voluntary survey that replaced the long-form Census, was not used due to the timing of data releases and early data quality concerns. Throughout this report, the long-form Census will be referred to as the Census.

Although Statistics Canada attempts to count every individual, some individuals or groups are missed or underrepresented in each Census. For example, people may be travelling, some dwellings are hard to find, some individuals are homeless and some individuals or groups refuse to participate.

Canadian Community Health Survey (CCHS)

The CCHS is a joint initiative of Statistics Canada and Health Canada (Statistics Canada, 2013). It is a cross-sectional survey that collects information related to health status, health care utilization, and health determinants for the Canadian population. CCHS began in 2000 with data collection every two years. In 2007, the frequency of data collection changed to every year. The CCHS relies on a large, random sample of respondents and is aimed at providing health information at the regional and provincial levels.

The CCHS includes individuals 12 years of age or older living in private occupied dwellings. It excludes people living on Indian reserves and Crown Lands, residents of institutions, full-time members of the Canadian Forces, and some residents in remote areas. The survey samples one randomly selected respondent per household, either through face-to-face or telephone interview.

The analysis for this report combined four cycles of the CCHS collected between January 2005 and December 2011 to increase the sample size. The estimates reported are for the City of Toronto. Coefficients of variance were calculated to determine the releasability of each estimate, as per Statistics Canada's guidelines. Only estimates with a coefficient of variation that were in the 'Acceptable' range (0.0-16.5) were reported.

Year	Sample Size
2005	3,042
2007/08	4,079
2009/10	3,493
2011	1,725
Total	12,339

All analyses were conducted using Stata statistical software version 12.1 (StataCorp, 2011). All analyses were weighted to increase the representativeness of the sample using the svy prefix command for survey data analysis. Multiple logistic regression was used to examine the differences in health outcomes between racialized and non-racialized groups. The results of this analysis are expressed as odds ratios and their 95 percent confidence intervals. For each health outcome, the regression analysis was run in four steps and the variables that were included in each step are outlined below.

Regression models:
1. Racialized group
2. Racialized group, age, sex
3. Racialized group, age, sex, immigrant status
4. Racialized group, age, sex, immigrant status, income

In exploratory analyses, education was added to the last regression model to examine whether the inclusion of this variable changed the association between racialized group and health. The results showed that the relationship did not change. Therefore, education was not included in the analysis. The analysis also tested whether the sample size was sufficient to examine the interaction between racialized group and immigrant status. This interaction would test whether the relationship between racialized group and health differs depending on whether someone was born in Canada and the length of time they have lived in Canada. However, due to small sample sizes in many of the cells, the estimates were often either not releasable or required a note of caution due to high coefficient of variation. Therefore, the interaction term was not tested.

After fitting the regression model, collinearity was examined using the variance inflation factor (VIF) to ensure that the predictor variables were not too highly associated with each other. The VIF for all variables were 1.6 or less, indicating that collinearity was not a concern.

Data tables describing the results of the CCHS analyses can be found at: www.toronto.ca/health/reports.

Neighbourhood Effects on Health and Well-being (NEHW)

The NEHW study is a joint initiative between the Centre for Research on Inner City Health at St. Michael's Hospital in Toronto and the Department of Sociology at the University of Toronto (O'Campo et al., 2012). The purpose of this cross-sectional study was to collect information on a range of neighbourhood and individual-level factors that could affect the mental health and well-being of Toronto residents. The NEHW study is the only population-level data with recent information about Toronto residents' experiences of racial discrimination. Thus, it provides an important perspective that is lacking in most research on racialization and health. The survey also collected data on racialized group and a range of physical and mental health outcomes.

Data were collected between March 2009 and June 2011. To be eligible for the survey, respondents had to be a resident of the selected household, be between the ages of 25 and 64, able to communicate in English, and have lived in the neighbourhood for at least six months. Interviews were conducted in person using computer assisted personal interviewing (CAPI). The sample size of the study was 2,412. The response rate was 72 percent.

All analyses were conducted using SAS statistical software version 9.3 (SAS Institute Inc., 2010). Analyses were weighted to increase the representativeness of the sample. The first analysis compared the prevalence of experiencing racial discrimination for racialized and non-racialized group members using chi-square tests.

The second analysis examined the socio-demographic factors associated with ever having experienced racial discrimination. Multiple logistic regression was used to examine the association between experienced racial discrimination and the following socio-demographic characteristics: sex, age group, racialized group, immigrant status, proficiency in English, highest level of education, and self-reported end of month finances. Adjusted odds ratios and 95 percent confidence intervals are presented. Collinearity was examined and all variables had a VIF less than 3.

The third analysis examined the association between racial discrimination and selected health outcomes using multiple logistic regression. The regression approach that was used mirrored the approach used for the CCHS analysis. The predictor variables included in the models are outlined below. For this analysis, racial discrimination was coded as a three-category variable to capture the frequency with which people experienced racial discrimination (never vs. less frequent racial discrimination vs. more frequent racial discrimination).

Regression models:

1. Racial discrimination
2. Racial discrimination, age, sex
3. Racial discrimination, age, sex, immigrant status
4. Racial discrimination, age, sex, immigrant status, household income

As with the CCHS analysis, this analysis examined whether including education in the last regression model changed the association between racial discrimination and health. The results showed that the relationship did not change. Therefore, education was not included. The interaction between racial discrimination and immigrant status was not tested due to sample size limitations. Collinearity was examined and all variables had a VIF less than 2.

The final analysis examined the relationship between racialized group and selected health outcomes. For this analysis, only racialized and non-racialized groups were compared due to sample size limitations. The regression approach that was used was identical to the approach used with the CCHS analysis. Education was not included in the final model as it did not alter the relationship between racialized group and health. The interaction term between racialized group and immigrant status was not tested due to sample size limitations. Collinearity was examined and all variables had a VIF less than 2.

Regression models:

1. Racialized group
2. Racialized group, age, sex
3. Racialized group, age, sex, immigrant status
4. Racialized group, age, sex, immigrant status, household income

Data tables describing the results of the NEHW study analyses can be found at: www.toronto.ca/health/reports.

Variable Selection

Overall, the selection of variables for this report was based on the international and Canadian literature on racialization and health ineqities. The exception is pain and discomfort, which has not been examined in previous research, but was selected as a potential indicator of somatised distress. Table A1 describes the variables analysed in each data source.

Table A1: Variables Analysed by Data Source

Census	CCHS	NEHW	
Racialized group	**Racialized group**	**Racialized group**	**Racial discrimination**
Socioeconomic status	***Health outcomes***	***Health outcomes***	***Health outcomes***
• Highest level of education attained	• Self-rated health	• Depressive symptoms	• Self-rated health
• Before-tax individual income	• Overweight/obesity	***Other stressors***	• High blood pressure
• Before-tax low income cut-off	• Pain/discomfort	• Life stress	• Depressive symptoms
• Labour force participation	• High blood pressure	• Work stress	***Other stressors***
• Unemployment	• Self-rated mental health		• Life stress
• Occupation	***Other stressors***		• Work stress
• Immigrant status	• Life stress		
	• Work stress		
	Access to health care		
	• Access to a regular medical doctor		
	• Dental visit		
	Health behaviours		
	• Alcohol use		
	• Tobacco use		
	• Fruit and vegetable consumption		
	• Physical activity		

Limitations

The analyses described in this report have some limitations. The data examined are self-reported, which have a number of limitations. People do not always remember their behaviours, and may under-report or over-report certain behaviours or characteristics based on their perceived social desirability. On the other hand, self-report data can provide valuable information from the respondents' own perspective about their attitudes and experiences.

In addition, surveys such as the CCHS and NEHW study do not always provide a representative picture of the whole population. To increase the representativeness of the sample, survey weights are constructed to adjust for the differential probability of being selected into the survey as well as survey non-response. Despite the use of survey weights, the CCHS under-represents people of low income, people with low education, new immigrants, and those with limited English proficiency. The NEHW survey under-represent younger age groups, those with lower levels of education, lower levels of household income, recent immigrants, those whose main language spoken at home is a non-official language (i.e., a language other than English or French), smaller households, and those who live in apartments. Thus, it is possible that the analysis may over- or under-estimate the prevalence of some health outcomes or the prevalence of racial discrimination.

Another limitation is that the data used in this report are cross-sectional in that information on exposure and outcomes were collected at a single point in time. Cross-sectional data can be used to determine

whether there is an association between factors, but cannot establish a causal relationship between them since it is difficult to know the timing of the exposure in relation to the outcome.

Aggregating heterogeneous racialized groups into larger categories for some of the analyses is another limitation. Although it would have been preferable to examine each racialized group separately, the limited sample size of the datasets precluded this approach for all analyses. One potential consequence of aggregating distinct groups is that the results may mask differences between these groups.

A final limitation is that several cycles of the CCHS were pooled to ensure that the analysis had an adequate sample size to compare health outcomes across racialized groups. Given that the characteristics of the population change over time as well as characteristics of the social and economic environment, the results obtained from this analysis may not be the same as those that would be obtained if the analysis were done using a single wave of data. For example, it is possible that the magnitude of racialized disparities in health may be changing over time.

Variable Definitions

Physical Activity

The CCHS asked respondents to report the types of activities they engaged in over the last three months for leisure and the amount of time they spent on each activity. This derived variable categorizes respondents as being active, moderately active, or inactive in their leisure time based on the total daily energy expenditure values (kcal/kg/day). The binary variable used in the current analysis compares the following two groups: moderately active/active vs. inactive.

Fruit and Vegetable Consumption

The CCHS asked respondents to report the total number of times per day they eat fruit and vegetables. It should be noted that the CCHS does not measure the amount of fruit and vegetables consumed. The binary variable used in the current analysis compares those who ate fruit and vegetables seven or more times per day and those who ate fruit and vegetables six or fewer times per day.

Alcohol Consumption

The Low Risk Drinking Guidelines was examined using CCHS data. These guidelines recommend that:

- women have no more than 10 drinks per week with no more than two drinks per day on most days
- men have no more than 15 drinks per week with no more than three drinks on most days
- people have at least two days per week with no alcohol consumption
- women have no more than three drinks on any one occasion and men have no more than four drinks on any one occasion

For this analysis, a female survey respondent was considered to exceed the low risk drinking guidelines if she had more than ten drinks in the previous week, had more than two drinks on a single day in the previous week, consumed alcohol on six or seven days in the previous week, and/or had five or more drinks on one occasion at least once per month for the last 12 months. A male survey respondent was considered to exceed the low risk drinking guidelines if he had more than 15 drinks in the previous week, more than three drinks on a single day in the previous week, consumed alcohol on six or seven days in the previous week, and/or had five or more drinks on one occasion at least once per month for the last 12

months. The analysis was restricted to respondents 19 years of age and over. This indicator excludes women who were pregnant or breastfeeding.

Smoking

The CCHS assessed cigarette smoking based on responses to two questions:

1. In your lifetime, have you ever smoked a total of 100 or more cigarettes (about 4 packs)?
2. At the present time, do you smoke cigarettes daily, occasionally, or not at all?

The current analysis defined current cigarette smoking as a binary variable: smoker vs. non-smoker. Current smokers were those who reported 'yes' to the first question and reported smoking cigarettes daily or occasionally to the second question. Non-smokers were those who either reported 'no' to the first question (never smoked) or reported 'yes' to the first question and 'not at all' for the second question (former smokers). In this analysis, cigarette smoking is reported for individuals aged 19 years and older.

Regular Medical Doctor

The CCHS assessed whether respondents had a regular medical doctor with the question: "You have a regular medical doctor?" (Yes, No).

Dental Visit in the Past 12 Months

The CCHS measured dental visit in the past 12 months with the question: "It was reported earlier that you have seen or talked to a dentist in the past 12 months. Did you actually visit one?" (Yes, No).

Self-Rated Health

Both the CCHS and the NEHW surveys included questions assessing self-rated health. The CCHS asked respondents the following question: "To start, in general, would you say your health is: excellent, very good, good, fair, poor." The NEHW study asked the following question: "In general, would you say your health, compared to other people of your age is: excellent, very good, good, fair, poor?" For both data sources, a binary variable was created that compared the following two groups: fair/poor vs. good/very good/excellent.

Overweight or Obese

Body mass index is derived from respondents' height and weight. This variable assigns adult respondents aged 18 years of age and over, excluding pregnant women, to one of the following categories: underweight, acceptable weight, overweight, obese class I, obese class II, and, obese class III. The binary variable used in the current analysis compares the following two groups: overweight/obese (BMI ≥ 25) vs. underweight/acceptable weight (BMI < 25). BMI categories are adopted from a body weight classification system recommended by Health Canada and the World Health Organization (WHO), which has been widely used internationally.

Pain or Discomfort

The CCHS measured respondents' experience of pain or discomfort with the question: "Are you usually free of pain or discomfort?" (Yes, No).

High Blood Pressure

Both the CCHS and the NEHW surveys assessed high blood pressure. The CCHS asked respondents the following question: "You have high blood pressure?" (Yes, No). The NEHW survey asked respondents "Do you have high blood pressure?" (Yes, No). For both surveys, respondents were instructed to only report this condition if it had lasted for six months or more and had been diagnosed by a health care professional.

Self-Rated Mental Health

The CCHS included one question assessing self-rated mental health. Respondents were asked the following question: "In general, would you say your mental health is: excellent, very good, good, fair, poor." A binary variable was created that compared the following two groups: fair/poor vs. good/very good/excellent.

Depressive Symptoms

The NEHW survey assessed symptoms of depression using an adapted version of the 20-item Center for Epidemiologic Studies Depression Scale-Revised (CESD-R) (Eaton et al., 2004). Respondents were asked to rate the frequency with which they experienced each symptom in the last two weeks on a 5-point scale, from none of the time to all of the time. For the current analysis, a binary variable was constructed comparing those who scored 16 or more on the scale and those who scored less than 16.

Life Stress

Both the CCHS and the NEHW surveys included measures of life stress. The CCHS measured life stress with one question: "Thinking about the amount of stress in your life, would you say that most days are: not at all stressful, not very stressful, a bit stressful, quite a bit stressful, or extremely stressful?" A binary variable was created that compared the following two groups: not at all/not very/a bit stressful vs. quite a bit/extremely stressful.

The NEHW survey assessed chronic stress using a 40-item scale adapted from Wheaton (1997). The scale asks respondents about stressful situations in a number of domains including money and financial matters, work stress, relationship stress, parental stress, social stress, residential stress, and health stress. For each question, respondents were asked to indicate whether each situation was not true, somewhat true, or very true. For the current analysis, a binary variable was constructed that distinguished those with higher stress levels from those with relatively lower stress levels. The mean score on the scale was calculated for each respondent and those scoring in the upper third of the distribution were defined as having higher stress levels, whereas those scoring in the lower two-thirds of the distribution were defined as having lower stress levels.

Work Stress

Both the CCHS and the NEHW surveys included measures of work stress. The CCHS assessed work stress with one question: "The next question is about your main job or business in the past 12 months. Would you say that most days were: not at all stressful, not very stressful, a bit stressful, quite a bit stressful, or extremely stressful?" Only respondents aged 15 to 75 who indicated that they had worked at a job or business in the past 12 months are included in the sample. A binary variable was created that compared those reporting: not at all/not very/a bit stressful vs. quite a bit/extremely stressful.

The NEHW survey includes a 6-item work stress sub-scale, which was included in the chronic stress scale adapted from Wheaton (1997). The following questions were included in the scale:

1. You have more work to do than most people.
2. Your supervisor is always monitoring what you do at work.
3. You want to change jobs or career but don't feel you can.
4. You don't get paid enough for what you do.
5. Your work is boring and repetitive.
6. You have no control over the pace of work.

For each question, respondents were asked to indicate whether each situation was not true, somewhat true, or very true. For the current analysis, a binary variable was constructed to distinguish those with higher stress levels from those with relatively lower stress levels. The mean score on the scale was calculated for each respondent and those scoring in the upper third of the distribution were defined as having higher stress levels, whereas those scoring in the lower two-thirds of the distribution were coded as having lower stress levels.

Income

In the CCHS, income level is based on the ratio of each survey respondent's annual household income to the low income cut-off corresponding to their household size, divided by the highest such ratio in Toronto. In the current analysis, a three category variable was created. The lower level is the lowest 30 percent of income ratios, the middle level is the 31st to 70th percent, and the higher level is the top 30 percent.

In the NEHW data analysis, annual household income was categorized into three groups. The lower level includes those with the lowest 30 percent of household income, the middle level includes the 31st to 70th percent, and the higher level is the top 30 percent.

End of Month Finances

In the NEHW study, respondents were asked "By the end of the month, how do your finances usually work out? Do you have: a lot of money left over, a little money left over, just enough to make ends meet, or not enough to make ends meet." All response options were examined in the current analysis.

Education

Both the CCHS and the NEHW survey asked respondents to report the highest level of education they completed. In the CCHS, four categories of education were examined: did not complete high school, completed high school, some post-secondary, and completed post-secondary. In the NEHW data analysis, three categories of education were examined: completed high school or less, non-university certificate/ diploma, and completed university.

Immigrant – Recent and Longer-term Immigrants

The term immigrant is used to refer to individuals who were born outside of Canada and migrated to Canada. The term immigrant is used to refer to both recent immigrants and longer-term immigrants. Recent immigrants have lived in Canada for 10 years or less, whereas longer-term immigrants have lived in Canada for more than 10 years.

Proficiency in English

The NEHW survey asked respondents to report how well they were currently able to speak English, read a book in English, and write a letter in English. For each item, respondents rated their ability on a 5-point scale (1=poor, 2=fair, 3=well, 4=very well, 5=excellent). The sum of the three items was calculated, and a three-category variable was created that compared those with lower proficiency (sum=3-11), intermediate proficiency (sum=12-14), and higher proficiency (sum=15).

Sex

Sex defines people based on their biological characteristics, whereas gender is a socially constructed concept. From a social determinants of health perspective, certain health conditions can be associated with gender, and from a biological perspective, health conditions can be associated with sex. Although reporting based on both concepts would be preferable, the CCHS only collects information on sex, and not gender.

Racialized Group

Racialized group is based on self-reported cultural and/or racial background. Table A2 describes the manner in which racialized group was collected and analysed in each of the three data sources. Although the Census, CCHS, and NEHW surveys collect data on racialized group, for many of the analyses, the sample size was too small to explore differences in health outcomes between all groups. For the purposes of the data analyses in this report, racialized group was coded differently depending on the data source and the sample size available for the analysis. When presenting findings of the analyses, the White group is referred to as non-racialized.

Table A2: Measurement of Racialized Group in the Census, CCHS, and NEHW Study

<table>
<tr><th>Data Source and Question</th><th>Response Categories</th><th>Analytic Categories</th></tr>
<tr><td>Census
"Is this person"</td><td rowspan="2">11 specific racialized groups: Chinese, South Asian, Black, Filipino, Latin American, Southeast Asian, Arab, West Asian, Korean, Japanese, and White, as well as the option to specify another group(s)</td><td>11 specific racialized groups, as well as Multiple ethno-racial identities and Other</td></tr>
<tr><td>CCHS
"You may belong to one or more of the following list. Are you?"</td><td>Five racialized groups: Black, South/West Asian/Arab, East/Southeast Asian (Chinese, Filipino, Southeast Asian, Japanese, Korean), Latin American/Multiple ethno-racial identities/Other</td></tr>
<tr><td>NEHW
"People living in Canada come from many different cultural or racial backgrounds. From the list I show you, please tell me how you identify yourself."</td><td>Same groups as above, plus Jewish and Caribbean</td><td>Five racialized groups as above or racialized and non-racialized groups</td></tr>
</table>

Racial Discrimination

In the NEHW survey, the experience of racial discrimination was measured using a modified version of the Everyday Discrimination Scale (Williams et al., 1997), which is a widely used instrument in the discrimination literature. Respondents were asked to report the frequency with which they experienced six

examples of discrimination that occurred because of their race, ethnicity, or culture. For each item, respondents rated the frequency using a 6-point scale ranging from never to almost every day. Depending on the analysis, racial discrimination was coded differently. For some analyses, it was coded as a two-category variable comparing those who reported experiencing any racial discrimination and those who reported 'never' experiencing racial discrimination for all six items. For other analyses, it was coded as a three-category variable to capture the frequency of racial discrimination (never vs. less frequent racial discrimination vs. more frequent racial discrimination). To construct this variable, the sum of the Everyday Discrimination Scale was calculated, which ranged from 6 to 36. The cut-offs used to differentiate less frequent and more frequent racial discrimination was somewhat arbitrary and was based on having roughly equal size groups. Those who had a score of 7-10 were coded as having experienced less frequent racial discrimination, whereas those who had a score of 11-36 were coded as having experienced more frequent racial discrimination.

Odds Ratio

Odds ratios greater than 1 indicate that a particular group (e.g., racialized group) is more likely to report the outcome compared to the reference group (e.g., non-racialized group). Odds ratios less than 1 indicate that a particular group is less likely to report the outcome compared to the reference group.

95% Confidence Interval

A 95 percent confidence interval (95% CI) is the range within which the true population value lies, 19 times out of 20. The size of the confidence interval reflects the precision of the estimates.

P-value

A p-value is the probability of obtaining a result as extreme or more extreme than the observed result by chance, given that the null hypothesis is true.